

UNIVERSITÉ DU QUÉBEC EN ABITIBI-TÉMISCAMINGUE

OPTIMISATION DE LA DÉSULFURATION DE PRODUITS MINIERES EN VUE DE LA DIMINUTION DE  
LEUR POTENTIEL POLLUANT : EFFET DE LA GRANULOMÉTRIE, DU TYPE DE SULFURES, ET  
ÉVALUATION DE LA QUALITÉ DES EAUX DE DRAINAGE POST-TRAITEMENT.

THÈSE

PRÉSENTÉE

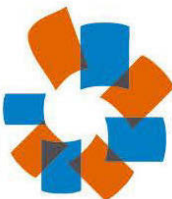
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*« Ignorant d'où je viens, incertain où je vais »*

*Lamartine, L'Homme.*

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## LISTE DES ABBRÉVIATIONS, SIGLES ET ACRONYMES

ABA	Acid base accounting
AGP	Acid generating potential
AP	Acidity potential
BE	Binding energy
CEBC	Couverture à effet de barrière capillaire
CCBE	Cover with capillary barrier effect
CND	Contaminated neutral drainage
DMA	Drainage minier acide
DNC	Drainage neutre contaminé
DRIFTS	Diffuse reflectance infrared fourier transformed spectroscopy
EX	Ethylxanthate
EDS	Energy dispersive spectrometer
FTIR	Fourier transformed infrared spectroscopy
FWHM	Full width at half maximum
HX	Hexylxanthate
IAX	Isoamylxanthate
ICP-AES	Inductively coupled plasma and atomic emission spectroscopy
INAA	Instrumental neutron activation analysis
IR	Infrared
KEX-20/KEX	Potassium ethylxanthate
KAX-51/KAX	Potassium isoamylxanthate
LCPME l'environnement	Laboratoire de chimie physique et microbiologie pour l'environnement

LEM	Laboratoire environnement et minéralurgie
L-F	Langmuir-Freundlich model
MEB	Microscopie électronique à balayage
MEND	Mine environment neutral drainage
MDDEP	Ministère du développement durable, de l'environnement et des parcs
MIBC	Methyl isobutyl carbinol
NP	Neutralization potential
NNP	Net neutralization potential
OM	Optical microscopy
PA	Potentiel de l'acidité
PN	Potentiel de neutralisation
PSD	Particle size distribution
RKBr	KBr reflectance
Rsample	Sample reflectance
RTFT	Rio Tinto Fer et Titane
SEM	Scanning electron microscopy
SP	Sampling point
SSA	Specific surface area
THX	Trimethylhexylxanthate
URSTM	Unité de recherche et de service en technologie minérale
UQAT	Université du Québec en Abitibi-Témiscamingue
UV	Ultraviolet
XRD	X-ray diffraction
XPS	X-ray photoelectron spectroscopy

## LISTE DES SYMBOLES

a	Paramètre de lissage du modèle de Langmuir-Freundlich
A()	Integrated sulphate area
C <sub>Cu</sub>	Concentration en cuivre
C <sub>i</sub>	Concentration initial
C <sub>eq</sub>	Concentration à l'équilibre
CuX	Xanthate de cuivre
D <sub>10</sub>	Diamètre des grains correspondant à 10 % de passant
D <sub>50</sub>	Diamètre des grains correspondant à 10 % de passant
D <sub>90</sub>	Diamètre des grains correspondant à 10 % de passant
dR	Diffuse reflection
ε	Coefficient d'absorption molaire
Ex	Encombrement stérique des xanthates
Fe-X	Xanthate de fer
F1	32-63 μm
F2	63-150 μm
F3	150-425 μm
G <sub>s</sub>	Specific gravity
HX	Acide xanthique
k	Constante de flottation (modèle de Klimpel)
K	Énergie moyenne d'adsorption (modèle Langmuir-Freundlich)
m	Paramètre de lissage du modèle de Langmuir-Freundlich
M <sub>0</sub>	Massif de vibration infrarouges dont les nombres d'ondes sont compris entre 1500 cm <sup>-1</sup> and 1300 cm <sup>-1</sup>

$M_1$	Massif de vibration infrarouges dont les nombres d'ondes sont compris entre $1300\text{ cm}^{-1}$ and $900\text{ cm}^{-1}$
$M_2$	Massif de vibration infrarouges dont les nombres d'ondes sont compris entre $900\text{ cm}^{-1}$ and $400\text{ cm}^{-1}$
MTC	Monothiocarbonate
N	Nombre de site d'adsorption (modèle de Langmuir-Freundlich)
$N_A$	Nombre d'Avogadro
$\Gamma$	nombre d'onde
$\gamma_1$	Symmetric stretching vibration (FTIR)
$\gamma_2$	Symmetric bending vibration (FTIR)
$\gamma_3$	Assymmetric stretching vibration (FTIR)
$\gamma_4$	Assymmetric bending vibration (FTIR)
$\theta$	Taux de recouvrement statistique
PX	Perxanthate
pR	Primary reflection
pA	Primary adsorption
Qads	Quantité de xanthate adsorbé
R	Récupération (%)
$R_\infty$	Récupération ultime par flottation déterminé par modélisation
$R^2$	coefficient de détermination
Sres	Teneur en soufre résiduel (%)
$S_s$	Specific surface area
T	Température
t	temps de flottation
V	volume

X	Xanthate
X <sub>2</sub>	Dixanthogène

## RÉSUMÉ

La désulfuration environnementale, utilisant la flottation, est une méthode de gestion intégrée des rejets miniers dont l'efficacité a été démontrée de nombreuses fois sur des résidus de concentrateur dans le cadre de la prévention du drainage minier acide. La flottation est une technique de séparation minéralurgique fréquemment utilisée pour la concentration des sulfures en traitement du minerai. Elle est basée sur la différenciation des surfaces par ajout de composés organiques (collecteurs) qui, par adsorption à la surface des particules, les recouvrent d'un film hydrophobe. La capacité de fixation du collecteur à la surface des particules dépend principalement des paramètres physico-chimiques de la solution et de l'état de surface des particules au moment du conditionnement de la pulpe. Les objectifs principaux de ce doctorat résident en l'application de la désulfuration à des problématiques environnementales spécifiques telles que la diminution de  $\text{SO}_2$  dans le cadre du grillage de minerai sulfureux (cas du minerai d'hémo-ilménite de la mine Tio de Rio Tinto Fer et Titane; ou la flottation de la pyrite grossière est visée) et la prévention du drainage neutre contaminé à l'arsenic et à l'antimoine (cas du minerai de la mine Lapa d'Agnico-Eagle Mines Ltd., ou la flottation de l'arsénopyrite est ciblée). Ce projet vise également à étudier les mécanismes fondamentaux à la base de la constitution d'un film hydrophobes permettant la concentration des sulfures, pyrite de taille grossière notamment et arsénopyrite dans le but de diminuer le potentiel polluant des produits miniers étudiés.

Pour répondre à ces objectifs, l'étude s'est penchée sur la caractérisation surfacique de poudres de pyrite pure (3 fractions : 32-63  $\mu\text{m}$ ; 63-150  $\mu\text{m}$ ; 150-425  $\mu\text{m}$ ) et d'arsénopyrite pure de taille standard (32-63  $\mu\text{m}$ ). L'évolution de la surface (analyses XPS et FTIR) de ces 2 minéraux a été étudiée après un broyage, suivi d'un conditionnement à différents pH, une activation au sulfate de cuivre et une adsorption de xanthates. Différents types de xanthates (longueur de chaîne et ramification variable) sont testés sur la pyrite dans le but d'améliorer la flottation de la pyrite grossière. L'application de la désulfuration par flottation aux deux produits miniers étudiés a été faite en cellule Denver de 5 litres. L'impact des différents paramètres physico-chimiques est évalué par analyse des récupérations en éléments concentrés (soufre, arsenic, antimoine) et des cinétiques de flottation. Une caractérisation multidisciplinaire (physique, chimique et minéralogique) des alimentations et des produits de flottation a été effectuée afin de comprendre les limites du procédé. Le comportement environnemental des produits de flottation a été évalué par des tests statiques (potentiel de génération d'acide) et par des tests de lixiviation cinétiques (mini-cellule d'altération).

Les résultats de caractérisation surfacique de la pyrite pure démontrent l'existence de structures d'oxydation en piliers constitués d'oxy-hydroxydes et de sulfates de fer. Ces piliers sont d'autant plus constitués de sulfate ferreux que la fraction est grossière bien que la couche la plus externe soit de composition similaire pour les trois fractions. Le comportement de la pyrite grossière suite au conditionnement à différents pHs suit celui de la pyrite de taille standard, avec cependant moins de présence de sulfates hydratés et hydroxylés à la surface en conditions alcalines. Par ailleurs, l'adsorption de xanthates à la surface des particules grossières n'est pas affectée par des conditions alcalines au contraire de la pyrite fine. À pH acide, la nature des phases xanthées adsorbées à la surface de la pyrite dépend principalement du type de xanthate. Ainsi, le ratio xanthate de fer/dixanthogène diminue avec l'augmentation

de la longueur de la chaîne et du degré de ramification. D'autre part, l'utilisation du triméthyl hexylxanthate (chaîne longue et ramifiée) pour la flottation du minerai d'hémo-ilménite a permis d'atteindre une bonne récupération de la pyrite grossière jusqu'à 90 % des particules inférieure à 425  $\mu\text{m}$ . Par ailleurs, il atteint de bonne récupération en condition alcaline (pH=10,5) et s'adsorbe mieux que le KAX-51, souvent utilisé par l'industrie minéralurgique. La pyrite résiduelle dans le rejet désulfuré est présente sous forme soit libérée (taille millimétrique), soit non libérée (mixte minéralogique).

Les résultats de la caractérisation surfacique de l'arsénopyrite montrent l'existence d'une couche d'oxydation mince et hétérogène constituée d'oxydes de fer et d'arsenic. Un conditionnement à pH acide diminue l'épaisseur de cette couche d'oxydation mais augmente le recouvrement latéral. En conditions acide, l'adsorption de xanthates se fait sous forme de dixanthogènes et de xanthates de fer et/ou d'arsenic (absent à de fortes concentrations en xanthates). La désulfuration de l'arsénopyrite à partir du minerai de la mine Lapa requiert une étape de pré-flottation des phyllosilicates dont le concentré contient des fines d'arsénopyrites entraînées mécaniquement. La flottation des sulfures permet de bonnes récupérations. Les meilleures récupérations en arsenic et en antimoine (respectivement 94 % et 59 %) sont obtenues à pH acide (pH=4,5) avec 100 g/t de KAX et à pH alcalin (pH = 10,5) avec activation aux sulfates de cuivre avec 70 ou 100 g/t de KAX. Les sulfures résiduels sont non libérés en majorité (mixtes minéralogiques). Le résidu désulfuré produit est non générateur de DNC à l'arsenic et à l'antimoine d'après les tests en mini-cellule d'altération. Le potentiel de sorption d'arsenic par les matériaux est minime et n'interfèrent pas de façon significative sur le drainage d'arsenic dans des conditions de pH neutre. Le concentré de talc devrait être stocké avec le concentré de sulfures en tant que produit générateur d'arsenic du fait de la présence de fines particules d'arsénopyrite hautement réactives. La séparation de ces fines particules devrait permettre de diminuer le volume de rejet générateur de DNC à l'arsenic de 25% à 5%.

Ce projet contribue à une meilleure compréhension des mécanismes de formation des phases oxydées à la surface de différents types de sulfures ainsi qu'à une meilleure connaissance des mécanismes d'adsorption surfacique des xanthates en fonction de leur type de chaîne et de la granulométrie des sulfures. Par ailleurs, Les études de la flottation de particules grossières en termes de physico-chimie des surfaces et appliquée à un produit minier sont peu discutés dans la littérature. Enfin, ce projet permet d'ouvrir le champ d'utilisation de la désulfuration environnementale en tant que technique de gestion intégrée des rejets miniers à un champ plus large de diminution du potentiel polluant des produits miniers.

Mots clés : Désulfuration environnementale, émissions de  $\text{SO}_2$ , drainage neutre contaminé (DNC), arsenic, xanthate, pyrite, arsénopyrite.

## ABSTRACT

Environmental desulphurization using flotation is a mining wastes management method that has been successfully tested on numerous mine tailings to prevent acid mine drainage. Flotation is a mineralogical separation technique frequently used for sulphides concentration in ore processing. It is based on surface modification by addition of organic compounds (collector), which adsorb at the mineral surface and form a hydrophobic layer around the particle. The collector adsorption capacity is influenced by the physic-chemical properties of the solution and of the mineral surface. This work mainly aims at applying desulphurization to other environmental concerns such as decreasing SO<sub>2</sub> emissions produced by sulphide ore roasting (hemo-ilmenite ore of Tio mine, Rio Tinto Fer et Titane; coarse pyrite flotation) and the prevention of arsenic and antimony contaminated neutral drainage (Lapa mine ore, Agnico-Eagle Mine Ltd). This project also aims at characterizing the fundamentals mechanism that produces a hydrophobic layer at the mineral surface (coarse pyrite and arsenopyrite) allowing its concentration in the prospect of decreasing the polluting potential of mine products.

Surface characterization of pure pyrite (3 fractions: 32-63 µm; 63-150 µm; 150-425 µm) and of arsenopyrite (32-63 µm) was performed in order to address these problematics. Surface evolution (XPS and FTIR analyses) of these 2 minerals was studied after crushing, aqueous conditioning at different pHs, activation using copper sulphate and xanthate adsorption (residual xanthate analyzed by UV spectroscopy). Different types of xanthate (alkyl chain length and branching) were tested on pyrite in the prospect of improving coarse pyrite flotation. Desulphurization was applied to two mine products and flotation tests were carried using 5 liters Denver flotation cells. The impact of the tested physico-chemical parameters was evaluated through recovery analyses and flotation kinetics. A multidisciplinary characterization (physical, chemical, mineralogical) of feed and flotation products was performed. Environmental behavior of flotation products was evaluated through static tests (acid generation potential) and kinetic tests (weathering cells).

Results from pure pyrite surface characterization showed evidence of pillar shaped oxidation structure constituted of iron oxy-hydroxydes and sulphates. The coarser are the pyrite particles the more ferrous sulphates are present within these pillars although the outmost oxidation layer has similar chemical composition for the three fractions. Coarse pyrite behavior toward conditioning at different pHs follow the standard sized pyrite behavior, although the surface contains less hydrated and hydroxylated sulphates at alkaline conditions. Xanthate adsorption at the coarse pyrite surface is not affected by an increase of pH contrary to fine pyrite. At acidic pHs, the type of xanthate phases adsorbed at the pyrite surface mainly depends upon the xanthate type. The ratio iron xanthate/dixanthogen decreases with the increase of alkyl chain and branching. The use of trimethyl hexylxanthate (long and branched chain collector) for the desulphurization of the hemo-ilmenite ore allowed reaching 90 % recovery of coarse pyrite up to 425 µm. Furthermore, it also reaches high recovery under alkaline conditions (pH=10.5) and adsorbs better at pyrite surface than KAX-51, which is mostly used in the industry. Residual pyrite particles within the desulphurized tailings are liberated coarse particles (millimeter sized) and partially locked minerals.



Results from pure arsenopyrite surface characterization showed evidence of a thin and heterogeneous oxidation layer constituted of iron and arsenic oxides. Aqueous conditioning at acidic pH causes a thinning and broadening of this oxidation layer. At acidic pHs, xanthate adsorbs as dixanthogen and iron or arsenic xanthate (absent at high xanthate concentrations). Arsenopyrite desulphurization of Lapa mine ore requires a prefloat step of phyllosilicates. The concentrate produced by this flotation step contains arsenopyrite fine particles entrained with the phyllosilicates. Sulphide flotation allows reaching good recoveries. Best arsenic and antimony recoveries (94 % et 59 % respectively) were obtained for acidic pH (pH = 4.5) using KAX at 100 g/t and for alkaline pH (pH=10.5) with copper sulphate activation using KAX at 70 or 100 g/t. Residual sulphides within the desulphurized tailings were locked ore partially minerals. The desulphurized tailings produced can be stored at low cost due to arsenic leachates under regulation limits; antimony leachates also highly reduced (weathering cell testing). The low arsenic sorption capacity of the materials does not mitigate significantly arsenic drainage at neutral pHs. The talc concentrate should be store with the sulphide concentrate as an arsenic generating material due to the presence of highly reactive fine arsenopyrite particles within the talc concentrate. Removal of fine arsenopyrite particles within the talc concentrate by physical separation would allow decreasing the amount of arsenic-generating material from 25 % to 5 %.

This project contributes to a better comprehension of the mechanisms of oxidation products formation at the surface of two types of sulphides. It also leads to better knowledge of xanthate adsorption mechanism as function of their alkyl chain length and branching and of particle size. This project supplies application of coarse particle flotation to mine product in terms of physic-chemical consideration which is scarcely studied in the literature. Eventually, this research project allows broadening the use of environmental desulphurization as an integrated method for mine waste management that aims at addressing the polluting potential of mine products.

Key word: Environmental desulphurization, SO<sub>2</sub> emissions, contaminated neutral drainage (CND), arsenic, xanthate, pyrite, arsenopyrite.

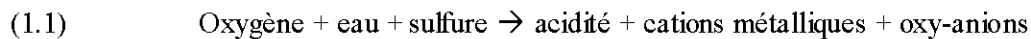
## CHAPITRE 1

### INTRODUCTION

#### 1.1 Généralités sur la gestion des rejets miniers

L'exploitation des gisements miniers à travers le monde reflète la diversité géologique terrestre tant en termes de taille et morphologie des gisements, de teneur en élément chimique de valeur, que de la minéralogie des minerais exploités et leurs gangues associées. D'autre part, la demande mondiale toujours croissante en métaux soutient une exploration intensive de nouveaux gisements miniers et entraîne une diminution de la teneur minimale d'exploitation économique (teneur de coupure), ce qui amène l'industrie minière à exploiter des gisements à teneur de plus en plus basses et donc à générer des rejets miniers de plus en plus importants. Les rejets miniers reflètent la diversité des différents contextes géologiques, et les défis liés à leur stockage constituent un véritable défi environnemental à étudier le plus souvent au cas par cas. Les pays qui disposent de cadres légaux et/ou de directives gouvernementales modifient régulièrement leurs normes environnementales de façon à diminuer l'impact de l'activité minière sur la faune et la flore de leur territoire, ce qui amène ainsi l'industrie minière à réévaluer régulièrement ses pratiques de gestion des rejets miniers. Au Canada, des guides de bonnes pratiques sont mis à jour en fonction des avancées scientifiques (MEND, 1991, 2004). Au Québec, la Directive 019 constitue un outil d'analyse pour le Ministère du Développement durable de l'Environnement et des Parcs (MDDEP) afin d'évaluer l'impact environnemental des projets miniers qui nécessitent des certificats d'autorisation en vertu de la Loi sur l'environnement (sect. IV, art. 20 et 22) sauf exception selon la localisation géographique. L'industrie minière peut générer différents types de rejets sous forme de solide, de liquide et, lors de traitement pyrométallurgique, de gaz. Les rejets miniers sous formes (Fala et al., 2005; Wills, 2006) solides sont principalement constitués (i) de stériles (roche mère de granulométrie grossière excavée lors de l'accession au minerai et dont la teneur en métaux est inférieure à la teneur de coupure), et (ii) des rejets de concentrateurs (roche broyée finement issue du minerai dont la valeur a été extraite par des

procédés de séparations minéralurgiques). La problématique principale reliée aux rejets solides est leur stabilité physique (stabilité physique des digues des parcs à résidus et des haldes à stériles) et leur stabilité chimique suite à des altérations météoriques (celle des minéraux constituant les rejets miniers solides). Les rejets liquides (Wills, 2006) sont issus (i) des eaux de traitement du minerai, bien qu'une grande partie soit recyclée, (ii) des eaux de ruissellement et de drainage à partir des haldes à stériles et des parcs à rejets et (iii) des eaux d'exhaure constamment pompées à partir des galeries souterraines. La qualité de ces eaux minières dépend de la stabilité chimique des stériles et des rejets de concentrateurs. Au Québec, le contexte géologique se traduit par une abondance de gisements pour la plupart aurifères ou polymétalliques. La principale cause de pollution des sites correspondants est connue sous le nom de drainage minier acide (DMA). En effet, l'exposition des stériles et des rejets de concentrateur aux conditions atmosphériques provoque une oxydation des sulfures, amplifiée par la présence de bactéries quand les pH deviennent acides. Le DMA se caractérise ainsi par une baisse du pH et une mise en solution de métaux toxiques au-dessus des normes gouvernementales (Aubertin et al., 2002; Directive 019, version 2005) tel que décrit par l'équation schématique suivante :



Les moyens de prévention de l'oxydation des sulfures sont divers et reposent tous sur l'élimination d'au moins l'une des trois composantes de la réaction (oxygène, eau, sulfure). Ainsi, on peut y parvenir par :

- la limitation de la diffusion de l'oxygène par la mise en place de couvertures constituées de géomatériaux (mono et multicouches), de couvertures géosynthétiques ou encore par l'ennoiement des rejets (inondation du site ou surélévation de la nappe) (Bussiere et al., 2003). L'inertage des rejets dans les remblais en pâte cimentés (matériau ayant des capacités importantes de rétention d'eau) permet également de limiter l'oxydation des sulfures, mais seulement un maximum de 50% de rejets peut être enfoui dans le cas des mines souterraines (Benzaazoua et al., 2004).

- la limitation du contact de l'eau avec les résidus par des couvertures conventionnelles (argiles compactées associées ou non à un géotextile) ou de type évapotranspiration (Martin, 2005; Rowe et al., 2006; William et al., 2006; Zhan et al., 2006).
- enfin, la concentration et la séparation des sulfures par un traitement physique ou physicochimique comme la flottation (désulfuration) réduit significativement le volume des résidus problématiques pour aboutir à une fraction majoritaire de résidus désulfurés non générateurs de drainage minier acide. Le concentré de sulfures obtenu peut ensuite être utilisé comme remblai minier en pâte cimentée, où il est en principe stabilisé par enrobage dans les ciments de type ciment laitier ou ciment Portland (Benzaazoua et al., 2004, 2008) ou bien être stocké temporairement en parc à résidu puis recouvert à l'aide d'une couverture monocouche ou multicouche, constituée entre autres des résidus désulfurés (Demers et al., 2008).

Les émissions gazeuses sont assujetties au règlement sur la qualité de l'atmosphère (R.Q.c.Q-2, r.38). Le dioxyde de soufre ( $\text{SO}_2$ ) est une source de pollution atmosphérique importante pouvant être à l'origine de pluies acides. Il peut être émis lors des opérations de grillage de minerais contenant des sulfures à haute température autour de  $900^\circ\text{C}$  (Wang et al., 2011). Des techniques de captation de ce gaz sont alors utilisés tel que des adsorbants à base de calcium (Nyavor and Egiebor, 1991), la transformation et la production de soufre élémentaire à partir de  $\text{SO}_2$  (Rameshni and Santo, 2006) ou l'addition de chaux associée à du calcaire (Bakke, 1980; Ettouney et al., 2012; Khawaji and Wie, 2005; Ren et al., 2011; Zhang et al., 2011). Ces procédés sont souvent associés à une usine de production d'acide sulfurique permettant la valorisation de ce réactif (Daum, 2009; Léveillé and Claessens, 2009). Cependant ces techniques nécessitent de lourds investissements de la part des entreprises minières pour mettre en place des usines de taille importante.

Le dioxyde de soufre est émis par exemple lors du grillage de minerais sulfurés. Ce procédé pyrométallurgique, qui consiste à oxyder le minerai à très haute température, vise souvent à libérer les métaux de minerais réfractaires. Le grillage peut également viser à éliminer les sulfures dans certains minerais comme c'est le cas des concentrés d'hémo-ilménite traités par l'entreprise canadienne Rio Tinto Fer et Titane à Sorel-Tracy (Quebec, Canada) qui sont

destiné à la production de fer et de titane. Ce type de désulfuration très polluant pour l'atmosphère peut être remplacé avantageusement par une désulfuration par flottation en amont du procédé, technique particulièrement bien adaptée pour la concentration des sulfures.

### **1.2 Désulfuration environnementale vers la métallurgie environnementale**

La désulfuration environnementale peut être définie de façon générale comme une opération de concentration non sélective des sulfures en vue de diminuer le potentiel polluant des produits miniers traités. L'approche de la gestion intégrée des rejets de concentrateur par désulfuration environnementale a été proposée dans le cadre de la prévention du drainage minier acide (sect. 1.2.1) par plusieurs auteurs (Benzaazoua et al., 2008; Bruckard et McCallum, 2007; Bussière et al., 1997; Yalcin et al., 2004). Elle consiste à traiter les rejets miniers issus du traitement de minerais à métaux précieux et/ou polymétalliques par flottation à la sortie de l'usine de traitement de façon à produire un rejet désulfuré non générateur de DMA ou de DNC. Dans le cas du DMA, le degré d'enlèvement des sulfures dépend du potentiel de génération d'acide du rejet, PGA (Benzaazoua et al., 2000; McLaughlin, 1994). Le potentiel de génération d'acide, aussi appelé potentiel net de neutralisation (PNN) est calculé par la différence entre le potentiel de neutralisation et d'acidité du matériel.

La flottation est une méthode de séparation minéralurgique qui se base sur les différences de propriétés surfacique des minéraux. Le procédé vise ainsi à séparer l'espèce minérale d'intérêt (sous forme d'un concentré de flottation) du reste du minerai ou gangue (rejet de flottation). Cette technique consiste à disperser des bulles d'air dans une suspension aqueuse de particules solides (pulpe de 20 à 40 % solide) dont certaines sont naturellement ou artificiellement hydrophobes par ajout de collecteurs spécifiques (dans le cas de sulfures les collecteurs utilisés sont en général des xanthates). Les particules hydrophobes s'accrochent aux bulles. Il suffit ensuite de recueillir l'écume chargée de particules formée à la surface de la pulpe (Blazy et Jdid, 2001a; Crozier, 1991). Comme décrit précédemment, le concentré de sulfure produit par la désulfuration environnementale peut être stabilisé par exemple par incorporation à un remblai ou bien par un recouvrement constitué des rejets désulfuré de façon à limiter les coûts de stockage du concentré. Il peut être également revalorisé dans un procédé s'il concentre suffisamment d'éléments à valeur économique. La désulfuration

occupe donc une place de plus en plus centrale dans la gestion des rejets miniers sulfureux et se doit d'être envisagée lors d'opération en cours ou en cours d'étude de faisabilité (Figure 1.1). En revanche le traitement des rejets miniers par désulfuration environnementale suite à la valorisation du minerai peut générer quelques défis techniques en fonction des réactifs présents dans la pulpe. Ainsi, la présence de chaux ou de cyanures cause une passivation des sulfures notamment la pyrite (sulfure le plus fréquent dans les rejets de concentrateurs), ce qui déprime leur surface et empêche leur concentration par des collecteurs de type xanthate (De Wet et al., 1997; Prestidge et al., 1993). Le recours à d'autres types de collecteurs tel que l'Armeen (amine acetate) a l'inconvénient de provoquer un entrainement important de minéraux non sulfureux dans le concentré (Benzaazoua et al., 2000). La réactivation des sulfures par acidification de la pulpe est une option qui est proposé en cas de passivation des surfaces par la chaux (Mermillod-Blondin, 2005).

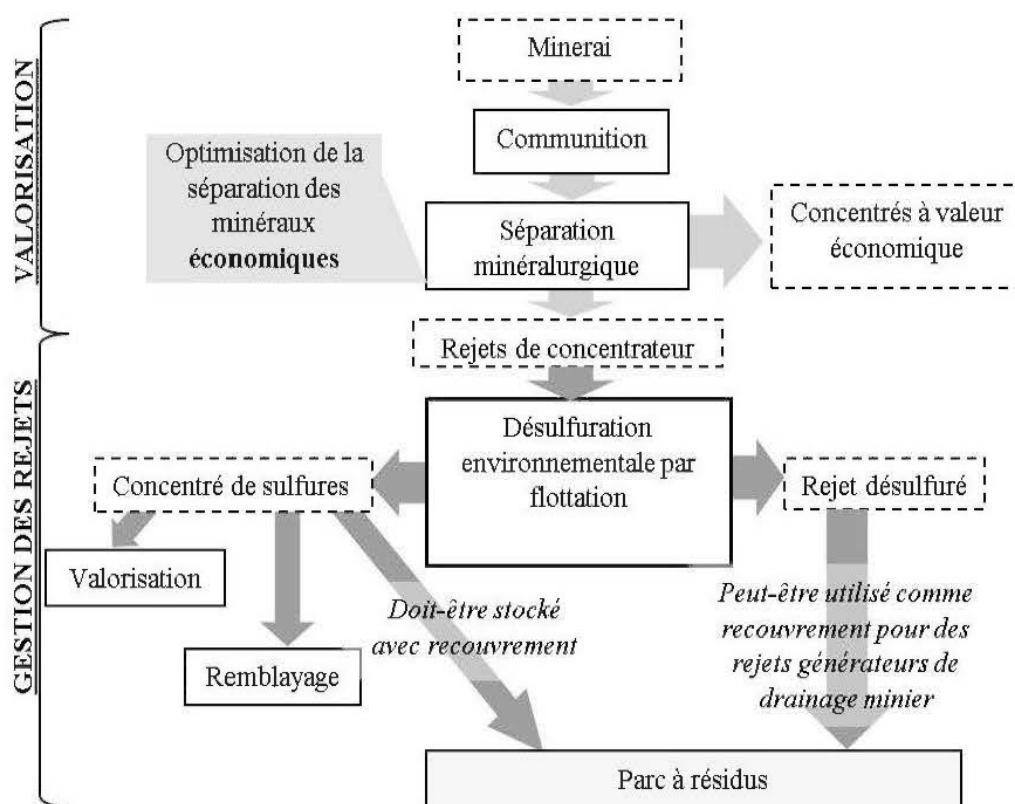


Figure 1.1 Schéma simplifié de la gestion intégrée des rejets miniers (adapté de Benzaazoua et al., 2008)

Au vu des coûts de restauration des sites miniers (travaux de fermeture et post-fermeture des sites) pouvant s'étaler sur plusieurs dizaines d'années après la fermeture du site, une amélioration de la gestion du potentiel polluant des produits miniers pourrait être envisagée en cours d'opération afin de réduire les coûts inhérents au stockage de rejets générateurs de DMA (Benzaazoua et al., 2008; Martin et Fyfe, 2012). Ainsi, une approche plus holistique de l'opération minière où la gestion des rejets miniers est intégrée au processus de valorisation du minerai pourrait être une option d'évolution de la métallurgie telle qu'appliquée aujourd'hui vers une métallurgie environnementale. Cette approche offre l'avantage d'allier rendements économique et environnemental à court et à long terme.

### **1.3 Application de la désulfuration environnementale**

À l'échelle industrielle, la désulfuration environnementale a été appliquée pour l'instant uniquement à la prévention du drainage minier acide par flottation des rejets miniers issus de l'usine de traitement. L'efficacité de cette technique dans la prévention du DMA nous amène à envisager son utilisation dans la prévention d'autres pollutions minières telles que le drainage neutre contaminé à l'arsenic et à l'antimoine ou la diminution d'émission de  $\text{SO}_2$  dans le cadre du grillage des sulfures. Cette introduction décrit dans un premier temps la principale application de la désulfuration : la prévention du drainage minier acide. Dans un second temps, deux nouvelles applications de la désulfuration sont introduites dans le chapitre 1 avant d'être développés dans cette thèse (chapitre 2 à 7).

#### **1.3.1 Prévention du drainage minier acide**

De nombreuses études attestent de l'efficacité de la désulfuration environnementale pour le traitement des rejets miniers sulfureux (Benzaazoua et al., 2000; Benzaazoua et Kongolo, 2003; Bruckard et Callum, 2007; Leppinen et al., 1997; Mermillod-Blondin, 2005; Yalcin et al., 2004). Le Tableau 1.1 synthétise différents travaux effectués sur la désulfuration environnementale en vue de la prévention du drainage minier acide. Les types de rejets miniers traités ont des teneurs en soufre variant de 0.3 % à plus de 20 %. Les sulfures les plus souvent rencontrés dans la problématique du drainage minier acide sont la pyrite et la pyrrhotite. Les rendements atteints par la désulfuration permettent généralement de produire un rejet non générateur d'acide. La détermination du taux de désulfuration nécessaire à la

production d'un rejet non générateur d'acide nécessite de déterminer le potentiel générateur d'acide (PGA) des rejets miniers. Il s'agit le plus souvent de tests de prédiction dits statiques (Acid Base Accounting, ABA).

Tableau 1.1 Synthèse des travaux effectués en lien avec la désulfuration environnementale de rejets miniers sulfureux pour la prévention du DMA

Alimentation	Type de sulfure présent	Échelle	Désulfuration (réactifs, pH)	Résultats	Référence
Rejet mine Cu-Ni (S=0,8-1,4%)	Pyrrhotite	Laboratoire et usine pilote	Potassium amy l xanthate pH=6-7	R=96% S <sub>res</sub> =0,4%	McLaughlin, 1994
Rejet mine Cu-Zn (S=4-8%)	Pyrite	Laboratoire	Sodium isobutyl xanthate pH=5,5-6,5	R=96% S <sub>res</sub> =0,5%	Leppinen et al., 1997
Rejet mine Au-Cu (S=3%)	Pyrite Pyrrhotite Chalcopryrite	Laboratoire	Potassium isoamylxanthate pH=9-10	R=90% S <sub>res</sub> =0,3%	Benzaa zoua et al., 2000
Rejet mine Au-Ag (S=3%) Cyanures	Pyrite Chalcopryrite Sphalérite	Laboratoire	Amine acétate pH>11,4	R=95% S <sub>res</sub> =0,2%	Benzaa zoua et al., 2000
Rejet mine Cu-Zn-Au-Ag (S=16%)	Pyrite Pyrrhotite Chalcopryrite Sphalérite	Laboratoire	Potassium amy l xanthate (activation CuSO <sub>4</sub> ) pH=9-10	R=95% S <sub>res</sub> =1,8%	Benzaa zoua et al., 2000
Rejet mine Cu-Zn-Au-Ag (S=24%)	Pyrite Pyrrhotite Chalcopryrite Sphalérite	Laboratoire	Potassium amy l xanthate pH=9-10	R=96% S <sub>res</sub> =1,4%	Benzaa zoua et al., 2000
Rejet minier sulfureux (S=5%)	Pyrite	Laboratoire	Potassium amy l xanthate pH=6/pH=11	R=95% S <sub>res</sub> =0,4%	Benzaa zoua et Kongolo, 2003
Rejet minier sulfureux (S=10%)	Pyrite	Laboratoire		R=97% S <sub>res</sub> =0,4%	Benzaa zoua et Kongolo, 2003



Tableau 1.1 (suite)

Alimentation	Type de sulfures présents	Échelle	Désulfuration (réactifs, pH)	Résultats	Référence
Rejet mine Au (S=2%) Cyanures présents	Pyrrhotite	Laboratoire	Potassium amylxanthate (activation CuSO <sub>4</sub> ) pH=6-10	R=90% S <sub>res</sub> =0,2%	Yalcin et al., 2004
	Pyrite	Usine pilote	Potassium amylxanthate (activation CuSO <sub>4</sub> ) pH=8	R~90%	Alam et Shang, 2012
Rejet reconstitué à partir de stérile mine Cu-Zn-Au-Ag (S=17%)	Pyrite Chalcopyrite	Laboratoire	Potassium isoamylxanthate pH=6/pH=11	R=83% S <sub>res</sub> =0,5%	Mermillod- Blondin, 2005
Rejet mine Au (S=4%) Cyanures présents	Pyrite	Laboratoire	Rinçage des cyanures -Potassium amylxanthate (activation CuSO <sub>4</sub> )	R=84% S <sub>res</sub> =0,3%	Benzaazoua et al., 2008 Demers et al., 2008
Rejet mine Cu (S=3%)	Pyrite Molybdène	Laboratoire	Deschlammage* (cyclone)	R>79%	Bruckard et al., 2007
Rejet mine Ni (S=6%)	Pyrrhotite	Laboratoire	Potassium amylxanthate	R=84%	Bruckard et al., 2007
Rejet mine Cu-Au (S=0.3%)	Pyrite	Laboratoire	pH=9-9,5	R>79%	Bruckard et al., 2007
Rejet mine Pb-Zn-Ag (S=2%)	Galène	Laboratoire		R>79%	Bruckard et al., 2007
Rejet mine Ni-Cu	Pyrite	Site minier	Meilleure qualité des eaux de drainage (pH, Fe, Ni, Cu)		Martin et Fyfe, 2012

\* le deschlammage consiste à enlever les particules les plus fines ( $d < 10 \mu\text{m}$ )

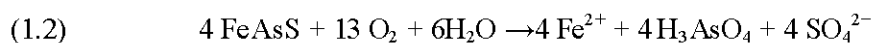
Le potentiel de neutralisation (PN) est déterminé par titration acido-basique quantifiant ainsi le potentiel tampon des carbonates et le potentiel d'acidité (PA) par analyse du soufre (sulfure et sulfate) de l'échantillon en supposant que tous les sulfures sont susceptibles d'être oxydés (Lawrence et Wang, 1997a; MEND, 1991; Sobek et al., 1978). Lorsque les tests statiques ne permettent pas de statuer sur le PGA d'un rejet minier, des tests cinétiques peuvent être effectués. Ces derniers permettent d'évaluer la qualité des eaux de drainage au cours du temps (MEND, 1991; Morin et Hutt, 1997; Villeneuve, 2004). La prévention du drainage minier acide par la désulfuration vise à diminuer suffisamment le potentiel d'acidité des rejets miniers de façon à les classer comme non générateur d'acide en dehors des zones d'incertitude de ces tests (Benzaazoua et al., 2008; Bussière et al., 1997; Demers et al., 2008). Tel qu'illustré par le Tableau 1.1, la désulfuration environnementale est appliquée de l'échelle du laboratoire jusqu'au site minier depuis une vingtaine d'années. Elle est encore considérée à ce jour comme une pratique novatrice (Martin et Fyfe, 2012) mais cette pratique est de plus en plus souvent considérée dans le cadre de plan de fermeture en prévention du DMA (Robertson et al., 2012).

### **1.3.2 Prévention du drainage neutre contaminé à l'arsenic**

#### **1.3.2.1 Formation et prédiction du DNC**

La formation du drainage neutre contaminé (DNC) résulte de la même réaction d'oxydation des sulfures décrite par l'équation 1.1. Cependant, au contraire du DMA, les eaux de drainage demeurent à des pHs proches de la neutralité. Dans le cas du DNC, des métaux et métalloïdes tels que l'arsenic, l'antimoine, le zinc ou le nickel peuvent être présents à des concentrations supérieures aux normes en vigueur (Mayes et al. 2009; Plante et al. 2010; Warrender et al 2009), bien que l'antimoine ne fasse pas l'objet de régulation gouvernementale et que son comportement environnemental soit peu connu (Fillela et al., 2009; Vink, 1996). Le DNC peut être formé dans le cas de rejets contenant suffisamment de minéraux neutralisant l'acidité générée par l'oxydation des sulfures contenus par ce même rejet. Dans la province de Québec et en particulier dans la région de l'Abitibi, beaucoup de mines sont aux prises avec la présence d'arsénopyrite dans leurs minerais. La présence de ce minéral dans le résidu minier peut poser le problème du drainage minier acide si le potentiel de neutralisation du matériel ne contrebalance pas l'acidité produite par son oxydation par l'oxygène ou par

d'autres agents oxydants (comme  $\text{Fe}^{3+}$ ). Le problème du drainage neutre contaminé intervient quand l'acidité produite est neutralisée par la dissolution de silicates et/ou carbonates. L'oxydation de l'arsénopyrite libère alors de l'arsenic (métal hautement toxique), tel que décrit par l'équation suivante, qui peut être présent à des concentrations supérieures aux normes réglementaires.



L'arsenic est susceptible d'être dissous sous la forme d'ion arséniate  $\text{AsO}_4^{3-}$  à des pH proches de la neutralité si les conditions sont oxydantes (Haffert et Craw, 2008). La désulfuration environnementale de rejets miniers arsénifères en vue de prévenir l'apparition de drainage neutre contaminé à l'arsenic dans les parcs à résidus n'a pas encore été étudiée. Par ailleurs, à l'heure actuelle, il n'existe pas d'outils de prédiction spécifiques au DNC (Nichols on, 2004). Les méthodes de caractérisation utilisées dans le cadre du DNC sont les mêmes que celles utilisées pour prédire le DMA. Des études de Plante (2010) ont démontré que les tests cinétiques de lixiviation des rejets (mini-cellules d'altération, cellules humides) sont peu adaptés sachant l'importance des phénomènes de sorption des contaminants dans les matrices étudiées. Des tests adaptés à la prédiction du DNC, qui prennent en compte ces phénomènes sont actuellement en cours de développement (Plante et al., 2012).

### 1.3.2.2 Désulfuration des rejets arsénifères

Dans la littérature, la flottation de l'arsénopyrite a été étudiée dans le but de diminuer les pénalités associées à des concentrés destinés à la fonderie en diminuant leur teneur en arsenic (Bruckard et al. 2010; Draskic et al 1983), mais également dans le but de concentrer l'arsénopyrite aurifère (Diaz et al. 1995 ; Duc 1992; Valdivieso et al. 2006; Monte et al. 2002). Le mécanisme de flottation de l'arsénopyrite est attribué à l'oxydation des ions xanthates en ions dixanthogènes à la surface de l'arsénopyrite. Le dixanthogène formé s'adsorbe alors à la surface de l'arsénopyrite qui devient hydrophobe (Kydos et al., 1995; Lopez Valdivieso et al., 2006). Cette adsorption est influencée par les conditions physico-chimique de la pulpe (température, pH, Eh) et par la présence d'activants ou de déprimants. D'après certaines études (Duc, 1992; Lopez Valdivieso et al., 2006; Sirkeci, 2000), la flottation de l'arsénopyrite à pH acide (pH=3-4) par des réactifs de type xanthate est aussi bonne que la flottation de la pyrite comme illustré par la Figure 1.2.

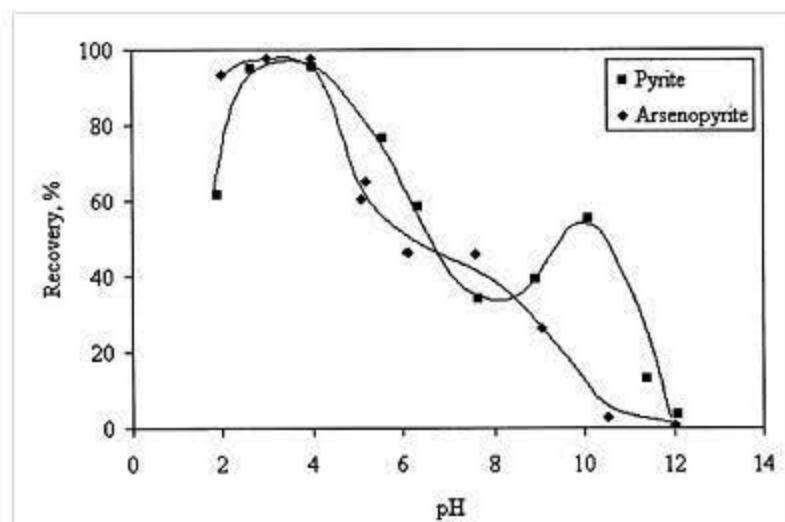


Figure 1.2 Récupération de l'arsénopyrite et de la pyrite pure (tests en tube Hallimond : tube de verre permettant la flottation à l'échelle du gramme) en fonction du pH avec ajout de  $5 \cdot 10^5$  mol/L de KAX-51 d'après Sirkeci (2000).

Cependant, à partir de pH=8,5 l'arsénopyrite est déprimée au contraire de la pyrite qui flotte également aux pHs basiques autour de pH=10 (Mermillod-Blondin, 2005; Persson et al., 1994; Sirkeci, 2000).

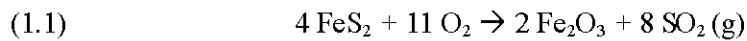
Les études menées par Duc (1992), Diaz et al. (1995) et Sirkeci (2000) démontrent que la séparation de la pyrite et de l'arsénopyrite est efficace à pH alcalin seulement. Une étude menée par Monte et al. (2002) sur un concentré de gravimétrie essentiellement composé d'arsénopyrites et de pyrites aurifères démontre que la flottation d'arsénopyrite oxydée est fortement améliorée par l'ajout de sulfates de cuivre à pH=6.

### 1.3.3 Diminution d'émissions de $SO_2$

#### 1.3.3.1 Source des émissions de $SO_2$ : la pyrite grossière

Comme mentionné dans la section 1.1, l'émission de  $SO_2$  due à la désulfuration par grillage peut être diminuée en remplaçant le grillage des sulfures par la constitution d'un concentré de sulfures par flottation en amont du grillage. Le minerai d'hémo-ilménite, exploité par Rio Tinto Fer et Titane (RTFT) est constitué de phases minérales économiquement intéressantes

sous forme d'exsolution de minéraux d'hématite et d'ilménite. Celui-ci est grillé au cours de l'enrichissement du minerai avant d'être envoyé à la fonderie. Le grillage a pour double objectif de magnétiser l'hémo-ilménite en vue d'une séparation magnétique postérieure et de diminuer la teneur en soufre du minerai par oxydation de la pyrite en dioxyde de soufre et en hématite :



Au cours du grillage, la pyrite peut s'oxyder en hématite ( $\text{Fe}_2\text{O}_3$ ) ou en magnétite ( $\text{Fe}_3\text{O}_4$ ) selon les conditions opératoires. La magnétisation du minerai se fait avec un temps de résidence court dans le four rotatif. Cependant, afin de privilégier la formation d'hématite par grillage de la pyrite, le temps de résidence dans le four rotatif est prolongé (Wang et al., 2011). La présence de magnétite, tout comme le soufre, nuit à la qualité des aciers produits par RTFT. La désulfuration par flottation du minerai d'hémo-ilménite pourrait permettre, en plus de réduire les émissions de  $\text{SO}_2$ , de réduire le temps de résidence du minerai dans le four rotatif et ainsi de diminuer les coûts opératoires liés au grillage.

### 1.3.3.2 Flottation des particules grossières : approche hydrodynamique

La séparation par flottation nécessite en général un contrôle précis des conditions hydrodynamiques. En effet, ces dernières ont une influence majeure tout au long du procédé de flottation. Les conditions hydrodynamiques doivent être suffisamment turbulentes pour permettre la mise en suspension des particules dans la pulpe et la dispersion des bulles, ce qui offre ainsi une bonne probabilité de collision bulle-particule (Blazy et Jdid, 2001a). Cependant, un environnement hydrodynamique quiescent doit également permettre le transport des ensembles bulles-particules vers la surface ainsi qu'une bonne stabilité de la mousse formée; bien que cette stabilité soit également améliorée par la présence de réactifs moussants qui abaissent les tensions de surface permettant de stabiliser les bulles (Blazy et Jdid, 2001a). La plupart des équipements de flottations (cellules à agitation mécanique et colonnes) offrent un compromis entre ces deux conditions hydrodynamiques (turbulente et quiescente).

La flottation est une technique qui atteint son optimum (plus haute probabilité de séparation) pour une certaine tranche granulométrique. Les particules trop fines ( $<10\mu\text{m}$ ) ou trop

grossières ( $> 300\mu\text{m}$ ) sont difficilement récupérées dans le concentré (Jameson, 2005, De Gontijo et al., 2007). Dans le cas des particules les plus grosses, la force d'inertie est supérieure aux forces de tensions superficielles qui lient ces particules aux bulles: la particule se détache donc de la bulle avant d'atteindre l'écume à la surface de la cellule (Gomez, 2000). De plus, lorsque la granulométrie est grossière, le poids des particules transportées peut être supérieur à la poussée d'Archimède subie par la bulle : la bulle n'atteint pas la tranche d'écume récupérée (Jameson, 2005). Enfin, l'augmentation de la taille des particules nécessite une augmentation de l'agitation (cellules mécaniques) pour maintenir ces particules en suspension. L'augmentation de la vitesse d'agitation (turbulences plus fortes) augmente alors également la probabilité de détachement des particules (Tao, 2004). Dans le cas de la flottation en colonne, le temps de résidence de ces particules est plus court ce qui diminue la probabilité de collision avec les bulles (Jameson et Lambert, 2007). Les particules grossières ont donc une faible probabilité de collision bulle-particules et une forte probabilité de détachement ce qui provoque un faible rendement et une faible cinétique de flottation.

Des solutions ont été développées pour améliorer la flottation des particules grossières. Tao (2004) propose de générer deux type de bulles : des bulles millimétriques générées par bullage standard et des bulles micrométrique produites par hydrocavitation ou saturation de gaz (Tao, 2004). Les bulles micrométriques permettent d'augmenter la flottabilité des ensembles bulle-particules par formation d'agglomération de bulles micrométriques et millimétriques et ainsi augmentation de la flottabilité des ensembles bulles-particules. Les bulles micrométriques se fixent également plus facilement aux particules du fait de leur énergie de surface plus élevée et de leur vitesse d'ascension plus faible dans la pulpe (Tao, 2004). La flottation des particules grossières en cellule mécanique pourraient être améliorée par l'optimisation des systèmes de rotor-stator afin d'éviter les micro-turbulences (Schubert, 1999) et par des cellules de flottation moins profonde pour augmenter la probabilité de transport des ensembles bulles-particules vers la mousse (Tao, 2004). Newcombe et al (2012) souligne le manque d'étude sur la flottation des particules grossières appliquée à des produits miniers.

Bien que l'hydrodynamisme constitue une part importante du bon fonctionnement du procédé de flottation, le principe même de la flottation repose sur les différences de propriété de

surface des minéraux. L'approche physico-chimique constitue donc une clef de voute de la flottation.

### 1.3.3.3 Flottation des particules grossières; approche physico-chimique

En flottation, l'approche physico-chimique regroupe la physico-chimie de la pulpe (pH, Eh, température, chimie en solution) et celle de la surface des minéraux ciblés. Parmi ces derniers, les sulfures ont une surface très réactive qui est sensible aux changements de pH (au niveau de leurs phases d'oxydation superficielles) ainsi que par l'ajout de réactifs tel que des activants, des déprimants qui permettent respectivement de faciliter ou d'inhiber l'adsorption de collecteur sur des minéraux spécifiques. Les collecteurs sont ensuite ajoutés à la pulpe pour se fixer à la surface des particules minérales à collecter en formant un film hydrophobe autour de ceux-ci. Cela permet d'obtenir une flottation sélective (Blazy et Jdid, 2001b). Les xanthates sont les collecteurs le plus souvent utilisés pour la flottation des sulfures (Blazy et Jdid, 2001b). Les sulfures, minéraux peu hydrophiles, ne nécessitent habituellement pas de xanthate à chaîne longues (Pearse, 2005). Cependant, dans le cas de la flottation de sulfures à granulométrie grossière, l'augmentation de l'hydrophobie des particules par une augmentation de la chaîne alkyl du collecteur peut être envisagée de façon à diminuer la probabilité de détachement des ensembles bulles-particules (Newcombe et al., 2012). En effet les collecteurs à chaînes alkyl plus longues forment des films hydrophobes plus stables et permettent d'obtenir des angles de contact bulle-particules plus élevée (Rao, 1971; Rao et Finch, 2003). Cependant, la solubilité du collecteur diminue avec l'augmentation de la longueur de la chaîne. Il y a donc un compromis à obtenir dans le choix d'un collecteur à chaîne suffisamment longue pour obtenir l'hydrophobie maximale tout en ayant une solubilité lui permettant d'être bien dissous dans la pulpe (Ackerman et al., 1987; Kim et al., 2000). La structure de la chaîne du collecteur joue également un rôle dans la stabilité et le degré d'hydrophobie. Ainsi, un collecteur possédant une chaîne alkyl avec des branchements méthyles constituera un film plus stable et plus hydrophobe que son équivalent à chaîne linéaire (Ackerman et al., 1987; Rao, 1971). Dans l'optique d'augmenter d'avantage l'hydrophobie des particules pour diminuer la probabilité de détachement des particules, il est également possible d'ajouter des activants pour faciliter l'adsorption de ces collecteurs (Rao,

1971). Newcombe et al. (2012) souligne le fait que les particules grossières sont particulièrement sensibles aux conditions physico-chimiques expérimentales.

La compréhension des mécanismes fondamentaux de la flottation tel que l'évolution des espèces issues de l'oxydation superficielle des sulfures, la chimie des xanthates et les mécanismes d'adsorption de ceux-ci à la surface des sulfures permet d'améliorer peu à peu les performances et les pratiques liées aux procédés de flottation.

#### **1.4 Aspects fondamentaux de l'adsorption des xanthates à la surface des sulfures**

##### **1.4.1 Caractérisation surfacique de la pyrite et de l'arsénopyrite**

Les espèces superficielles présentes à la surface des sulfures se forment principalement au cours du broyage (Kongolo, 1991). L'influence des conditions opératoires lors du broyage sur les espèces superficielles de la pyrite a été largement étudiée et synthétisée dans la littérature (Cases et al., 1989, 1990, 1995; Mermillod-Blondin, 2005). Lors du broyage de la pyrite, les surfaces fraîchement créées présentent des atomes de fer et de soufre instables thermodynamiquement du fait des ruptures de liaisons Fe-S et S-S. L'arsénopyrite présente des ruptures de liaison Fe-S et As-S suite au broyage (Pratt et al., 1998; Schaufuss et al., 2000). Pour la pyrite, des réactions d'oxydo-réduction des phases surfaciques instables aboutissent à la formation de phases oxydées réparties de façon hétérogène à partir de sites anodiques et cathodiques (Mermillod-Blondin, 2005, Murphy et al., 2009). Ces phases sont principalement des sulfates et des oxydes de fer ferreux et ferrique avec des traces de phases sulfurées plus ou moins stables avec un degré d'oxydation inférieur tel que des sulfites, des thiosulfates, des polysulfures et du soufre élémentaire (Fornasiero et Ralston, 1992 ; Smart et al., 2000). L'exposition de la pyrite à l'air pendant une période prolongée ajoute la présence de sidérite (réaction du fer avec le CO<sub>2</sub> de l'air) aux différentes espèces superficielles (Caldeira et al., 2008), ce qui n'arrive pas dans un procédé humide en continu (traitement du minerai). La physico-chimie de la pulpe le long du procédé de traitement joue un rôle important sur l'évolution des différentes phases superficielles. Ainsi, des conditions alcalines (ajout de chaux) favorisent l'hydratation et l'hydroxylation des sulfates et oxydes de fer rendant la surface de la pyrite plus hydrophile (Mermillod-Blondin, 2005). La surface de l'arsénopyrite comporte essentiellement des oxydes de fer et d'arsenic répartis en une fine



couche homogène (Mikhlin et al., 2006; Nesbitt et Muir, 1998; Schauffuss et al., 2000; Urbano et al., 2008) ainsi que quelques traces de sulfates, thiosulfates et polysulfures incorporées aux oxydes, car la majorité des phases porteuses de soufre formées sont dissoutes (Duc, 1992). Des conditions alcalines de la pulpe favorisent la dégradation de la maille cristalline de l'arsénopyrite et l'hydroxylation des phases superficielles, ce qui provoque une importante formation d'hydroxydes ferriques et de réalgar à la surface de l'arsénopyrite (Duc, 1992; Vreudge, 1982). La répartition et la nature des phases d'oxydation superficielles de la pyrite et de l'arsénopyrite après broyage sont schématisées par la Figure 1.3.

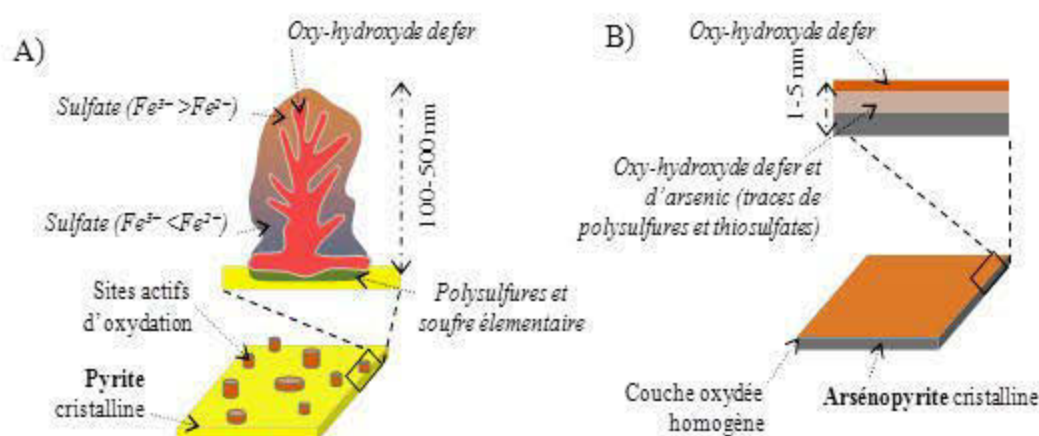
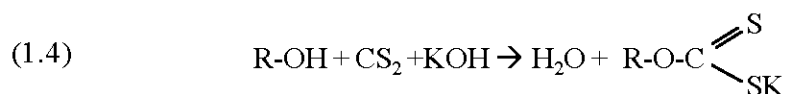


Figure 1.3 Schéma de répartition et nature des phases d'oxydation superficielles de la pyrite (A) et de l'arsénopyrite (B) après broyage (Schémas adaptés respectivement de Mermillod-Blondin, 2005 (A) et Schauffuss et al., 2000 (B)).

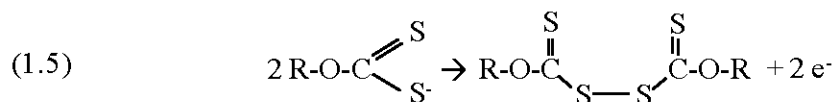
L'adsorption des xanthates dépend en grande partie de l'état de surface des sulfures au moment de leur conditionnement, bien que le type de xanthate utilisé influence également leur mécanisme d'adsorption (Mielczarski et al., 1998; Fuerstenau et al., 1990a). D'autre part, les conditions physico-chimiques de conditionnement (pH, Eh, température) influencent à la fois la surface des sulfures ainsi que la nature des phases xanthées en solution et à la surface des sulfures (Rao, 1971). La connaissance des cinétiques de transformation des xanthates ainsi que leur chimie est donc fondamentale pour comprendre les mécanismes de leur adsorption à la surface des sulfures tels que la pyrite et l'arsénopyrite.

### 1.4.2 Chimie des xanthates

Les xanthates sont utilisés comme principaux collecteurs des sulfures dans l'industrie minière. Ces thiosels sont constituée d'un groupement polaire soufré (S-C-S) qui se fixe à la surface des sulfures et d'un groupement alkyl (chaîne hydrocarbonée saturée) qui contribue à la formation d'un film hydrophobe autour des particules collectées. Leur synthèse est issue de la réaction entre un alcool primaire ou secondaire, du disulfure de carbone en large excès et de l'hydroxyde de potassium tel qu'indiqué par l'équation suivante (Rao, 1971) :



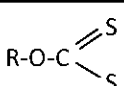
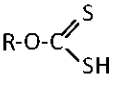
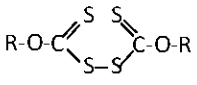
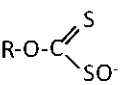
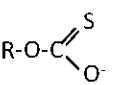
La purification des xanthates par séparation des produits de réaction, tel que des polysulfures et du dixanthogène, est fait par dilution dans l'acétone, séparation des phases aqueuse et organique et précipitation des xanthates par un solvant apolaire tel que le diethylether. La chimie des xanthates a fait l'objet de nombreuses études et synthèses bibliographiques dans l'objectif d'évaluer leur stabilité selon le pH, le Eh, l'oxygène dissous, le contact avec des sulfures ou des ions dissous (Duc, 1992; De Donato et al., 1989; Finkelstein, 1977; Fornasiero et al., 1995; Fuerstenau et al., 1968; Jones and Woodcock, 1983; Kongolo, 1991; Montalti et al., 1991; Rao, 1971) Le principal produit dérivé des xanthates est le dixanthogène. Il est formé par oxydation des xanthates selon la demi-réaction suivante (Rao, 1971) :



L'oxydant peut être l'oxygène dissous ou adsorbé à la surface de la pyrite, des ions ferriques ou des hydroxydes de fer dans des conditions anaérobie (Fuerstenau et al., 1968). Les principaux dérivés des xanthates sont regroupés dans le Tableau 1.2. Les phases dérivées des xanthates peuvent être formées par catalyse avec la surface des sulfures quand ceux-ci sont présents (De Donato et al., 1989; Montalti et Ralston, 1991). L'hydrolyse des xanthates

correspond à la dissociation des xanthates en disulfure de carbone et en alcool. L'augmentation de la température, la diminution du pH et de faibles concentration initiales de xanthate sont des facteurs qui accélèrent la cinétique de dissociation des xanthates (De Donato et al., 1989; Granville, 1972; Rao, 1971).

Tableau 1.2 Liste et propriétés des xanthates et des principaux dérivés xanthés en phase aqueuse

Nom (abréviation)	Formule	Formation	Propriétés	Références
Xanthate (X)		Synthèse : équation 1.4 <b>Erreur !</b> Source du	Stabilité : pH > pKa Eh < E <sup>0</sup>	Rao, 1971; Somasundaran 2006
Acide xanthique (HX)		- Hydrolyse de X - Intermédiaire lors de la dissociation de X en CS <sub>2</sub> et ROH.	Stabilité : pH < pKa	Kongolo, 1991; Somasundaran 2006
Dixanthogène (X <sub>2</sub> )		Oxydation de X ou de produit intermédiaire : équation 1.5	Stabilité : pH < 11 Eh > E <sup>0</sup>	Rao, 1971; Somasundaran 2006
Perxanthate (PX)		- Oxydation de X par H <sub>2</sub> O <sub>2</sub>	Stabilité en milieu acide	Jones and Ralston, 1991; Woodcock, 1983
Monothiocarbonate (MTC)		- Oxydation de X. - Hydrolyse de X <sub>2</sub>	Stabilité : milieu alcalin	Duc, 1992; Kongolo, 1991; Ralston, 1991;

La formation de perxanthate en solution implique la présence de peroxyde d'hydrogène (Kongolo, 1991). Ce dernier peut être formé par réduction de l'oxygène à la surface de la pyrite essentiellement à pH acide (Biegler et al., 1975). La stabilité des xanthates est influencée par la longueur de leur chaîne carbonée. L'augmentation de la longueur de la chaîne carbonée des xanthates augmente l'effet donneur d'électrons, ce qui favorise l'oxydation des xanthates en dixanthogène (Lotter et Bradshaw, 2010; Poling, 1976). Les potentiels standards du couple rédox xanthate/dixanthogène (E<sup>0</sup>) et les constantes d'acidités (Ka) de différents types de xanthates sont listés dans le Tableau 1.3.

Tableau 1.3 Liste des potentiels standards des couples xanthate/dixanthogène et des constantes d'acidité de différents types de xanthates

Xanthate	Potentiel standard (E <sup>0</sup> )	Constante d'acidité (K <sub>a</sub> )	Références
MéthylX	-0,013	3,4.10 <sup>-2</sup>	Rao, 1971
EthylX	-0,06	2,9.10 <sup>-2</sup>	Finkelstein et Poling, 1977; Somasundaran, 2006 Rao, 1971;
PropylX	-0,07	2,5.10 <sup>-2</sup>	Somasundaran, 2006; Rao, 1971
ButylX	-0,10	2,3.10 <sup>-2</sup>	Somasundaran, 2006; Rao, 1971
AmylX	-0,12	1,9.10 <sup>-2</sup>	Somasundaran, 2006; Rao, 1971
HexylX	-0,15	/	Rao, 1971

Enfin, de par leur nature de ligand, les xanthates sont sensibles à la présence de métaux en solution tel que le fer, le cuivre, le zinc ou le plomb. Les xanthates réagissent alors préférentiellement avec les ions présents en solution pour former des précipités solides, stables (Allison et O'Connor, 2011; Jiang et al., 1998; Leppinen, 1990; Pecina et al., 2006; Rao, 1971) et ne sont plus disponibles pour s'adsorber à la surface des sulfures à moins que la formation des complexes métalliques soit proches de la surface auquel cas, ils peuvent être précipités sur les sulfures (Fornasiero et Ralston, 1992).

En conclusion, on peut dire que la chimie complexe des xanthates associés à la réactivité importante de la surface des sulfures amène donc des mécanismes variés de fixation des xanthates à la surface des sulfures.

#### 1.4.3 Fixation des xanthates à la surface de la pyrite et de l'arsénopyrite

La fixation des xanthates à la surface de la pyrite et de l'arsénopyrite a fait l'objet de nombreuses études (exemples : Buckley et al., 2003; Bulut et Atack, 2002; Diaz et Gochin,

1995; Lòpez-Valdivieso et al., 2005; Mermillod-Blondin, 2005; Monte et al., 2002; Pecina et al., 2006; Ralston, 1991; Smart, 1991; Wang et Forssberg, 1991). L'hydrophobie conférée à la pyrite et l'arsénopyrite à travers l'ajout de xanthates dans la pulpe se fait par des mécanismes d'adsorption et/ou de réactions chimiques qui dépendent de l'état de surface des sulfures et des conditions physico-chimiques de la pulpe. Ainsi, une oxydation élevée de la surface des sulfures qui entraîne la formation d'une couche importante d'oxy-hydroxydes hydrophiles peut contrebalancer le film hydrophobe formé par l'adsorption de xanthate et aboutir à une « hydrophobie nette » non suffisante pour la flottation (Mermillod-Blondin, 2005; Wang et Forssberg, 1991). L'adsorption de xanthates à la surface des sulfures (valable pour pyrite et arsénopyrite) est un procédé anodique à la surface du sulfure qui fournit l'oxydant. Il peut s'agir d'oxygène adsorbé, d'hydroxydes de fer ferrique, d'ion ferrique libre ou d'oxy-sulfures ( $S_2O_8^{2-}$ ). La phase xanthée adsorbée à la surface de la pyrite peut être sous forme de xanthate adsorbée, de complexe métal xanthate ou de dixanthogène (Figure 1.4). La phase la plus observée quelles que soient les conditions physico-chimiques à la surface de la pyrite est le dixanthogène qui est le plus souvent tenu pour responsable de l'hydrophobicité des sulfures (Bulut et Atak, 2002; Mermillod-blondin, 2005). À pH acide, la présence de complexes de xanthate de fer ferrique contribue également à former un film hydrophobe. Dans ces mêmes conditions, la formation de complexes de xanthates de fer ferreux est également possible mais il est thermodynamiquement instable et s'oxyde alors en dixanthogène (Figure 1.4).

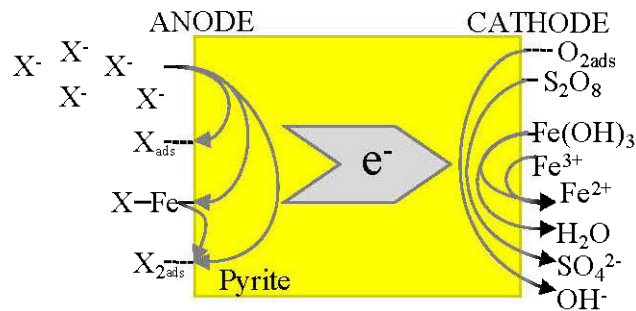


Figure 1.4 Schémas des différents modes d'adsorption des xanthates à la surface de la pyrite (adapté de Wang et Forssberg, 1991 et Mermillod-Blondin, 2005)

Le xanthate est un ligand qui peut donc former un complexe avec les métaux présents à la surface des sulfures. La liaison aux cations métalliques par la fonction disulfure peut être de nature monodentate ou bidentate tel qu'illustré par la Figure 1.5 (Szymula et al., 1996; Tiekink et Haiduc, 2005), mais la majorité des structures métal-xanthates ont des modes de coordinations intermédiaires entre les structures mono et bidentate. Les xanthates peuvent également se fixer à des produits d'oxydation ferrifères présents à la surface de la pyrite (Fornasiero et Ralston, 1992; Mermillod-Blondin, 2005).

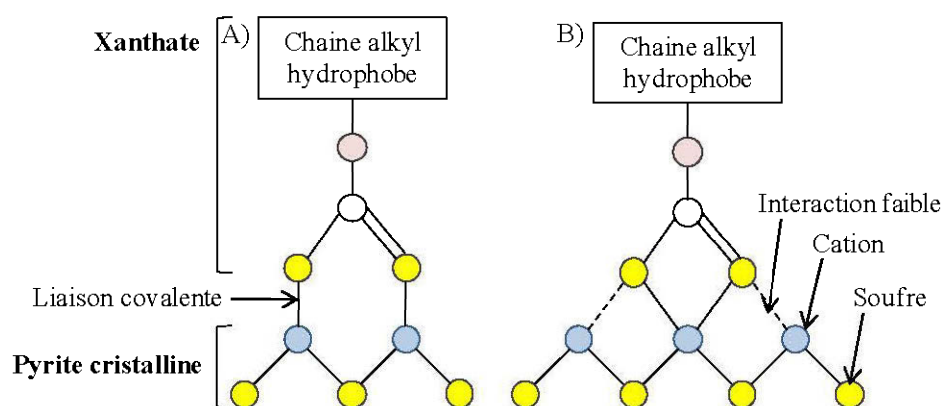


Figure 1.5 Modes de coordination des structures métal-xanthate : A) bidentate et B) monodentate (schéma adapté de Szymula et al., 1996)

L'adsorption de monothiocarbonate (cf. section 1.4.21.4.2) à la surface de la pyrite a parfois été observé (Cases et al., 1989; Harris et Finkelstein, 1975) et la possibilité de la formation d'un complexe soufre élémentaire-xanthate stable ne peut être écartée (Tiekink et Haiduc, 2005; Wang et Forssberg, 1991). Les conditions physico-chimiques, qui influent à la fois sur la composition des espèces oxydées et sur la chimie des xanthates, ont un impact important sur la composition des phases xanthées adsorbées et ainsi sur l'hydrophobicité conférée. Les conditions acides, qui provoquent la mise en solution de fer ferrique de la surface des sulfures favorisent l'adsorption de xanthate à leur surface (Fornasiero et Ralston, 1992; Jiang et al., 1998). D'après des travaux de Jiang et al. (1998) et Wang et Forssberg (1991), les faibles récupérations obtenues à des pHs autour de la neutralité (Fuerstenau et al., 1968; Mermillod-Blondin, 2005; Sirkeci, 2000) sont attribuables à la formation de complexes de fer ferreux-xanthates hydroxylés faiblement hydrophobes. La fixation des xanthates à la surface des sulfures, du fait des réactions d'oxydoréduction mises en jeu, entraîne la dissolution des

espèces d'oxydation présentes à la surface des sulfures, et provoque ainsi un « nettoyage des surfaces » (Kongolo, 1991; Mermillod-Blondin, 2005; Rakston, 1991; Smart, 1991; Wang et Forssberg, 1991). D'après les travaux de Wang et Forssberg (1991), la dissolution des espèces hydrophiles (oxy-hydroxydes et sulfates) permettrait de révéler une surface hydrophobe riche en soufre due à la différenciation initiée par l'oxydation des sulfures (Figure 1.3). L'adsorption des xanthates à la surface de l'arsénopyrite suit les mêmes réactions d'oxydoréduction décrites par la Figure 1.4. La principale phase observée est également le dixanthogène bien que des complexes arsénites-xanthates (As(III)) aient été également mis en évidence (Ma and Bruckard, 2009; Persson, 1994; Valli et al., 1994; Yekeler et Yekeler, 2005). À pH basique, la formation d'oxydes de fer et de réalgar (AsS) serait à l'origine de la dépression de l'arsénopyrite car ils empêcheraient l'oxydation des xanthates en dixanthogène en empêchant le contact de ceux-ci avec les sites anodiques de la surface (Beattie et Poling, 1987; Vreudge, 1982). D'après une étude effectuée par Wang et al. (1989) sur de l'arsénopyrite pure, les ions  $\text{Cu}^{2+}$  activent l'arsénopyrite par la formation à pH acide de sulfure de cuivre et d'arsenic ( $\text{CuAsS}$ ) et à pH basique d'arsénites ( $\text{Cu}_3(\text{AsO}_4)_2$ ) et d'arseniates ( $\text{Cu}_3(\text{AsO}_3)_2$ ) de cuivre qui favorisent l'adsorption du collecteur. Li et Zhang (1989) rapporte aussi la formation de  $\text{CuS}$  à la surface de l'arsénopyrite favorisant la flottation de ce minéral.

La détermination du taux de recouvrement statistique des xanthates est essentielle à la compréhension de leurs mécanismes d'adsorption sur les sulfures en vue de leur flottation. Le taux de recouvrement statistique est déterminé à partir de paramètres tels que la quantité de xanthate adsorbée, la surface spécifique du minéral et l'encombrement stérique du collecteur avec pour hypothèse un recouvrement uniforme de la surface des sulfures par les xanthate. L'organisation et la distribution du film hydrophobe peut cependant être hétérogène mais l'hypothèse d'un recouvrement uniforme permet tout de même d'appréhender les mécanismes responsables de la flottation des sulfures (Granville et al., 1972). L'étude de Granville et al. (1972) souligne le manque de précision au sujet des paramètres utilisés pour calculer ce taux de recouvrement. Cette remarque est également d'actualité en ce qui concerne l'encombrement stérique des xanthates. Le Tableau 1.4 présente une synthèse des

valeurs utilisées dans la littérature en fonction du type de xanthate ainsi que les méthodes employées pour déterminer cet encombrement stérique.

Tableau 1.4 Valeurs d'encombrement stérique superficiel de différents types de xanthates utilisées dans la littérature pour calculer le taux de recouvrement des xanthates

Xanthate	Encombrement stérique ( $\text{\AA}^2/\text{molécule de xanthate}$ )	Méthode ou source utilisée	Référence
ÉthylX	29	Aire maximale de la section transversale d'une chaîne carbonée	Gaudin, 1946
ÉthylX	29	Gaudin, 1946	Finkelstein et al., 1975; Prestidge et Ralston 1996
ÉthylX	35	Aire de la maille cristalline de la galène (hypothèse : adsorption d'une molécule de xanthate par maille cristalline)	Granville et al., 1972
IsopropylX	29	Aire maximale de la section transversale d'une chaîne carbonée	Gaudin, 1946
IsobutylX	30	Hypothèse Granville et al. (1972) appliquée à la pyrrhotite	Allison et O'Connor, 2011
AmylX	23	Aire de la section transversale du groupement $\text{CS}_2$	Gaudin et Schuhmann, 1936
IsomylX	29	Hypothèse Gaudin, 1946	Kongolo, 1991; Mermillod-blondin, 2005; présente thèse
HexylX	29	Hypothèse Gaudin, 1946	Finkelstein et al., 1975
HeptylX	23	Hypothèse : adsorption de deux molécules de xanthate par maille cristalline de ZnS synthétisé	Fredriksson et al., 2006

Bien que les travaux menés par Gaudin (1946) déterminent l'encombrement stérique des xanthates par la section transversale du groupement  $\text{CS}_2$  ou de la chaîne carbonée, Granville et al. (1972) recommande d'utiliser l'aire de la section (100) de la maille élémentaire du sulfure pour les xanthates à chaînes linéaires. Cette méthode est également employée pour



déterminer le taux de recouvrement des xanthates sur différents sulfures (pyrite, galène, sphalérite) à travers les travaux de Fuerstenau et al. (1990) et Allison et al. (2011). En revanche, pour les chaînes longues et/ou ramifiées, cette méthode n'est pas conseillée (Granville et al., 1972) car celles-ci ont une plus large section transversale que leur équivalent à chaîne linéaire (Somasundaran, 2006). L'encombrement stérique superficiel, également appelé aire de recouvrement spécifique des xanthates, a été définie par Gaudin (1946) comme étant l'aire de la section transversale de la molécule. Il est possible de calculer cette aire en prenant en compte la longueur des liaisons interatomiques et un angle tétraédrique de  $109,5^\circ$  caractéristique des chaînes hydrocarbonées saturées.

L'efficacité de la désulfuration environnementale par flottation est tributaire des mécanismes fondamentaux qui sont à la base de la formation d'un film hydrophobe autour des sulfures à collecter tout en devant tenir compte de l'effet du procédé antérieur sur la physico-chimie des surfaces. Il s'agit donc d'atteindre une meilleure compréhension de l'adsorption des collecteurs sur différents sulfures à l'échelle moléculaire de façon à pouvoir améliorer les pratiques de la désulfuration à l'échelle de la collection du concentré de sulfures par flottation en laboratoire.

### 1.5 Objectifs et hypothèses

Les études antérieures effectuées sur la désulfuration par le biais de la flottation ont pu démontrer l'efficacité de ce procédé à produire un résidu non générateur d'acide et un concentré de sulfure plus ou moins dilué et ce pour des typologies de minerais différentes et des procédés différents (présence ou non de cyanures). Cependant, à ce jour, le potentiel de génération de drainage neutre contaminé (cas de l'arsenic en particulier) des résidus de désulfuration reste encore une préoccupation (Bussière et al, 2005). D'autre part, la présence potentielle d'arsénopyrite dans les rejets miniers n'a pas encore été abordée dans les études antérieures consacrées à la désulfuration environnementale. Il en est de même pour ce qui est des sulfures de taille grossière ( $>150 \mu\text{m}$ ) et leur comportement durant la désulfuration. Cette dernière problématique trouve à ce jour une application dans le cas du minerai d'hémioilménite exploité par Rio Tinto Fer et Titane (Dumaïs et al, 1999).

Au vu de ce qui a été énoncé, les principaux objectifs de ce travail de recherche sont les suivants :

- i. définir des méthodes de concentrations de sulfures adaptées à la désulfuration de produits miniers possédant des caractéristiques minéralogiques et granulométriques diverses.
- ii. caractériser les mécanismes fondamentaux à la base de la constitution d'un film hydrophobes permettant la flottation des sulfures, notamment de la pyrite de taille grossière et de l'arsénopyrite, dans le but de diminuer le potentiel polluant des produits miniers.

De cela découle quatre différents objectifs spécifiques :

- a) Optimisation de la désulfuration de pyrites à l'état grossier (supérieures à 150  $\mu\text{m}$ ), par l'amélioration des rendements de désulfuration et caractérisation des mécanismes d'interaction entre différents types de xanthates et les espèces superficielles présentes à la surface de différentes fractions de pyrites.
- b) Optimisation de la désulfuration de l'arsénopyrite et compréhension des mécanismes surfaciques intervenant dans la flottation de ce sulfure.
- c) Caractérisation des eaux de drainage et évaluation du potentiel polluant des rejets de désulfuration produits lors de cette étude; applications au cas des minerais de la mine Lapa et la mine Tio.

L'hypothèse principale, à savoir que la désulfuration environnementale produit un rejet désulfuré qui respecte les normes environnementales en termes de DMA et même de DNC, est à la base de ce projet. Il faut aussi démontrer que : i) les mécanismes surfaciques connus de la flottation de la pyrite de taille typique, s'appliquent pour la pyrite grossière et à l'arsénopyrite de taille typique de rejet minier, ii) le résidu désulfuré produit n'est pas générateur de DNC (cas de l'arsénopyrite).

## 1.6 Structure de la thèse

Le présent chapitre (chapitre 1) offre une synthèse non exhaustive des connaissances concernant les travaux de désulfuration ainsi que sur l'état de surface de sulfure tel que la

pyrite et l'arsénopyrite et l'adsorption de xanthate à leur surface. De nombreuses revues de littérature très complètes ont été écrites parmi lesquels Rao (1971), Tiekink et Haiduc (2005) et Lotter et Bradshaw (2010) sur la chimie des xanthates, Rimstidt et Vaughan (2003) et Murphy et Strongin (2009) sur la caractérisation surfacique de la pyrite; Corkhill et Vaughan (2009) sur la caractérisation surfacique de l'arsénopyrite. Les mécanismes d'activation, de dépression et de collection des sulfures en flottation ont également fait l'objet d'états de l'art (Bruckard et al., 2011; Chandra et Gerson, 2009; Duc, 1992; Mermillod-Blondin, 2005), ainsi que la flottation des particules grossières (Jameson, 2010; Newcombe et al., 2012).

Pour répondre aux objectifs de la thèse, celle-ci est composée de 7 autres chapitres. Le chapitre 2 concerne la caractérisation surfacique de pyrites pures de trois fractions couvrant une large gamme granulométrique (32  $\mu\text{m}$  à 400  $\mu\text{m}$ ) après broyage, oxydation et conditionnement pour la flottation à différent pH. Des outils d'analyse surfacique complémentaires sont combinés de façon à évaluer la structure tridimensionnelle de la surface de la pyrite tels que la spectroscopie aux rayons X (XPS) et la spectroscopie infrarouge à transformée de Fourier (FTIR), qui ont respectivement une profondeur d'analyse de quelques nanomètres et de quelques microns.

Le chapitre 3 décrit l'adsorption de différents types de xanthates sur les différentes fractions de pyrite pure. L'impact de la longueur de la chaîne et le degré de ramification de la chaîne alkyl est évalué à travers la composition et la quantité de phases xanthées adsorbées.

Le chapitre 4 décrit l'application de la désulfuration environnementale au minerai d'hémioilménite de Rio Tinto Fer et Titane par l'utilisation de xanthate à chaîne longue sur la flottation de la pyrite grossière contenue dans ces minerais en vue de diminuer les émissions de  $\text{SO}_2$ . Les tests de flottation ont été menés à l'échelle du laboratoire en cellule Denver et l'influence du pH de conditionnement et de l'ajout d'activant ont été également étudiés.

Le chapitre 5 permet de s'intéresser à un autre minéral et décrit ainsi l'évolution de l'état de surface de l'arsénopyrite pure suite au broyage et au conditionnement (pH, activant, collecteur). Comme pour l'étude surfacique de la pyrite, les outils d'analyse surfacique de spectroscopie de rayon-X et infrarouge à transformée de Fourier sont utilisées. L'ablation ionique couplée à la spectroscopie aux rayons X a été utilisé afin d'évaluer la composition

chimique des phases oxydées sous-jacentes car la spectroscopie infrarouge s'est avérée incapable de caractériser de façon satisfaisante la surface de l'arsénopyrite en raison de la faible abondance des phases oxydées (faible épaisseur).

Le chapitre 6 développe une application de la désulfuration environnementale en vue de prévenir la formation de drainage neutre contaminé à l'arsenic pour les rejets de la mine Lapa (Agnico-Eagle Mine Ltd.). L'arsénopyrite est la principale phase arsénifère du minerai. Les tests ont été menés à l'échelle du laboratoire sur le site de la mine Lapa pour travailler sur des pulpes non vieillie et représentatives du procédé. L'influence de différents paramètres tels que le pH de conditionnement, le type de xanthate et l'activation au sulfate de cuivre sur la récupération et la cinétique de flottation à été évalué.

Ensuite, le chapitre 7 correspond à la caractérisation environnementale des produits issus de la désulfuration du minerai de la mine Lapa en vue d'évaluer l'efficacité de la désulfuration environnementale pour la prévention du drainage neutre contaminé à l'arsenic. Des tests statiques et cinétiques en mini-cellules d'altération sont utilisés comme outil de caractérisation environnementale. Les phénomènes de sorption sont également pris en compte dans l'étude.

Enfin, le chapitre 8 rassemble les principales conclusions et recommandations issues de ce travail de doctorat.

### **1.7 Originalité et principales contributions**

Ce projet s'inscrit d'une part dans la continuité d'un ensemble de travaux portant sur la recherche d'outils visant à diminuer le potentiel polluant de produits miniers lors ou après leur traitement, et d'autre part dans la continuité d'études permettant d'améliorer la compréhension des mécanismes surfaciques intervenant durant la désulfuration par flottation. L'originalité de cette thèse repose en partie sur l'utilisation conjointe de deux techniques de caractérisation surfacique complémentaires (XPS et FTIR) pour l'étude fondamentale de la pyrite et de l'arsénopyrite de haute pureté. Le présent projet a permis d'évaluer l'impact de la granulométrie sur la composition chimique surfacique de la pyrite ainsi que sur l'adsorption de xanthate de longueur de chaîne différente. Ce projet contribue donc à une meilleure

compréhension des mécanismes de formation des phases oxydées à la surface de différents types de sulfures ainsi qu'à une meilleure connaissance au sujet des mécanismes d'adsorption des xanthates en fonction de leur type de chaîne et de la granulométrie des sulfures. Par ailleurs, Les études de la flottation de particules grossières appliquée à un produit minier sont peu présentes dans la littérature. Enfin, la principale originalité de ce projet est d'ouvrir le champ d'utilisation de la désulfuration environnementale en tant que gestion intégrée des rejets miniers à un champ plus large de diminution du potentiel polluant des produits miniers.

## CHAPITRE 2

### SURFACE CHEMICAL CHARACTERIZATION OF PYRITE OF DIFFERENT SIZE FRACTIONS FOR FLOTATION PURPOSES

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#### 2.1 Abstract

A surface chemical approach of different pyrite size fraction is developed in this paper in the prospect of addressing the well-known coarse pyrite flotation challenge for environmental purposes. This work aims at exploring the effect of particle size on pyrite surface chemistry through the study of three pyrite size fractions up to 425 µm. Pyrite surface evolution was investigated through dry crushing, air oxidation and aqueous conditioning using X-Ray

photoelectron spectroscopy (XPS) and diffuse reflectance infrared spectroscopy (DRIFT) as complementary surface characterization tools. XPS, which characterized the outmost surface (about 40 Å depth), indicated that pyrite size fraction did not impact its surface chemistry after crushing. However, DRIFT which characterizes the whole oxidation layer, led to the conclusion that ferric sulphate was more abundant in the finer fraction than in the two coarser fractions. Those two surface characterization tools allowed a thorough insight into the three-dimensional oxidation products structures of pyrite from different size fractions. The surface evolution of coarse fractions had the same surface evolution trend when submitted to aging and conditioning processes than the fine pyrite size fraction, studied in previous works, in terms of surface species speciation and their relative proportion. Those results led to a better understanding of particle size impacts on pyrite surface chemistry.

## 2.2 Introduction

Pyrite, as a quasi-ubiquitous and usually barren mineral, is often encountered within mine tailings generated by polymetallic ore processing plants. This metallic sulphide can be the source of contaminated (acid or neutral) mine drainage when it oxidizes under certain conditions (Aubertin et al., 2002). Tailings desulphurization using flotation in order to control acid mine drainage has already been proved successful on several mine tailings (Benzaazoua et al., 2008; Benzaazoua et al., 2000; Benzaazoua and Kongolo, 2003; Bruckard and McCallum, 2007; Kongolo et al., 2004; Leppinen et al., 1997; Yalcin et al., 2004). However, flotation faces some limitations as in the case of coarse particles encountered in some mine products. For example, in the hemo-ilmenite ore exploited by Rio Tinto Fer et Titane (RTFT) at Sorel-Tracy (Canada), pyrite occurs mainly as coarse particles and is eliminated by roasting, resulting in large amount of SO<sub>2</sub> emissions in the atmosphere. Reducing this pollution, in order to meet the requirements of more severe regulations, by environmental desulphurization using flotation prior to roasting, is a promising option. Ideally, the latter should be performed without additional grinding to facilitate pyrite flotation as further grinding is not economic for the operator. Coarse pyrite flotation is a technical challenge that has been addressed mainly through hydrodynamic considerations (De Gontijo et al., 2007; Jameson, 2005; Rodrigues et al., 2001; Shahbazi et al., 2008; Tao, 2004; Van Deventer et al.,

2002) and little through surface physico-chemistry investigations (Brito e Abreu and Skinner, 2011; Dunn et al., 1993).

Surface chemistry of pyrite prior to collector addition may vary depending on many factors. Among these factors, the grinding conditions and the pulp physico-chemistry are very important (Cases et al., 1989; Cases et al., 1993; De Donato et al., 1999; De Donato et al., 1993; Huang et al., 2006; Kongolo et al., 2004). Pyrite surface is influenced by both the conditioning and the flotation stages and its control is of major importance in sulphide ore flotation. During the conditioning step, pyrite surface chemistry directly affects the collector adsorption ability (Cases and De Donato, 1991; De Donato et al., 1989; Kongolo et al., 2004; Mermillod-Blondin, 2005). During the flotation stage, the successful attachment of pyrite particles to bubbles depends on two sub-processes which are: (i) the bubble-particle collision followed by (ii) the water film drainage between the bubble and the particle, referred as the adhesion process (Derjaguin and Dukhin, 1961; Sutherland, 1948). While the collision process is clearly under hydrodynamic control, the adhesion process depends on the frother properties (Finch et al., 2008) and mostly on the particle hydrophobicity (Lotter and Bradshaw, 2010). The distribution of sites likely to fix collector at the pyrite surface is heterogeneous as demonstrated in many previous works (Bulut et al., 2004; Bulut and Atak, 2002; Hung et al., 2004; Mermillod-Blondin, 2005; Murphy and Strongin, 2009; Wang and Forssberg, 1991). However, the hydrophobicity generated by the adsorption of collector on those specific pyrite surface sites (ferric sulphate or ferric oxyhydroxide rich sites) may be counterbalanced by the presence of hydrophilic species at the pyrite surface (ferric hydrated hydroxylated sulphate and calcium rich phases) (Mermillod-Blondin, 2005). The balance between reactive sites and hydrophilic sites strongly influences particle flotation and pyrite surface chemistry control is therefore determinant to favor collector induced hydrophobicity. Difference in some sulphides reactivity (galena and chalcopyrite) toward grinding media as function of particle size was outlined by Peng and Grano (2010) with fine particles being more easily oxidized (more oxidation products coverage) than the intermediate fractions. It is inferred here that the well-known poor flotation performance of coarse pyrite may be partly related to difference in surface chemistry (oxidation products speciation and coverage) that will influence the overall hydrophobicity and may lead to different reaction mechanism for



collector adsorption (type of phases adsorbed and coverage). The different layers of oxidation phases have different role during the flotation process. The outmost layer created after grinding may be partly dissolved during conditioning and the underneath layer can also be dissolved during xanthates adsorption so that deeper oxidation products will eventually surface and influence the overall hydrophobicity (Ralston, 1991; Smart, 1991; Wang and Forssberg, 1991). The characterization of the whole oxidation layer from the outmost part to deeper layers is therefore important to fully appreciate the influence of pyrite surface chemistry on the flotation performances.

Pyrite surface chemistry, as a complex system, has been extensively studied using a wide variety of surface science tools, particularly spectroscopic techniques, such as X-ray photoelectron spectroscopy (XPS) and diffuse reflectance infrared Fourier transformed spectroscopy (DRIFTS). XPS is a powerful technique at atomic scale that identifies the oxidation products present at the outmost pyrite surface with a signal covering about 40 Å of the mineral (if no ionic ablation is applied). Sulphide samples characterized by XPS vary from slabs (Chandra and Gerson, 2010; Mycroft et al., 1990; Nesbitt et al., 1995), vacuum-cleaved surfaces (Leiro et al., 2003; Pratt et al., 1998), to hydrothermal synthesized powders (Abraitis et al., 2004), dry ground powders (Brienne et al., 1996; Bulut et al., 2004; Caldeira et al., 2008; De Donato et al., 1999; De Donato et al., 1993; Fuerstenau et al., 1990; Godočíková et al., 2002; Jiang et al., 1998; López Valdivieso et al., 2006) and wet ground powders (Hacquard et al., 1999; Huang and Grano, 2006; Huang et al., 2006; Ye et al., 2010). Dry crushing was used to prepare the pyrite size fractions as it reflected the industrial reality of RTFT ore processing site at Sorel-Tracy, (Canada) which only uses cone crushing as comminution, although this comminution process might not be often used in the mining industry as wet grinding would be (Bruckard et al. 2011). The authors assume that one hour pH conditioning is sufficient to bring the mineral surface in equilibrium with the solution (Brienne et al., 1996; Bulut et al., 2004; Caldeira et al., 2008; De Donato et al., 1999; De Donato et al., 1993; Fuerstenau et al., 1990; Godočíková et al., 2002; Jiang et al., 1998; López Valdivieso et al., 2006).

Diffuse reflectance infrared Fourier transformed spectroscopy (DRIFT) is used to identify oxidation products present at the pyrite surface at molecular scale with a penetration depth of

the IR radiation covering the first 25000 Å (De Donato et al., 1993). Coarse particles characterization using DRIFT has featured in a few recent publications like Nocentini et al. (2010) who used infrared diffuse reflectance to investigate four charcoal fractions from <0.5 mm to 2 mm with high quality spectra for all fractions. Carmona-Quiroga et al. (2009) applied diffuse reflectance to limestone and granite with size fraction from 45 µm to 425 µm and obtained high quality spectra for size fractions up to 90 µm for granite and 125 µm for limestone. Dunn et al. (1993) obtained also high quality spectra on four pyrite fractions from less than 20 µm to 90 µm. Furthermore Jiang et al. (1998) succeeded in floating in micro-flotation cell pyrite up to 150 µm but without any surface characterization.

Pyrite reactivity, composition and electrical properties have been widely reviewed in many studies (Abraitis et al., 2004; Hu et al., 2006; Murphy and Strongin, 2009; Nesbitt et al., 1995; Rimstidt and Vaughan, 2003). However, the need for further and more detailed understanding of surface oxidation species organization and speciation is still important as discussed in the recent review paper of Murphy and Strongin (2009).

The main purpose of this work is to investigate pyrite surface evolution as a function of particle size up to 425 µm in different conditions (after crushing, aging and conditioning at different pHs) in the prospect of linking these findings to the collector surface adsorption ability. Such pyrite surface evolutions are mainly investigated here by XPS and DRIFT, where DRIFT resolution is tested for pyrite particles size up to 425 µm. Spatial distribution of these oxidized species is also discussed.

## **2.3 Material and method**

### **2.3.1 Samples preparation**

High grade pure pyrite samples were obtained from the Huanzala mine site (Peru), a Zn-Pb ore of adularia-sericite type (Imai, 1999). For the experiment, minerals were dry crushed in a closed anvil steel mortar and pestle (Abich's mortar components and use are fully described in Rose (1845)). Pyrite was then sieved to obtain one of the three different size fractions needed for the experiment (F1=32-63 µm; F2=63-150 µm; F3=150-425 µm). Cycles of crushing (three blows) and sieving of one of the fraction were repeated with withdrawal of the targeted sieved fraction and of the overcrushed fraction at each cycle until enough

samples were created for the experiment. The fractions were obtained separately, but this procedure ensures that similar energy and crushing time (as three blows) is applied to create the samples whatever the fraction. It is assumed that the three fractions can be compared as resulting from a similar crushing time. The F1 fraction was used as a reference fraction proved to result in high quality spectra with DRIFT. The F2 and F3 fractions were chosen as the major coarse pyrite fractions present in an existing case, the hemo-ilmenite ore treated at the Rio Tinto, Fer et Titane (RTFT) smelter in Sorel (Quebec, Canada). The crushed samples were stored in a freezer in an airtight bag and used within three days to avoid surface oxidation. Mineral aqueous conditioning was realized by addition in a centrifuge tube of 2 grams of pyrite into 20 mL of a solution of ultrapure water (Millipore filtration system, 18.2 M $\Omega$ .cm at 25 °C) containing different NaOH concentrations. Testing tubes were then placed on a rotory shaker at a constant temperature of 30°C for one hour. The amount of NaOH added was calibrated to obtain the targeted pH value at the end of the pH conditioning time (1 hour). The solid and liquid phases were then separated by centrifugation (10000 RPM for 20 minutes). The equilibrium solution was analysed for pH and Eh, the filtered solid was dried on a filter paper for a short time, sampled and analyzed by DRIFT. The sample analyzed by XPS was stored undried in a nitrogen filled glove box to avoid oxidation. Some samples were stored at room temperature to evaluate the impact of air-oxidizing conditions (aging) on the different pyrite size fractions.

### **2.3.2 Physical, chemical and mineralogical characterization methods**

Specific gravity ( $G_s$ ) of the pyrite sample was determined with a helium pycnometer (Micromeritics, Accupyc 1330). Particle size distribution of sieved fractions of pyrite was determined using a Malvern Mastersizer laser particle size analyser. The Specific surface area (SSA) was analyzed by a Micromeritics surface area analyser using the B.E.T method (Brunauer et al., 1938). The chemical composition of the high grade pyrite sample was evaluated through a complete digestion in HNO<sub>3</sub>/Br<sub>2</sub>/HCl/HF; the obtained solution was then analyzed using an inductively coupled plasma and atomic emission spectroscopy (ICP-AES, Perkin Elmer). Mineralogical characterization was carried using Bruker A.X.S. D8 advance x-ray diffraction (XRD) instrument equipped with a copper anticathode.

### 2.3.3 Surface characterization instrumentation

#### 2.3.3.1 X-ray photoelectron spectroscopy (XPS)

XPS analysis were performed using a KRATOS Axis Ultra X-ray photoelectron spectrometer (Kratos Analytical, Manchester, UK) equipped with a monochromated AlK $\alpha$  X-ray source ( $h\nu=1486.6$  eV) operated at 150 W. No charge neutralisation device was used for the analysis of the pyrite samples. Spectra were collected at normal ( $90^\circ$ ) take-off angle and the analysis area was  $700\times 300$   $\mu\text{m}$ . The base pressure in the analytical chamber was  $10^{-9}$  mbar during XPS measurements. Wide scans were recorded using an analyser pass energy of 160 eV and narrow scans using a pass energy of 20 eV (instrumental resolution better than 0.5 eV). Charge correction was carried out using the C(1s) core line, setting adventitious carbon signal (H/C signal) to 284.6 eV (Mullet et al., 2008). Spectra for iron, oxygen and sulphur were fitted using a Shirley background and a Gaussian/Lorentzian (70/30) peak model. XPS analyses were carried at room temperature on pyrite samples after crushing for the three fractions (reference state) and on the 150-425  $\mu\text{m}$  fraction after conditioning at natural pH for comparison. The powder pyrite samples were mounted on the sample nub using scotch double side conductive Cu tape.

#### 2.3.3.2 Diffuse reflectance infrared Fourier transform spectroscopy (DRIFTS)

Infrared spectra were recorded with a Fourier transform infrared spectrometer Bruker IFS 55 equipped with a mercury-cadmium telluride (MCT) detector and connected to a diffuse reflectance attachment from Harrick. Optical line was adjusted to avoid contribution of specular reflection. Sample preparation involved a 15% dilution of sample in KBr (Cases and De Donato, 1991). Data were obtained in the range  $7000-500$   $\text{cm}^{-1}$  with a spectral resolution of  $2$   $\text{cm}^{-1}$  using a KBr background. All diffuse infrared spectra are shown in absorbance units ( $\log R_{\text{KBr}}/R_{\text{sample}}$ , with R being the intensity of the diffused part) (De Donato et al., 1999; De Donato et al., 1993).

## 2.4 Results and discussion

### 2.4.1 Physical, chemical and mineralogical characterization of pyrite samples

XRD spectrum (not presented herein) confirmed that pyrite samples were of high purity. Trace minerals may be present but could not be clearly identified through XRD analysis.

Calculation from elemental analysis of the samples showed that pyrite samples were pure at 94 wt. % with a specific gravity of 5.2, typical of pyrite minerals (Table 2.1).

Table 2.1 Physical and chemical analysis of pyrite sample

Element	Pyrite Sample
S (wt. %)	50.5
Fe (wt. %)	47.4
Pb (ppm)	4360
Cu (ppm)	3920
As (ppm)	250
Zn (ppm)	650
Bi (ppm)	470
Al (ppm)	90
Ca (ppm)	2070
Mg (ppm)	50
Mn (ppm)	40
Sb (ppm)	20
Co (ppm)	20
Ni (ppm)	10
<b>Pyrite (wt. %)</b>	<b>94</b>
<b>Specific gravity (G<sub>s</sub>)</b>	<b>5.2</b>

Physical characterizations of samples are presented in Table 2.2 indicating the size distribution of the different fractions and their specific surface area which decrease with increase of particle size.

Table 2.2 Particle size analysis and specific surface analysis of the different pyrite size fractions

	Pyrite Sample		
	F1: 32-63 $\mu\text{m}$	F2: 63-150 $\mu\text{m}$	F3: 150-425 $\mu\text{m}$
D10 ( $\mu\text{m}$ )	37.8	94.5	148.3
D50 ( $\mu\text{m}$ )	60.7	158.2	228.5
D90 ( $\mu\text{m}$ )	105.6	229.8	297.4
Cu=(D60/D10)	1.8	1.8	1.6
SSA <sup>1</sup> (m <sup>2</sup> /g)	0.11	0.06	0.03

<sup>1</sup>: Micromeritic analyser

#### 2.4.2 Surface characterization of different pyrite size fractions

XPS and DRIFT analyses, conducted on pyrite after crushing, and aging as well as after aqueous conditioning at different pHs, are presented respectively in sections 2.4.2.1 and 2.4.2.2. For each technique, a quick literature review is presented as guideline for X-ray photoelectron and diffuse reflectance infrared spectra interpretations. Sections 3.2 structure

allows characterization of the superficial oxidation layer from its outmost part with XPS investigation to deeper analysis with infrared spectroscopy (Abratis et al., 2000; De Donato et al., 1993; Dunn et al., 1993; Eggleston et al., 1996).

#### 2.4.2.1 XPS analysis: outmost surface products characterization

XPS analysis presented in Table 2.3 was performed on the three size fractions of crushed pyrite and on the coarser pyrite after conditioning and allows characterization of the outmost surface products of these samples. Peak assignment was achieved through published binding energy data (Table 2.3). Main interpretations are argued on the bases of S( $2p$ ), Fe ( $2p_{3/2}$ ), O( $1s$ ) and C( $1s$ ) core levels data.

##### - Interpretation of S( $2p$ ) spectra

S( $2p$ ) spectra were all fitted using doublets  $2p_{3/2}$  and  $2p_{1/2}$  separated by a spin-orbit splitting of 1.18 eV, a peak area ratio of 2:1 and same widths. Typical curve fitting obtained for S( $2p$ ) high resolution spectrum of the crushed F1 fraction is presented in Figure 2.1A and the corresponding fitting parameters are reported in Table 2.3. The major contribution of the S( $2p$ ) spectrum was the peak with binding energy at 162.6 eV assigned to disulphide from lattice pyrite (Cai et al., 2009; Nesbitt et al., 1998). Its contribution is similar for all fractions with a small increase with increase of particle size from 67 at. % for the F1 fraction and 72 at. % for the F2 and F3 fractions. Conditioning increases slightly the disulphide signal to 74 at. % for the F3 fraction. The peak at 161.7 eV was assigned to monosulphide ion issuing from redox reactions since monosulphides formed by the rupture of S-S bonds are highly reactive phases that oxidize rapidly into sulphate or disulphide (Schaufuss et al., 2000). The contribution of monosulphide ion decreases with increase of particle size and with conditioning.

Table 2.3 XPS analysis of the pyrite samples and interpretation for S(2p), Fe(2p) and O(1s).

Pyrite size fraction	After crushing						After conditioning (Natural pH)						Interpretation		
	32-63 µm (F1)		63-150 µm (F2)		150-425 µm (F3)		150-425 µm (F3)		O.N.	State	Species				
S(2p <sub>3/2</sub> )*	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	O.N.	State	Species				
	161.70 (0.9)	7.0	161.66 (0.9)	6.9	161.68 (0.8)	5.6	161.80 (0.9)	2.8	S(-II)	Surface	Monosulphide <sup>ab,c</sup>				
	162.57 (0.7)	66.7	162.54 (0.7)	71.6	162.54 (0.7)	71.8	162.43 (0.7)	75.9	S(-I)	Lattice	Pyrite (disulphide) <sub>a,b,d</sub>				
	164.23 (1.6)	12.4	164.5 (1.4)	12.8	164.60 (1.6)	12.4	164.5 (1.4)	15.0	S(0)	Surface	Elemental sulphur/polysulphide <sub>a,e</sub>				
	168.58 (1.1)	13.8	168.60 (1.5)	8.7	168.60 (1.6)	10.3	168.1 (2.0)	6.3	S(VI)	Surface	Sulphate <sup>b,c,d,i</sup>				
Fe(2p <sub>3/2</sub> )**	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	O.N.	State	Species				
	707.36 (0.9)	62.2	707.36 (0.9)	65.4	707.36 (0.9)	66.2	707.21 (0.9)	67.1	Fe(II)	Lattice	Pyrite <sup>cd,gn</sup>				
	709.03 (2.2)	18.4	709.03 (2.2)	20.3	709.03 (2.2)	19.6	708.93 (2.2)	21.1	Fe(II/III)	Surface	Fe(II) oxide or Fe(II) monosulphide <sub>b,gh</sub>				
	711.45 (2.3)	15.0	711.45 (2.3)	10.7	711.45 (2.3)	10.3	711.40 (2.3)	9.4	Fe(II/III)	Surface	Fe(II) oxide or Fe(II) sulphate <sub>b,d</sub>				
	713.31 (2.2)	4.5	713.31 (2.2)	3.6	713.31 (2.2)	4.0	713.31 (2.2)	2.4	Fe(III)	Surface	Fe(III) sulphate <sup>i</sup>				
O(1s)	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	O.N.	State	Species				
	530.19 (1.5)	2.8	530.16 (1.3)	3.2	530.19 (1.3)	6.2	530.11 (1.4)	5.8	O(-II)	Surface	Oxide <sup>u,v,w,j</sup>				
	531.94 (1.6)	70.6	531.86 (1.8)	81.2	531.88 (1.8)	74.2	531.45 (1.9)	58.6	O(-II)	Surface	Hydroxide <sup>u,v,w,j</sup>				
	-	-	-	-	-	-	532.92 (1.9)	35.6	O(-II)	Surface	Adsorbed water <sup>b,d,i,j</sup>				
	533.84 (2.0)	13.0	533.82 (2.0)	10.7	533.63 (2.0)	14.6	-	-	O(-II)	Surface	Adsorbed water /sulphate <sup>cd</sup>				
	535.82 (2.0)	9.3	535.76 (2.0)	4.9	535.77 (2.0)	5.1	-	-	O(-II)	Surface	Adsorbed water electrically isolated from pyrite <sup>ci</sup>				
	537.57 (2.0)	4.3	-	-	-	-	-	-	O(-II)	Surface					

<sup>a</sup> Cai et al., 2009 ; <sup>b</sup> Nesbitt et al., 1998; <sup>c</sup> Pratt et al., 1996; <sup>d</sup> De Donato et al.,1993; <sup>e</sup> Peng et al., 2012 ; <sup>f</sup> Knipe et al., 1995; <sup>g</sup>Nesbitt et al., 2000; <sup>h</sup> Demoisson et al., 2007; <sup>i</sup> Mullet et al.,2008; <sup>j</sup> Atenas et al., 2005;

Table 2.3 (suite)

\* Spin-orbit doublets were used to fit the data of narrow scan  $S(2p)$ . Only the  $S(2p_{3/2})$  peak position is indicated.  $S(2p_{3/2})$  and  $S(2p_{1/2})$  contributions were summed to obtain the total proportion of each sulphur oxidation state. \*\*  $Fe(2p_{3/2})$  high energy tail spectra have been fitted ignoring the known multiplet splitting of iron as a mean to offer a relative quantification of the different chemical state of iron

The work of Schaufuss et al. (2000) outlines the presence of this high energy tail for pyrite  $S(2p)$  spectra. This high energy tail has been reported to correspond to elemental sulphur, polysulphide, thiosulphite and sulphate species (Nesbitt and Muir, 1995; Peng et al., 2012). No attempts to separate elemental sulphur from metastable polysulphide have been made since polysulphides presence, that may also be referred to as metal deficient sulphide ( $S_n^{2-}$ ;  $2 < n < 8$ ), appears on XPS spectra with intermediate energies between 162.5 eV to 165.0 eV due to different possible oxidation states while elemental sulphur is reported at 164.0 eV (Nesbitt et al., 1998). Polysulphides are therefore difficult to identify and separate from elemental sulphur by XPS (Mycroft et al., 1990; De Donato et al., 1993; Nesbitt et al., 1998, Cai et al., 2009; Peng et al. 2012). In this work, the peak at ~164.4 eV is assigned to elemental sulphur and/or polysulphide which were found at this energy in other works (Cai et al., 2009; Demoisson et al., 2008; Peng et al., 2012). Analyses at low temperature (liquid nitrogen cooling) would have confirmed the presence of elemental sulphur which is volatile in ultra-high vacuum at room temperature. The presence of elemental sulphur in XPS spectra at room temperature implies that elemental sulphur was protected from sublimation by other surface products overlayers (Demoisson et al., 2008). Toniazzo (1998) revealed the presence of elemental sulphur not only at the base of oxidation products layer as already demonstrated by De Donato et al. (1993) but also within the oxidation layer. Therefore the elemental sulphur/polysulphides analyzed in this work could belong to the base of very thin oxidation layer or to elemental sulphur/polysulphides mixed with oxides and sulphates from thicker oxidation layer. Sulphates showed a peak at 168.6 eV (Peng et al., 2012).



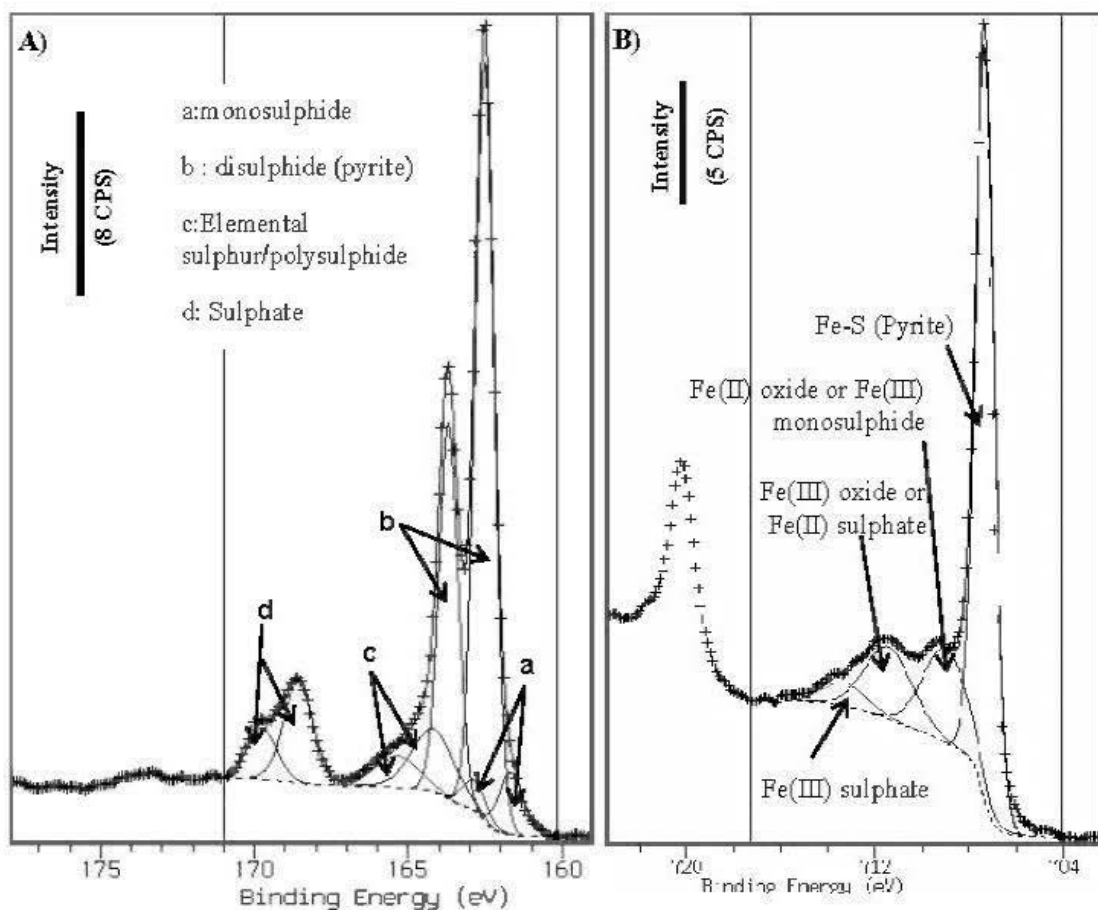


Figure 2.1 XPS analyses of the F1 pyrite fraction (32-63  $\mu\text{m}$ ). Data and fitting of narrow spectra A): S(2*p*) and B) Fe(2*p*)

However given the broadness of this peak (FWHM up to 2 eV, Table 2.3) the presence of thiosulphate cannot be excluded. Thiosulphate presence is however uncertain as it partially overlaps the sulphate peaks (Cai et al., 2009). Fujisawa et al. (1994) outlined the presence of a broad satellite shake-up loss feature in the high energy tail of S(2*p*) spectra assigned to S(3*p*) or Fe(3*p*) transition to S(2*p*). In some works, it is included as an unconstrained contribution (Peng et al., 2012). However, since its binding energy shift and intensity related to lattice  $\text{S}_2^{2-}$  remain unclear and that its contribution is minor (Peng et al., 2012), its contribution was not added to the S(2*p*) fit for the purpose of this paper.

### - Interpretation of Fe( $2p_{3/2}$ ) spectra

XPS narrow Fe( $2p_{3/2}$ ) spectrum of the crushed F1 fraction is presented by Figure 2.1B, as an example of the XPS data since all Fe( $2p_{3/2}$ ) spectra were fitted in the same way. The peak Fe(II)-S at 707 eV corresponds to lattice pyrite according to literature. This narrow symmetrical peak at a low-spin state (no multiplet splitting) is the major contribution to the Fe( $2p_{3/2}$ ) spectrum as also reported in Nesbitt et al. (1998) and Mycroft et al. (1990). Its contribution to the Fe( $2p_{3/2}$ ) spectrum is up to 62 at. % for the F1 fraction, 65 at. % for the F2 fraction and 66 at. % for F3 fraction as illustrated in Table 2.3. Near this strong peak, there is a high-energy tail that goes up to 714 eV. Many studies have proposed interpretation of this wedge-shaped tail composed of multiplet peaks of both Fe(II) and Fe(III) species (Mullet et al., 2008; Mycroft et al., 1990; Nesbitt et al., 1998, 2000). Nesbitt et al. (1998, 2000) distinguished Fe(II) and Fe(III) multiplet allowing quantification of Fe(II) over Fe(III) surface product ratio. However, as this work aims at comparing the differences between fractions, a relative quantification of the different chemical states of iron without taking into account the iron multiplet structure was adopted by using broad peaks shapes. This latter approach was used in previous works (De Donato et al., 1999; Lin et al., 1997; Descostes et al., 2001; Cai et al., 2009 and Peng et al., 2012) and avoids the difficulty and uncertainty of separating overlapping multiplet peaks of Fe(II) and Fe(III) (Mullet et al., 2008). In this work, the high energy tail has been fitted with three peaks at 709.0, 711.5 and 713.3 eV; the first corresponding to ferrous iron oxide or ferric monosulphide, the second to ferric hydroxide or ferrous sulphate and the third to ferric sulphate (Table 2.3). Ferric monosulphide has been reported to form at the pyrite surface due to rupture of the S-S bond and stabilization through electron transfer from adjacent iron sites by Nesbitt et al. (1998) although pyrite fracture conditions were very different from this study (vacuum-fractured pyrite). This hypothesis was corroborated through charge analysis by Von Oertzen et al. (2006). The presence of Fe(III)-S signals could also be attributed to pyrrhotite impurities within the pyrite samples (although no pyrrhotite could be detected by XRD) or to oxidation after crushing (Demoisson et al. 2008).

### - Interpretation of O(*1s*) spectra

XPS narrow O(*1s*) spectra of the four samples are presented in Figure 2.2, as different fittings were required for each spectrum. All samples show peaks at 530.2 eV and 531.9 eV corresponding to oxide and hydroxide respectively (Nesbitt et al., 1998; Atenas et al., 2005; Mullet et al., 2008). The spectra differ for peaks at higher energies. The crushed samples (Figure 2.2A, B,C) have a peak at 533.8 eV which can be interpreted as sulphate or adsorbed water (Table 2.3). This attribution is uncertain due to overlapping peaks of sulphate and adsorbed water. The peak at 532 eV appearing on the conditioned pyrite (Figure 2D) was attributed to adsorbed water (Atenas et al., 2005; Mullet et al. 2008; Chandra et al., 2011b). All crushed samples have spectra with a high energy tail fitted with two peaks at 535.8 eV and 537.6 eV. The high energy tail with binding energy above 535 eV scarcely appears in O(*1s*) spectra but was encountered by De Donato et al. (1993), Knipe et al. (1995) and Pratt et al. (1996). The presence of this high energy tail was discussed in Knipe et al. (1995) and confirmed by Pratt et al. (1996) as contribution of water clusters electrically isolated from the sulphide surface, contrary to chemisorbed water in electrical contact with the sulphide, which has a lower binding energy between 532 eV and 533 eV. Adsorbed water clusters electrically isolated from pyrite are more abundant in the 32-63  $\mu\text{m}$  fraction (F1) with 14% of the total O(*1s*) signal than in the two other fractions with 5% of the total O(*1s*) signal. The high energy tail of the O(*1s*) scan (attributed to adsorbed water electrically isolated from pyrite) is absent of the conditioned coarse pyrite spectrum. Instead, there is a 36 at % contribution at 532 eV (peak absent from the crushed pyrite spectra), assigned to adsorbed water in electrical contact with pyrite. Chemisorbed water is present in the O(*1s*) scan of the conditioned coarse pyrite fraction which does not present any high energy tail.

The XPS narrow C(*1s*) spectrum did not present any specific interest apart from acknowledging the presence of carbonate with a peak at 288 eV (Peng et al., 2005). Further evidence of carbonate presence by DRIFT.

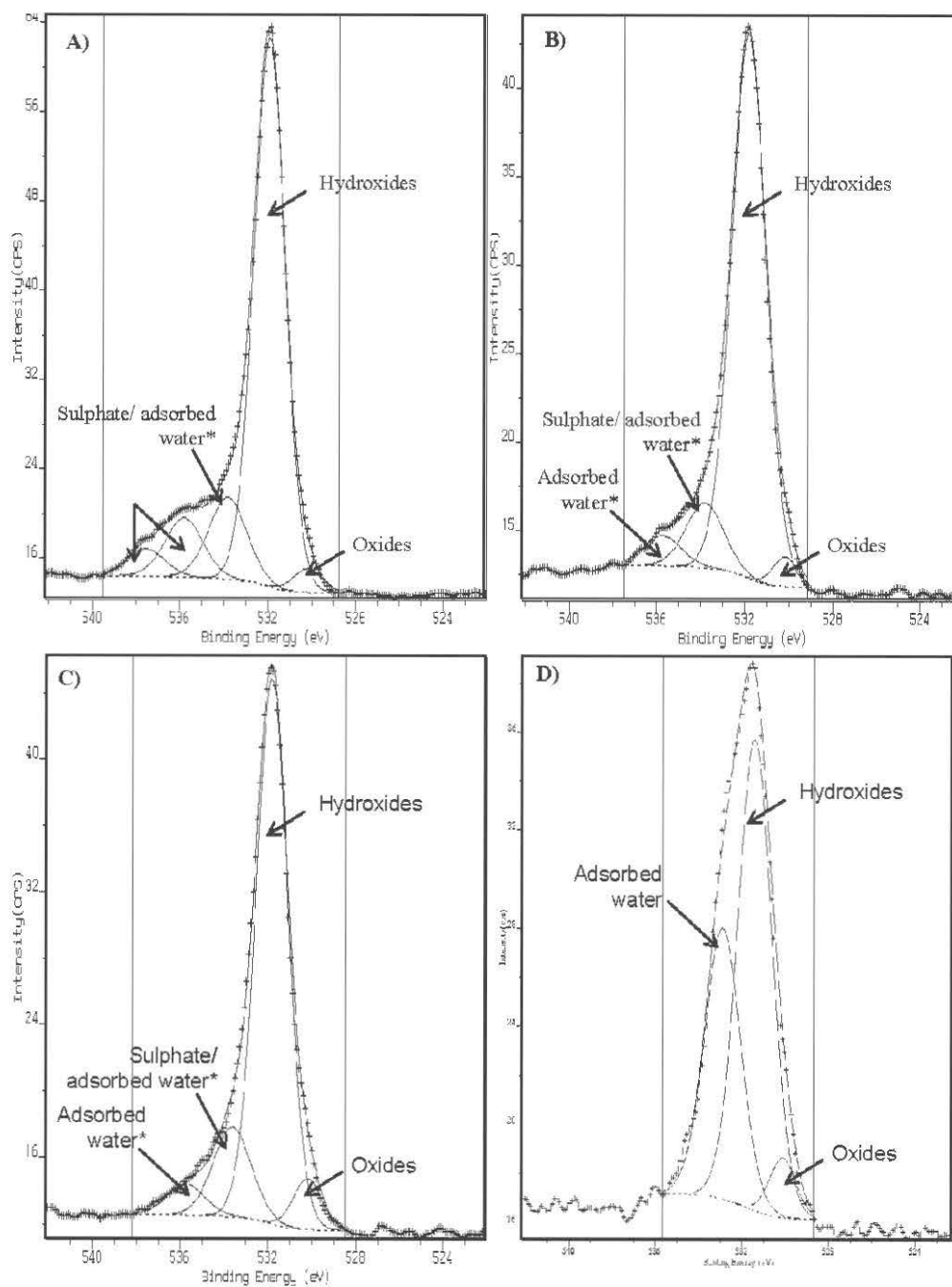


Figure 2.2 Data and fitting of O(1s) narrow spectra of A) F1 fraction; B) F2 fraction; C) F3 fraction after crushing and D) F3 fraction after conditioning at natural pH. \*: adsorbed water electrically isolated from pyrite.

### - Interpretation of calculated ratios

The total  $O(1s)/S(2p)$  ratio is an indicator of the alteration degree of sulphide (Table 2.4) and is calculated directly from the broad scan values (Duc, 1992). The fraction 32-63  $\mu\text{m}$  (F1) has a surface that is a little more oxidized than the other two fractions with a ratio of 1.3 against 0.8 for the two coarser crushed fractions. The ratio of the conditioned fraction does not appear in Table 2.4 as the participation of the adsorbed water from conditioning in the  $O(1s)$  signal biased the ratio. In this table, surface and lattice proportion of sulphur and iron were calculated from the total element atomic percentage (broad scan) weight by the proportion of the element as lattice or surface products as assigned in table 2.3 (narrow scan).

Table 2.4 Ratio of total, lattice and surface elements calculated from XPS results of three pyrite size fraction and the coarser fraction conditioned at natural pH

	After grinding			After conditioning
	32-63 $\mu\text{m}$ (F1)	63-150 $\mu\text{m}$ (F2)	150-425 $\mu\text{m}$ (F3)	150-425 $\mu\text{m}$ (F3)
<b>Total ratio</b>				
$O(1s)/S(2p)$	1.3	0.8	0.8	/
<b>Lattice ratio</b>				
$Fe(2p)/S(2p)$	0.4	0.4	0.4	0.3
<b>Surface ratio</b>				
$Fe(2p)/S(2p)$	0.5	0.5	0.5	0.5
Oxy-hydroxide $_{O(1s)}$ /sulphate $_{S(2p)}$	7.1	7.3	6.1	6.8
<b>Oxidation products (at%)</b>				
$O(1s)$ (Oxy-hydroxide)	23.4	18.5	18.6	12.5
$S(2p)$ (Sulphate)	3.3	2.5	3.0	1.8
$S(2p)$ (Elemental sulphur/polysulphides)	3.0	3.7	3.6	4.3
<b>Lattice products (at%)</b>				
$Fe(2p)$ (Pyrite)	6.1	7.8	8.0	7.0

The lattice ratio  $Fe(2p)/S(2p)$  is 0.4 for all crushed fractions and 0.3 for the conditioned coarse pyrite, which is almost the stoichiometric proportion of pyrite with a slight iron depletion as already encountered in the literature (Smart, 1991). The oxy-hydroxide/sulphate ratio indicates that the crushed fractions 32-63  $\mu\text{m}$  and 63-150  $\mu\text{m}$  present surfaces with the higher proportion of oxy-hydroxide over sulphate with a ratio of 7.1-7.3 followed by the fraction 150-425  $\mu\text{m}$  with a ratio of 6.1. Conditioned coarse pyrite has higher oxy-hydroxide

over sulphate amount (ratio of 6.8) than its equivalent crushed fraction while having a less oxidized surface than the crushed fraction in term of lattice surface coverage (Table 2.4).

Fe(II)/Fe(III) ratio was not calculated due to overlapping Fe(II) et Fe(III) multiplet peaks (Mullet et al., 2008). The lattice signal of pyrite increased with increase of particle size, suggesting less coverage or/and a thinner oxide layer.

In summary, XPS analyzed the oxidation state of about 40 Å of the oxidation layer of the three crushed pyrite fractions and of the conditioned coarser pyrite fraction. Iron sulphates, oxide, hydroxide, elemental sulphur and lattice pyrite were identified in all samples. These results confirm literature data reporting the co-existence of oxidized and unoxidized domains at the pyrite surface (De Donato et al., 1993; Godočiková et al., 2002; Leiro et al., 2003; Pratt et al., 1998). Not much difference appeared at first between the three crushed fractions, indicating that the outmost part of the superficial oxidized layer is quite identical whatever the pyrite particle size. Slight differences arose with further analyses of XPS data: the 32-63µm fraction had the most oxidized surface and, among the three fractions, the 150-425 µm fraction had the lowest oxy-hydroxide over sulphate ratio indicating that sulphate formation is lower for the two coarser fraction as will also be stated by section 2.4.2.2. Conditioning of the coarse pyrite at natural pH for an hour resulted in a hydration of the pyrite surface as showed by the disappearance of the high energy tail of the O(1s) spectra and appearance of a peak at 532 eV assigned to adsorbed water. It also led to partial dissolution of oxides and quasi-total dissolution of sulphates.

Although Fe(II)/Fe(III) ratio could not be calculated due to overlapping Fe(II) and Fe(III) peaks, the three pyrite size fractions have almost the same proportion of each component of the Fe(2p<sub>3/2</sub>) scan, indicating that whatever the Fe(II)/Fe(III) ratio is, the latter doesn't change significantly with pyrite particle size. The conditioned coarse pyrite, however, had less contribution of the high binding energy peaks assigned to ferric sulphate and ferrous sulphate/ferric oxides. As the solution pH is about 4.5, it is expected that dissolution affected mainly the ferric sulphates and ferric oxides (Mermillod-Blondin, 2005).

#### 2.4.2.2 DRIFTS analyses: surface products characterization

The following DRIFTS analyses have been conducted to obtain complementary characterization of the inner part of the oxidized layer developed at the pyrite surface as DRIFTS allows a deeper characterization of the oxidation layer than XPS. DRIFTS analysis was performed on the three size fractions of crushed and aged pyrite as well as on aqueous conditioned pyrite at different pHs. Diffuse reflectance infrared Fourier transformed (DRIFT) spectra peaks were assigned according to literature data (Table 2.5). Main interpretations are argued on the bases of sulphate amount and speciation. It may be reminded that the characteristic IR absorption bands of pyrite are below  $500\text{ cm}^{-1}$  ( $475$ ,  $348$  and  $293\text{ cm}^{-1}$ ) (Cases et al., 1995; De Donato et al., 1999). Consequently, all bands appearing on the DRIFT spectra, in the range  $2000\text{-}600\text{ cm}^{-1}$  are mainly related to the oxidized species formed at the pyrite surface (Cases et al., 1989; De Donato et al., 1999; De Donato et al., 1993). DRIFT spectra could be divided into several peak groups as described in Cases et al. (1989), Cases et al. (1993), De Donato et al. (1999), De Donato et al. (1993) and Kongolo (1991). The peak group  $M_0$ , between  $1500\text{ cm}^{-1}$  and  $1300\text{ cm}^{-1}$ , is related to the superficial carbonate species. The superficial sulphate species are expressed in the peak group  $M_1$  between  $1300\text{ cm}^{-1}$  and  $900\text{ cm}^{-1}$  through two types of sulphate vibration modes: the symmetric stretch,  $\gamma_3$ , usually split into 2 or 3 peaks in the infrared (IR) range of  $1210\text{-}1040\text{ cm}^{-1}$  (Dunn et al., 1992; Evangelou and Huang, 1994) and the asymmetric stretch,  $\gamma_1$ , present as a single sharp peak between  $1030\text{ cm}^{-1}$  and  $960\text{ cm}^{-1}$  (Dunn et al., 1992; Evangelou and Huang, 1994). The integrated area of the  $M_1$  group IR peak (between  $1300\text{ cm}^{-1}$  and  $900\text{ cm}^{-1}$ ) can be correlated to the amount of sulphates present on pyrite surfaces (Dunn et al., 1993; Mermillod-Blondin, 2005). The integrated area of the sulphate IR peak of different particle size distribution couldn't be directly compared because the different components constituting the DRIFTS signal, which are the primary reflection (pR), the primary adsorption (pA) and the diffuse reflection (dR) (Leue et al. (2010) and reference therein) are affected by particle size. The primary reflection increases and diffuse reflectance decreases when particles size increases as is described in Leue et al. (2010) thereby affecting the intensity and the resolution of the DRIFT spectra.

Table 2.5 DRIFTS main peaks position and assignment of pyrite infrared spectra.

DRIFT group	Position (cm <sup>-1</sup> )	Iron oxidation number	Sulphate vibration mode	Band Assignment
	3150-3550	-		Lattice water or hydroxo-group <sup>a,b,c</sup>
	1630	-		Adsorbed water <sup>a,b,d</sup>
M <sub>0</sub>	1490	-		Carbonate <sup>d</sup>
	1430	-		Carbonate <sup>b,d</sup>
	1310	III		Goethite <sup>e</sup>
M <sub>1</sub>	1245	III	v3	Hydroxyl ferric sulphate <sup>f</sup>
	1195	III	v3	Ferric sulphate <sup>a,f</sup>
	1180	III	v3	Ferric sulphate <sup>a</sup>
	1155,1160	III	v3	Hydrated ferric sulphate <sup>a,f</sup>
	1150	II	v3	Ferrous sulphate <sup>f</sup>
	1136; 1140	III	v3	Ferric sulphate (cluster) <sup>g,h</sup>
	1120	II/III	v3	Ferrous and ferric sulphate <sup>a,f</sup>
	1105	II	v3	Ferrous sulphate <sup>g</sup>
	1095	II	v3	Ferrous sulphate <sup>d</sup>
	1090	III	v3	Ferric sulphate <sup>ij</sup>
	1085, 1088	II	v3	Ferrous sulphate <sup>f</sup>
	1075	II	v3	Hydrated ferrous sulphate <sup>k,l</sup>
	1060	II/III	v3	Hydroxyl ferric sulphate or anhydrous ferrous sulphate <sup>a,m</sup>
	1045	III	v3	Ferric sulphate <sup>a,h,n</sup>
	1036	III	v1	Ferric sulphate <sup>h,n</sup>
	1018	III	v1	Hydrated ferric sulphate <sup>a</sup>
	1012, 1015	II	v1	Ferrous sulphate <sup>d</sup>
	1005	III	v1	Ferric sulphate <sup>j</sup>
	998	II	v1	Anhydrous ferrous sulphate <sup>g</sup>
	980	II	v1	Hydrated ferrous sulphate <sup>k,l</sup>

<sup>a</sup> De Donato et al., 1999; <sup>b</sup> Caldeira et al., 2003; <sup>c</sup> Caldeira et al., 2010; <sup>d</sup> Evangelou and Huang, 1994; <sup>e</sup> Cases et al., 1993; <sup>f</sup> Memillo-Blondin, 2005; <sup>g</sup> Dunn et al., 1992; <sup>h</sup> Paul et al., 2005; <sup>i</sup> Cases et al., 1995; <sup>j</sup> Evangelou et al., 1998; <sup>k</sup> Cases et al., 1989; <sup>l</sup> Cases et al., 1990; <sup>m</sup> Burgina et al., 1996; <sup>n</sup> Boily et al., 2010



Table 2.5 (suite)

DRIFT group	Position (cm <sup>-1</sup> )	Iron oxidation	Sulphate vibration	Band Assignment
M <sub>2</sub>	867	II		Carbonate <sup>d</sup>
	792, 794	-		Iron oxide or oxy-hydroxide <sup>ai</sup>
	762	-		Iron oxide <sup>ai</sup>
	734	-		Iron oxide or oxy-hydroxide <sup>i</sup>
	713	-		Carbonate <sup>a</sup>
	669	-		Iron oxide or oxy-hydroxide <sup>i</sup>
	762	-		Iron oxide <sup>i</sup>
	642	-		Iron oxy-hydroxide <sup>a</sup>
	603	III	v4	Hydrated ferric sulphate <sup>a</sup>
	560	-		Oxide or oxy-hydroxide <sup>g</sup>

<sup>a</sup> De Donato et al., 1999; <sup>b</sup> Caldeira et al., 2003; <sup>c</sup> Caldeira et al., 2010; <sup>d</sup> Evangelou and Huang, 1994; <sup>e</sup> Cases et al., 1993; <sup>f</sup> Memillo-Blondin, 2005; <sup>g</sup> Dunn et al., 1992; <sup>h</sup> Paul et al., 2005; <sup>i</sup> Cases et al., 1995; <sup>j</sup> Evangelou et al., 1998; <sup>k</sup> Cases et al., 1989; <sup>l</sup> Cases et al., 1990; <sup>m</sup> Burgina et al., 1996; <sup>n</sup> Boily et al., 2010

Further investigations would be required to evaluate the contribution of pR and pA components on DRIFT spectra signal intensity allowing determination of a weight factor correcting the integrated area of the sulphate IR peak from the particle size influence. Nevertheless, pyrite particles up to 425 µm were studied here and the sulphate surface area of the different size fraction could be compared after normalization to the sulphate surface area of each size fraction's reference state (before aging or before conditioning).

The peak group M<sub>2</sub> between 900 cm<sup>-1</sup> and 560 cm<sup>-1</sup> is complex and can be related to several types of oxidation species that can form on the pyrite surface. Bands located in this section were subject to controversies and were difficult to assign to specific species since there is a meddling of bands related to goethite, iron sulphate, iron oxide and ferrous sulphide probably as well as a combination of different levels of solid transitions (Cases et al., 1989; Cases et al., 1993; De Donato et al., 1999; De Donato et al., 1993; Kongolo, 1991). Therefore, the present work focused on the interpretation of the M<sub>0</sub> and M<sub>1</sub> peak groups in addition of water related peaks (Table 2.5).

Finally, no significant bands could be observed between  $1900\text{ cm}^{-1}$  and  $3100\text{ cm}^{-1}$  indicating that the samples were free from any organic pollution.

**- Characterization after dry crushing with Abich mortar: reference surface state**

The reference state corresponded to pyrite surface just after dry crushing. This reference state was characterized using DRIFTS for the three pyrite size fractions (Figure 2.3). Figure 2.3 shows high quality spectra with clear band identification for all samples even for the coarser pyrite fraction ( $150\text{-}425\text{ }\mu\text{m}$ ). The presence of well-defined absorption bands on the DRIFT spectra (Figure 2.3) clearly indicates that the surface oxidation layer of the three pyrite fractions have a three-dimensional extension rather than a bi-dimensional one (De Donato et al., 1993; Mermillod-Blondin, 2005). The XPS data were collected on about the first  $40\text{ \AA}$  of a thick oxidation structure. DRIFTS data can be interpreted as a global chemical characterization of the oxidation layer pillar structure. The fraction  $32\text{-}63\text{ }\mu\text{m}$  has a  $M_1$  group centered at  $1105\text{ cm}^{-1}$  assigned to ferrous sulphate (Dunn et al., 1992) (Figure 2.3B). The shoulder at  $1120\text{ cm}^{-1}$  is assigned to a mix of ferrous and ferric sulphate (De Donato et al., 1999; Mermillod-Blondin, 2005). The weak peak at  $1018\text{ cm}^{-1}$  and the shoulders at  $1195\text{ cm}^{-1}$ ,  $1155\text{ cm}^{-1}$  and  $1005\text{ cm}^{-1}$  correspond to ferric sulphate species (De Donato et al., 1999; Evangelou and Huang, 1994; Mermillod-Blondin, 2005). The two fractions  $63\text{-}150\text{ }\mu\text{m}$  and  $150\text{-}425\text{ }\mu\text{m}$  (Figure 2.3B, C) had a similar  $M_1$  group profile centered at  $1085\text{ cm}^{-1}$  corresponding to ferrous sulphate (Mermillod-Blondin, 2005) (center shifted toward lower frequencies compared to the  $32\text{-}63\text{ }\mu\text{m}$  fraction) and a shoulder at  $1155\text{ cm}^{-1}$  assigned to hydrated ferric sulphates (De Donato et al., 1999; Evangelou and Huang, 1994; Mermillod-Blondin, 2005). The integrated surface area under the sulphate IR peaks ( $A(\text{Fi})$ ) decreased with increase of particle size ( $A(\text{F1})=8.7$ ;  $A(\text{F2})=4.6$ ;  $A(\text{F3})=2.6\text{ a.u.}^2$ ) as shown in Table 2.6. This decrease is mainly due to two phenomena:

- the decrease of the intensity of the diffuse part ( $R_{\text{sample}}$ ) due to the predominance of the specular reflection component.
- the decrease of the amount of superficial sulphate species due to the reduction of the crushing energy needed to produce each fraction (even if crushing procedure intended to minimize those differences).

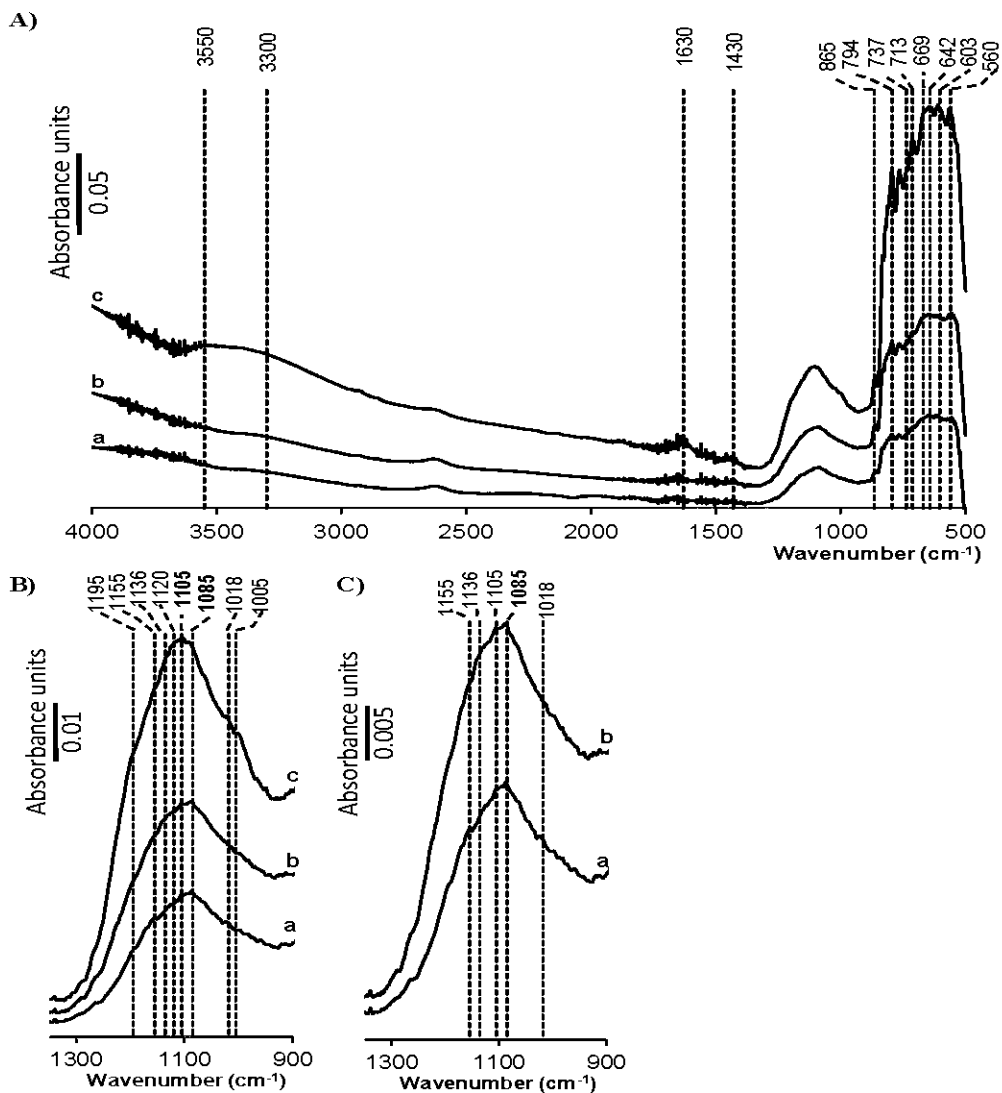


Figure 2.3 DRIFT spectra of three pyrite size fractions after crushing; A): broad spectra from 4000  $\text{cm}^{-1}$  to 500  $\text{cm}^{-1}$ ; B) and C): narrow spectra from 1350  $\text{cm}^{-1}$  to 900  $\text{cm}^{-1}$ ; a: 150-425  $\mu\text{m}$ ; b: 63-150  $\mu\text{m}$ ; c: 32-63  $\mu\text{m}$  (Note change of scale).

Pyrite size fraction 32-63  $\mu\text{m}$  showed a peak of weak intensity at 1430  $\text{cm}^{-1}$  that may be assigned to the symmetric stretching vibration of C-O bond (Caldeira et al, 2008). The latter was absent in the other two fractions either because its intensity was too weak to be distinguished from the signal noise or because coarser pyrite, having a less reactive surface area, had not reacted with ambient  $\text{CO}_2$  to produce iron carbonate (Caldeira et al, 2008).

The hydration of the 32-63  $\mu\text{m}$  fraction was underlined by the peak at  $1630\text{ cm}^{-1}$  assigned to adsorbed water molecules (scissoring vibration mode), and peaks at  $3300$  to  $3550\text{ cm}^{-1}$  assigned to the corresponding stretching vibration mode of water molecules with some overlapping of stretching vibrations of sulphate/iron hydroxyl groups. The decrease of intensity of the IR peaks in the  $3300$  to  $3550\text{ cm}^{-1}$  region and the absence of peaks at  $1600\text{ cm}^{-1}$  for the two other fractions could be interpreted as a decrease or an absence of adsorbed water and hydroxyl groups at the pyrite surface. Elemental sulphur was not accounted for, because its corresponding peak at  $846\text{ cm}^{-1}$  was overlapping with oxides peaks combined with a weak infrared absorption coefficient (De Donato et al., 1999).

DRIFTS gave evidence of some of the different oxidation products of pyrite surface (oxides, sulphate, carbonate) as a function of the pyrite size fractions. Thus, the difference between the 63-150  $\mu\text{m}$  and 150-425  $\mu\text{m}$  size fractions spectra after crushing was not significant in terms of sulphate speciation and hydrated phases. In those two fractions, the profile of the sulphate area, which is centered at  $1085\text{ cm}^{-1}$ , reflects ferrous sulphate predominance. In the 32-63  $\mu\text{m}$  fraction, the asymmetric IR profile of the sulphate bands centered around  $1105\text{ cm}^{-1}$  with weak shoulders at  $1120\text{ cm}^{-1}$  and  $1018\text{ cm}^{-1}$  may reflect a sulphate composition characteristic of a mix of ferrous and ferric sulphate with higher hydration and carbonation than the two other fractions. These observations will serve as guidelines for interpretation of the evolution of chemical surface of pyrite at molecular level.

#### - Evolution of surface chemistry as a function of time: impact of aging

In order to spare numerous figures, the DRIFT spectra presented in this section and the following sections were reported in tables, displaying the peak distribution, intensity and integrated surface area, which may allow a global qualitative and comparative visualization of the IR spectra. The  $\text{M}_2$  group does not appear in the tables since, as explained before, it remained unchanged for all pyrite spectra as mentioned by Cases et al. (1989), Cases et al. (1993), De Donato et al. (1999), De Donato et al. (1993), and Kongolo (1991). Only narrow spectra presenting the sulphate group are presented as figures 2.4 and 2.6. The impact of aging on the evolution of pyrite surface was monitored by DRIFTS for the different size fractions studied. The two fractions 32-63  $\mu\text{m}$  and 63-150  $\mu\text{m}$  had similar oxidation behaviour (Table 2.6 and Figure 2.4). Their spectra both showed a weak carbonate peak at

1430  $\text{cm}^{-1}$  that shifted into a strong peak at 1490  $\text{cm}^{-1}$  at 104 days. This shift may be due to changes in site symmetry (Caldeira et al., 2008). The sulphate band position of both fractions shifted toward higher frequencies. In the 32-63  $\mu\text{m}$  fraction, the shift of the sulphate band center from 1105  $\text{cm}^{-1}$  to 1136  $\text{cm}^{-1}$  can be assigned to a superficial enrichment of ferric sulphate involving a change in the symmetry site of the sulphate groups (Paul et al., 2005). Similarly, the 63-150  $\mu\text{m}$  fraction sulphate area center shifted from 1085  $\text{cm}^{-1}$  attributed to ferrous sulphate to 1136  $\text{cm}^{-1}$ . The two fractions also shared an increase in  $\gamma_3$  vibration mode splitting due to sulphate perturbation (Dunn et al., 1992) and an increase of the integrated sulphate area (Table 2.6 and Figure 2.4). The 63-150  $\mu\text{m}$  fraction surface chemistry changes from predominance of ferrous sulphate and small hydration/hydroxylation at 43 days to high increase of sulphate area combined with ferric sulphate predominance (sulphate group center at 1136  $\text{cm}^{-1}$ ) and high hydration/hydroxylation at 104 days. Assuming that IR absorption coefficients of the different iron sulphate species are similar, sulphate area can be used as a semi quantitative indicator of the pyrite surface oxidation state (Dunn et al., 1993). Evolution of the integrated area of the sulphate IR peak reported in Table 2.6 indicates that this surface oxidation increases with aging. The latter hardly increases at 43 days and nearly reaches three times its value at 104 days. However, the integrated area of the sulphate IR peak of the 32-63  $\mu\text{m}$  fraction increased regularly while its sulphate species changed progressively to higher oxidation state (Table 2.6 and Figure 2.4).

Table 2.6 DRIFTS results of pyrite samples after crushing and aging (spectrum from 4000 to 900 cm<sup>-1</sup>)

Pyrite size fraction	32-63 μm (F1)			63-150 μm (F2)			150-425 μm (F3)			Iron (O.N.)
Time elapsed from crushing	0 days	43 days	104 days	0 days	43 days	104 days	0 days	43 days	104 days	
	3550 (wp)	3550 (p)	3550 (st,p)	-	-	3550 (st,p)	-	-	3550 (p)	-
	-	-	-	-	-	-	-	-	3410 (p)	-
	3300 (wp)	3300 (st,p)	3300 (st,p)	-	3300 (wp)	3300 (st,p)	-	-	3300 (p)	-
	1630 (wp)	1630 (p)	1660 (st,p)	1630 (wp)	-	1630 (st,p)	-	-	1630 (wp)	-
	-	1490 (wp)	1490 (st,p)	-	1490 (wp)	1490 (st,p)	-	-	-	-
	1430 (wp)	1430 (wp)	-	-	1430 (wp)	-	-	1430 (wp)	1430 (wp)	-
	1195 (sh)	1195 (sh)	-	-	1195 (sh)	-	-	-	1195 (sh)	III
	-	-	1180 (sh)	-	-	1180 (sh)	-	-	-	III
	1155 (sh)	1155 (wp)	1155 (wp)	1155 (sh)	-	-	1155 (sh)	-	-	II
	-	-	<b>1136 (p)</b>	-	-	<b>1136 (p)</b>	-	-	-	III
	1120 (sh)	<b>1120 (p)</b>	-	-	-	-	-	-	-	II/III
	<b>1105 (p)</b>	-	-	1105 (sh)	<b>1105 (p)</b>	-	1105 (sh)	-	<b>1105 (p)</b>	II
	-	-	-	-	-	-	-	<b>1095 (p)</b>	-	II
	1085(sh)	-	1085 (sh)	<b>1085 (p)</b>	-	1085 (sh)	<b>1085 (p)</b>	-	-	II
	-	1045 (p)	1045 (wp)	-	1045 (sh)	1045 (sh)	-	-	-	III
	-	-	-	-	-	-	-	1036 (wp)	-	III
	1018 (wp)	1018 (wp)	1018 (sp)	-	-	1018 (sp)	1018 (sh)	-	-	III
	1005 (sh)	1005 (sh)	1005 (sh)	-	1005(wp)	1005 (sh)	-	1005 (wp)	-	III
	-	-	-	-	-	-	-	-	998 (w,p)	II
Integrated sulphate area (a.u.) <sup>2</sup>	8.7	18.3	28.5	4.6	5.7	12.9	2.6	5.7	2.2	

w: weak; s: sharp; st: strong; p: peak; sh: shoulder. boldface number : center of sulphate group.

The 150-425  $\mu\text{m}$  fraction had a different oxidation behaviour during aging. Semi quantitative interpretation of changes in integrated area under sulphate IR peak is more complex because of the partial loss of the diffusive properties of the pyrite particles. Although the center of sulphate IR peaks shifted slightly from 1085  $\text{cm}^{-1}$  to 1105  $\text{cm}^{-1}$ , it remained within the ferrous sulphate attribution range and there was no increased splitting of the  $\gamma_3$  vibration mode with time. This fraction also had peaks that could be assigned to ferric sulphate like 1195, 1155, 1018, 1036  $\text{cm}^{-1}$  (Boily et al., 2010; De Donato et al., 1999; Mermillod-Blondin, 2005; Paul et al., 2005) but their position shifted with time indicating changes in hydration (Dunn et al., 1992).

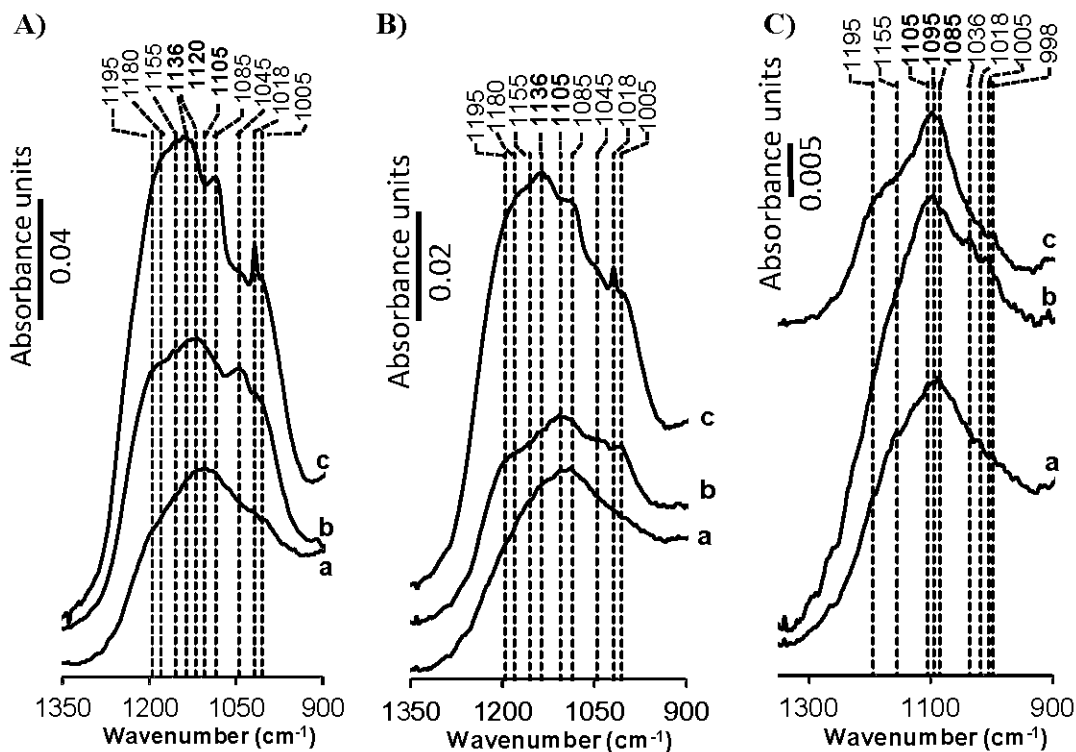


Figure 2.4 DRIFT narrow spectra from 1350  $\text{cm}^{-1}$  to 900  $\text{cm}^{-1}$  of pyrite aging. a: 0 days; b: 43 days; c: 104 days (time after crushing). A) 32-63  $\mu\text{m}$  fraction; B) 63-150  $\mu\text{m}$  fraction; C) 150-425  $\mu\text{m}$  fraction (Note change of scale).

The spectrum obtained on pyrite after 104 days of aging showed an integrated area of sulphate peak lower than that in the spectra directly after crushing and at 43 days after

crushing. This lower oxidation state at 104 days is also associated with a sulphate speciation characterized by ferrous sulphate predominance (additional peak at  $998\text{ cm}^{-1}$ ) while the sulphate peak group at 43 days showed more ferric sulphates (peaks at  $1036\text{ cm}^{-1}$  and  $1005\text{ cm}^{-1}$  are assigned to ferric and ferrous sulphate respectively). This could be caused by a nugget effect during coarse pyrite sampling. No significant change of the oxidation state of the coarser fraction could be observed and the main surface modifications are related to superficial sulphate speciation. Pyrite oxidation of the different size fraction gave evidence that different sulphate formation rates occurred. The latter seemed to depend partly on iron speciation. Once ferric sulphate prevailed, the sulphate amount increased rapidly along with hydration/hydroxylation as underlined through oxidation of the different pyrite fractions from 43 to 104 days. The low specific area correlated to a lower amount of superficial oxidized species was probably responsible for the low reactivity of the 150-425  $\mu\text{m}$  pyrite fraction.

Figure 2.5 presents the evolution of the sulphate generation during pyrite aging as a function of the normalized integrated area under sulphate IR peak (normalized to the initial state). Integrated sulphate area should not be compared directly due to the particle size bias on IR signal but the normalized integrated area under sulphate IR peak is representative of the sulphate formation amount and allows comparison of this amount between size fractions.

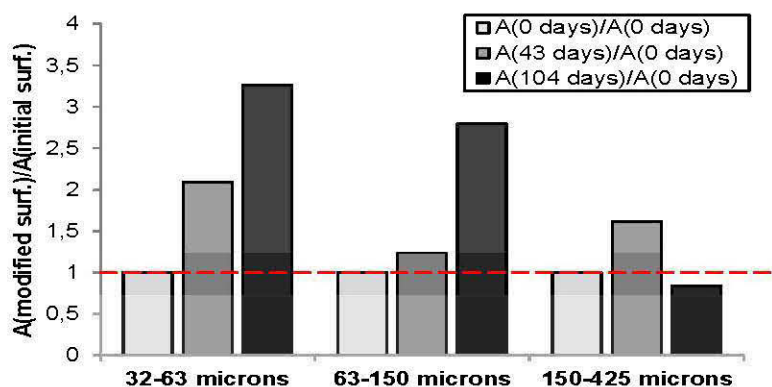


Figure 2.5 Integrated area under the sulphate IR peak normalized by the corresponding reference state (after grinding).

This ratio gave evidence that the sulphate amount of pyrite decreased with particle size increase. This can be explained directly by the decrease of the number of reactive sites at the



pyrite surface with increasing particle size. Some authors have demonstrated that pyrite surface is not entirely reactive towards grinding (Chandra and Gerson, 2010; De Donato et al., 1993; Descostes et al., 2001; Leiro et al., 2003; Mycroft et al., 1990). Some parts of the surface do not react and are still under the chemical state of  $\text{FeS}_2$  and other parts of the surface react and are under an oxidized chemical state (Chandra and Gerson, 2010; De Donato et al., 1993; Descostes et al., 2001; Leiro et al., 2003; Mycroft et al., 1990). Even if crushing conditions aimed at being similar between the different fractions, the finer fraction still needed more crushing/sieving cycles to obtain enough sample for the experiment so that the crushing energy and time, which govern the pyrite particle size generation, strongly control the number of reactive sites and by consequences, the behaviour of pyrite particles towards oxidation.

#### - - Characterization after conditioning (natural to basic pH)

Figure 2.6 and Table 2.7 present respectively, the different infrared profiles as well as the main spectral characteristics of the three pyrite size fractions after conditioning for an hour at different pH values. Final pH was 4.5 for fraction 32-63  $\mu\text{m}$ , 4.8 for fraction 63-150  $\mu\text{m}$  and 5.3 for fraction 150-425  $\mu\text{m}$  for conditioning at natural pH (equilibrium pH without any NaOH addition).

The pH increased with increase of pyrite particle size which is probably due to a decrease of specific surface area (Table 2.2) and less acidity released. Infrared profiles (Figure 2.6) and integrated area under sulphate IR peak (Table 2.7) clearly indicate a modification of the amount and speciation of initial superficial oxidized species. Pyrite conditioning caused a decrease of the integrated area under sulphate IR peak for the fraction 32-63  $\mu\text{m}$  and 150-425  $\mu\text{m}$  but the sulphate amount did not change for the fraction 63-150  $\mu\text{m}$ . The different behaviour of the 63-150  $\mu\text{m}$  pyrite fraction was certainly due to a less oxidized initial surface state than the two other pyrite fractions (absence of the  $1195\text{ cm}^{-1}$  peak).

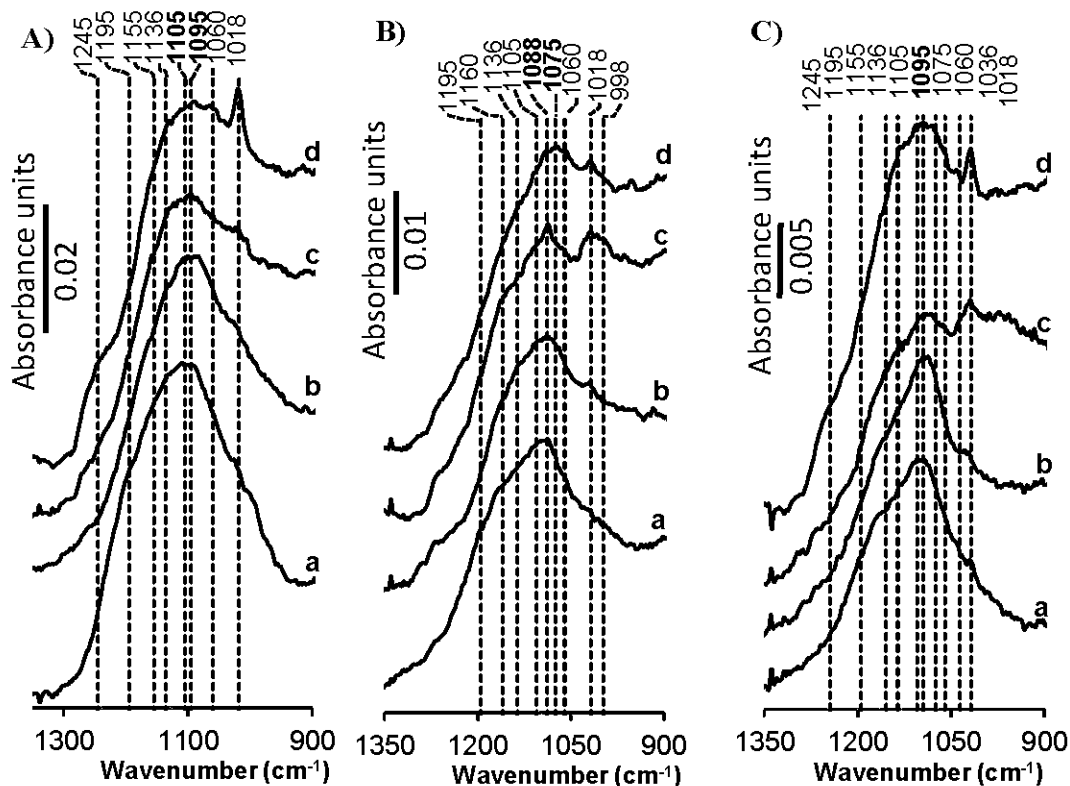


Figure 2.6 DRIFT narrow spectra from 1350  $\text{cm}^{-1}$  to 900  $\text{cm}^{-1}$ : a: pyrite after crushing; b: pyrite conditioned at natural pH; c: pyrite conditioned at pH=6.5; d: pyrite conditioned at pH=9.5. A) 32-63  $\mu\text{m}$  fraction; B) 63-150  $\mu\text{m}$  fraction; C) 150-425  $\mu\text{m}$  fraction.

Therefore, dissolution of the ferric sulphates present was also less important. Sulphate speciation evolution as a function of pH of fractions 32-63  $\mu\text{m}$  and 150-425  $\mu\text{m}$  are in agreement of previous results (Mermillod-Blondin, 2005). One can observe that whatever the conditioning and whatever the particle size, no significant wavenumbers shift of the sulphate band was observed. Moreover, neutral to basic pH strongly favor the formation of superficial hydrated hydroxylated ferric sulphates (bands at 1245, 1630, 3550  $\text{cm}^{-1}$  and sharp peak at 1018  $\text{cm}^{-1}$ ). At neutral pH, the ferric sulphates were less hydrated and hydroxylated for pyrite fraction 32-63  $\mu\text{m}$ . At acidic pH, the absence of peaks at 1245  $\text{cm}^{-1}$  and at 1195  $\text{cm}^{-1}$  associated to a weak shoulder at 1018  $\text{cm}^{-1}$  indicated that chemical surface of pyrite is mainly governed by ferrous sulphate species.

Table 2.7 DRIFTS results of pyrite samples after crushing and after different conditioning (spectrum from 4000 to 900 cm<sup>-1</sup>)

Pyrite size fraction	32-63 μm (F1)			63-150 μm (F2)				Iron (O.N.)	
	Crushed	Natural pH	pH=6.5	pH=9.5	Crushed	Natural pH	pH=6.5		pH=9.5
-	-	-	-	3550(w,p)	-	-	-	-	-
3300(st,p)	3300(p)	3300(p)	3300(st,p)	3300(st,p)	3300(p)	3300(p)	3300(st,p)	3300(p)	-
1630(w,p)	-	-	1630(w,p)	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
1430(w,p)	-	-	-	-	-	-	-	-	-
-	-	1245(sh)	1245(sh)	-	-	-	-	-	III
1195(sh)	-	-	-	1195(sh)	-	-	-	-	III
1155(sh)	1155(sh)	-	-	1155(sh)	1155(sh)	1155(sh)	-	-	III
1136(sh)	1136(sh)	1136(sh)	1136(w,p)	-	1136(sh)	1136(sh)	1136(sh)	1136(sh)	III
<b>1105 (p)</b>	1105(sh)	-	-	1105(sh)	1105(sh)	1105(sh)	1105(sh)	1105(sh)	II
1095(sh)	<b>1095 (p)</b>	<b>1095 (p)</b>	<b>1095 (p)</b>	-	-	-	-	-	II
-	-	-	-	<b>1088 (p)</b>	<b>1088 (p)</b>	<b>1088 (s,p)</b>	1088(sh)	-	II
-	-	-	-	-	-	-	<b>1075 (p)</b>	-	II
-	-	-	-	1060(sh)	-	1060(sh)	1060(sh)	1060(sh)	II/III
-	-	-	-	-	-	-	-	-	III
1018(sh)	1018(sh)	1018(sh)	1018(s,p)	-	1018(w,p)	1018(st,p)	1018(p)	1018(p)	III
-	-	-	-	-	-	998(st,p)	-	-	II
Integrated sulphate area (a.u.) <sup>2</sup>	6.4	4.8	4.2	5.0	2.9	2.9	2.8	2.8	

w: weak; s: sharp; st: strong; p: peak; sh: shoulder. boldface number : center of sulphate group.

Table 2.7 (suite)

Pyrite size fraction	150-425 $\mu\text{m}$ (F3)				Iron (O.N.)
	Crushed	Natural pH	pH=6.5	pH=9.5	
-	-	-	-	-	-
3300 (st,p)	3300 (st,p)	3300 (st,p)	3300 (p)	3300 (st,p)	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	1245 (sh)	III
1195 (sh)	-	-	-	1195 (sh)	III
1155 (sh)	1155 (sh)	1155 (sh)	-	-	III
1136 (sh)	-	1136 (w,p)	1136 (w,p)	-	III
1105 (sh)	1105 (sh)	-	-	-	II
<b>1095 (p)</b>	<b>1095 (p)</b>	<b>1095 (p)</b>	<b>1095 (p)</b>	<b>1095 (p)</b>	II
-	-	-	-	-	II
-	-	-	-	1075 (sh)	II
-	-	1060 (sh)	1060 (sh)	1060 (sh)	II/III
-	-	1036 (sh)	1036 (p)	-	III
1018 (w,p)	1018 (sh)	1018 (p)	1018 (s,p)	1018 (s,p)	III
-	-	-	-	-	II
Integrated sulphate area (a.u.) <sup>2</sup>	2.8	2.0	1.8	2.7	

w: weak; s: sharp; st: strong; p: peak; sh: shoulder. boldface number : center of sulphate group.

#### 2.4.2.3 XPS and DRIFTS coupling for spatial determination of oxidation layer

XPS and DRIFTS spectroscopies have already been used as a means to determine spatial distribution of sulphide oxidation layer (De Donato et al., 1999; De Donato et al., 1993). Their different depths of analysis ( $\sim 40$  Å for XPS, 25000 Å to 83000 Å for DRIFTS in the studied wavelength range) constitute a powerful determination tool (De Donato et al., 1993). The results obtained in this work (XPS detecting lattice pyrite and DRIFTS detecting substantial amount of oxidation layer) are coherent with the model proposed by De Donato et al. (1999); (De Donato et al., 1993), Smart (1991) and Toniazzo (1998): a three-dimensional heterogeneous surface constituted of pillar shaped oxidation products of different thickness amid a quasi unoxidized pyrite surface. The pillars base is constituted of elemental sulphur and polysulphide upon which is developed a quasi-central structure of oxy-hydroxides. Iron

sulphates develop onto the oxide structure with ferrous sulphate being predominant at the base and ferric sulphate being more present at the top of the pillar. Combination of XPS and DRIFTS allows a more complete characterization of the pillar structure of pyrite oxidation layer from its outmost part to its inner part. DRIFTS suggested that the 150-425  $\mu\text{m}$  fraction had much more Fe(II) sulphate than the two finer fractions, while XPS showed no difference in iron speciation (especially for the two coarser fractions). The combined analysis from different scales of the oxidation layer may suggest a differentiation between the outmost oxidation layer with an almost identical iron speciation for the three size fractions (negligible signal for DRIFTS) and the pillar structure with a different iron speciation that shift toward lower oxidation degree with increase of particle size (not analyzed by XPS).

## 2.5 Conclusions

This work provides results on the evolution of coarse pyrite surface compared to finer pyrite through dry crushing, air oxidation and conditioning. Pyrite surface characterization achieved in this study allowed reaching the following conclusions:

- DRIFT high resolution spectra were obtained with coarse pyrite size (fraction up to 425  $\mu\text{m}$ ).
- Dry crushing created a thick and heterogeneous three-dimensional oxidation layer at the pyrite surface for all the fractions.
- After dry crushing, the outmost part of the pyrite oxidation layer had a similar speciation of its oxidation products for all size fractions even if the global oxidation layer had different sulphate speciation depending on the size fractions.
- Air oxidation of pyrite led to formation of ferric sulphate and increased the amount of sulphate except for the coarser fraction.
- Ferric sulphate rich oxidation layers showed a higher oxidation level and during conditioning a higher dissolution rate than the ferrous sulphate rich oxidation layers.
- The pyrite size fractions studied here had the same surface evolution trends through the conditioning processes than the pyrite size fraction studied in previous works:

- Conditioning lowered ferric sulphate amount at the pyrite surface
  - pH controlled the iron sulphate speciation during the conditioning step. Acidic pHs led to ferrous sulphate predominance while basic pHs created a hydrated hydroxyl ferric sulphate rich oxidation layer.
- This work is the base that leads to further researches for a better comprehension of collector adsorption onto coarse pyrite and eventually of coarse pyrite flotation through its application on a specific case (desulphurization of hemo-ilmenite ore desulphurization exploited by Rio Tinto Fer et Titane at Sorel-Tracy, Canada)

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## CHAPITRE 3

# SURFACE CHEMICAL CHARACTERIZATION OF DIFFERENT PYRITE SIZE FRACTIONS AFTER ADSORPTION OF DIFFERENT TYPE OF XANTHATE AS COLLECTOR

Ce chapitre se présente comme un article. Cependant celui-ci n'a pas encore été soumis lors du dépôt de la thèse

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### 3.1 Abstract

The flotation of coarse particles is a well-known challenge that has been addressed mainly through hydrodynamic considerations. This work aims at evaluating the impact of various xanthate adsorption having different alkyl chain lengths and branching, on different pyrite size fraction for flotation purposes. For each tested collector and pyrite size fraction, different xanthate initial concentrations and conditioning pHs were investigated using ultraviolet and diffuse reflectance infrared Fourier transformed spectroscopies. These combined techniques



allowed calculating the xanthate surface coverage and characterizing the xanthate phases adsorbed at the pyrite surface. This work outlined the major impact of xanthate alkyl chain length and branching on the composition of the xanthate phases adsorbed at the pyrite surface, which are mainly iron xanthate and dixanthogen. The ratio iron xanthate/dixanthogen decreases with the increase of alkyl chain and branching. The branched structure of the alkyl chain increases the xanthate surface coverage compared to their equivalent straight chain. Due to differences in terms of specific surface area, the particle size impacts the collector maximum surface coverage (saturation). No saturation could be reached for the two finer fractions when a clear plateau was identified for the coarser fraction (150-425  $\mu\text{m}$ ) for all collectors tested. The particle size also impacts the collector adsorption at alkaline pHs. Collector is less adsorbed under alkaline conditions for fine particles, whereas, no difference can be detected for the two coarser fractions except for the type of xanthate phases adsorbed (dixanthogen replacing iron xanthate phases). Coarse particles flotation would benefit from the use of mix collectors of short linear chain such as ethylxanthate developing strong bond to pyrite and long branched chain such as trimethyl hexylxanthate that enhances the general hydrophobicity through increased xanthate surface coverage.

### 3.2 Introduction

Polymetallic ore bodies often contain barren sulphides like pyrite. Through the different steps of ore processing, barren pyrite remains within the mine tailings where it can be the source of contaminated (acid or neutral) drainage for some mine sites (Aubertin et al., 2002; Evangelou and Zhang, 1995; Liang and Thomson, 2010). Tailings desulphurization using bulk sulphide flotation is an attractive alternative option to control acid mine drainage that has already been proved successful on several mine tailings (Alam and Shang, 2012b; Benzaazoua et al., 2008; Benzaazoua et al., 2000; Benzaazoua and Kongolo, 2003; Bruckard and McCallum, 2007; Kongolo et al., 2004; Leppinen et al., 1997; Yalcin et al., 2004). However, flotation faces some limitations such as coarse particles encountered in some mine products. In the hematite ore exploited by Rio Tinto Fer et Titane (RTFT) at Sorel-Tracy (Canada), pyrite occurs mainly as coarse particles and is eliminated by roasting, resulting in large amount of  $\text{SO}_2$  emissions in the atmosphere. Reducing this pollution by desulphurization using flotation prior to roasting is a promising option in order to meet the more severe requirements of

environmental regulations. The flotation should be performed without additional milling as further grinding is not technically and economically feasible for the mining company. Coarse pyrite flotation is a technical challenge that has been addressed mainly through hydrodynamic considerations (De Gontijo et al., 2007; Jameson, 2005; Rodrigues et al., 2001; Shahbazi et al., 2008; Tao, 2004; Van Deventer et al., 2002) and less through surface physico-chemistry investigations (Brito e Abreu and Skinner, 2011; Dunn et al., 1993).

Pyrite surface is influenced by both conditioning and flotation stages and its control is major concern in sulphide ore flotation. During the conditioning steps, pyrite surface chemistry directly affects the collector adsorption ability (Cases et al., 1989; Cases et al., 1995; Kongolo et al., 2004; Mermillod-Blondin, 2005). During the flotation stage, the successful attachment of pyrite particles to bubbles depends on two sub-processes which are: (i) the bubble-particle collision followed by (ii) the water film drainage between the bubble and the particle, referred as the adhesion process (Sutherland, 1948; Derjaguin and Dukhin, 1961). While the collision process is clearly under hydrodynamic control, the adhesion process depends on the frother properties (Finch et al., 2008) and mostly on the particle hydrophobicity (Lotter and Bradshaw, 2010). Usually, short chain xanthates generate an adequate hydrophobicity level for sulphide flotation (Pearse, 2005). However, coarse particle flotation is widely known to be poorly recovered due to high probability of bubble/particle detachment caused by (i) insufficient hydrophobic film coverage (Bazin and Proulx, 2001; Jameson, 2010), (ii) settling and (iii) insufficient buoyancy of bubble/particle aggregates (Tao, 2004). Long chain collectors improve the hydrophobicity by creating a more stable film at the sulphide surface and higher contact angles (Rao, 1971; Rao and Finch, 2003). This enhanced hydrophobicity could counterbalance the higher inertial force of coarse particles that is responsible for their poor recovery. However xanthates with very long chain have low solubility so that a compromise should be considered (Ackerman et al., 1987; Kim et al., 2000). Branched collectors are also known to confer a better hydrophobicity than their equivalent straight chain (Ackerman et al., 1987; Rao, 1971).

This paper follows the work of a published paper (Derycke et al., 2012a) on the characterization of pyrite surface on particles up to 425  $\mu\text{m}$  in different conditions (after crushing, aging and conditioning at different pHs). This work aims at linking these findings

to the collector surface adsorption ability. The main purpose of this paper is to investigate the impact of alkyl chain length and branching on xanthate adsorption on different pure pyrite size fractions for flotation purposes. The impact of pH and copper activation is also addressed as pH strongly influences collector adsorption at low concentration and that copper ions are known to improve xanthate-sulphide bonding (Alam and Shang, 2012a).

### 3.3 Material and method

#### 3.3.1 Samples preparation

High grade pure pyrite samples were obtained from the Huanzala mine site (Peru), a Zn-Pb ore of adularia-sericite type (Imai, 1999). The minerals were dry crushed and sieved in three size fractions (F1=32-63  $\mu\text{m}$ ; F2=63-150  $\mu\text{m}$ ; F3=150-425  $\mu\text{m}$ ). The sample preparation procedure is well described in Derycke et al. (2012a). The F1 fraction was used as a reference fraction proven to result in high quality spectra with DRIFTS in previous work on pyrite (Mermillod-Blondin, 2005). The F2 and F3 fractions were chosen as the major coarse pyrite fractions occurring in the hemo-ilmenite ore treated at the Rio Tinto, Fer et Titane (RTFT) smelter in Sorel (Quebec, Canada). Mineral aqueous conditioning was realized by addition in a centrifuge tube of 2 grams of pyrite into 20 mL of a solution of ultrapure water (Millipore filtration system, 18.2 M $\Omega$ .cm at 25 °C) containing different NaOH concentrations (different pHs). Testing tubes were then placed on a rotary shaker at a constant temperature of 30°C for one hour. For the tests where copper sulphate was added as an activating agent, solution of copper sulphate was added to obtain a copper concentration of  $1.8 \cdot 10^{-4}$  mol/L and test tubes were conditioned for an additional ten minutes at 30°C in a rotary shaker. The amount of NaOH added was calibrated to set the targeted pH value at the end of the pH conditioning time (1 hour plus 10 minutes, if copper sulphate was added). For tests where copper sulphate was added as an activating agent, the aqueous solution was renewed before collector addition with ultrapure water or unchanged to evaluate the impact of residual copper in solution on collector adsorption. Xanthate with different chain lengths and branching was then added (at different concentrations) and conditioned for another ten minutes at 30°C in a rotary shaker. The solid and liquid phases were then separated by centrifugation (10000 RPM for 20 minutes). The equilibrium solution was analysed for pH and Eh and residual xanthate by ultraviolet spectroscopy. The filtered solid was dried on a filter paper for a short time,

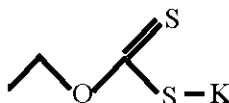
sampled and analyzed by diffuse reflectance infrared Fourier transformed spectroscopy (DRIFTS).

### 3.3.2 Physical, chemical and mineralogical characterization methods

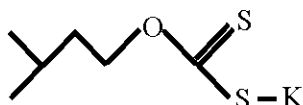
Specific gravity ( $G_s$ ) of the pyrite sample was determined with a helium pycnometer (Micromeritics, Accupyc 1330). Particle size distribution of sieved fractions of pyrite was determined using a Malvern Mastersizer laser particle size analyser. The Specific surface area (SSA) was analyzed by a Micromeritics surface area analyser using the B.E.T method (Brunauer et al., 1938). Surface characterization through infrared spectroscopy was detailed in Derycke et al. (2012). Infrared spectra were recorded with a Fourier transform infrared spectrometer Bruker IFS 55 equipped with a mercury-cadmium telluride (MCT) detector and connected to a diffuse reflectance apparatus from Harrick. Xanthate concentrations were measured with a UV-VIS spectrophotometer (double beam Shimadzu UV-2501PC) using the 301 nm adsorption band if no other interfering band appeared in the spectrum (Rao, 1971; Kongolo, 1991).

### 3.3.3 Reagents

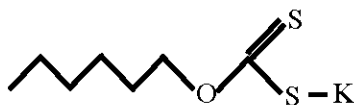
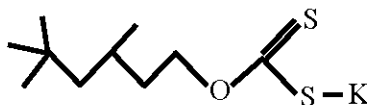
The pH regulator reagent was soda ash (NaOH). Copper sulphate pentahydrate ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ) was used as an activator. Four different potassium xanthates were tested as collector. The general formula of potassium xanthate is  $\text{ROCS}_2\text{K}$  with R being an alkyl chain. The potassium ethylxanthate and isoamylxanthate (also commercially known as KEX-20 and KAX-51 respectively and commonly used in the mining industry) from Univar Canada Ltd. were used as references for short and long chain xanthate respectively. They were purified by dilution in acetone and precipitation in diethyl ether according to the procedure described by Rao (1971). Their alkyl chain structural formulas are  $\text{R} = \text{C}_2\text{H}_5$  and  $\text{R} = \text{C}_5\text{H}_{11}$  respectively and their structure are as follow:



Ethylxanthate ( $\text{R} = \text{C}_2\text{H}_5$ )

Isoamylxanthate (R= C<sub>5</sub>H<sub>11</sub>)

Two other collectors with six carbons alkyl chain length (one with a straight alkyl chain and the other with a branched chain) were synthesized following the experimental procedure described by Rao (1971). The hexylxanthate and trimethyl hexylxanthate were synthesized from carbon disulphide and respectively two types of pure alcohol chemical products: hexanol and 3,5,5 trimethyl-1-hexanol. They were also purified by dilution/precipitation Rao (1971). Their alkyl chain structural formulas are R=C<sub>6</sub>H<sub>13</sub> and R=C<sub>9</sub>H<sub>19</sub> respectively and their structure are as follow :

Hexylxanthate (R=C<sub>6</sub>H<sub>13</sub>)Trimethyl hexylxanthate (R=C<sub>9</sub>H<sub>19</sub>)

### 3.3.4 Statistical surface coverage calculation

Xanthate adsorbed amount was determined by the difference between initial (C<sub>i</sub>) and equilibrium (C<sub>eq</sub>) xanthate concentration (mol/L). The equilibrium xanthate concentration was determined by UV spectroscopy using the following equation: (Fornasiero et al., 1995; Montalti et al., 1991; Prestidge and Ralston, 1996):

$$(3.1) \quad C_{eq} = C_i - C_{MTC} - C_{PX} - 2C_{X_2} - C_X$$

where C<sub>MTC</sub> is the monothiocarbonate concentration (peak at 225 nm), C<sub>PX</sub> is the perxanthate concentration (peak at 348 nm), C<sub>X<sub>2</sub></sub> is the dixanthogen concentration (peak at 288 nm) and C<sub>X</sub> is the xanthate concentration (peak at 301 nm).

The xanthate molar extinction coefficient used is 17660 L/mol/cm whatever the chain length (Chang et al., 1999; Jones and Woodcock, 1983; Kongolo, 1991; Poling, 1976). Monothiocarbonate and dixanthogen were negligible in the experiment. Perxanthate was present in UV spectra at high initial xanthate concentration (peak at 348 nm). The peak at 348 nm does not interfere with the xanthate peak at 301 nm. Its molar extinction coefficient, as found in the literature, is 10400 L/mol/cm (Jones and Woodcock, 1983).

The statistical surface coverage (amount of xanthate surface layers assuming uniform coverage),  $\theta$ , was calculated by using equation (3.2):

$$(3.2) \quad \theta = (C_i - C_{eq}) \frac{V}{m \cdot S_s} * E_x * N_A$$

where  $V$  is the liquid phase volume (L),  $m$  is the mass of minerals (g),  $S_s$  corresponds to its specific surface area ( $m^2/g$ ),  $E_x$  is the specific coverage area of the ion ( $\text{\AA}^2$ ), and  $N_A$  is the Avogadro number ( $\text{mol}^{-1}$ ). The specific coverage area of the xanthate ion is considered to be equivalent to its cross-sectional area on closest packing bases. It is equal to 29  $\text{\AA}^2$  for ethylxanthate, isoamylxanthate and hexylxanthate as specified in the literature (Cases et al., 1989; Gaudin et al., 1946; Kongolo et al., 2004; Mielczarski et al., 1998; Tukul and Kelebek, 2010). The method used by Gaudin et al. (1946) to determine the specific coverage area of the xanthate was applied to trimethyl hexylxanthate, which have a cross-sectional area of 118  $\text{\AA}^2$ .

### 3.4 Results and discussion

General characterization of the pyrite samples was provided in Derycke et al. (2012). XRD spectrum (not presented herein) confirmed that pyrite samples were pure. Trace minerals may be present but could not be clearly identified through XRD analysis. Calculation from elemental analysis of the samples showed that pyrite samples were relatively pure (94 wt. %  $\text{FeS}_2$ ) with a specific gravity of 5, typical of pyrite mineral. Physical characteristics of samples are presented in Table 3.1 indicating the size distribution of the different fractions and their specific surface area which decrease with increase of particle size.

Table 3.1 Particle size analysis and specific surface values of the different pyrite size fractions

	F1: 32-63 $\mu\text{m}$	F2: 63-150 $\mu\text{m}$	F3: 150-425 $\mu\text{m}$
D10 ( $\mu\text{m}$ )	37.8	94.5	148.3
D50 ( $\mu\text{m}$ )	60.7	158.2	228.5
D90 ( $\mu\text{m}$ )	105.6	229.8	297.4
Cu=(D60/D10)	1.8	1.8	1.6
SSA ( $\text{m}^2/\text{g}$ )	0.11	0.06	0.03

### 3.4.1 Influence of alkyl chain and particle size on xanthate adsorption

#### 3.4.1.1 Adsorption isotherms

Adsorption of xanthate on pyrite surface was performed at different initial collector concentrations allowing testing a wide-range of collector surface coverage. Interpretation of the adsorption phenomena can be done through the modeling of adsorption isotherms also referred as sorption isotherms (Limousin et al., 2007). A mixed model of the commonly used Freundlich and Langmuir models was used to fit the data as done elsewhere in Umpleby et al. (2001) and García-Calzón and Díaz-García (2007). The Freundlich-Langmuir (L-F) model formula is expressed as follow, (García-Calzón and Díaz-García, 2007; Umpleby et al., 2001):

$$(3.3) \quad Q_{\text{ads}} = \frac{N \times K^m \times C_{\text{eq}}^m}{1 + K^m \times C_{\text{eq}}^m} \quad \text{with } K = a^{1/m}$$

where  $Q_{\text{ads}}$  is the adsorbed amount of xanthate ( $\text{mol}/\text{m}^2$ ),  $C_{\text{eq}}$  the equilibrium xanthate concentration ( $\text{mol}/\text{L}$ ),  $N$  is the number of binding sites,  $K$  is the median binding activity,  $m$  is a fitting parameter related to the Freundlich model corresponding to the surface site energy heterogeneity,  $a$  is a fitting parameter related to  $K$  and  $m$ .

This model has been used for homogeneous and heterogeneous surfaces at low (sub-saturation) to high (saturation) sorbent concentration (García-Calzón and Díaz-García, 2007; Umpleby et al., 2001). The solver function of Microsoft Excel was used to change iteratively the three parameters:  $N$ ,  $a$ , and  $m$ , in order to maximize the determination coefficient  $R^2$  and minimize the squared sum of the residuals (the difference between the data and the model).

The two finer pyrite fractions (F1 and F2) did not allow drawing any isotherm since all collectors were adsorbed even at high concentration so that no saturation plateau could be reached up to  $10^{-3}$  mol/L (no residual xanthate in solution). However, the coarser pyrite fraction F3 showed sorption isotherm characterized by a plateau for the four xanthate collectors tested as illustrated in Figure 3.1.

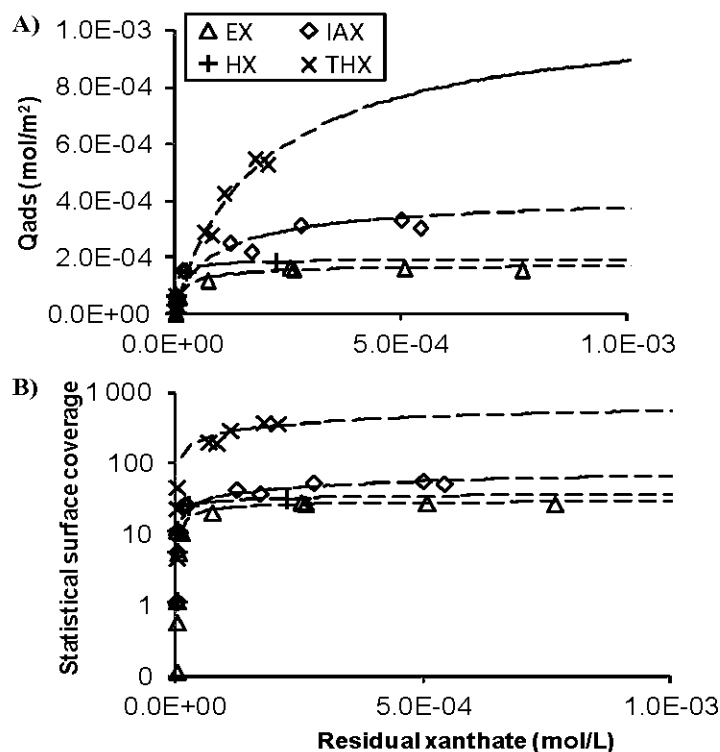


Figure 3.1 Adsorption isotherms of collectors onto pyrite for fraction 150-425 μm at natural pH, fitted with the F-L model. A) adsorbed amount of xanthate; B) statistical surface coverage; EX: ethylxanthate; IAX: isoamyxanthate; HX: hexylxanthate; THX: trimethyl hexylxanthate

These different isotherms profiles may be due to different specific surface area affecting pyrite reactivity toward xanthates. The oxidation phases of coarse pyrite (more ferrous than ferric sulphate) may also be less likely to be reduced to catalyse the oxidation of xanthate into dixanthogen, the major phase present at high xanthate concentration). The data were well fitted with the L-F model with determination coefficient ( $R^2$ ) of 0.9 to 1.0 (fitting parameters not presented herein). The plateau (no more xanthate adsorption with increase of xanthate



amount) was reached at a statistical surface coverage of 380 for the trimethyl hexylxanthate, 60 for the isoamylxanthate and 30 for the ethyl and hexyl xanthate. These isotherms indicate that the alkyl chain length (up to 6 carbons) does not impact the coverage capacity of the collector. However the more branched is the collector, the higher the statistical surface coverage is, due to the larger area covered per xanthate molecule ( $E_x$ ).

### 3.4.1.2 DRIFT spectroscopy characterization

DRIFT spectroscopy was used to characterize the adsorbed xanthate phases. DRIFT spectra of adsorption tests are presented in Figures 3.2, 3.3 and 3.4 for the pyrite fraction F1, F2 and F3 respectively. For each fraction, the four collectors mentioned in section 3.2.3 were tested at different initial concentrations. The statistical surface coverage was calculated as described in section 3.2.4. The only spectra part shown herein is the one between  $1350\text{ cm}^{-1}$  and  $900\text{ cm}^{-1}$  in order to identify the nature of the xanthate phases bonded onto pyrite. The spectra may present overlapping peaks corresponding to pyrite oxidation products and xanthate phases. For that reason, the reference spectra after crushing and aqueous conditioning were added for comparison. Figure 3.2 shows the DRIFT spectra corresponding to the four collectors tested on fraction F1. At low concentration, the spectra corresponding to xanthate surface coverage of 0.7 and 2.2 (not shown herein for more clarity) did not show any xanthate specific peak and were similar to the F1 conditioned reference spectrum.

#### - Ethylxanthate adsorption on different pyrite size fraction

Figure 3.2A shows ethylxanthate adsorption on the F1 fraction from a quasi-monolayer surface coverage of 3 to surface coverage of 22. At a xanthate statistical surface coverage of 3 ( $C_i = 10^{-4}\text{ mol/L}$ ), there is a shoulder at  $1200\text{ cm}^{-1}$  and a small peak at  $1266\text{ cm}^{-1}$  which are related to stretching of the C-O-C group of iron xanthate complex and dixanthogen respectively (Cases et al., 1989; Leppinen, 1990). A small shoulder at  $1035\text{ cm}^{-1}$  is attributed to the stretching of the C=S bond (Cases et al., 1990; Fuerstenau et al., 1990; Leppinen, 1990). Higher surface coverage of 15 ( $C_i = 5 \cdot 10^{-4}\text{ mol/L}$ ) mainly increases the peaks at  $1035\text{ cm}^{-1}$  and  $1200\text{ cm}^{-1}$  attributed to iron xanthate without increasing the small peak at  $1266\text{ cm}^{-1}$  related to dixanthogen. Moreover, the peak at  $1200\text{ cm}^{-1}$  presents a shoulder at  $1185\text{ cm}^{-1}$  that may reflect changes in the coordination and configuration of the iron xanthate complex into a multilayer molecular organization. This specific multilayer structure of the metal xanthate

seems specific to ethylxanthate as it was also observed as a multilayer complex of cuprous ethylxanthate on marcasite by Mielczarski et al. (1998). At a surface coverage of 22 ( $C_i = 7.5 \cdot 10^{-4}$  mol/L), there is no further increase of the peak intensities  $1035 \text{ cm}^{-1}$  and  $1200 \text{ cm}^{-1}$ , but there is higher splitting of the peak at  $1200 \text{ cm}^{-1}$  into two peaks at  $1200 \text{ cm}^{-1}$  and  $1185 \text{ cm}^{-1}$  both related to iron xanthate but occurring as different configurations (monolayer of iron xanthate bonded to pyrite underneath a multilayer molecular structure of iron xanthate). Furthermore, increase of peaks at  $1266 \text{ cm}^{-1}$  and  $1245 \text{ cm}^{-1}$  are both related to dixanthogen. There is coexistence of iron xanthate and dixanthogen at the pyrite surface at high xanthate concentration.

Figures 3.3A and 3.4A shows ethylxanthate adsorption on F2 and F3 respectively. The F2 fraction presents similar spectra than the F1 fraction at approximately the same surface coverage and initial xanthate concentration. For the F3 fraction, the shoulder at  $1200 \text{ cm}^{-1}$  related to iron xanthate appears at a surface coverage of 6 ( $C_i = 5 \cdot 10^{-5}$  mol/L) and its intensity increases along with the shoulder at  $1035 \text{ cm}^{-1}$  changing from shoulder to a small peak at a surface coverage of 27 ( $C_i = 10^{-3}$  mol/L). Dixanthogen appears starting from a surface coverage of 25 ( $C_i = 5 \cdot 10^{-4}$  mol/L) as small peaks at  $1266 \text{ cm}^{-1}$  and  $1245 \text{ cm}^{-1}$  (C-O-C stretching).

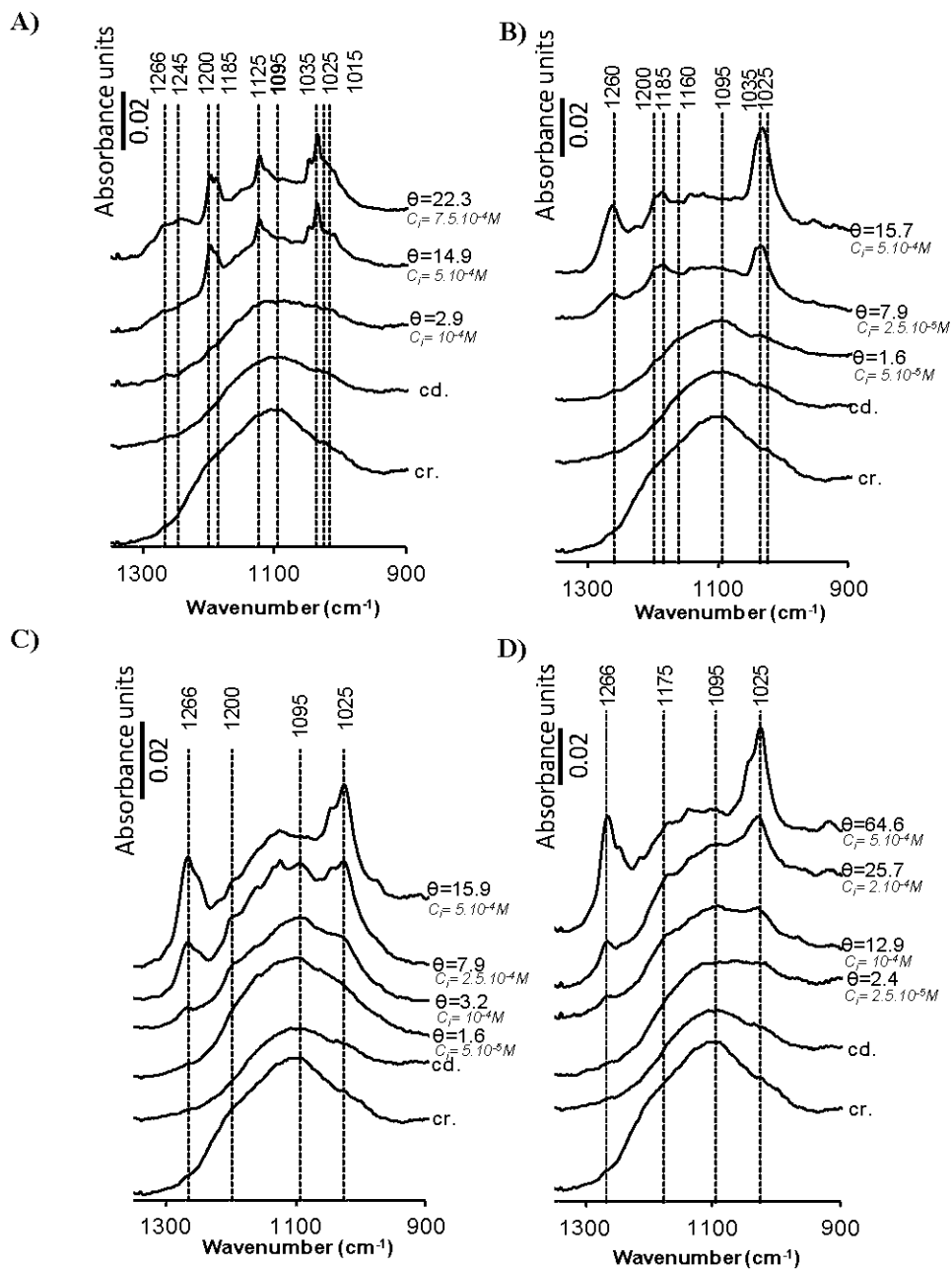


Figure 3.2 DRIFT narrow spectra from 1350  $\text{cm}^{-1}$  to 900  $\text{cm}^{-1}$  of pyrite fraction 32-63  $\mu\text{m}$  conditioned at natural pH (pH=4.5) with different xanthate collectors. A) ethylxanthate; B) isoamylxanthate; C) hexylxanthate; D) trimethyl hexylxanthate. Cr.: Crushed; Cd. : after conditioning;  $\theta$ : xanthate statistical surface coverage;  $C_i$ : initial xanthate concentration (mol/L)

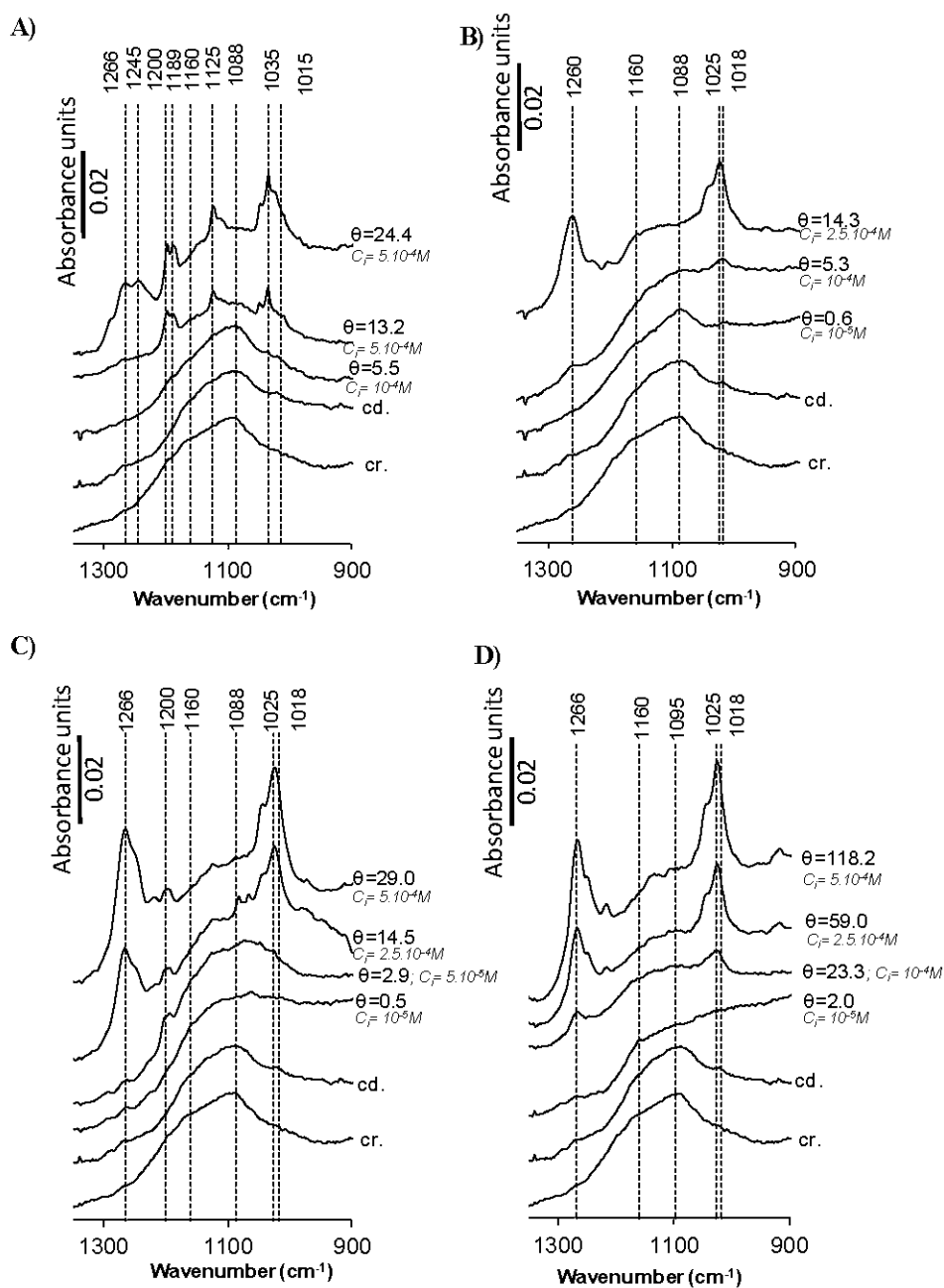


Figure 3.3 DRIFT narrow spectra from 1350  $\text{cm}^{-1}$  to 900  $\text{cm}^{-1}$  of pyrite fraction 63-150  $\mu\text{m}$  conditioned at natural pH (pH=4.5) with different xanthate collectors. A) ethylxanthate; B) isoamylxanthate; C) hexylxanthate; D) trimethyl hexylxanthate. Cr.: Crushed; Cd. : after conditioning;  $\theta$ : xanthate statistical surface coverage;  $C_i$ : initial xanthate concentration (mol/L)

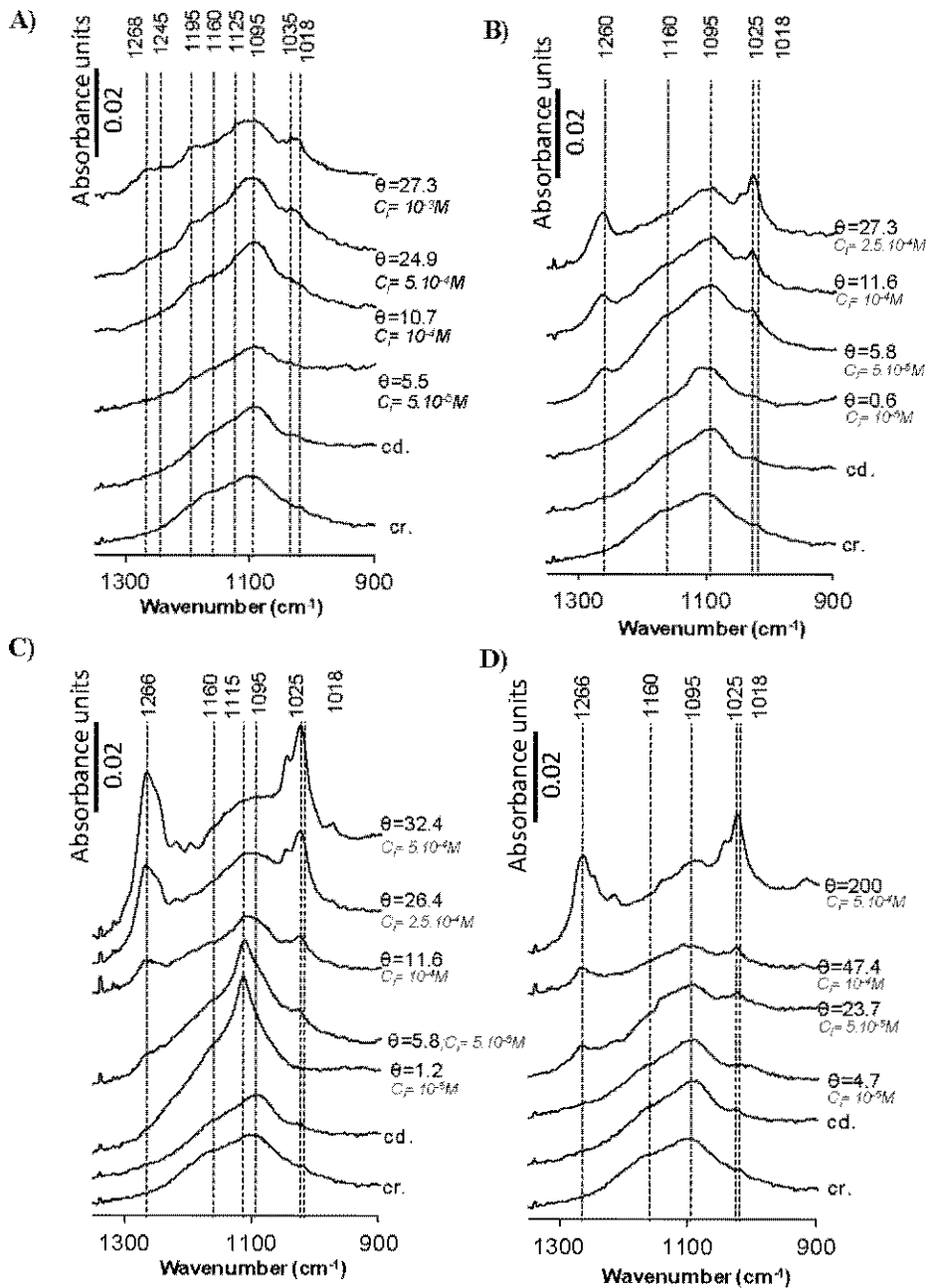


Figure 3.4 DRIFT narrow spectra from 1350 cm<sup>-1</sup> to 900 cm<sup>-1</sup> of pyrite fraction 150-425 μm conditioned at natural pH (pH=4.5) with different xanthate collectors. A) ethylxanthate; B) isoamylxanthate; C) hexylxanthate; D) trimethyl hexylxanthate. Cr.: Crushed; Cd. : after conditioning;  $\theta$ : xanthate statistical surface coverage;  $C_i$ : initial xanthate concentration (mol/L)

- **Isoamylxanthate adsorption on different pyrite size fraction**

Figure 3.2B shows isoamylxanthate adsorption on the F1 fraction. At a quasi-monolayer coverage, ( $C_i = 5 \cdot 10^{-5}$  mol/L), a shoulder at  $1200 \text{ cm}^{-1}$  and peaks at  $1260 \text{ cm}^{-1}$  and  $1035 \text{ cm}^{-1}$  indicate the coexistence of iron xanthate and dixanthogen. When xanthate surface coverage increases up to 8, isoamylxanthate adsorbs at the F1 fraction both as dixanthogen and iron xanthate unlike ethylxanthate where iron xanthate prevails over dixanthogen up to surface coverage of 15. At surface coverage higher than 16 ( $C_i = 5 \cdot 10^{-4}$  mol/L), the proportion of dixanthogen over iron xanthate increases. Figures 3.3B and 3.4B shows isoamylxanthate adsorption on F2 and F3 fractions respectively where peaks at  $1260 \text{ cm}^{-1}$  and  $1025 \text{ cm}^{-1}$  appears, beginning as a weak shoulder at quasi-monolayer coverage and becoming sharp peaks with surface coverage increase.

- **Hexylxanthate adsorption on different pyrite size fraction**

Figure 3.2C shows hexylxanthate adsorption on the F1 fraction. At a quasi-monolayer coverage of 3, ( $C_i = 10^{-4}$  mol/L), a shoulder at  $1200 \text{ cm}^{-1}$  and a weak peak at  $1266 \text{ cm}^{-1}$  are related to the C-O-C stretching of iron xanthate and dixanthogen respectively. The increase of surface coverage does not increase the iron xanthate signal intensity since it stays as a shoulder. The dixanthogen peaks ( $1266 \text{ cm}^{-1}$ ;  $1025 \text{ cm}^{-1}$ ) on the other hand, intensified with surface coverage increase. The F2 fraction (Fig. 3.3C) follows a similar pattern than the F1 fraction with both peaks of iron xanthate ( $1200 \text{ cm}^{-1}$ ) and dixanthogen ( $1266 \text{ cm}^{-1}$ ) at a surface coverage of 3 ( $C_i = 5 \cdot 10^{-5}$  mol/L) and with higher surface coverage, the iron xanthate peak does not increase while dixanthogen signal intensifies when the surface coverage increases. Figure 3.4C shows hexylxanthate adsorption on F3 where peaks at  $1260 \text{ cm}^{-1}$  and  $1025 \text{ cm}^{-1}$  increase progressively with increase of surface coverage. Iron xanthate is not detected.

- **Trimethyl hexylxanthate adsorption on different pyrite size fraction**

Figures 3.2D, 3.3D and 3.4D show trimethyl hexylxanthate adsorption on the F1, F2 and F3 fractions respectively. Contrary to the three previous collectors, no iron xanthate could be detected whatever the pyrite fraction size. The surface coverage reached with the trimethyl hexylxanthate is higher due to its high branching (high cross-sectional area). The dixanthogen signal (peaks at  $1266 \text{ cm}^{-1}$  and  $1025 \text{ cm}^{-1}$ ) intensifies with surface coverage increase.

#### - Correlation between UV and DRIFT spectroscopies

Linear relationship between UV spectroscopy (surface coverage) and DRIFT spectroscopy (peaks intensity) has been already outlined in previous works (Cases et al., 1990; Kongolo, 1991; Leppinen, 1990; Mermillod-Blondin, 2005). Relative intensity of alkyl peaks (signal integration from  $3050\text{ cm}^{-1}$  to  $2800\text{ cm}^{-1}$ ) accounting for both iron xanthate and dixanthogen presence was correlated with surface coverage.

The low determination coefficient for the ethylxanthate and the trimethylxanthate in the case of fraction F3 are probably related to the low diffuse reflectance and to the increased nugget effect both attributed to the coarse size of the studied particles.

The correlation between UV and DRIFT spectroscopies data provide a tool allowing to evaluate the surface coverage when UV spectra show peaks interfering with the 301 nm peak, like the dixanthogen peak at 288 nm, so that the exact residual xanthate amount cannot be calculated as described in section 3.3.4.

A synthesis of the impact of particle size and collector chain type on xanthate adsorption is presented in Table 3.2. Particle size has an impact on the type of xanthate phases adsorbed since isoamylxanthate and hexylxanthate switch from iron xanthate and dixanthogen to only dixanthogen with increase of particle size. This can be related with the surface chemistry discussed in a previous paper (Derycke et al., 2012a) which outlined lesser ferric sulphate for the coarser fraction. This may imply lesser active site for iron xanthate bonding.

The collector chain type has a major impact on the type of xanthate bonding onto pyrite. Long chain xanthates oxidize more easily into dixanthogen than short chain due to larger inductive effect donating electron from the alkyl group as shown in table 1.3 by the standard potentials of xanthate/dixanthogen (Lotter and Bradshaw, 2010; Somasundaran and Wang, 2006). Pyrite bonded iron xanthates are therefore more likely to occur with a short chain collector such as ethylxanthate which can organize as multilayer complex of iron xanthate (Leppinen, 1990; Mielczarski et al., 1998). Once formed, the iron xanthate complex may oxidize into dixanthogen (Mermillod-Blondin, 2005; Mielczarski et al., 1998). The inductive effect mentioned previously implies also that iron xanthate complex is more stable for shorter xanthate alkyl chain than longer ones. Major dixanthogen formation for long chain xanthate

could explain higher surface coverage at saturation by stabilizing the collector piles due to its two hydrophobic chains.

Table 3.2 Type of the xanthate phases adsorbed onto pyrite as function of collector type and particle size at acidic pH.

Xanthate type		F1: 32-63 $\mu\text{m}$	F2: 63-150 $\mu\text{m}$	F3: 150-425 $\mu\text{m}$
Ethyl X	Low coverage	Fe-X	Fe-X	Fe-X
	High coverage	Fe-X/X <sub>2</sub>	Fe-X/X <sub>2</sub>	Fe-X/X <sub>2</sub>
Isoamyl X	Low coverage	Fe-X/X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>
	High coverage	Fe-X/X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>
Hexyl X	Low coverage	Fe-X/X <sub>2</sub>	Fe-X/X <sub>2</sub>	X <sub>2</sub>
	High coverage	X <sub>2</sub> >> Fe-X	X <sub>2</sub> >> Fe-X	X <sub>2</sub>
Trimethylhexyl X	Low coverage	X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>
	High coverage	X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>

#### 3.4.2 Influence of pH on xanthate adsorption

Xanthate adsorption is influenced by the pyrite surface chemistry, as outlined in many previous works (Cases et al., 1990; Kongolo, 1991; Fornasiero and Ralston, 1992; Mermillod-Blondin, 2005; Peng et al., 2012). In Derycke et al. (2012), it was demonstrated that the size fractions F1, F2 and F3 followed the same trend through aqueous conditioning where pH was controlling the sulphate speciation at the pyrite surface. Acidic pHs led to ferrous sulphates predominance while basic pHs created a hydrated/hydroxylated ferric sulphates rich oxidation layer. These results are in accordance with the work of Mermillod-Blondin (2005). However, the coarser fraction (F3) led to lesser hydrated hydroxylated ferric sulphate than the finer fraction F1. The impact of pH on xanthate adsorption was evaluated on the three size fractions (F1, F2, F3) and for three collectors (isoamylxanthate, hexylxanthate, trimethylhexylxanthate). Three different pHs were tested from acidic to basic conditioning: natural pH, pH = 6.5, pH = 9.5. Figure 3.5 illustrates the xanthate surface coverage as function of the initial xanthate concentration for different fraction and collectors. The isoamylxanthate and hexylxanthate adsorption on the fraction F1 decreases with increase of pH (Figures 3.5-A1 and A2). The isoamylxanthate and hexylxanthate at  $2.5 \cdot 10^{-4}$  mol/L as initial concentration reaches a surface coverage of 10 and 12 respectively at natural pH while at more alkaline pH (pH = 9.5) they only adsorb as surface coverage of 2 and 6 respectively. Figure 3.6 presents the DRIFT spectra of the fraction F1 for the three collectors tested at an



initial xanthate concentration of  $2.5 \cdot 10^{-4}$  mol/L. The isoamylxanthate (Figure 3.6A) and the hexylxanthate (Figure 3.6B) spectra change when the conditioning pH increases from a spectrum showing iron xanthate and dixanthogen phases at natural acidic-pH (as discussed in section 3.1.2.2) to spectra having only dixanthogen peaks ( $1266 \text{ cm}^{-1}$  and  $1025 \text{ cm}^{-1}$ ) at pH = 6.5 and pH = 9.5. As illustrated by Figure 3.5-A3, the trimethyl hexylxanthate surface coverage is not affected by the conditioning pH probably due to the higher stability of long chain xanthate and dixanthogen in alkaline condition (Fuerstenau et al, 1990; Jones and Woodcock, 1983). Figure 3.6B shows DRIFT spectra of trimethyl hexylxanthate adsorption at an initial concentration of  $2.5 \cdot 10^{-4}$  mol/L. This collector is present as dixanthogen whatever the conditioning pH.

Xanthate surface coverage of fractions F2 and F3 (Fig. 3.5B and 3.5C), contrary to what occurred for the finer fraction F1, are not affected by the conditioning pH whatever the collector tested. DRIFT spectra of those fractions are not presented herein since, like fraction F1, only dixanthogen (peaks at  $1266 \text{ cm}^{-1}$  and  $1025 \text{ cm}^{-1}$ ) could be detected at pH = 6.5 and pH = 9.5.

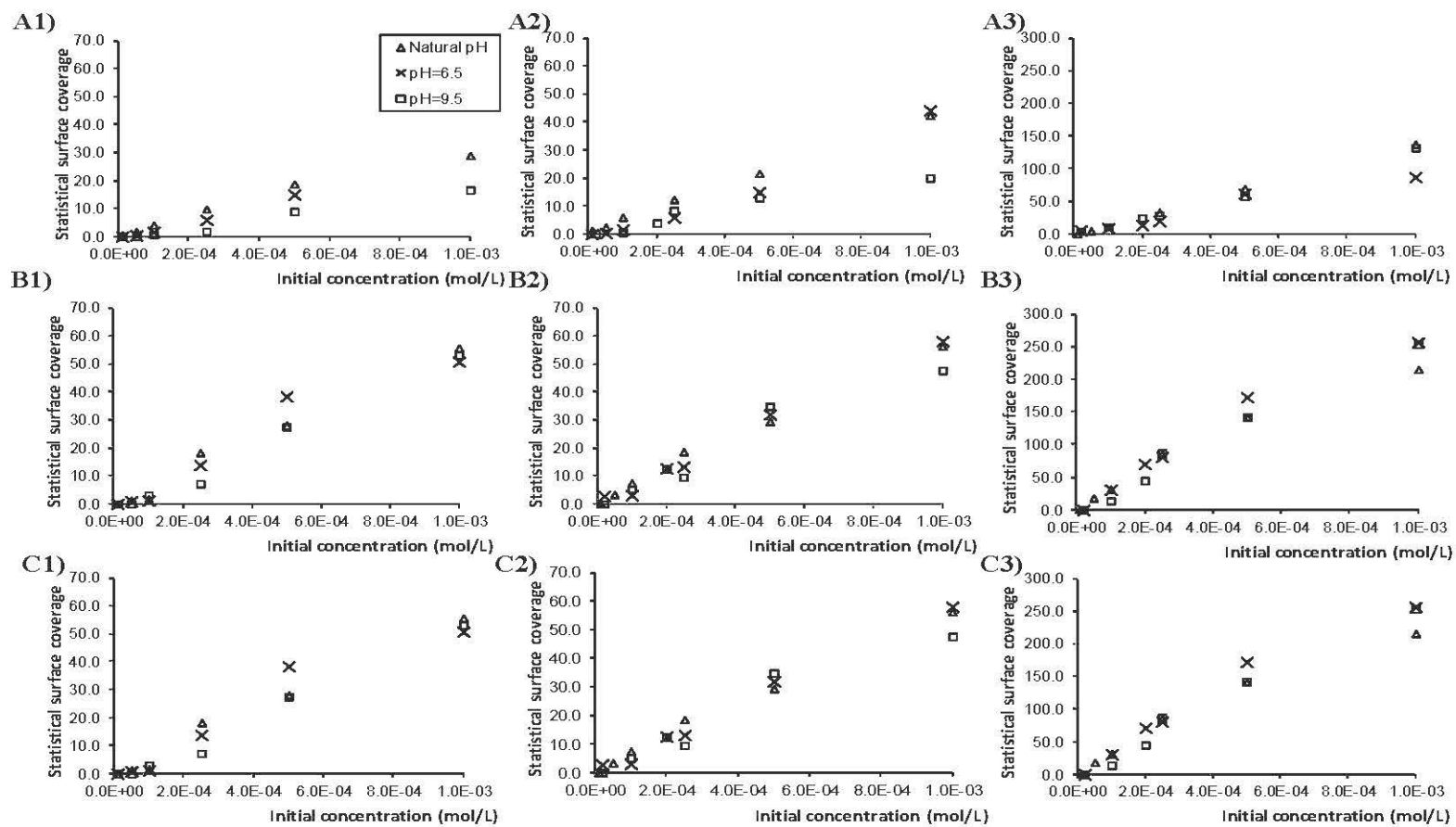


Figure 3.5 Statistic surface coverage as function of initial xanthate concentration on pyrite fractions F1 (A), F2 (B) and F3 (C) at natural pH, pH=6.5 and pH=9.5 for the collectors isoamyloxanthate (A1, B1, C1), hexyloxanthate (A2, B2, C2) and trimethyl hexyloxanthate (A3, B3, C3).

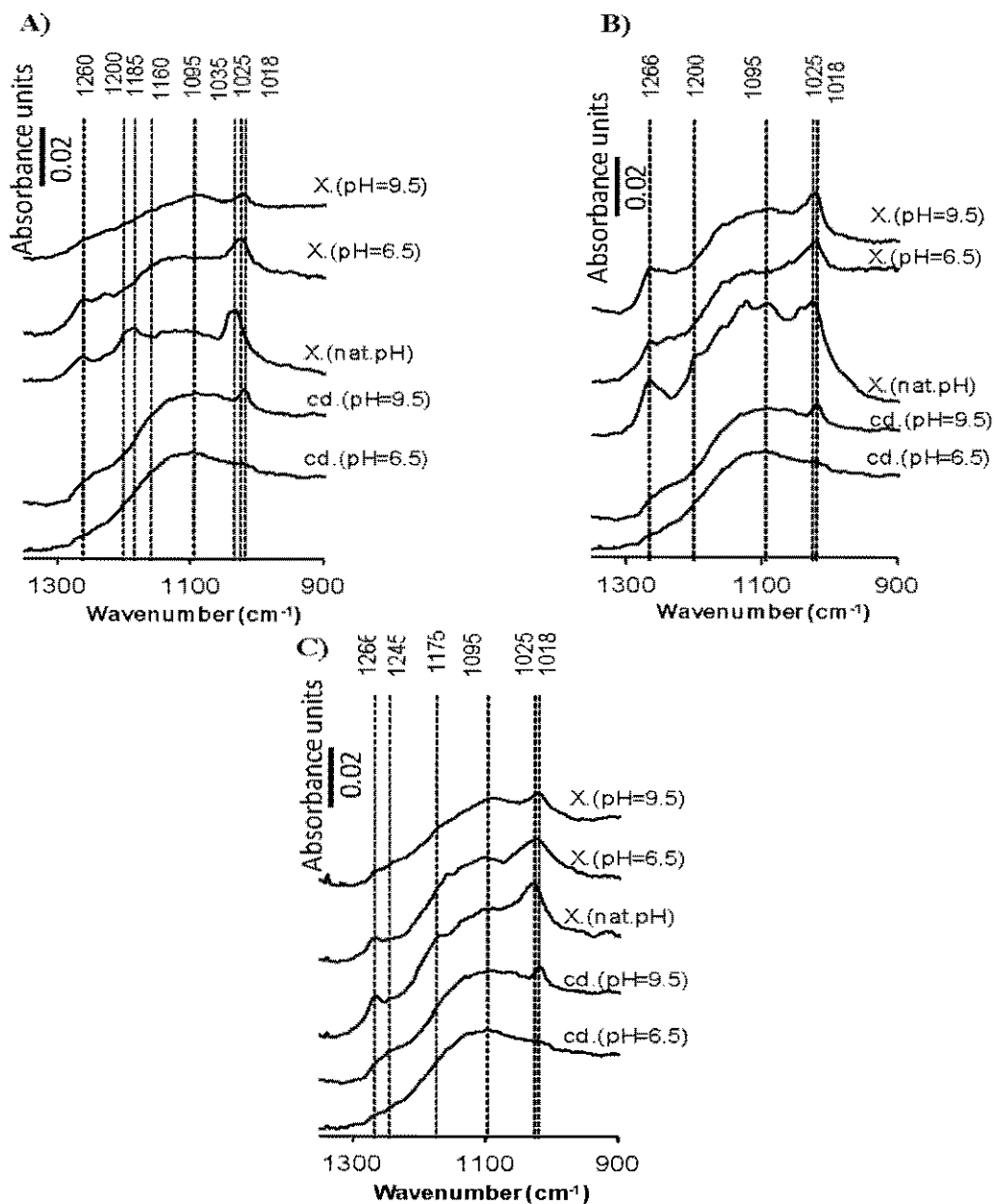


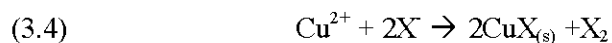
Figure 3.6 DRIFT narrow spectra from 1350  $\text{cm}^{-1}$  to 900  $\text{cm}^{-1}$  of pyrite fraction 32-63  $\mu\text{m}$  conditioned at natural pH (nat.pH), pH= 6.5 and pH=9.5 with different xanthate collectors. A) isoamylxanthate; B) hexylxanthate; C) trimethyl hexylxanthate. Cd. : after conditioning; X: initial xanthate concentration of  $2.5 \cdot 10^{-4}$  mol/L.

The difference between fraction F1 and the two coarser fractions in terms of xanthate adsorption as function of conditioning pH may be explained by the difference of surface

sulphate composition between those size fractions. As observed in a previous paper (Derycke et al., 2012a), the fraction F1 have higher proportion of hydrated hydroxylated ferric sulphate than the fraction F2 and F3 in alkaline conditions. The high quantity of hydroxylated ferric sulphates present on fraction F1 may hinder xanthate adsorption.

### 3.4.3 Influence of copper activation on xanthate adsorption

Copper sulphate was tested as an activator at a concentration of  $1.8 \cdot 10^{-4}$  mol/L at an initial isoamylxanthate concentration of  $2.5 \cdot 10^{-4}$  mol/L. Observation of a yellow precipitate in the testing tube and the presence in UV spectra (not presented herein) of peaks at 425 nm and 240 nm assigned to copper xanthate and dixanthogen respectively, as elsewhere noticed (Finkelstein, 1977; Joly et al., 2004; Rao, 1971), indicated a reaction of residual copper in solution with the xanthate added according to the following equation (Allison and O'Connor, 2011; Leppinen, 1990; Li and Zhang, 1989):



Copper xanthate and isoamylxanthate were analysed by IR spectroscopy (transmission mode) as shown in Figure 3.7A. Copper xanthate was prepared for IR analyses (transmission mode) by precipitation from aqueous solutions of copper sulphate with a stoichiometric amount of potassium isoamylxanthate xanthate. The co-precipitated dixanthogen was removed by dissolution in ether solvent. The major peaks observed in Figure 3.7A for potassium isoamylxanthate (spectrum a) are the peaks at  $1136 \text{ cm}^{-1}$  and  $1075 \text{ cm}^{-1}$  both assigned to the xanthate functional group (Cases and De Donato, 1991; Leppinen, 1990). Copper isoamylxanthate (spectrum b) of Figure 3.7A shows two major peaks at  $1195 \text{ cm}^{-1}$  and  $1038 \text{ cm}^{-1}$  both assigned to cuprous xanthates (Leppinen, 1990). The absence of a peak at  $1261 \text{ cm}^{-1}$  indicates that the dixanthogen has been successfully removed by washing copper xanthate with ether. Figure 3.7B shows DRIFT spectra of pyrite fraction 150-425  $\mu\text{m}$  conditioned at natural pH (pH = 5.5) without copper sulphate and conditioned with  $1.8 \cdot 10^{-4}$  mol/L of copper sulphate at pH = 5.5. The two spectra are identical indicating that copper sulphate presence in solution does not change the sulphate dissolution and speciation on pyrite surface. As mentioned before, copper sulphate effect on collector adsorption was investigated with (spectrum X.(Cu-w)) and without (spectrum X.(Cu)) solution renewal. These two spectra are

compared to isoamylxanthate adsorption without activation (spectrum X.) which had a surface coverage of 27, confirmed by a duplicated test. Copper activation without solution renewal led to a yellow precipitate, which biased the UV analyses. Surface coverage was therefore calculated using the correlation model between UV and IR data (section 3.4.1.2) as a surface coverage of 30.

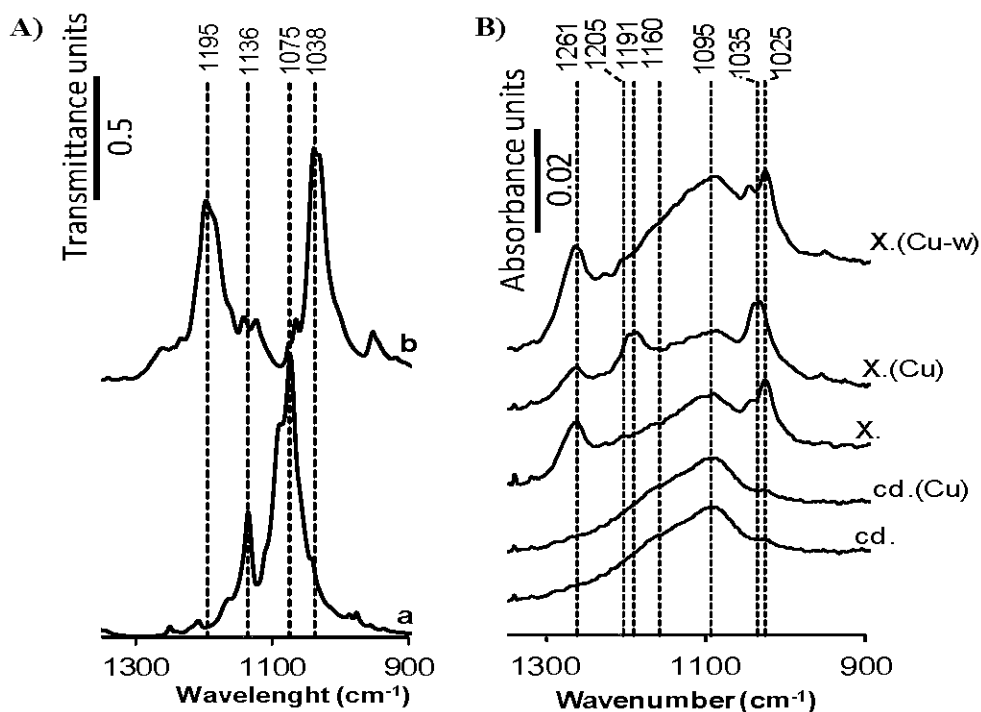


Figure 3.7 (A) Transmission narrow spectra from  $1350\text{ cm}^{-1}$  to  $900\text{ cm}^{-1}$  of (a) Solid potassium isoamylxanthate; (b) solid copper isoamylxanthate and (B) DRIFT spectra from  $1350\text{ cm}^{-1}$  to  $900\text{ cm}^{-1}$  of pyrite fraction  $150\text{-}425\text{ }\mu\text{m}$ . cd.: conditioned at  $\text{pH}=5.5$  without copper addition; cd.(Cu): conditioned with  $1.8 \cdot 10^{-4}\text{ mol/L}$  of copper sulphate; X.: without copper activation with isoamylxanthate at  $2.5 \cdot 10^{-4}\text{ mol/L}$ ; X.(Cu): conditioned with copper sulphate at  $1.8 \cdot 10^{-4}\text{ mol/L}$  and isoamylxanthate at  $2.5 \cdot 10^{-4}\text{ mol/L}$ - no solution change before collector addition; X.(Cu-w): conditioned with  $1.8 \cdot 10^{-4}\text{ mol/L}$  of copper sulphate with isoamylxanthate at  $2.5 \cdot 10^{-4}\text{ mol/L}$ - solution changed before collector addition.

The DRIFT spectrum of copper activation without solution renewal (X.(Cu)) shows a peak at  $1191\text{ cm}^{-1}$  which was not present on the reference spectrum (X.) attesting the presence of copper xanthate at the pyrite surface. Dixanthogen is also present (peak at  $1261\text{ cm}^{-1}$ ) although in less quantity than in the reference spectrum. The peak at  $1025\text{ cm}^{-1}$  (on spectrum

X.) slightly shifted toward  $1035\text{ cm}^{-1}$  accounts for both dixanthogen and copper xanthate. The DRIFT spectrum of copper activation with solution renewal (X.(Cu-w)) shows a peak at  $1261\text{ cm}^{-1}$  assigned to dixanthogen and a shoulder at  $1205\text{ cm}^{-1}$ , which should be related to copper xanthate. The shift from  $1191\text{ cm}^{-1}$  to  $1205\text{ cm}^{-1}$  may be due to the presence of copper(II) xanthate (rather than copper (I) xanthate) adsorbed onto pyrite as observed by Leppinen (1990) at high copper concentration. The presence of both copper alkyl xanthate and dixanthogen was found in previous work by Persson (1994) on activated sphalerite. The surface coverage of 28, however, did not differ from the non-activated pyrite. These tests suggest that residual copper xanthate react rapidly with xanthate to precipitate as copper xanthate both in solution and at the pyrite surface. When no residual copper is left (solution renewal), copper activation do not improve xanthate surface coverage but led to changes regarding the type xanthate phases adsorbed (dixanthogen and copper xanthate instead of dixanthogen only). Copper sulphate activation on coarse pyrite could probably be improved with higher pHs due to the increase of mineral copper consumption as demonstrated by previous works on pyrite and pyrrhotite (Huang et al., 2006; Leppinen, 1990). Higher copper conditioning time could also be investigated to improve mineral copper consumption (von Oertzen et al., 2007).

### 3.5 Conclusions

This work provides a thorough fundamental insight into the impact of particle size and collector chain length and branching on xanthate adsorption. The influence of the conditioning pH and of copper activation was also investigated for coarse pyrite flotation purposes. This research work allowed reaching the following conclusions:

- The particle size has the main impact on the collector maximum coverage (saturation). Indeed, no saturation could be reached with finer size fractions (F1:32-63  $\mu\text{m}$  and F2:63-150  $\mu\text{m}$ ) within the concentrations tested unlike the coarser fraction which reached a plateau for all collectors. This may be related to the specific surface area affecting the reactivity of pyrite toward xanthate molecules and the oxidation phases present (more ferrous sulphate than ferric sulphate). This also means that collector dosage could not improve pyrite flotation. Collector type selection would be the interesting way for improving flotation and hydrophobicity of pyrite surface.

- The collector chain type (length and branching) has a major impact on the xanthate phases adsorbed at the pyrite surface at acidic pH (iron xanthate or/and dixanthogen): iron xanthate is more abundant than dixanthogen at pyrite surface with a short chain collector such as ethylxanthate. Dixanthogen presence at the pyrite surface increases with the increase of alkyl chain length and branching, which follows the trend of standard potential of xanthate/dixanthogen couple shown in table 1.3.
- The more branched is the collector the higher surface coverage is reached. This would allow coarse particles to reach better flotation performances since higher hydrophobicity would counterbalance the coarse particles higher inertial force leading to lesser particle-bubble breakage.
- The increase of the conditioning pH decreases the collector adsorption capacity for the 32-63  $\mu\text{m}$  fraction, due to higher proportion of hydrophilic phases at alkaline pH (both sulphate and oxyhydroxydes), but does not affect the collector adsorption capacity of the coarser fractions (63-150  $\mu\text{m}$  and 150-425  $\mu\text{m}$  fractions). This would allow flotation of coarse pyrite at high pHs.
- Copper activation without residual copper in solution led to similar xanthate surface coverage. Dixanthogen is the main xanthate species although copper xanthate may be present (shoulder at  $1200\text{ cm}^{-1}$ ).

These results bring fundamental knowledge of the impact of particle size on collector adsorption and the choice of a specific collector structure may be highlighted by these findings. Coarse particles flotation would benefit from adsorption of branched collectors having higher surface coverage to enhance the particle hydrophobicity. Conditioning pH may have less impact on pyrite flotation due to lesser surface reactivity. High xanthate dosages may not favour coarse pyrite flotation since saturation is reached after surface coverage equivalent to 30 and 60 xanthate monolayers for ethylxanthate and isoamyxanthate (equivalent to KEX and KAX used in the industry). The mix use of short linear xanthate developing strong bond to pyrite (like ethylxanthate) and long branched collector (like trimethyl hexylxanthate) to enhance general hydrophobicity could be investigated.

### **3.6 Acknowledgements**

This work was financed thanks to the Canada Research Chair on Integrated Management of Mines Wastes and the NSERC Polytechnique-UQAT Chair in Environment and Mine Wastes Management. The authors would like to thank the LEM laboratory as well as the URSTM staff for their technical and analytical support.





## CHAPITRE 4

# FLOTATION OF COARSE PYRITE: APPLICATION TO THE DESULPHURIZATION OF A HEMO-ILMENITE ORE

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### 4.1 Abstract

Pyrite is usually a barren mineral quasi-ubiquitous in polymetallic mine ores around the world. It is well-known in the mine related scientific community that its presence within tailings often causes acid mine drainage. However, pyrite can be the source of other environmental issues such as SO<sub>2</sub> emission issuing from pyrite roasting process. Rio Tinto Fer et Titane (RTFT), a Quebec based society recognized as a world leader in the production of titanium dioxide feed stock is confronted to SO<sub>2</sub> emission caused by pyrite roasting during the metallurgical process. In its environmental commitments, RTFT is planning to decrease its SO<sub>2</sub> emissions. Environmental desulphurization intends to prevent sulphide related environmental problems by concentrating those minerals by flotation upstream of the roasting

process. Its application to RTFT's ore prior to roasting is an interesting alternative for pyrite separation from the hemo-ilmenite. The wide particle size range, from 75  $\mu\text{m}$  to 1200  $\mu\text{m}$ , of the hemo-ilmenite ore is the major challenge related to the desulphurization process by flotation since grinding to facilitate pyrite flotation is not economic, the fine fraction being removed from the ore to the wastes. Coarse particle flotation is a well-known challenge in the ore processing industry. This project aims at improving the flotation of coarse pyrite by testing long chain and branched chain xanthates as collector. Results from flotation tests using a Denver conventional cell showed an improvement of the sulphur recovery with xanthates having longer chain than KAX-51 often used in the industry. It allowed a reduction of the hemo-ilmenite sulphur content from 0.8 % to 0.1 %, corresponding to 84 % overall sulphur recovery.

## 4.2 Introduction

### 4.2.1 Industrial site and ore processing description

Rio Tinto Fer et Titane (RTFT) is recognized as a world leader in the production of titanium dioxide feed stock. RTFT extracts and transforms the hemo-ilmenite ore from the Tio mine since 1950. The Tio mine, located 43 km north of Havre St-Pierre (North of Quebec), is a massive lens-like deposit of intrusive hemo-ilmenite in an anorthosite rock. As illustrated by Figure 4.1A, the hemo-ilmenite ore is extracted from the Tio open-pit mine and transferred to the metallurgical complex of Sorel-Tracy which receives about three million metric tonnes of ore per year. The metallurgical complex site is constituted of interconnected plants allowing the ore to be concentrated and smelted into various products such as pig iron, steel and titanium dioxide slags. During the ore processing (Figure 4.1B), the hemo-ilmenite ore is roasted in rotary kilns (for magnetization and desulphurization) which causes the production of  $\text{SO}_2$  emissions. Decreasing  $\text{SO}_2$  in the exhaust gases from the roasting process is an important environmental objective of the ongoing Rio Tinto's environmental short term program. The main objective of this study consists in evaluating the feasibility of hemo-ilmenite desulphurization using a conventional Denver lab cell and different xanthates as collecting reagents aiming to lower the sulphur grade of the hemo-ilmenite sampled (Figure 4.1B) to 0.05 % so that the total sulphur grade of the feed of the roasting process would be of 0.12 % which will reduce significantly the  $\text{SO}_2$  emission.

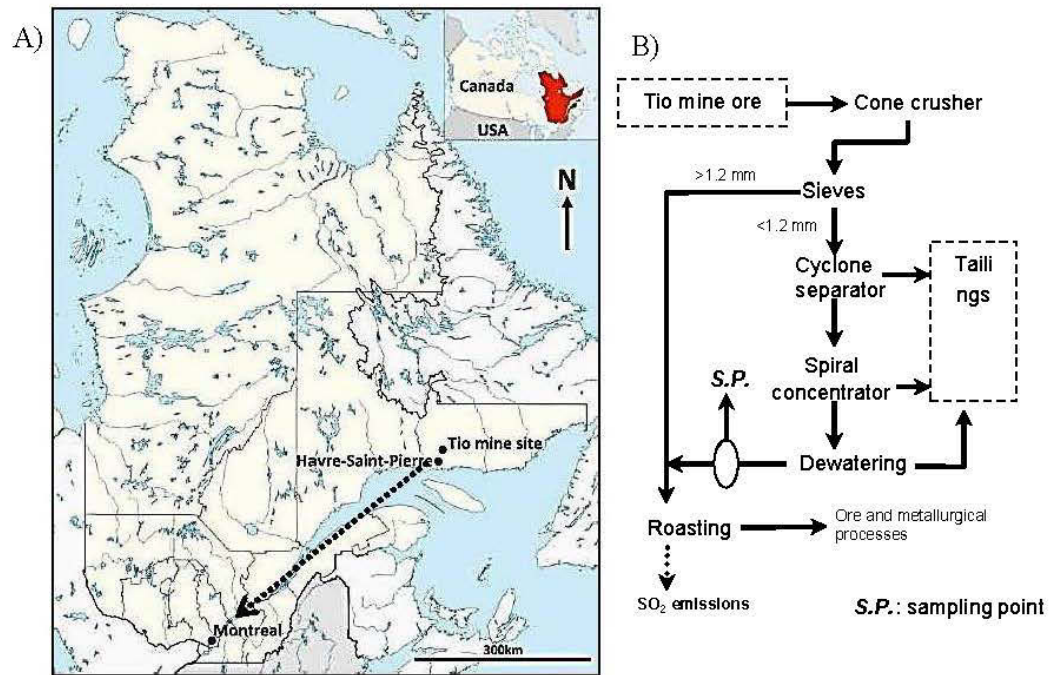


Figure 4.1 A) Transport of the hemo-ilmenite ore from the Tio mine site to the Sorel-Tracy plant near Montréal (adapted from Plante et al., 2011a); B): Schematic diagram of the ore preparation plant (Sorel-Tracy, Qc) showing the sampling point (S.P.) and localisation for desulphurization equipments.

#### 4.2.2 Study justification and objectives

SO<sub>2</sub> emission is proven to have negative impacts on the environment, especially on air quality, and to cause acidic precipitations. The reduction of SO<sub>2</sub> emission has been the source of many investigations as this gas is produced in many industrial operations like smelters and power plants (Ettouney et al., 2012; Nyavor and Egiebor, 1991). A wide spectrum of techniques has been proposed such as the addition of lime agglomeration roast, a calcium-based SO<sub>2</sub> sorbent, directly into the ore before roasting (Nyavor and Egiebor, 1991), the production of elemental sulphur from SO<sub>2</sub> by the Ramenshni SO<sub>2</sub> reduction patented process (Rameshni and Santo, 2006), and the popular lime/limestone process for flue gas desulfurization (Bakke, 1980; Ettouney et al., 2012; Khawaji and Wie, 2005; Ren et al., 2011; Zhang et al., 2011). Association of a fume scrubbing system to a sulfuric acid plants is also commonly suggested (Daum, 2009; Léveillé and Claessens, 2009). Off-gas cleaning systems often require large size plants and high cost investments. An alternative option to the implementation of such installations would benefit RTFT as its metallurgical complex

already hosts various plants needed for the ore transformation. Reducing the sulphur grade of rotary kiln feed is an attractive option to decrease SO<sub>2</sub> emissions since it only requires additional flotation cells to the already existing ore preparation plant (Figure 4.1B). Desulphurization using flotation has been successfully tested on several tailings to reduce acid mine drainage (Lepinen et al., 1997; Benzaazoua et al., 2008; Benzaazoua et al., 2000). There is an extensive literature on non-selective sulphide recovery by flotation for environmental purposes (Benzaazoua et al., 2004; Benzaazoua et al., 2008; Benzaazoua et al., 2000; Benzaazoua and Kongolo, 2003; McLaughlin and Stuparyk, 1994; Yalcin et al., 2004). Moreover, flotation is often used as a process to concentrate sulphide minerals that contain economic values (Blazy and Jdid, 2001; Crozier, 1991).

The coarse nature of the hemo-ilmenite ore, which is 75 µm to 1200 µm for the sampled spiral concentrate (Figure 4.1B), is one of the major challenges related to the desulphurization process by flotation. Coarse particle flotation is a well-known challenge widely discussed in the literature and this technique is usually best suited and used for particle from about 10 µm to 150 µm (Gomez, 2000; Jameson, 2005; Tao, 2004). Further grinding to facilitate pyrite flotation is not economic in this case study mainly because fine particles are sent to the waste fraction, thus, this alternative was not considered in this work.

Usually, sulphide flotation only requires short chain xanthate (Pearse, 2005). However, coarse particle flotation is widely known to be poorly recovered due to high probability of bubble/particle rupture caused by insufficient hydrophobic film coverage (Bazin and Proulx, 2001; Jameson, 2010), settling and insufficient buoyancy of bubble/particle aggregates (Tao, 2004). To overcome the poor recovery of coarse particles flotation, many investigations were undertaken from hydrodynamic consideration, flotation equipment new design and reagent development (Gomez, 2000; Jameson, 2010; Lotter and Bradshaw, 2010; Shahbazi et al., 2008; Soto and Barber, 1991; Tao, 2004). Long chain collectors improve the hydrophobicity by creating a more stable film at the sulphide surface and higher contact angles (Rao, 1971; Rao and Finch, 2003). However xanthates with very long chain have low solubility so that a compromise should be considered (Kim et al., 2000; Ackerman et al., 1987). Branched collectors are also known to confer a better hydrophobicity than their equivalent straight chain (Rao, 1971; Ackerman et al., 1987). The present work evaluates the impact of the

length as well as the branching of the xanthate alkyl chain on the recovery of coarse sulphide by flotation applied to the desulphurization of an hemo-ilmenite ore.

### 4.3 Material and methods

#### 4.3.1 Characterization techniques

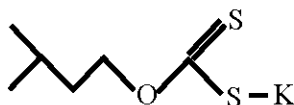
Specific gravity ( $G_s$ ) was determined with a helium pycnometer (Micromeritics, Accucyc 1330). Particle size distribution was determined with standard ASTM sieves (8 sieves between 90 $\mu$ m and 1400 $\mu$ m). The specific surface area (SSA) was analysed by a Micromeritics surface area analyser using the B.E.T. method (Brunauer et al., 1938). The sulphur grade of solids was analysed using an Eltra CS-2000 carbon/sulphur determinator. Mineralogical characterization was carried out using a Bruker A.X.S. D8 advance x-ray diffraction (XRD) instrument equipped with a copper anticathode. The diffractograms were interpreted using EVA software for identification and TOPAS software for mineral quantification based on the Rietveld method (Rietveld, 1993). Mineralogical investigation of the solid samples was also completed through micro-scale optical microscopy (OM) using a metallographic microscope with reflection mode (Nikon Optiphot2-Pol) and a Scanning electron microscope (SEM) (Hitachi S-3500 N) using the backscattered electrons (BSE) mode at 20 kV coupled with an X-ray energy dispersive spectrometer (EDS) (Oxford Instruments). Spectra were acquired with INCA software. SEM-EDS analyses were performed on polished sections coated with carbon.

Residual soluble xanthate was evaluated using a UV spectrophotometer Spectronic Genes is 5 knowing the molar extinction coefficient at 301 nm thanks to the Beer-Lambert calibration curve (Kongolo, 1991, Rao, 1971).

#### 4.3.2 Flotation reagents

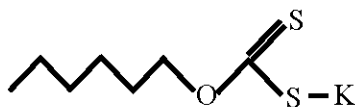
Flotation requires different type of reagents to create the proper surface tension for mineral separation. pH regulator reagents were 10 vol. % solution of  $H_2SO_4$  and 1 M solution of NaOH. The frother used was MIBC (methyl isobutyl carbinol) from Univar Canada Ltd. Copper sulphate was tested as an activating agent and added as a 10 % wt solution. Three different xanthates were tested as collectors for bulk sulphide flotation. The general formula of potassium xanthate is  $ROCS_2K$  with R being an alkyl chain. The potassium

isoamylxanthate (referred as KAX-51) from Univar Canada Ltd. was used as a reference. It was purified by dilution in acetone and precipitation in diethyl ether according to the procedure described by Rao (1971). Its alkyl chain formula is  $R = C_5H_{11}$  and its structure is as follow:

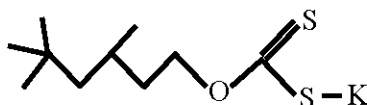


- KAX-51 (isoamylxanthate):

Two other collectors with six carbons alkyl chain length (straight and branched chains) were synthesized following the experimental procedure described by Rao (1971). The hexylxanthate and trimethyl hexylxanthate were synthesized from carbon disulphide and respectively two types of pure alcohol chemical products: hexanol and 3,5,5 trimethyl-1-hexanol. Their alkyl chain formulas are respectively  $R = C_6H_{13}$  and  $R = C_9H_{19}$  and their structures are as follow :



- Hexylxanthate:



- Trimethyl hexylxanthate:

They were also purified by dilution/precipitation (Rao, 1971). Xanthates were added using a 10 wt. % diluted stock solution.

#### 4.3.3 Sampling and flotation procedure

The hemo-ilmenite material was collected directly at the ore preparation plant to obtain representative samples. Figure 4.1B represents the simplified flow-sheet of the Sorel-Tracy process and shows the position of the sampling point (SP), before the roasting process. The homogeneously sampled hemo-ilmenite ore was stored under process water for transportation

to the laboratory in order to preserve the initial physico-chemical pulp characteristics (pH, Eh, etc.) by minimizing air contact. The process water was then drained out and the material was homogenized, split into one kilogram equal parts and stored into a freezer to avoid sulphide oxidation. Previous tests performed on site demonstrated that transport did not affect sulphur recovery (Derycke et al. 2009).

All flotation tests were performed with a laboratory Denver D-12 in a 5 litre metal cell. Despite high speed of the rotor/stator system, dense and coarse particles tended to settle in the corners and to form tetrahedral accumulation at each corner of the flotation cell bottom. The amount of settled particles was estimated through measurement of each tetrahedron's sides (knowing the material density) using a transparent 5 litre plastic cell and results are presented by Figure 4.2. Test parameters were chosen to minimize settlement to a maximum of 4% of total material (corresponding to 0.01% S) with a pulp density of 25 % solid and agitation speed of 1900 RPM. Conditioning time was set to ten minutes for pH regulation. When copper sulphate was added as an activating agent, it was conditioned for an additional ten minutes. After its addition, the collector (different type of collector at various concentrations) was conditioned for five additional minutes. Frother was then added in the flotation cell and conditioned for another one minute (MIBC at 50 g/t). Airflow was fixed at 3.5 L/min and the froth was manually skimmed with a spatula by the same operator for all flotation tests for ten minutes. pH was only adjusted during the pH conditioning step and pH and Eh evolution were measured through the overall conditioning step and at the end of the flotation test. When a second flotation step was added (scavenging step), the flotation parameters and procedure were identical to the first flotation step. Duplicates pulp samples of about 10 mL were pumped from the flotation cell at the end of the collector conditioning time and centrifuged for 15 minutes at 3000G. The liquid phase was then analysed by UV spectroscopy to evaluate the amount of residual xanthate (unadsorbed collector).



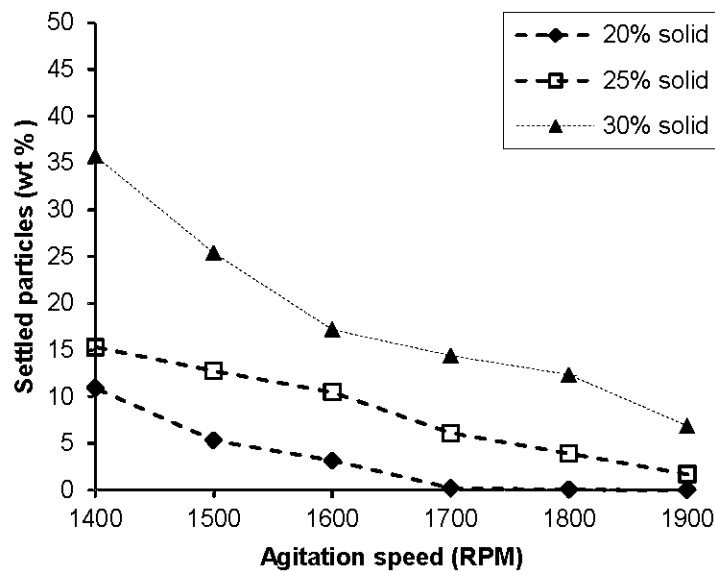


Figure 4.2 Evaluation of the amount of settled particles as function of agitation speed and pulp solid percentage in the Denver cell corners.

#### 4.4 Results

##### 4.4.1 Ore preliminary characterization (feed sample)

A preliminary chemical and mineralogical characterization of the studied ore (Table 4.1) was carried out by dividing the feed wide particle size distribution (75  $\mu\text{m}$  to 1200  $\mu\text{m}$ ) into three size fractions to obtain a rough evaluation of the different minerals size distribution. Sulphate fraction of the total sulphur percentage was not analysed in this study since previous work carried on the hemo-ilmenite ore showed that sulphur occurs mainly as sulphide minerals (Plante et al., 2011a; Pepin, 2009). Bulk sulphur analysis of the hemo-ilmenite ore is approximately 0.8 wt. % and is expressed essentially as pyrite according to XRD analysis. The fraction above 300  $\mu\text{m}$  have a lower sulphur grade compared to the other fractions analysed, but as it represents the major part of the sample (68.7 wt. %), the sulphur content of the fraction above 300  $\mu\text{m}$  represents 57 wt. % of the overall sulphur content; this means that pyrite is mainly present as coarse grains. The hemo-ilmenite ore is mainly constituted of hematite and ilmenite (intergrowths). Plagioclase (labradorite) is the main gangue mineral. Biotite is present in lesser quantity.

Table 4.1 Chemical and mineralogical characterization of the feed by size fraction

Hemo-ilmenite size fraction				
	< 150 $\mu\text{m}$	150-300 $\mu\text{m}$	> 300 $\mu\text{m}$	Bulk *
Fraction wt. %	12.6	18.7	68.7	100
<b>Major elements</b>				
S (wt.%)	1.23	1.06	0.68	0.82
Ti (wt.%)	19.1	17.6	20	19.44
Fe (wt.%)	34.1	30.5	34.4	33.63
Al (wt.%)	1.19	2.49	1.19	1.43
Ca (wt.%)	0.55	1.05	0.461	0.58
Mg (wt.%)	1.54	1.65	1.58	1.59
Mn (wt.%)	0.09	0.08	0.09	0.09
Ni (ppm)	520	500	440	461
Cu (ppm)	360	200	110	158
Co (ppm)	560	490	480	492
Cr (ppm)	800	990	1080	1028
<b>Mineral quantification (XRD/Rietveld)</b>				
Pyrite (%)	4	3	3	3
Ilménite (%)	66	56	70	67
Hématite (%)	23	19	22	21
Labradorite (%)	6	21	5	8
Biotite (%)	1	2	0	1

\*Calculated from the three size fractions

#### 4.4.2 Flotation tests

##### 4.4.2.1 Impact of xanthate dosage, chain length and branching

The influence of xanthate dosage, chain length and branching was evaluated at acidic pH (pH=5) and alkaline pH (pH=9.5). The obtained results are presented in Figure 4.3. The collector dosage testing was performed with the reference collector often used in the industry, KAX-51, and is presented in figure 4.3A. A blank test was performed to evaluate the natural hydrophobicity and the mechanical entrainment of sulphides, which represented 2 % of sulphur recovery. There was little difference of sulphur recovery between tests at 45 and 75 g/t whatever the pH value as the sulphur recovery stayed between 61 and 65 %. Residual xanthate was highly influenced by pH for tests at 45 and 75 g/t xanthate. At acidic pH, it was quasi zero while at alkaline pH it reached 10 g/t for both 45 g/t and 75 g/t initial collector dosage.

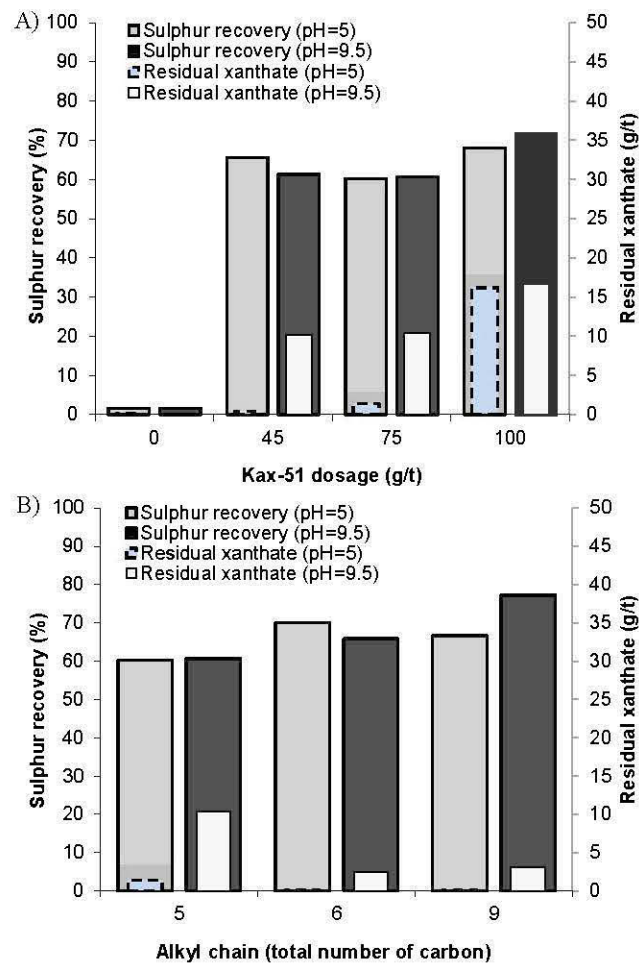


Figure 4.3 Flotation at acidic pH (pH=5) and alkaline pH (pH=9.5) showing sulphur recovery and xanthate residual concentration as function of KAX-51 dosage (A) and xanthate alkyl chain length at 75 g/t (B).

A collector dosage of 100 g/t gave slightly better sulphur recovery with 68 % sulphur recovery at pH = 5 and 72 % for pH = 9.5. High residual collector concentration occurred at 100 g/t dosage for both acidic and alkaline pH (16 and 17 g/t respectively) that is why the dosage of 75 g/t was chosen as collector dosage for longer chain xanthate testing.

Collector type testing was carried at both acidic and alkaline pH and is presented in Figure 4.3B. The collectors that have 5, 6 and 9 total carbons in their alkyl chain correspond respectively to the KAX-51, the hexylxanthate and trimethyl hexylxanthate as previously described in section 4.3.2. One can notice that the last two xanthates have the same chain

length (6 carbons) but that the hexyl xanthate has a straight chain while the trimethyl hexylxanthate has a branched chain (three methyl as branching groups). The sulphur recovery increased progressively as the total number of carbon of the alkyl chain increased and the residual xanthate decreased with higher carbon number. The decrease of residual xanthate with increase of total carbon number of alkyl chain indicates a better adsorption of longer chained xanthate. The best sulphur recovery (77 %) was reached with trimethylxanthate at pH=9.5 at 75 g/t dosage and this long branched chain collector was chosen for the rest of the experiment.

#### 4.4.2.2 Impact of pH

The impact of pH on the sulphur recovery and the residual xanthate amount was evaluated with flotation tests using trimethyl hexylxanthate at 75 g/t (Figure 4.4). The sulphur recovery and the residual xanthate of KAX-51 and hexylxanthate at pH=5 and pH=9.5 are also reported for comparison. For trimethyl hexylxanthate, the sulphur recovery increased for pH lower than 5 and higher than 9.5, reaching 76 % and 85 % sulphur recovery at pH=4 and pH=10.5 respectively. High pHs (pH>10) have already been proved inappropriate with ethyl and amyloxanthate (KAX) for pyrite flotation in previous works (Fuerstenau et al., 1968; Duc, 1992; Sirkeci, 2000; Mermillod-Blondin, 2005; Yalcin et al., 2011). Depression of pyrite observed in alkaline conditions (pH>10) is mainly induced by the development of hydrophilic and hydroxylated ferric oxidation products at the pyrite surface, which lowers the number of sites likely to fix collector (Bulut et al. 2004; Kongolo, 1991; Mermillod-Blondin et al., 2005). It is also known that dixanthogen is partly responsible for pyrite flotation and that it is formed by oxidation of xanthate ions at the pyrite surface (Wang and Forsberg, 1991; Lotter and Bradshaw, 2010). However dixanthogen has a poor stability in alkaline solutions (Finkelstein, 1977; Jones and Woodcock, 1983). Long chain xanthates oxidize more easily into dixanthogen than short chain due to larger inductive effect donating electron from the alkyl group (Lotter and Bradshaw, 2010; Somasundaran and Wang, 2006) and they also have higher stability in alkaline conditions (pH>10) (Jones and Woodcock, 1983). Results obtained with trimethyl hexylxanthate at pH=10.5 are higher than results at pH=9.5 which is connected to the results described by Jones and Woodcock (1983) that longer chain xanthates have higher stability in alkaline conditions.

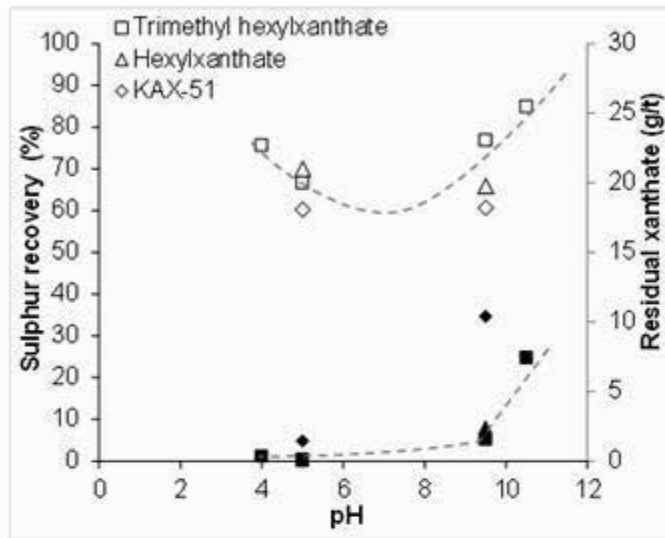


Figure 4.4 Sulphur recovery and xanthate residual concentration of KAX-51, hexylxanthate and trimethyl hexylxanthate at 75 g/t as function of pH; Filled symbols correspond to residual xanthate amount; unfilled symbols correspond to sulphur recovery.

Results from Figure 4.4 indicate that the use of trimethyl hexylxanthate benefits pyrite flotation even in alkaline conditions. This suggests that the higher collecting power of trimethyl hexylxanthate counterbalances the depression effect that is caused by the development of hydrophilic species at the pyrite surface at alkaline pHs. This higher recovery of trimethyl hexylxanthate may also be related to higher stability and amount of dixanthogen generated at the pyrite surface at these pHs compared to shorter chain xanthates like KAX-51.

As already observed in Figure 4.3, Figure 4.4 shows that the residual xanthate amount increases with pH increase reaching 7 g/t at pH = 10.5 against 3 g/t for pH=9.5 and zero for acidic pHs for flotation with trimethyl hexylxanthate. This indicates that xanthate adsorbed better at acidic than alkaline pH as already observed in Mermillod-Blondin (2005) and Kongolo (1991). Stability of xanthate at pH=5 is still guaranteed since the fast decomposition of xanthate into carbon disulphide and alcohol occurs at pHs lower than four (Rao, 1971; De Donato et al., 1989). Furthermore, no other peak than the xanthate peak at 301 nm appeared on the UV spectra.

#### 4.4.2.3 Second flotation step (scavenging)

In order to improve the desulphurization process performance (reduction of the sulphides amount remaining in tailings), a second flotation step was added (Figure 4.5) and tested at acidic and alkaline pHs using trimethyl hexylxanthate as collector at 75 g/t. The sulphur recovery of the second flotation step reached 6 wt. % and 7 wt. % respectively for flotation at acidic and alkaline pHs. It allowed a diminution of residual sulphur to a value of 0.11 % S for flotation at alkaline pH (pH=9.5). The residual xanthate amount increased slightly in the second step suggesting that the collector dosage of the second step could be lowered and optimized to save reagent costs.

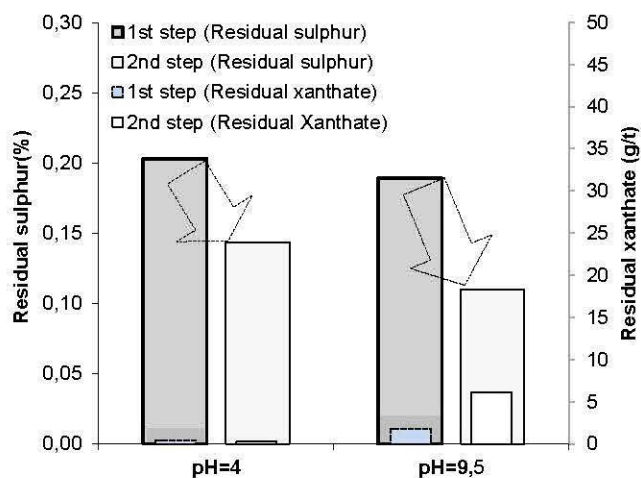


Figure 4.5 Residual sulphur and residual xanthate as function of the flotation pH with trimethyl hexyl xanthate at 75 g/t. Addition of a second flotation step allows the tailings sulphur grade to be lowered at 0.11% for flotation at pH=9.5.

#### 4.4.2.4 Impact of activating agents

The impact of the addition of activating agents such as air introduction (2.5 L/min) during conditioning or copper sulphate addition (50 g/t) was tested with the trimethyl hexylxanthate at pH=9.5 (Figure 4.6). The reference test (trimethylxanthate at 75 g/t with pH=9.5) was carried in triplicates. Figure 4.6 shows that activating agents, as used in the experiment, did not improve the sulphur recovery.

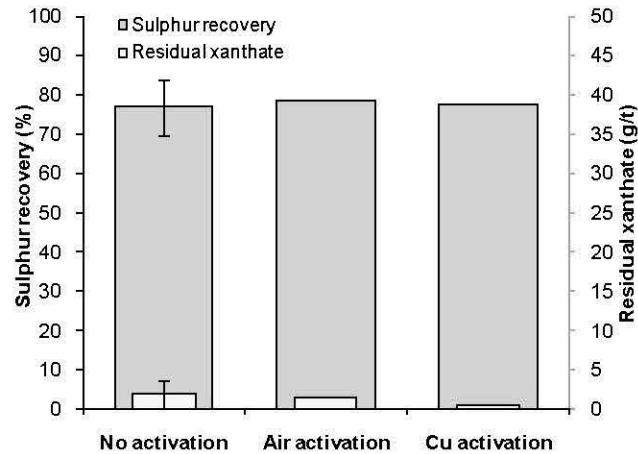


Figure 4.6 Sulphur recovery and xanthate residual concentration as function of activating agents (no activation, air and copper sulphate activation) with trimethyl hexyl xanthate at 75 g/t. The error bar representing a 95% confidence interval is indicated for the activator free test carried in triplicate.

The addition of copper sulphate resulted in equivalent sulphur recovery but less residual xanthate. This lower residual xanthate amount indicate that there was still copper in solution that had not adsorbed on sulphide during conditioning time and had therefore reacted with xanthate to form a complex copper xanthate as reported by Joly et al. (2004) and Leppinen (1990). Lowering copper sulphate addition should be considered in order to avoid formation of copper xanthate complex due to excess of copper in solution which subtracts xanthate aimed at sulphide adsorption (Leppinen, 1990). An appropriate copper sulphate dosage and longer conditioning time could also be applied to allow more effective copper adsorption on pyrite (von Oertzen et al., 2007).

#### 4.4.2.5 Kinetic flotation modeling

Sulphur recovery evolution as a function of flotation time for the first and second flotation steps (trimethylxanthate at 75 g/t, pH=9.5) is presented in Figure 4.7. Kinetics models assuming a reaction of first order between particles and bubbles are often used to fit flotation data (Benzaazoua et al., 2000; Kelebek and Nanthakumar, 2007).

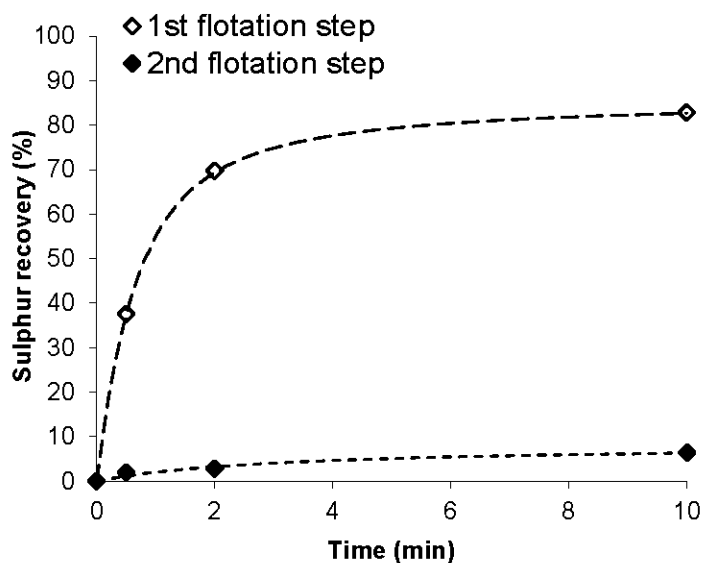


Figure 4.7 Sulphur flotation kinetic as function of time with trimethyl hexyl xanthate at 75 g/t at pH=9.5.

Klimpel equation is presented by the following equation with  $R$  as the element recovery,  $R_{\infty}$  as the maximum recovery (%),  $k$  as the flotation rate constant ( $\text{min}^{-1}$ ) and  $t$  as the flotation time (min.):

$$R(t) = R_{\infty} \left\{ 1 - \frac{1}{kt} (1 - e^{-kt}) \right\}$$

The Klimpel model involves a few assumptions: (i) a monodispersion of the material and (ii) a rectangular distribution of floatabilities (Ek, 1992, Klimpel, 1997, Benzaazoua et al., 2000). Fitting parameters of the Klimpel model are presented in Table 4.2. The first flotation step fitted well the Klimpel model with a determination coefficient ( $R^2$ ) of 1.0 while the second flotation step gave a lower determination coefficient of 0.8. This lower fit may be explained by the lesser mass of the second flotation concentrates which may have caused higher mass error. The flotation constant of the two flotation steps ( $1-3 \text{ min}^{-1}$ ) were of the same order than the sulphide flotation constant of other works (Benzaazoua et al., 2000; Kelebek and Nanthakumar, 2007; Yalcin and Kelebek, 2011). The presence of coarse particles in the feed did not lower the flotation constant expected in a flotation process. Moreover, the good fitting



of flotation including coarse particles with a first order kinetic model suggests that coarse particles may have similar flotation behavior than finer size fractions.

Table 4.2 Fitting parameters of the Klimpel model for the first and second flotation steps with corresponding determination coefficient ( $R^2$ )

	First flotation step			Second flotation step		
	$R_\infty$	$k$ ( $\text{min}^{-1}$ )	$R^2$	$R_\infty$	$k$ ( $\text{min}^{-1}$ )	$R^2$
Klimpel model	86	2.57	1.000	5	2.42	0.814

#### 4.4.3 Physical, chemical and mineralogical characterization of flotation products

##### 4.4.3.1 Chemical and physical characterization

The sulphur content and specific gravity of the feed and the flotation products resulting from the optimal test carried in triplicates (trimethyl hexylxanthate at 75 g/t at pH=9.5) are presented in Table 4.3. The sulphur and particle size distribution of the flotation materials are shown in Figure 4.8. Due to a lack of material, only three fractions of the first concentrate (first flotation step- Figure 4.8C) were analyzed and the second concentrate did not yield enough material to perform a size distribution characterization.

Table 4.3 Sulphur grade and specific gravity of the feed and the flotation products (from test with trimethyl hexylxanthate at 75 g/t at pH=9.5)

Element	Feed	1 <sup>st</sup> concentrate	2 <sup>nd</sup> concentrate	Tailings
S (%)	0.75	45.7	33.0	0.13
Specific gravity ( $G_s$ )	4.5	4.2	/	4.5

The desulphurization led to a good result as the sulphur content of the initial material was lowered from 0.75 % S to 0.13 % S with a total sulphur recovery of 84 %. The first concentrate is an almost pure sulphide product with a sulphur grade of 45 % (corresponding to pyrite theoretical sulphur grade) as shown by similar mass and sulphur distribution reported in Figure 4.8C. The second concentrate has more entrainment with a lower sulphur grade of 33 %. As presented in Figure 4.8, the feed presents a wide sulphur and size distribution. The size distribution of the tailings is very close to the feed distribution (Figure 4.8A) except for higher fine particles proportion (fraction below 90  $\mu\text{m}$ ) that may be due to a

slight attrition caused by high rotation speed during the flotation test (Grönstrand et al., 2006).

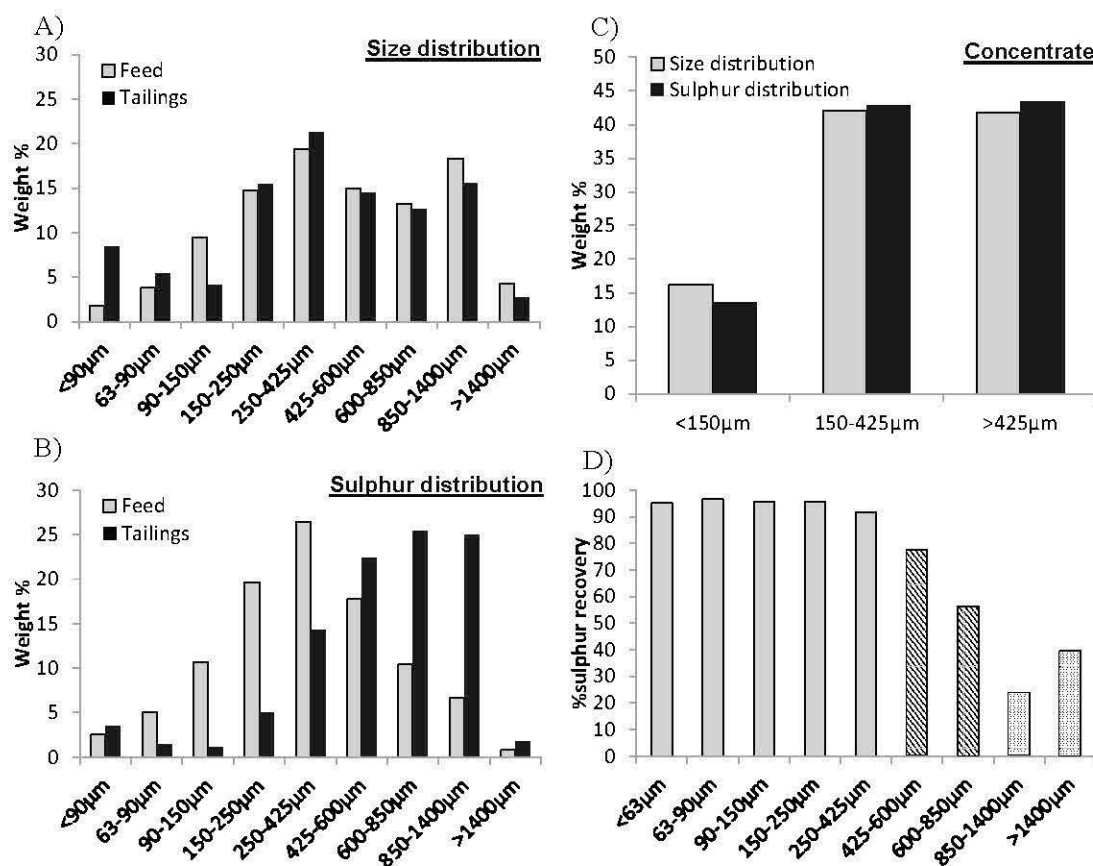


Figure 4.8 A) Particle size distribution of the feed and the desulphurized tailings; B) Sulphur distribution of the feed and the desulphurized tailings; C) Sulphur and particle size distribution of sulphur concentrate; D) Sulphur recovery as function of particle size distribution.

The tailings sulphur distribution (Figure 4.8B) is shifted toward coarser particles compared to the feed sulphur distribution. This shift underlines a steady decrease of sulphur recovery from 425  $\mu\text{m}$  to upper fractions as illustrated by Figure 4.8D, where size by size recovery was calculated from the feed and tailings sulphur distribution. Results in figure 4.8D outline three different size categories as function of sulphur recovery. Fractions up to 425  $\mu\text{m}$  had excellent sulphur recovery over 90 %. Fraction from 425  $\mu\text{m}$  to 850  $\mu\text{m}$  had lower recovery from 55 % to 80 %. The coarser fractions 850-1400  $\mu\text{m}$  and above 1400  $\mu\text{m}$  had poor sulphur

recoveries of 24% and 40 % respectively. If sulphur recovery of the fraction from 425  $\mu\text{m}$  to 850  $\mu\text{m}$  could be further increased, the target of 0.05 % S in the desulphurized tailings could be reached despite the poor recovery of the very coarse fraction (above 850  $\mu\text{m}$ ).

#### 4.4.3.2 Mineralogical characterization

XRD analyses of the feed (Table 4.1) allowed identification of the major minerals constituting the hemo-ilmenite ore with pyrite being the only sulphide detected. Mineralogical characterization through optical microscopy and scanning electron microscopy coupled to SEM-EDS microanalysis (Figures 4.9 and 4.10) confirmed that pyrite was the most abundant sulphide and allowed observation of the specific texture of the hemo-ilmenite ore (Figure 4.9B), which consists of exsolution intergrowths of hematite and ilmenite, as already described in a previous study (Pepin, 2009; Plante et al., 2011a). It also showed the presence of other sulphides like chalcopyrite ( $\text{CuFeS}_2$ ), siegenite ( $(\text{Ni},\text{Co})_3\text{S}_4$ ) and millerite ( $\text{NiS}$ ). Mineralogical investigation of the tailings allowed an evaluation of the residual sulphide association, liberation and locking degree. Locked and mainly partially locked sulphides in hemo-ilmenite grains were found in the tailings (Figure 4.9A, B and C). Many liberated sulphides were also detected (Figure 4.9C, D and F). The sulphur occurring in the coarser fractions (Figure 4.8B) expressed as locked sulphides (pyrite) cannot be recovered by flotation. Mineralogical characterization of the first concentrate confirmed its high sulphide grade and the presence of very coarse liberated pyrite grains up to 1.5 mm (Figure 4.10A). A few hemo-ilmenite grains were entrained as illustrated by Figure 4.10C and estimated in a previous work at 0.1 % hemo-ilmenite recovery (Derycke et al. 2009). The second concentrate contains more hemo-ilmenite while still having a reasonably high sulphide grade (33 %S). It also allowed recovery of very coarse pyrite minerals of about 1 mm (Figure 4.10D) but was constituted of more mixed grains of gangue and sulphides compared to the first concentrate as illustrated by Figures 4.10D, E and F.

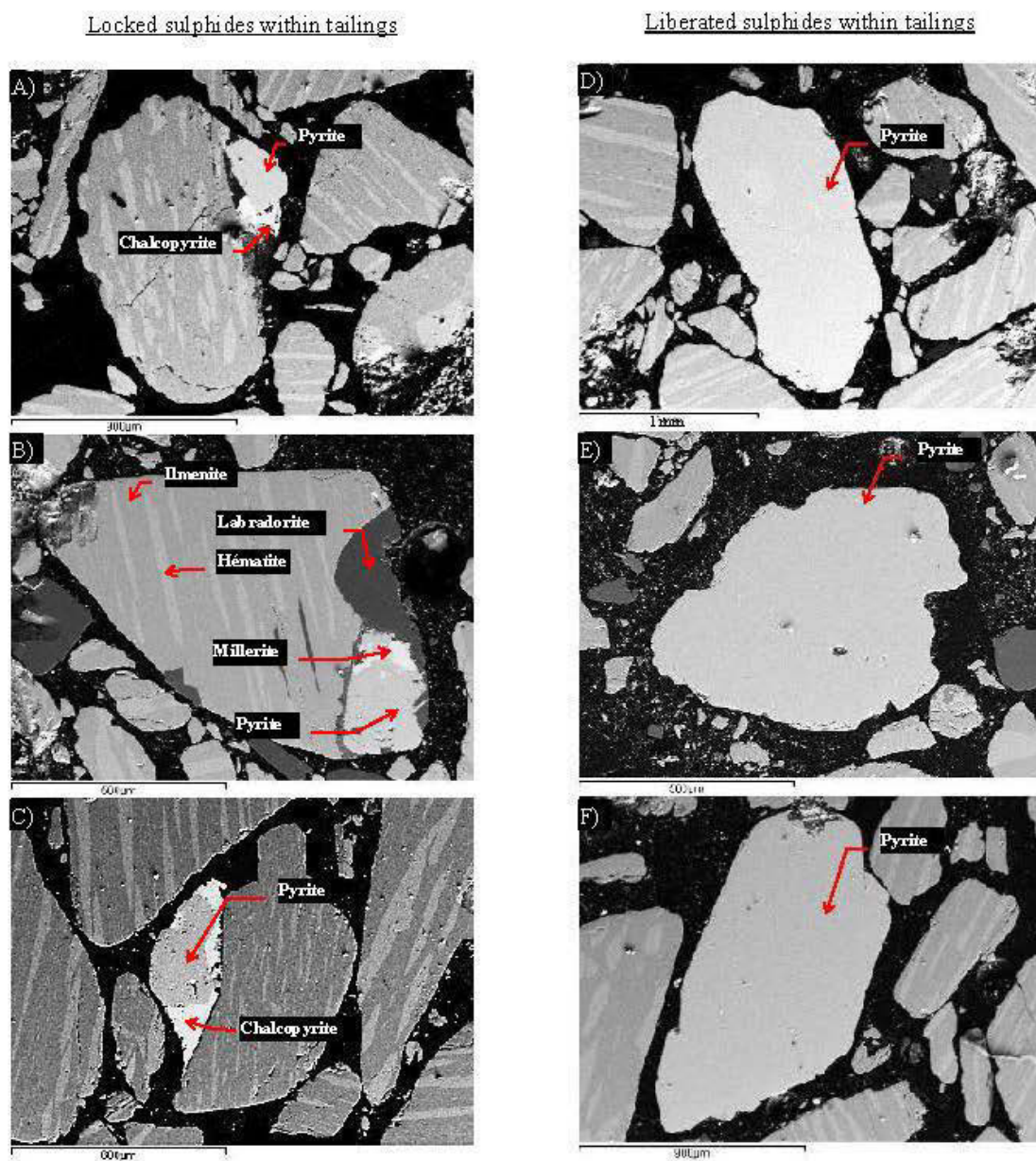


Figure 4.9 SEM back-scattered images of tailings remaining sulphides (A, B, C: locked sulphide; D, E, F: liberated sulphide)

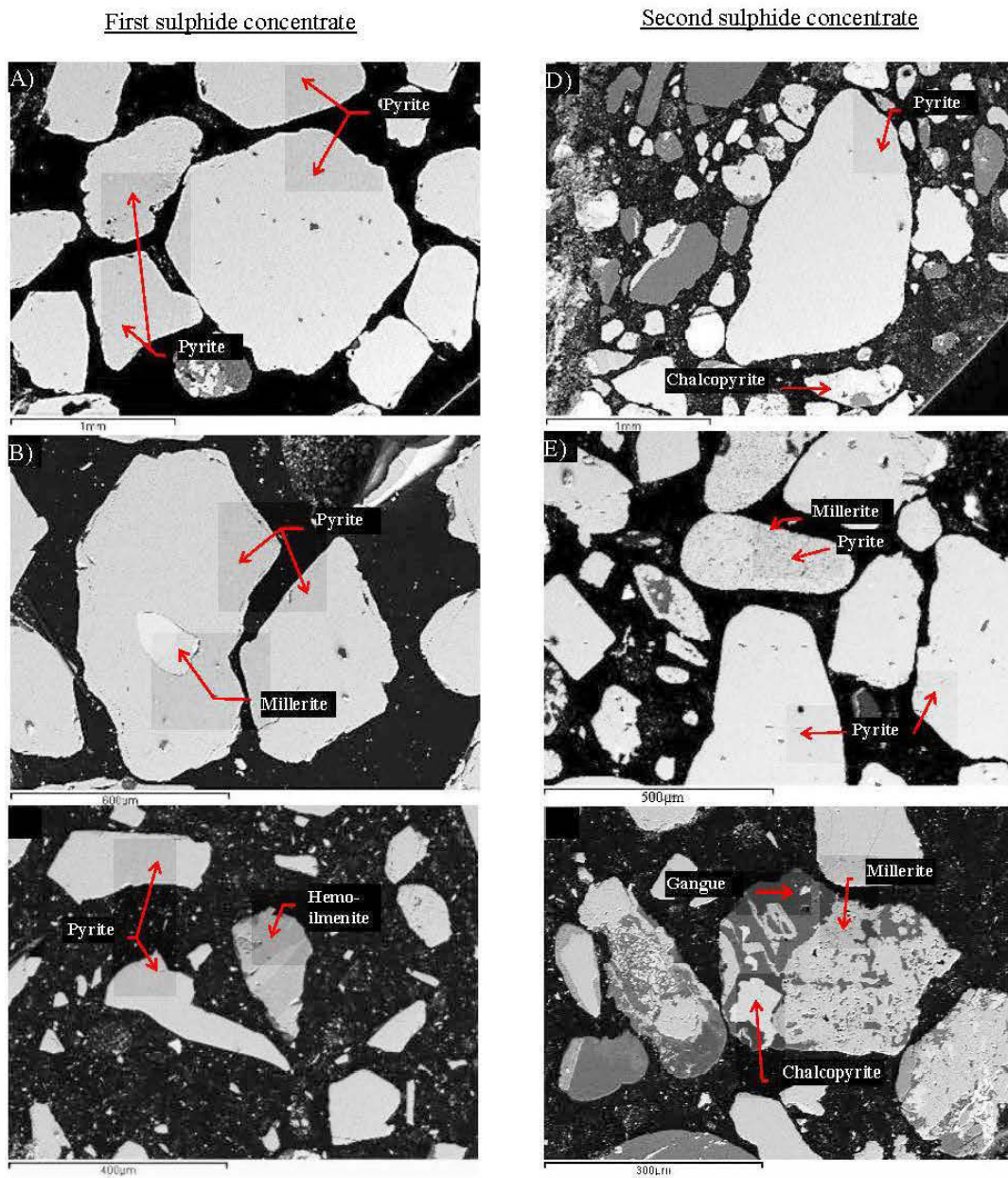


Figure 4.10 SEM back-scattered images of 1<sup>st</sup> sulphide concentrate (A, B and C) and 2<sup>nd</sup> sulphide concentrate (D, E and F).



The first concentrate contained mainly liberated grains of pyrite in all size fractions and the second concentrate was mostly constituted of mixed grains of sulphide and gangue.

#### 4.5 Conclusions

The greatest performance obtained among the desulphurization results were obtained with two flotation steps with long branched chain xanthate (trimethyl hexylxanthate) as collector at 75 g/t and a pH of 10.5. It allowed lowering the tailings sulphur grade down to 0.10% S with hardly any entrainment in the concentrates (sulphur grade of 46% and 33% for first and second concentrate respectively) and a final recovery of 84%. The residual 0.1% sulphur remained mainly as coarse sulphide over 400  $\mu\text{m}$  both as partly locked and liberated sulphides (mainly pyrite). However, further increase of the sulphur recovery of fraction 425  $\mu\text{m}$  to 850  $\mu\text{m}$  would allow reaching the target even if sulphur recovery of fraction above 850  $\mu\text{m}$  remains low. pH modification necessitated 60 g/t and 200 g/t of sodium hydroxide for pH=9.5 and pH=10.5, respectively. Acidification of the pulp to reach pHs of 4 and 5 required sulfuric acid (0.3 and 0.4 L/t respectively).

The desulphurization of the hemo-ilmenite with coarse pyrite ore by using flotation has led to the following conclusions and recommendations:

- Flotation at acidic pH (pH=4-5) and alkaline pH (pH=9.5-10.5) allowed good pyrite recovery.
- The use of long branched chain xanthate has helped improving the desulphurization process performances for sample containing coarse pyrite (75-1200  $\mu\text{m}$ ) from to 61 % to 77 % sulphur recovery at pH= 9.5.
- Trimethyl hexylxanthate allowed excellent recovery (over 90%) of sulphide up to 425  $\mu\text{m}$  although fractions above 850  $\mu\text{m}$  reached the limit of the flotation technique with recovery below 30 %.
- Long chain xanthates performed better than shorter chain xanthate in alkaline conditions.
- Addition of a second flotation step allowed to reach 84 % sulphur recovery and to decrease residual sulphur to 0.10 %.

- Long chain and branched chain xanthates adsorbed better at the pyrite surface since residual xanthate decreased from 10 g/t for KAX-51 to 3 g/t for trimethyl hexylxanthate at pH = 9.5 for an initial collector dosage of 75 g/t.
- Residual sulphides (unfloated) were mainly coarse pyrite as liberated as well as partially locked minerals.

The 0.05 % residual sulphur target within tailings has not been reached but important sulphide reduction was achieved even as coarse particle. If lower SO<sub>2</sub> emissions limits were required, a combination of desulphurization by flotation and small off-gas cleaning plant system could be evaluated.

#### **4.6 Acknowledgments**

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## CHAPITRE 5

### SURFACE CHEMICAL CHARACTERIZATION OF ARSENOPYRITE BEFORE AND AFTER COLLECTOR ADSORPTION FOR FLOTATION PURPOSES

Ce chapitre se présente comme un article. Cependant celui-ci n'a pas encore été soumis lors du dépôt de la thèse

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#### **5.1 Abstract**

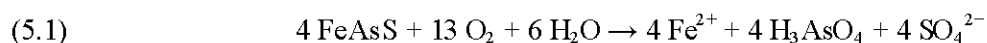
Arsenopyrite is the most common arsenic bearing mineral encountered in mine ores worldwide. Its presence in mine tailings can be the source of arsenic contaminated neutral drainage (CND). This contamination happens when sulphides within the tailings oxidize under atmospheric conditions. CND effluents are characterized by circum-neutral pH, metals



and metalloids release (like arsenic) at concentration over regulation limits or biological tolerances. Environmental desulphurization intends to prevent mine drainage by concentrating sulphides using flotation and producing a desulphurized tailings that can be managed at lower costs. Desulphurization is a promising technique for the control of CND and has already been applied on tailings to prevent acid mine drainage. This work aims at evaluating the impact of crushing, conditioning, activation and collector adsorption as well as air-oxidation (aging) on the arsenopyrite surface. Isoamylxanthate and copper sulphate were tested as collecting and activating agents, respectively. Coupling XPS and DRIFTS techniques allowed evaluating the oxidation layer speciation and distribution across the arsenopyrite surface. Arsenopyrite dry crushing produced a thin heterogeneous oxide layer mainly constituted of arsenic and iron oxides with minor elemental sulphur and iron sulphates. Arsenopyrite acidic conditioning caused thinning of the oxidation layer through partial dissolution of preexisting oxidation products. It also enhanced sulphur and arsenic oxidation rates causing an increase of the oxide layer coverage. Xanthate interaction with arsenopyrite surface led to iron or arsenic xanthate adsorption as a quasi-monolayer structure along with dixanthogen formation and adsorption as a multilayer system. Copper activating action was mitigated by the acidic condition. It led to lesser dixanthogen formation when no residual copper was left in solution and to copper xanthate precipitation at the arsenopyrite surface when residual copper was left in solution. Those results led to better understanding of arsenopyrite surface chemistry before and after collector adsorption.

## 5.2 Introduction

Arsenopyrite is a mineral present in many mine ores worldwide. Its presence in tailings may induce acid mine drainage (AMD) or contaminated neutral drainage (CND) by oxidation of arsenopyrite under atmospheric conditions (Aubertin et al., 2002; Brown Jr and Calas, 2011; Liang and Thomson, 2010). CND occurs when neutralizing minerals counterbalance the acidity produced by sulphide oxidation (Heikkinen et al., 2009; Plante et al., 2011a). It is characterized by circum-neutral pH effluents containing dissolved metals and metalloids like arsenic. The oxidation of arsenopyrite presented by equation 5.1 produces arsenate,  $\text{AsO}_4^{3-}$ , that dissolves into water under oxidizing conditions (Cheng et al., 2009; Haffert and Craw, 2008; Lengke et al., 2009).



Arsenopyrite flotation has mainly been considered for economic reasons like decreasing the arsenic content of sulphide concentrates to smelters (Bruckard et al., 2010; Bruckard et al., 2007; Draskic et al., 1983; Ma and Bruckard, 2009) or to concentrate gold bearing arsenopyrite (Diaz and Gochin, 1995; Duc, 1992; Huang et al., 2006; López Valdivieso et al., 2006; Mavros et al., 1993; Monte et al., 2002). The use of mineral processing technology such as flotation for environmental purposes has been developed through environmental desulphurization. This process aims at preventing acid mine drainage by concentrating sulphides to produce a desulphurized tailings. By this mean, low cost tailings storage can be applied if mine drainage generation is avoided. Desulphurization using flotation in order to control acid mine drainage has already been proved successful on several mine tailings (Benzaazoua et al., 2004; Benzaazoua et al., 2000; Bruckard and McCallum, 2007; Kongolo et al., 2004; Leppinen et al., 1997; Yalcin et al., 2004) and its application to prevent AMD has received very few attention (Diaz and Gochin, 1995).

Arsenopyrite surface chemistry and oxidation process have been studied using a wide variety of techniques among the most used were cyclic voltammetry (Beattie and Poling, 1987; Mikhlin et al., 2006) and spectroscopic tools such as X-Ray photoelectron spectroscopy (XPS) (Huang et al., 2006; Lara-Castro et al., 2010; Nesbitt et al., 1995; Pratt et al., 1998; Schaufuss et al., 2000). XPS allows characterizing mineral surfaces at atomic scale with a signal covering the first 50 Å of the mineral oxidation layer (if no ionic ablation is applied). Diffuse reflectance infrared Fourier transformed spectroscopy (DRIFTS) (Monte et al., 2002; Valli et al., 1994), less used for arsenopyrite surface characterization, allows evaluating the whole oxidation layer with a signal covering 25000 to 83000 Å in the studied range.

Xanthates are often used as collector for arsenopyrite concentration. Arsenopyrite hydrophobicity induced by xanthates is assigned to dixanthogen formation and adsorption at the arsenopyrite surface outlined through DRIFTS and cyclic voltammetry (Duc, 1992; Huang et al., 2006; López Valdivieso et al., 2003; López Valdivieso et al., 2006; Ma and Bruckard, 2009) as well as arsenic xanthate complex formation (As (III) alkylxanthate) outlined through DRIFTS and density functional theory (Ma and Bruckard, 2009; Persson,

1994; Valli et al., 1994; Yekeler and Yekeler, 2005). Works from Duc (1992), Sirkeci (2000) and López Valdivieso et al. (2006) showed that arsenopyrite floats well at acidic pHs with xanthate as collectors and that arsenopyrite surfaces are depressed at pH higher than 8.5, contrary to pyrite that shows good flotation recovery at alkaline pHs (Duc, 1992; Mermillod-Blondin, 2005; Sirkeci, 2000).

The difference of flotation behavior of arsenopyrite at acidic and alkaline pHs was previously investigated through chemical surface characterization. For acidic condition, iron dissolution from arsenopyrite creates a sulphur rich surface that becomes hydrophobic (Vreudge, 1982). At alkaline pH, cyclic voltammetry studies conducted by (Wang et al., 1992) revealed the formation of iron oxides and realgar (AsS) at the arsenopyrite surface which explain its depression by preventing the reaction of xanthate oxidation into dioxanthogen (Beattie and Poling, 1987; Vreudge, 1982).

Copper sulphate can be used as an activator for arsenopyrite flotation and its use can lower the amount of collector needed (Li and Zhang, 1989; López Valdivieso et al., 2006; Monte et al., 2002). Wang et al. (1989) and López Valdivieso et al. (2006) suggested that copper ions activate arsenopyrite through the formation of copper arsenosulphide (CuAsS). Moreover, copper arsenite ( $\text{Cu}_3(\text{AsO}_4)_2$ ) at acidic pH, and arsenate ( $\text{Cu}_3(\text{AsO}_3)_2$ ) at alkaline pH allow adsorption of xanthate. Li and Zhang (1989) reported the formation of CuS at the arsenopyrite surface which allows its flotation.

The interactions of xanthate with arsenopyrite have received less attention than the pyrite/xanthate system in the literature and DRIFTS is rarely used to characterize the xanthate phases adsorbed at the arsenopyrite surface (Persson, 1994; Valli et al., 1994). The main purposes of this study are to characterize arsenopyrite surface through different conditioning steps: crushing, pH conditioning, activation and collector adsorption as well as evaluating the impact of air-oxidation (aging) on arsenopyrite surface. XPS and DRIFTS were employed as complementary methods of surface characterization before collector adsorption. UV spectroscopy and DRIFTS were used as complementary methods to characterize the arsenopyrite/xanthate system after collection. In this study, increasing amounts of xanthate

and dixanthogen compounds onto arsenopyrite surface will be interpreted as better flotation properties.

### 5.3 Material and method

#### 5.3.1 Physical, chemical and mineralogical characterization methods

Specific gravity ( $S_G$ ) of the arsenopyrite sample was determined with a helium pycnometer (Micromeritics, Accupyc 1330). Particle size distribution of the sieved fraction of arsenopyrite was determined using a Malvern Mastersizer laser particle size analyser. The Specific surface area (SSA) was analysed by a Micromeritics surface area analyser using the B.E.T method (Brunauer et al., 1938). The chemical composition of the high grade arsenopyrite sample was evaluated through a complete digestion in  $HNO_3/Br_2/HCl/HF$ ; the obtained solution was then analysed using an inductively coupled plasma and atomic emission spectroscopy (ICP-AES, Perkin Elmer). Mineralogical characterization was carried using Bruker A.X.S. D8 advance x-ray diffraction (XRD) instrument equipped with a copper anticathode (Cu  $K\alpha$  radiation). The diffractograms were interpreted using EVA software for identification and TOPAS software for mineral quantification based on the Rietveld method (Rietveld, 1993). Mineralogical investigation of pure arsenopyrite (polished sections) was also completed through micro-scale optical microscopy (OM) using a metallographic microscope; reflection mode (Nikon Optiphot2-Pol). Further information was obtained through Scanning electron microscope (SEM) observations on a Hitachi S-3500N VP-SEM coupled to an X-ray energy dispersive spectrometer (EDS) (Oxford Instruments). Xanthate concentrations were measured with a UV-VIS spectrophotometer (double beam Shimadzu UV-2501PC) using the 301 nm adsorption band if no other interfering band appeared in the spectrum (Kongolo, 1991; Rao, 1971).

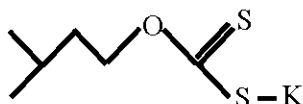
Surface characterization through infrared and X-ray photoelectron spectroscopies was detailed in Derycke et al. (2012). Infrared spectra were recorded with a Fourier transform infrared spectrometer Bruker IFS 55 equipped with a mercury-cadmium telluride (MCT) detector and connected to a diffuse reflectance apparatus from Harrick. XPS analysis were performed using a KRATOS Axis Ultra X-ray photoelectron spectrometer (Kratos

Analytical, Manchester, UK) equipped with a monochromated AlK $\alpha$  X-ray source ( $h\nu=1486.6$  eV) operated at 150 W.

### 5.3.2 Reagents

The pH regulators reagents were solutions of H<sub>2</sub>SO<sub>4</sub> or NaOH. Copper sulphate pentahydrate (CuSO<sub>4</sub>.5H<sub>2</sub>O) was used as an activator. Potassium isoamylxanthate, also called as KAX-51 from Univar Canada Ltd. was used as a collector. It was purified by dilution in acetone and precipitation in diethyl ether according to the procedure described by Rao (1971). Its alkyl chain formula is R = C<sub>5</sub>H<sub>11</sub> and its structure is as follow :

Isoamylxanthate (R= C<sub>5</sub>H<sub>11</sub>)



### 5.3.3 Samples preparation and testing

High grade arsenopyrite samples were obtained from Panasqueira mine (Portugal) a hydrothermal W-Sn deposit (Noronha et al., 1992). For the experiment, minerals were dry crushed in a steel mortar (Abich's mortar). Dry crushing was used to prepare arsenopyrite samples and although this process may not be as close to industrial reality as wet crushing will be, the authors assume that one hour pH conditioning is enough to bring the mineral surface in equilibrium with the solution (Brienne et al., 1996; Bulut et al., 2004; Caldeira et al., 2008; De Donato et al., 1999; De Donato et al., 1993; Fuerstenau et al., 1990; López Valdivieso et al., 2006). Furthermore, Duc (1992) has outlined through XPS investigation that minor changes occurred at the arsenopyrite surface between dry and wet crushing. Arsenopyrite was then sieved to obtain the size fraction 32-63  $\mu\text{m}$ , a fraction proved to lead to high quality spectra with DRIFTS (Mermillod-Blondin, 2005). The crushed samples were stored in a freezer in an airtight bag and used within three days to avoid surface oxidation. Some samples were stored at room temperature to evaluate the impact of air-oxidizing conditions (aging) on arsenopyrite surface.

Mineral aqueous conditioning was realized by addition in a centrifuge tube of 1 gram of arsenopyrite into 40 mL of a solution of ultrapure water (Millipore filtration system, 18.2

MΩ.cm at 25 °C) containing different NaOH or H<sub>2</sub>SO<sub>4</sub> concentrations. Testing tubes were then placed on a rotary shaker at a constant temperature of 30°C for one hour. For tests where copper sulphate was added as an activating agent, solution of copper sulphate was added to obtain a copper concentration of 1.8.10<sup>-4</sup> mol/L and test tubes were conditioned for an additional ten minutes at 30°C in a rotary shaker. The amount of NaOH or H<sub>2</sub>SO<sub>4</sub> added was calibrated to obtain the pH 4.5 at the end of the pH conditioning time (1 hour plus 10 minutes, if copper sulphate was added). For tests where copper sulphate was added as an activating agent, the aqueous solution was renewed with ultrapure water after copper conditioning or unchanged to evaluate the impact of residual copper absence or presence in solution on copper activation.

Isoamylxanthate was added at different concentrations and conditioned for another ten minutes at 30°C in a rotary shaker. The solid and liquid phases were then separated by centrifugation (10000 RPM for 20 minutes). The equilibrium solution was analysed for pH, Eh, and by UV spectroscopy to measure the amount of residual xanthate (unadsorbed collector). The filtered solid was dried on a filter paper for a short time, sampled and analyzed by DRIFTS. The sample analyzed by XPS was stored undried in a nitrogen filled glove box to avoid oxidation.

#### 5.3.4 Statistical surface coverage calculation

Xanthate adsorbed amount was determined by the difference between initial (C<sub>i</sub>) and equilibrium (C<sub>eq</sub>) xanthate concentration. The equilibrium xanthate concentration was determined by UV spectroscopy using the following equation: (Fornasiero et al., 1995; Montalti et al., 1991; Prestidge and Ralston, 1996).

$$(5.2) \quad C_{eq} = C_i - C_{MTC} - C_{PX} - 2C_{X2} - C_X$$

where C<sub>MTC</sub> is the monothiocarbonate concentration (peak at 225 nm), C<sub>PX</sub> is the perxanthate concentration (peak at 348 nm), C<sub>X2</sub> is the dixanthogen concentration (peak at 288 nm) and C<sub>X</sub> is the xanthate concentration (peak at 301 nm)

The xanthate molar extinction coefficient used is 17660 L/mol/cm whatever the chain length (Chang et al., 1999; Jones and Woodcock, 1983; Kongolo, 1991; Poling, 1976).

Monothiocarbonate and dixanthogen were negligible in the experiment. Perxanthate was present in UV spectra at high initial xanthate concentration (peak at 348 nm). The peak at 348 nm does not interfere with the xanthate peak at 301 nm. Its molar extinction coefficient, as found in the literature, is 10400 L/mol/cm (Jones and Woodcock, 1983). The statistical surface coverage,  $\theta$ , was calculated by using equation (5.3):

$$(5.3) \quad \theta = (C_i - C_{eq}) \frac{V}{m \cdot S_S} * E_x * N_A$$

where V is the liquid phase volume (L), m is the mass of minerals (g), SS corresponds to its specific surface area (m<sup>2</sup>/g), E<sub>x</sub> is the specific coverage area of the ion (Å<sup>2</sup>), and N<sub>A</sub> is the Avogadro number. The specific coverage area of the xanthate ion is considered to be equivalent to its cross-sectional area on closest packing bases. It is equal to 29 Å<sup>2</sup> for isoamylxanthate as specified in the literature (Cases et al., 1989; Gaudin et al., 1946; Kongolo et al., 2004; Mielczarski et al., 1998; Tukul and Kelebek, 2010).

## 5.4 Results and discussion

Section 5.4.1 briefly characterized the arsenopyrite samples as pure minerals, sieved in a unique fraction. Surface characterization of arsenopyrite before adsorption (section 5.4.2) was performed by coupling XPS and DRIFTS technique. This section outlines arsenopyrite speciation and organization of the oxide layer in the prospect of collector adsorption. Since it is well known that sulphide surface chemistry directly affects the collector adsorption ability (Cases and De Donato, 1991; De Donato et al., 1999; Kongolo et al., 2004; Mermillod-Blondin, 2005). Section 5.4.3 describes the interaction between isoamylxanthate and the arsenopyrite surface under acidic conditions. UV spectroscopy and DRIFTS are used as complementary tools to characterize xanthate evolution both in solution and at the arsenopyrite surface in the absence or presence of an activating agent (copper sulphate).

### 5.4.1 Physical, chemical and mineralogical characterization of pure mineral samples

XRD spectrum, optic and scanning electron microscopies (results not presented herein) confirmed that arsenopyrite samples were pure with some albite, muscovite and quartz. Calculation from elemental analysis of the samples showed that arsenopyrite samples were pure at 93 wt.% with a specific gravity of 6.2, typical of arsenopyrite minerals (Table 5.1).

Physical characterizations of samples are also presented in Table 5.1 indicating the size distribution of the sieved fraction and a specific surface area of 0.08 m<sup>2</sup>/g.

Table 5.1 Physical, chemical analysis and mineralogical quantification of pure mineral samples

Element	Arsenopyrite sample
S (%)	15.4
Fe (%)	34.9
As (%)	42.9
Pb (ppm)	40
Cu (ppm)	30
Zn (ppm)	10
Bi (ppm)	20
Al (ppm)	380
Ca (ppm)	260
Mg (ppm)	0
Mn (ppm)	0
Sb (ppm)	30
Co (ppm)	20
Ni (ppm)	10
<b>Arsenopyrite (wt. %)</b>	<b>93.0</b>
<b>Specific gravity (S<sub>G</sub>)</b>	<b>6.2</b>
<b>SSA<sup>2</sup>(m<sup>2</sup>/g)</b>	<b>0.08</b>
<b>Particle size analysis</b>	
D <sub>10</sub> (μm)	40.0
D <sub>50</sub> (μm)	62.4
D <sub>90</sub> (μm)	110
C <sub>n</sub> =(D <sub>60</sub> /D <sub>10</sub> )	1.8

#### 5.4.2 Surface characterization of arsenopyrite before collector adsorption

XPS and DRIFT analyses, conducted on arsenopyrite after crushing, aging and aqueous conditioning at pH = 4.5, are presented in sections 5.4.2.1 and 5.4.2.2 respectively. For each technique, a quick literature review is presented as guideline for X-ray photoelectron and diffuse reflectance infrared spectra interpretations. Sections 5.4.2 presents characterization of the superficial oxidation layer of arsenopyrite before collector adsorption from the outmost part with XPS investigation to deeper analysis with infrared spectroscopy (Duc, 1992; Monte et al., 2002; Nesbitt et al., 1995).



#### 5.4.2.1 XPS analysis: outmost surface products

XPS analyses was performed on arsenopyrite after crushing, after aging for two months (62 days) and after conditioning at pH = 4.5 for an hour. The results of narrow scans are presented in Table 5.2 and allow characterization of the outmost surface products.

Ion sputtering was then performed on crushed arsenopyrite to reveal underlying surface products although no depth estimation was attempted due to the powder nature of samples. Main interpretations are argued on the bases of As( $3d$ ), S( $2p$ ), Fe ( $2p_{3/2}$ ) and O( $1s$ ) core levels data.

##### - Interpretation of As( $3d$ ) spectra

As( $3d$ ) narrow spectra present a major peak at 41 eV assigned to arsenopyrite lattice. Its contribution is 51 at.% for both crushed and aged arsenopyrite (Table 5.2). Conditioned arsenopyrite has much lower contribution of arsenopyrite lattice with 25 at. %. Arsenic oxides were present for all spectra with peaks at 44 eV for As(I) and 45 eV for As(III). No As(V) was detected in the As( $3d$ ) narrow scan for all samples. Elemental arsenic showed a peak at 42 eV. It had a similar contribution for all sample with 9 at.% for crushed and aged arsenopyrite and 7 at.% for conditioned arsenopyrite. Elemental arsenic is produced during fracture of As-S bonds. (Schaufuss et al., 2000).

Table 5.2 Bindings energies values, full width at half maximum (FWHF), atomic percentage and interpretation for As(3*d*), S(2*p*), Fe(2*p*) and O(1*s*) of arsenopyrite fraction after grinding, after 1 month aging and after 1 hour conditioning at pH=4.5

Arsenopyrite samples	After grinding		2 months aging		After conditioning (pH=4.5)		Interpretation		
	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	BE (eV) (FWHM (eV))	at%	O.N.	State	Species
As(3 <i>d</i> <sub>5/2</sub> ) <sup>**</sup>	41.01 (0.8)	50.9	40.89 (0.8)	50.6	40.92 (0.7)	25.2	As(-I)	Lattice	Arsenopyrite <sup>a,d</sup>
	41.62 (0.9)	9.4	41.47 (1.2)	9.1	41.44 (1.3)	7.2	As(0)	Surface	Elemental arsenic <sup>a,c</sup>
	43.63 (1.2)	18.6	43.57 (1.6)	23.6	43.81 (1.4)	25.8	As(+I)	Surface	Arsenic oxide <sup>c</sup>
	44.56 (1.2)	21.1	44.68 (1.6)	16.7	45.02 (1.3)	41.8	As(+III)	Surface	Arsenite oxide <sup>a,c,d</sup>
S(2 <i>p</i> <sub>3/2</sub> ) <sup>**</sup>	161.11 (0.7)	7.3	160.95 (0.7)	8.8	161.04 (0.7)	4.3	S(-II)	Surface	Monosulphide <sup>a,b</sup>
	162.10 (0.8)	59.9	162.01 (0.8)	66.6	162.02 (0.9)	46.0	S(-I)	Lattice	Arsenopyrite <sup>a,d</sup>
	163.53 (1.9)	19.2	163.53 (1.9)	15.6	163.28 (1.9)	24.0	S(0)	Surface	Elemental
	-	-	-	-	166.56 (1.3)	6.2	S(IV)	Surface	Sulphite <sup>a,c,e</sup>
	168.12 (2.0)	13.6	167.85 (2.0)	9.0	168.51 (2.0)	19.5	S(VI)	Surface	Sulphate <sup>a,h</sup>
Fe(2 <i>p</i> <sub>3/2</sub> ) <sup>**</sup>	707.11 (1.0)	60.5	707.11 (0.9)	51.4	707.13 (0.9)	19.9	Fe(II)	Lattice	Arsenopyrite <sup>b</sup>
	709.03 (2.2)	10.0	708.93 (2.2)	14.6	709.20 (2.1)	12.6	Fe(II/III)	Surface	Fe(II) oxide or Fe(III)
	711.15 (2.3)	24.8	711.00 (2.3)	26.3	711.22 (2.4)	49.0	Fe(II)	Surface	Fe(II) oxy-hydroxide <sup>b</sup>
	713.31 (2.2)	4.7	713.31 (2.2)	7.6	713.25 (2.4)	15.0	Fe(III)	Surface	Fe(III) sulphate <sup>i</sup>
	-	-	-	-	714.25 (2.4)	3.6	Fe(II)	Lattice	Satellite
O(1 <i>s</i> )	530.40 (1.2)	25.1	530.40 (1.3)	27.4	-	-	O(-II)	Surface	Oxide <sup>g</sup>
	531.34 (1.6)	6.1	531.31 (1.7)	60.8	531.0 (1.6)	81.5	O(-II)	Surface	Hydroxide <sup>g,i</sup>
	532.80 (1.9)	10.8	532.99 (1.9)	11.8	532.2 (1.8)	18.5	O(-II)	Surface	Adsorbed water <sup>l</sup>

<sup>a</sup> Schaufuss et al., 2000 ; <sup>b</sup> Benzaazoua, 1996; <sup>c</sup> Nesbitt et al., 1998; <sup>d</sup> Hacquard et al., 1999; <sup>e</sup> Cai et al., 2009; <sup>f</sup> Demoisson et al., 2008; <sup>g</sup> Prat et al., 1998; <sup>h</sup> Costa et al., 2002; <sup>i</sup> Pratt et al., 1996; <sup>j</sup> Atenas et al., 2005. \* Spin-orbit doublets were used to fit the data of narrow scan S(2*p*). S(2*p*<sub>3/2</sub>), S(2*p*<sub>1/2</sub>) doublets and As(3*d*<sub>5/2</sub>), As(3*d*<sub>3/2</sub>) doublets contributions were summed to obtain the total proportion of each oxidation state. \*\* Fe(2*p*<sub>3/2</sub>) high energy tail spectra have been fitted ignoring the known multiplet splitting of iron as a mean to offer a relative quantification of the different chemical state of iron

### - Interpretation of S(2p) spectra

S(2p) spectra were all fitted using doublets  $2p_{3/2}$  and  $2p_{1/2}$  separated by a spin-orbit splitting of 1.18 eV, a peak area ratio of 2:1 and same widths. The major contribution of S(2p) spectra was the peak with binding energy at 162 eV assigned to arsenopyrite (Costa et al., 2002; Schaufuss et al., 2000). Its contribution increases from 60 at.% after crushing to 67 at.% after 2 months aging. Conditioning at pH = 4.5 decreases arsenopyrite signal to 46 at.% meaning that the sulphur contribution from surface oxidation products increases with acidic solution. The peak at 161 eV was assigned to monosulphide ions issuing from redox reactions since monosulphides formed by the rupture of S-Fe or S-As bonds are highly reactive phases that oxidize rapidly into sulphate or disulphide (Schaufuss et al., 2000). The work of Schaufuss et al. (2000) outlines the presence of this high energy tail for arsenopyrite S(2p) spectra. This high energy tail (164 eV and above) has been reported to correspond to elemental sulphur, polysulphide, thiosulphite and sulphate species (Nesbitt and Muir, 1995; Peng et al., 2012). No attempts to separate elemental sulphur from metastable polysulphide have been made since polysulphides presence, that may also be referred to as metal deficient sulphide ( $S_n^{2-}$ ;  $2 < n < 8$ ), appear on XPS spectra with intermediate energies between 162.5 eV to 165.0 eV due to different possible oxidation states while elemental sulphur is reported at 164.0 eV (Nesbitt et al., 1998). Polysulphides are therefore difficult to identify and separate from elemental sulphur by XPS (Mycroft et al., 1990; De Donato et al., 1993; Nesbitt et al., 1998, Cai et al., 2009; Peng et al. 2012). In this work, the peak at ~164.4 eV is assigned to elemental sulphur and/or polysulphide which were found at this energy in other works (Cai et al., 2009; Demoisson et al., 2008; Peng et al., 2012). Analyses at low temperature (liquid nitrogen cooling) would have confirmed the presence of elemental sulphur which is volatile in ultra-high vacuum at room temperature. The presence of elemental sulphur in XPS spectra at room temperature implies that elemental sulphur was protected from sublimation by other surface products overlayers (Demoisson et al., 2008). The peak with binding energy at 167 eV was assigned to sulphite as reported by Cai et al. (2009), Nesbitt et al. (1995) and Schaufuss et al. (2000). Sulphite signal only appears in the spectrum of conditioned arsenopyrite with a contribution of 6 at.%. Sulphate signal appears in all arsenopyrite spectra with a peak at 168 eV and a contribution that decrease with aging from 14 at.% to 9 at.% and increase with conditioning with a contribution of 20 at.%. However given the broadness of this peak

(FWHM up to 2 eV, Table 2) the presence of thiosulphate cannot be excluded. Thiosulphate presence is however uncertain as it partially overlaps the sulphate peaks (Cai et al., 2009). Fujisawa et al. (1994) outlined the presence of a broad satellite shake-up loss feature in the high energy tail of S(2*p*) spectra assigned to S(3*p*) or Fe(3*p*) transition to S(2*p*). In some works, it is included as an unconstrained contribution (Peng et al., 2012). However, since its binding energy shift and intensity related to lattice S<sub>2</sub><sup>2-</sup> remain unclear and that its contribution is minor (Peng et al., 2012), its contribution was not added to the S(2*p*) fit for the purpose of this paper.

#### - Interpretation of Fe(2*p*<sub>3/2</sub>) spectra

The peak Fe(II)-S at 707 eV was assigned to arsenopyrite lattice (Nesbitt, 1998; Pratt et al., 1998). This narrow symmetrical peak at a low-spin state (no multiplet splitting) has a major contribution which decreases with aging from 61 at.% to 51 at.% and with conditioning (20 at.%) as reported in Table 5.2. Near this strong peak, there is a high-energy tail that goes up to 714 eV. Many studies have proposed interpretation of this wedge-shaped tail composed of multiplet peaks of both Fe(II) and Fe(III) species (Mullet et al., 2008; Mycroft et al., 1990; Nesbitt et al., 1998, 2000). Nesbitt et al. (1998, 2000) distinguished Fe(II) and Fe(III) multiplet allowing quantification of Fe(II) over Fe(III) surface product ratio. However, as this work aims at comparing the differences between arsenopyrite crushing and conditioning step, a relative quantification of the different chemical states of iron without taking into account the iron multiplet structure was adopted by using broad peaks shapes. This latter approach was used in previous works (De Donato et al., 1999; Lin et al., 1997; Descostes et al., 2001; Cai et al., 2009 and Peng et al., 2012) and avoid the difficulty and uncertainty of separating overlapping multiplets peaks of Fe(II) and Fe(III) (Mullet et al., 2008). The high energy tail has been fitted with three peaks at 709, 711.2 and 713.3 eV for arsenopyrite after crushing and after 2 months aging. The first corresponds to ferrous oxide or ferric monosulphide, the second to ferric oxy-hydroxide and the third to ferrous sulphate (Table 5.2). Ferric monosulphide has been reported to form at the arsenopyrite surface due to rupture of the S-As bond and stabilization through electron transfer from adjacent iron sites by Nesbitt et al. (1998) although arsenopyrite fracture conditions were very different from this study (vacuum-fractured pyrite). This hypothesis was corroborated through charge analysis by Von

Oertzen et al. (2006). The presence of Fe(III)-S signals could also be attributed to pyrrhotite impurities within the pyrite samples (although no pyrrhotite could be detected by XRD) or to oxidation after crushing (Demoisson et al. 2008). A fourth peak with binding energy at 714.3 eV was added to fit the high energy tail of arsenopyrite after conditioning spectra (Table 5.2). This last peak was assigned to a satellite as its energy is too high to be related to ferric sulphate. It could correspond to a satellite peak of the arsenopyrite lattice peak at 707.1 eV as reported in Nesbitt et al. (1995).

#### - Interpretation of O(*1s*) spectra

The O(*1s*) spectra of arsenopyrite after crushing and after 2 months aging shows three major components with peaks at 530, 531 and 533 eV respectively assigned to oxides, hydroxides and adsorbed water (Nesbitt, 1998; Pratt et al., 1996). Oxides signals increases slightly with aging from 25 to 27 at.% but is absent from conditioned arsenopyrite spectrum. Hydroxides contributions highly increase from 6 at.% after crushing to 61 at.% for aged arsenopyrite and to 82 at.% for conditioned arsenopyrite. The arsenopyrite conditioned at pH = 4.5 only has hydroxide species since there is no peak at 350 eV. The adsorbed water signal also increases from 11 at.% to 12 at.% with aging, and to 19 at.% with conditioning.

The C(*1s*) spectra is not presented in this paper since it only had the peak related to adventitious carbon at 284.6 eV.

#### - Interpretation of calculated ratios

The ratio O(*1s*)/S(*2p*) (Table 5.3) is an indication of the alteration degree of sulphides (Duc, 1992) and is calculated directly from broad scan values. It is about 2 for arsenopyrite after crushing and after 2 months aging. The ratio of the conditioned fraction does not appear in Table 5.3 as the participation of the adsorbed water from conditioning in the O(*1s*) signal biased the ratio. In this table, surface and lattice proportion of sulphur, iron and arsenic were calculated from the total element atomic percentage (broad scan) weight by the proportion of the element as lattice or surface products as assigned in table 5.2.

Table 5.3 Ratios of total, lattice and surface elements calculated from XPS results of arsenopyrite

	After grinding	2 month aging	After conditioning
<b>Total ratios</b>			
O(1s)/S(2p)	2.0	2.3	/
<b>Lattice ratios</b>			
Fe(2p)/S(2p)	0.6	0.6	0.5
As(3d)/S(2p)	1.0	0.9	1.7
As(3d)/Fe(2p)	1.7	1.7	3.6
<b>Surface ratios</b>			
Fe(2p)/S(2p)	0.6	1.0	1.3
As(3d)/S(2p)	1.3	1.8	2.2
As(3d)/Fe(2p)	2.2	1.7	1.6
Oxy-hydroxide <sub>O(1s)</sub> /(sulphate+sulphite) <sub>S(2p)</sub>	33.2	66.2	29.7
As(I)/As(III)	0.9	1.4	0.6
<b>Oxidation products (at. %)</b>			
O(1s) (Oxy-hydroxide)	24.1	22.7	30.0
S(2p) (Sulphate+sulphite)	0.7	0.3	1.0
S(2p) (Elemental sulphur/polysulphides)	2.5	1.8	1.7
As(3d) (Elemental arsenic)	1.4	1.2	0.8
<b>Lattice products (at. %)</b>			
S(2p) Arsenopyrite	7.9	7.5	3.3

Arsenopyrite after crushing and after 2 months aging have lattice ratios which are close to stoichiometric proportion with Fe(2p)/S(2p), As(3d)/S(2p) and As(3d)/Fe(2p) ratio of 0.6, 1.0 and 1.7 respectively. However conditioned arsenopyrite shows much higher lattice ratios for As(3d)/S(2p) and As(3d)/Fe(2p) with 1.7 and 3.6 respectively, revealing arsenic enrichment of the arsenopyrite lattice.

The surface ratios Fe(2p)/S(2p) and As(3d)/S(2p) increases from 0.6 and 1.3 after crushing, to 1.0 and 1.8 after aging, and up to 1.3 and 2.2 after conditioning. The increase of those two ratios suggests an enrichment of iron and arsenic within the surface products with time and aqueous conditioning. However the surface ratio As(3d)/Fe(2p) decreases from 2.2 after crushing, to 1.7 with aging, and 0.6 with conditioning revealing higher enrichment of iron

within the surface products. Arsenic enrichment after aging and after conditioning at pH = 4.5 was observed in both arsenopyrite lattice and surface products. The arsenic enrichment outlined in this work is in accordance with previous studies and may be attributed to arsenic diffusion from deep arsenopyrite lattice toward its surface, although this diffusion mechanism is still uncertain as discussed by Nesbitt et al. (1995).

The ratio of oxy-hydroxide over sulphate and sulphite (Table 5.3) is higher for arsenopyrite after 2 months aging (ratio of 66) than for arsenopyrite after crushing and after conditioning which have ratios of 33 and 30 respectively. One can notice that although arsenopyrite after crushing and after conditioning have similar ratio of oxy-hydroxide over sulphite and sulphate, conditioned arsenopyrite is far more oxidized than crushed arsenopyrite as mentioned previously for the total ratio  $O(1s)/S(2p)$ . The lower ratio of oxy-hydroxide over sulphate observed with conditioned arsenopyrite compared to aged arsenopyrite may be due to higher oxidation of S(-I) (sulphur related to arsenopyrite lattice) in aqueous solutions than in air as mentioned by Nesbitt et al. (1995). Higher formation of sulphur oxidation products for the conditioned arsenopyrite resulted in formation of intermediate sulphur oxidation phases (sulphites) which are absent from air-oxidized arsenopyrite as observed in Table 5.2.

The surface ratios As(I)/As(III) presented in Table 5.3 reveal that As(III) prevails over As(I) for arsenopyrite after crushing and for conditioned arsenopyrite (ratio of 0.9 and 0.6 respectively). The predominance of As(III) over As(I) may outline that conditioning has also increased the arsenic oxidation rate (Nesbitt et al., 1995). For arsenopyrite aged for two months, As(I) prevails over As(III) with a ratio of 1.4.

Fe(II)/Fe(III) ratio was not calculated due to overlapping Fe(II) and Fe(III) multiplets peaks (Mullet et al., 2008).

#### - Characterization of grinded arsenopyrite through ion sputtering

Narrow scans of  $Fe(2p_{3/2})$ ,  $As(3d)$  and  $O(1s)$  resulting from XPS ions sputtering on arsenopyrite after crushing are presented in Figure 5.1 and deconvolution of narrow scan  $S(2p)$  is reported in Table 5.4. Ion sputtering allows investigating the underlying surface products speciation and organization.

Table 5.4 Narrow scan S(2p) results of arsenopyrite after grinding with sputtering for 10 minutes

Species *	O.N.	Sputter time		
		0 min.	2 min.	10 min.
Monosulphide (at. %)	S(-II)	7.3	14.9	15.9
Arsenopyrite (at. %)	S(-I)	59.9	69.2	68.3
Elemental sulphur (at. %)	S(0)	19.2	11.5	15.8
Sulphate (at. %)	S(+VI)	13.6	4.3	0

The Fe( $2p_{3/2}$ ) narrow scans presented in Figure 5.1A reveal a decrease of the Fe(III) oxide contribution (peak at 711 eV) along with an increase of arsenopyrite contribution (peak at 707 eV) with sputtering time. A new contribution appears at 2 and 10 minutes with a peak at 709 eV which can be assigned to Fe(III)-S, iron bonded to monosulphide, that occurs in disrupted lattices (Pratt et al., 1998).

The As(3d) narrow scans presented in Figure 5.1B show a decrease of the peak assigned to As(III) oxide (peak 45 eV) with sputtering time and an increase of the peaks at 41.5 and 41 eV corresponding to elemental arsenic and arsenopyrite respectively.



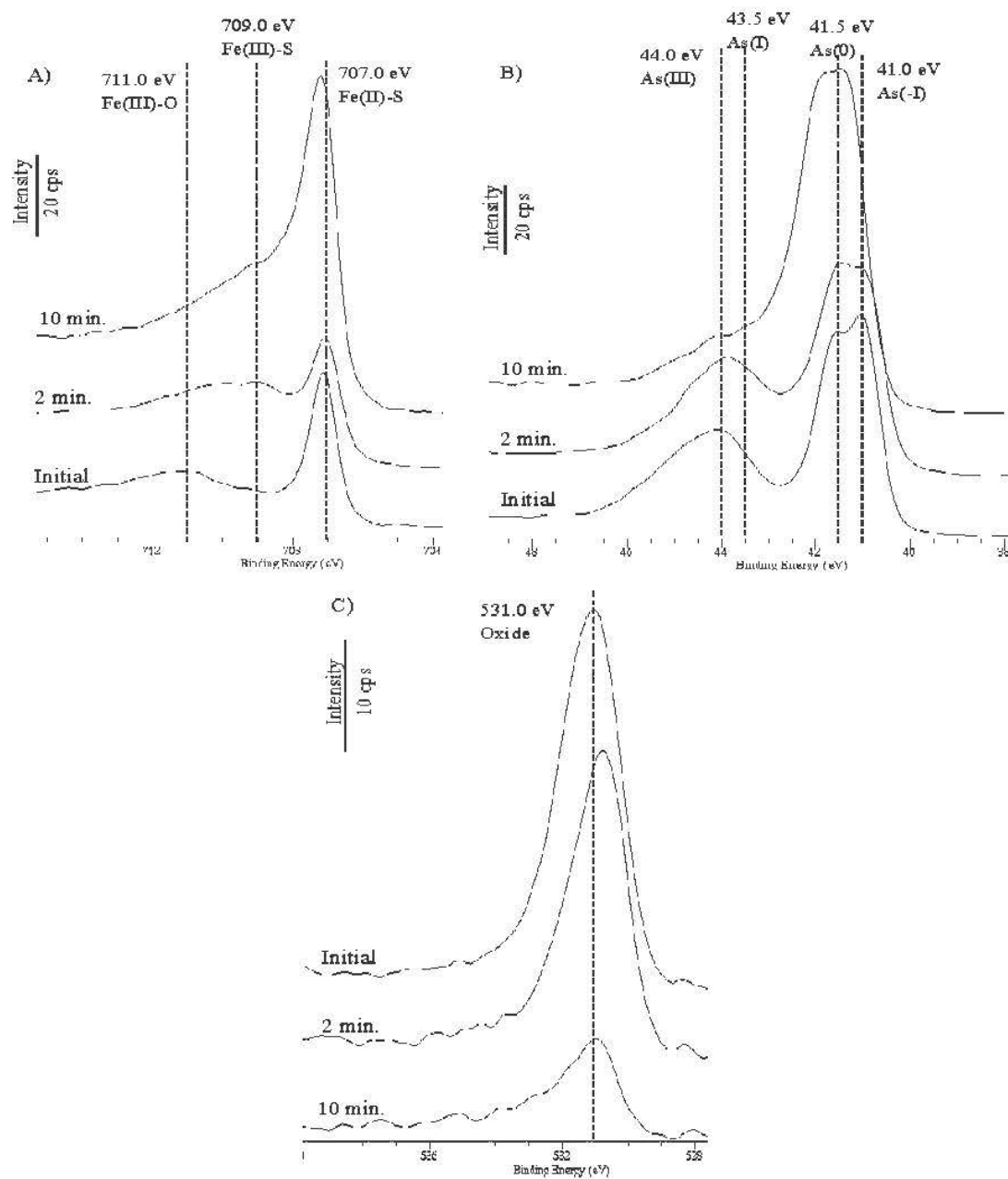


Figure 5.1 Evolution of grinded arsenopyrite as function of sputtering time A) XPS spectra of narrow scan Fe( $2p_{3/2}$ ), B) narrow scan As( $3d$ ), C) narrow scan O( $1s$ ). Note that for more clarity O( $1s$ ) spectra appear in reverse order than for As and Fe scans.

The contribution of Fe(III)-S and As(0) at 2 and 10 minutes of sputtering is probably due to arsenopyrite lattice abrasion through the sputtering process since breakage of the As-S bond produces As(0) and monosulphide ions that can link to Fe<sup>3+</sup> ions (Schaufuss et al., 2000).

The  $O(1s)$  narrow scans presented in Figure 5.1C outline the decrease of oxides peak at 531 eV throughout the sputtering process. This decrease attests the progressive abrasion of oxides under the ionic beam.

The deconvolution of narrow scans  $S(2p)$  (Table 5.4) indicate a rapid decrease of the sulphate contribution from 14 at.% at initial state, to 4 at.% and to 0 at.% at two and ten minutes respectively.  $S(2p)$  narrow scans also show an increase of monosulphide and arsenopyrite signals (lattice contributions) from 7 and 60 at.% at initial state to 16 and 68 at.% at ten minutes of sputtering. As mentioned previously, the increase of monosulphide signal attests breakage of As-S and Fe-S bonds within arsenopyrite lattice due to ionic abrasion. Elemental sulphur/polysulphides amounts have small variation throughout the sputtering process with 19, 12 and 16 at. % at initial state, two and ten minutes respectively. As mentioned before, elemental sulphur is volatile in ultra-high vacuum at room temperature so that the elemental sulphur analyzed is probably over layered by oxides (since no sulphates were left at ten minutes).

XPS final analysis after the sputtering process at ten minutes indicates that all sulphates have been removed from the surface (Table 5.4) although there are still some iron and arsenic oxide phases as attested by Figure 5.1 with peaks at 711 eV (iron oxy-hydroxide) and 44 eV (arsenic oxide). It could therefore be inferred that there is either a preferential removal of sulphates over oxides or else sulphates are mainly located in the top part of the oxidation layer.

In summary, XPS analysis on arsenopyrite samples revealed the presence of a variety of alteration products that have a wide range of oxidation degrees. Arsenopyrite lattice was identified in all cases indicating that, in this work, oxidation products do not form a thick uniform layer at the arsenopyrite surface. For all samples, the surfacing arsenopyrite lattice and alteration layer are enriched in arsenic phases. Elemental arsenic and sulphur are present in small proportion within oxidation products. The main oxidation products are arsenic and iron oxides and hydroxides. Adsorbed water was present on all surfaces with greater proportion in the case of the conditioned arsenopyrite.

The air oxidized arsenopyrite alteration layer has fewer sulphates than the initial state with a ratio oxy-hydroxide/sulphate almost twice the initial value. As(I) oxides are slightly more abundant than As(III) oxides, and iron alteration products are more present than in the initial state as stated by the surface ratio of As(3*d*)/Fe(2*p*). Although the air oxidation has led to a modification of oxidation products speciation, the arsenopyrite lattice signal has remained of the same intensity and total ratio O(1*s*)/S(2*p*) has remained equal to 2. This could indicate that the oxide layer speciation has changed, but it has not expanded across the arsenopyrite surface.

In the opposite, the conditioned arsenopyrite alteration layer is more sulphates-rich than in the initial state as indicated by the ratio oxy-hydroxide/sulphate in Table 5.2. As(III) oxides are slightly more abundant than As(I) oxides and iron alteration products are also more present than in the initial state as stated by the surface ratio of As(3*d*)/Fe(2*p*). The arsenopyrite lattice signal is also weaker than in the initial state indicating that the alteration layer has spread across the arsenopyrite surface related to an increase of sulphur, arsenic and iron oxidation rates.

Arsenopyrite sputtering suggested that (i) sulphate may be present mainly as the outmost oxidation layer, (ii) the underlying oxides of arsenic and iron contain elemental sulphur, (iii) the oxidation layer is heterogeneously distributed at the arsenopyrite surface which also presents parts of unoxidized arsenopyrite. While allowing a better comprehension of the distribution of oxidation products across the arsenopyrite surface, the use of ion sputtering creates new important contributions (ferric monosulphide and elemental arsenic). These peaks appear due to the ablation of arsenopyrite lattice along with ablation of the oxidation layer, so that interpretation of oxidation degrees should be taken with caution due to parallel phenomenon of reduction that takes place during the ablation process (Chaturvedi et al., 1996; Mandrino, 2011; Moslemzadeh et al., 2009).

#### 5.4.2.2 DRIFTS analyses: surface products characterization

DRIFTS analyses have been conducted to obtain complementary characterization of the arsenopyrite oxidized layer. DRIFTS allows deeper characterization of the oxidation layer

than XPS without the ionic abrasion bias of oxidation degrees. DRIFTS peaks were assigned according to literature data summarised in Table 5.5.

Table 5.5 Peaks position and assignment of arsenopyrite IR spectra.

Position (cm <sup>-1</sup> )	Vibration mode	Band Assignment	Reference
3150-3550		Lattice water or hydroxo-group	De Donato 1999; Caldeira 2003,2010
2960-2950	v3	-CH <sub>3</sub> group: xanthate alkyl chain	
2935-2925	v3	-CH <sub>2</sub> group: xanthate alkyl chain	Kongolo et al., 2004; Lima et al., 2005; Hellström et al., 2006
2875-2865	v1	-CH <sub>3</sub> group: xanthate alkyl chain	
2855	v1	-CH <sub>2</sub> group: xanthate alkyl chain	
1310	-	Iron oxide	Cases et al., 1993
1261	v3	C-O-C group : dixanthogen	Cases et al., 1989,1991,1995; De Donato et al., 1999; Brienne et al., 1996; Valli et al., 1994; Wang, 1995
1225	-	Arsenous xanthate	Valli et al., 1994; Persson, 1994
1191-1195	-	Cuprous xanthate	Cases et al., 1995; Leppinen, 1990
1136	-	C-O-C group : iron or arsenous xanthate	Cases et al., 1995; Leppinen, 1990; Valli et al., 1994; Persson, 1994
1090	v3	Ferric sulphate	Cases et al., 1995; Evangelou and Huang, 1998
1075	-	Amylxanthate/ hydrated ferrous sulphate	Cases et al., 1989, 1990; Memillod-Blondin, 2005
1038	-	Ferric sulphate/ Cuprous xanthate	Paul et al., 2005; Boily et al., 2010; Leppinen, 1990
1025	v3	-CS group: dixanthogen/ iron xanthate	Cases et al., 1989, 1991, 1995; Fuerstenau et al., 1968; Leppinen, 1990
1012	v1	Ferrous sulphate	Evangelou and Huang, 1994
847	-	Arsenic oxide	Monte et al., 2002
792	-	Iron oxide or oxy-hydroxide	Cases et al., 1993, De Donato et al., 1999
762	-	Iron oxide	Cases et al., 1993, De Donato et al., 1999
655	-	Iron oxide	Cases et al., 1993, De Donato et al., 1999

DRIFTS analyses were performed on arsenopyrite after crushing and after aging (66 days and 266 days) as well as after conditioning at pH = 4.5. The DRIFT spectra of arsenopyrite after crushing (Figure 5.2; spectrum a) did not show any major peaks but iron oxides could be

present (small peaks at 655 and 792  $\text{cm}^{-1}$ ), as well as ferric sulphate (1090  $\text{cm}^{-1}$ ). Aging of arsenopyrite at 66 and 266 days (Figure 2; spectra b and c respectively) showed an increase of the peak at 3150  $\text{cm}^{-1}$  assigned to adsorbed water or to hydroxyl groups. Increase of peaks related to ferric and ferrous sulphate (1090 and 1012  $\text{cm}^{-1}$  respectively) with aging was observed on Figure 5.2B. Arsenic oxide peak at 847  $\text{cm}^{-1}$  assigned to the stretching vibration of As-O bond (Monte et al., 2002) appeared at 266 days (Figure 5.2; spectrum c). Iron oxides peaks also increased slightly with aging for peaks at 1310 and 792  $\text{cm}^{-1}$ .

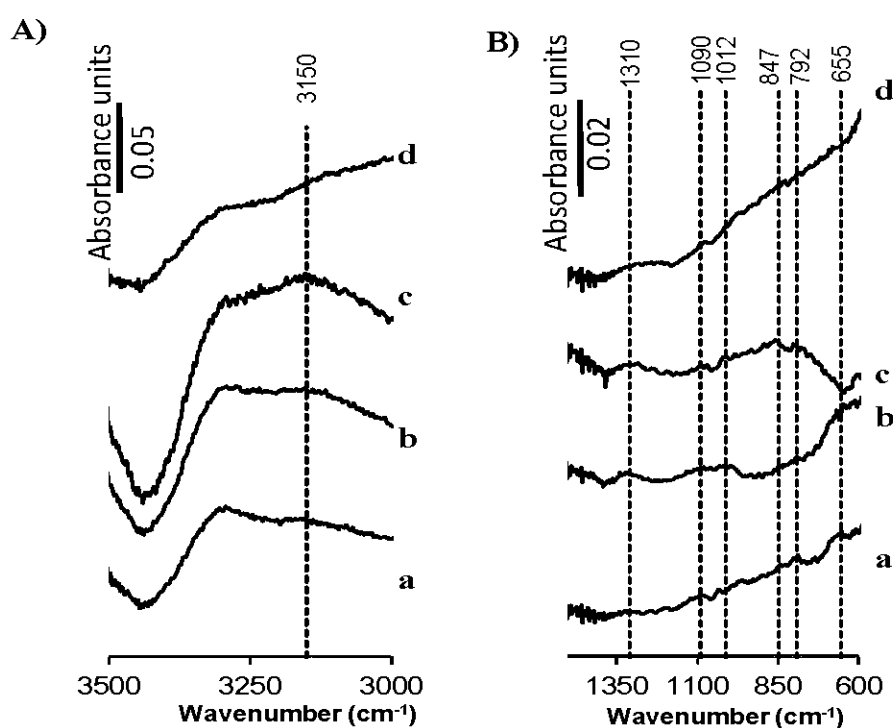


Figure 5.2 DRIFT spectra evolution of 32-63  $\mu\text{m}$  grinded arsenopyrite with time (spectra a: 0 days; b: 66 days; c: 266 days) and after conditioning at pH=4.5 (spectrum d). A) Narrow spectra from 3500 to 3000  $\text{cm}^{-1}$  B) narrow spectra from 1400 to 600  $\text{cm}^{-1}$ .

The conditioned arsenopyrite spectra (Figure 5.2; spectrum d) was similar to the spectrum a of crushed arsenopyrite but with even less peaks. This suggest a partial dissolution of the oxides present in spectrum a at 655  $\text{cm}^{-1}$ . However the peak at 3150  $\text{cm}^{-1}$  assigned to adsorbed water or to hydroxyl groups increased with conditioning indicating higher hydration of the residual oxidation products.

Elemental sulphur was not accounted for, because its corresponding peak at  $846\text{ cm}^{-1}$  was overlapping with oxides peaks combined with weak infrared absorption coefficient (De Donato et al., 1999; De Donato et al., 1993).

In summary, DRIFT spectra of arsenopyrite samples did not show major modifications with aging contrary to other sulphides like pyrite (Kongolo, 1991, Mermillod-Blondin, 2005) suggesting that the oxidation layer formed at the arsenopyrite surface stays thin through air-oxidation and that acidic conditioning partly dissolves the oxidation layer. DRIFT investigations allowed identification of some arsenopyrite oxidation products. XPS data allow to have a more detailed and thorough characterization of the phases that the poor resolution of arsenopyrite DRIFT spectra could not achieve.

#### 5.4.2.3 XPS and DRIFTS coupling for spatial determination of oxidation layer

XPS and DRIFTS have already been used as a mean to determine spatial distribution of sulphide oxidation layer through the work of De Donato et al., 1991, 1993, 1998. Their different depths of analysis (50 Å for XPS, 25000 Å to 83000 Å for DRIFTS in the studied range) constitute a powerful determination tool (De Donato et al., 1993) since the ion sputtering technique could not determine oxidation layer thickness due to the powdered nature of samples.

XPS analysis on arsenopyrite samples revealed the presence of a variety of alteration products that have a wide range of oxidation degrees. Arsenopyrite lattice was identified in all cases indicating that, in this work, oxidation products layer is heterogeneously distributed at the arsenopyrite surface. XPS and DRIFTS coupling for arsenopyrite surface characterization suggest that dry crushed arsenopyrite had a oxidized layer thickness of about 50 to 200 Å (De Donato et al., 1999; De Donato et al., 1993; Nesbitt et al., 1995). Sputtering added-in that sulphate may be present over oxides layer and that the latter contained disseminated elemental sulphur.

Arsenopyrite air oxidation led to a modification of oxidation products speciation (twice more oxides than sulphates) but arsenopyrite lattice signal remained of the same intensity, total ratio  $O(1s)/S(2p)$  stayed equal to 2. Furthermore, DRIFTS oxide products signal increased.

These results suggest an increase of the oxide layer thickness but a similar coverage of the arsenopyrite surface.

XPS data indicated that conditioned arsenopyrite alteration layer had more sulphates than in the initial state as indicated by the ratio oxy-hydroxide/sulphate. The arsenopyrite lattice signal is also weaker, which was confirmed by DRIFTS spectra with lesser oxidation products signals. These results suggest that the alteration layer has thinned due to partial dissolution of oxidation products but it has also spread across the arsenopyrite surface with an increase of sulphur, arsenic and iron oxidation rates.

### 5.4.3 Collector adsorption at the arsenopyrite surface

#### 5.4.3.1 Collector adsorption without activation

Adsorption of isoamyxanthate on arsenopyrite surface was performed with different concentrations allowing testing a wide-panel of collector surface coverage. Interpretation of the adsorption phenomena can be made through the modeling of adsorption isotherms also referred as sorption isotherms (Limousin et al., 2007). A mixed model of the commonly used Freundlich and Langmuir models was used to fit the data as done elsewhere in Umpleby et al. (2001) and García-Calzón and Díaz-García (2007). The Freundlich-Langmuir (L-F) model formula is expressed as follow:

$$(5.4) \quad Q_{ads} = \frac{N \times K^m \times C_{eq}^m}{1 + K^m \times C_{eq}^m} \quad \text{with } K = a^{1/m}$$

Where  $Q_{ads}$  is the adsorbed amount of xanthate ( $\text{mol/m}^2$ ),  $C_{eq}$  the equilibrium xanthate concentration ( $\text{mol/L}$ ),  $N$  is the number of binding sites,  $K$  is the median binding activity,  $m$  is a fitting parameter related to the Freundlich model corresponding to the surface site energy heterogeneity,  $a$  is a fitting parameter related to  $K$  and  $m$ . This model has been used for homogeneous and heterogeneous surfaces at low (sub-saturation) to high (saturation) sorbent concentration (García-Calzón and Díaz-García, 2007; Umpleby et al., 2001). The solver function of Microsoft Excel was used to change iteratively the three parameters:  $N$ ,  $a$ , and  $m$ , in order to maximize the determination coefficient  $R^2$  and minimize the squared sum of the residuals (the difference between the data and the model).

The isotherm, presented in Figure 5.3 showed a determination coefficient ( $R^2$ ) of 0.93 (fitting parameters not presented herein). The plateau (no more xanthate adsorption with increase of xanthate amount) was reached at a statistical surface coverage of 35. At high concentration, dixanthogen is the main phases adsorbed (see following sections) indicating that at high concentration (over 35 equivalent xanthate monolayers) arsenopyrite surface do not allow further adsorption of xanthate.

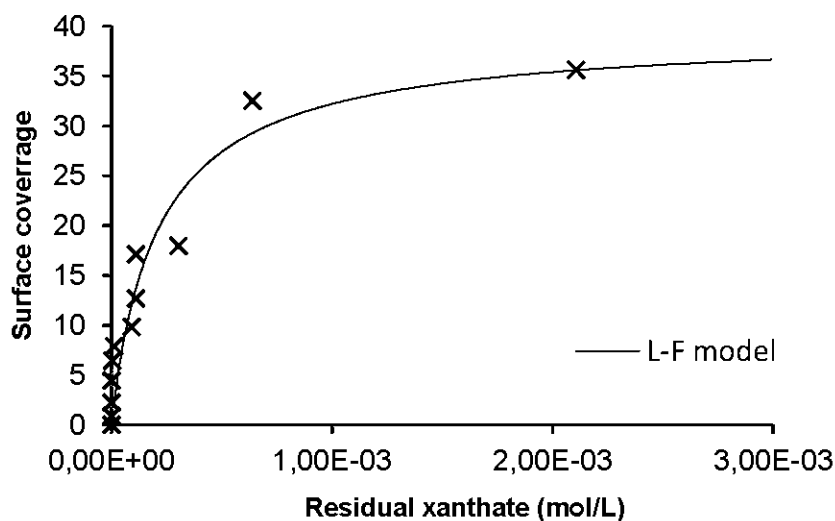


Figure 5.3 Isoamyloxanthate adsorption isotherm on arsenopyrite at pH = 4. Langmuir and Freundlich models were used to fit the data.

DRIFTS was used to characterize the adsorbed xanthate phases and peaks were assigned according to literature (Table 5.5). DRIFTS spectra of adsorption tests are presented in Figure 5.4 (surface coverage from 0 to 33). Spectra, presented in Figure 5.4A, show three major peaks at 2960, 2935 and 2855  $\text{cm}^{-1}$  all assigned to xanthate alkyl chain (Hellstraom et al., 2006; Kongolo et al., 2004; Lima et al., 2005).



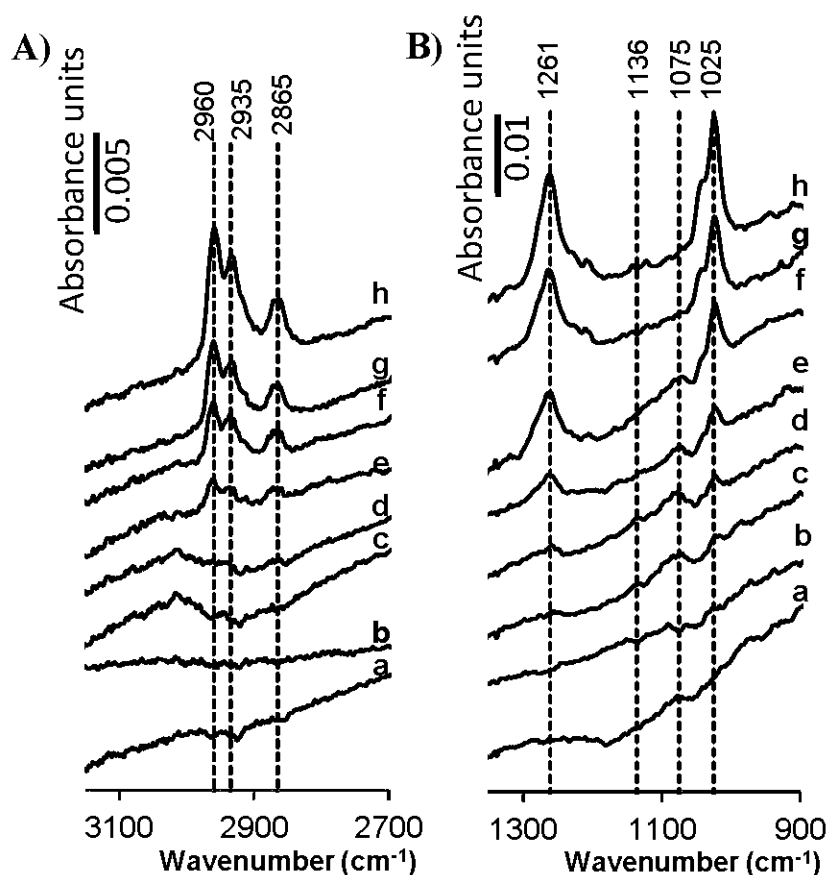
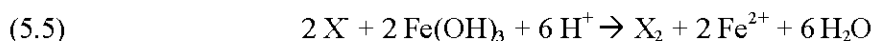


Figure 5.4 DRIFT narrow spectra (A) from  $3150\text{ cm}^{-1}$  to  $2700\text{ cm}^{-1}$  and (B) from  $1350\text{ cm}^{-1}$  to  $900\text{ cm}^{-1}$  of arsenopyrite conditioned at  $\text{pH}=4$  with isoamylxanthate; a:  $C_i=0\text{ mol/L}$ ;  $\theta=0$ ; b:  $C_i=10^{-5}\text{ mol/L}$ ,  $\theta=1$ ; c:  $C_i=2.5\cdot 10^{-5}\text{ mol/L}$ ,  $\theta=2$ ; d:  $C_i=5\cdot 10^{-5}\text{ mol/L}$ ,  $\theta=4$ ; e:  $C_i=10^{-4}\text{ mol/L}$ ;  $\theta=8$ ; f:  $C_i=2.5\cdot 10^{-4}\text{ mol/L}$ ;  $\theta=13$ ; g:  $C_i=5\cdot 10^{-4}\text{ mol/L}$ ;  $\theta=18$ ; h:  $C_i=10^{-3}\text{ mol/L}$ ;  $\theta=33$ . ( $C_i$ : initial xanthate concentration;  $\theta$ : xanthate surface coverage)

These peaks first appear at a surface coverage of 8 and increase progressively with increase of surface coverage. Spectra, presented in Figure 5.4B, may present overlapping peaks from oxidation products and xanthate phases. The reference spectrum a without collector (blank test) shows a weak peak at  $1075\text{ cm}^{-1}$  assigned to hydrated ferrous sulphate (Cases et al., 1989). This peak could also be assigned to adsorbed isoamylxanthate (Cases and De Donato, 1991) in the following spectra, but its presence in the blank test spectrum and in acidic conditions, incline toward assignment to ferrous sulphate. Furthermore, it increases slightly with increase of dixanthogen peaks ( $1261\text{ cm}^{-1}$  and  $1025\text{ cm}^{-1}$ ) which may reveal that

dixanthogen formation at the arsenopyrite surface occurs through ferric ions reduction as observed on pyrite with iron oxides (Cases et al., 1989; Fuerstenau et al., 1968; López Valdivieso et al., 2006).



The peak at  $1075 \text{ cm}^{-1}$  is absent from spectra h and g which may be due to high coverage of the surface (18 and 33 respectively) with dixanthogen masking any other oxidation products signals.

The major peaks observed in Figure 5.4B are two peaks related to dixanthogen:  $1261 \text{ cm}^{-1}$ , assigned to asymmetric stretching of dixanthogen C-O-C group, and  $1025 \text{ cm}^{-1}$ , assigned to asymmetric stretching of dixanthogen C-S group (Cases et al., 1989; Valli et al., 1994; Wang, 1995). They both appear at a surface coverage of 4 and increase progressively with increase of surface coverage. The peak at  $1025 \text{ cm}^{-1}$  can also be assigned to asymmetric stretching of ferric xanthate ions C-S group (Leppinen, 1990) if there is no peak at  $1261 \text{ cm}^{-1}$  (dixanthogen), as in spectrum c. In the spectrum c ( $\theta = 2$ ) of Figure 5.4B, the peak at  $1025 \text{ cm}^{-1}$  appears with a peak at  $1136 \text{ cm}^{-1}$  assigned to either ferric or arsenous xanthate complex (Cases et al., 1995; Valli et al., 1994). The absence of a peak at  $1225 \text{ cm}^{-1}$  assigned to arsenic xanthate may incline assignation of  $1136 \text{ cm}^{-1}$  peak to ferric rather than arsenic xanthate. The peak at  $1136 \text{ cm}^{-1}$  is also present in spectrum d ( $\theta=2$ ) but absent from spectra e to h. This suggests that iron or arsenic xanthate is present as a quasi-monolayer (spectra c and d) but masked in spectra e to h by overlying dixanthogen formation.

DRIFTS characterization of the xanthate phases through different xanthate surface coverage suggests that at low concentration ( $\theta = 2-4$ ), iron or arsenic xanthate may form at the arsenopyrite surface as a close to monolayer system. Increase of xanthate concentration causes an increase in dixanthogen formation and adsorption at the arsenopyrite surface. Its organization is a multilayer system with a maximum thickness of about 33 equivalent xanthate monolayers.

DRIFTS data proportional increase with increase of surface coverage allows establishing linear relationships between UV data (calculated surface coverage) and DRIFTS data as

already done in previous works (Cases et al., 1990a, b; Kongolo, 1991; Leppinen, 1990; Mermillod-Blondin, 2005). Accordingly, intensity of peak at  $1025\text{ cm}^{-1}$  and integrated area of alkyl peaks (integration from  $3050\text{ cm}^{-1}$  to  $2800\text{ cm}^{-1}$ ) were correlated with xanthate statistical surface coverage as illustrated by Figure 5.5.

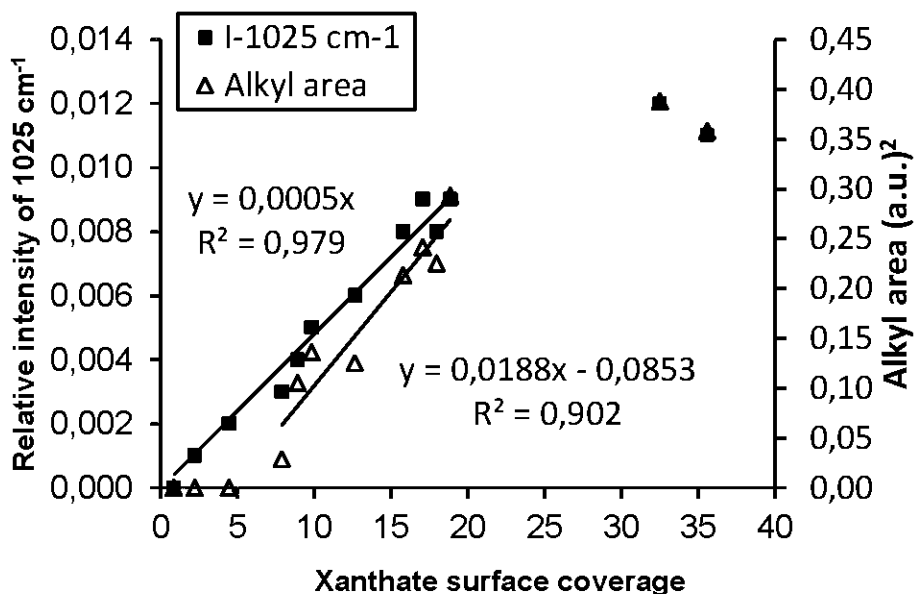


Figure 5.5 DRIFT spectra relative intensity of peak at  $1025\text{ cm}^{-1}$  as function of calculated surface coverage of isoamylxanthate (from UV analysis).

Alkyl area and  $1025\text{ cm}^{-1}$  peak relative intensity account for both dixanthogen and iron or arsenic xanthate surface coverage. However, alkyl area has a high signal threshold ( $\theta = 8$ ), while the peak at  $1025\text{ cm}^{-1}$  can be detected at lower surface coverage down to quasi monolayer state as illustrated in Figure 5.5. Relationship between surface coverage and relative intensity of  $1025\text{ cm}^{-1}$  peak is more reliable than correlation with alkyl area since the first has a higher determination coefficient of 0.98 against 0.90 for the latter. Both correlations cannot be applied at very high surface coverage around 30 as also pointed out by Leppinen (1990).

These calibrations between UV and DRIFTS data allow evaluating the surface coverage when interfering peaks do not allow determining the residual xanthate amount (see section 5.4.3.2)

#### 5.4.3.2 Collector adsorption with activation

Copper sulphate was tested as an activator at a concentration of  $1.8 \cdot 10^{-4}$  mol/L with isoamylxanthate at  $2.5 \cdot 10^{-4}$  mol/L. Observation of a yellow precipitate in the test tube and the presence in UV spectra (not presented herein) of peaks at 425 nm and 240 nm assigned to copper xanthate and dixanthogen respectively (Finkelstein, 1977; Joly et al., 2004; Rao, 1971) indicated a reaction of residual copper sulphate in solution with the xanthate added according to the following equation (Allison and O'Connor, 2011; Leppinen, 1990; Li and Zhang, 1989).



Copper xanthate and isoamylxanthate were analysed by IR spectroscopy (transmission mode) as illustrated in Figure 5.6. Copper xanthate was prepared for IR analyses (transmission mode) by precipitation from aqueous solutions of copper sulphate with a stoichiometric amount of potassium isoamylxanthate xanthate. The co-precipitated dixanthogen was removed by dissolution in ether. The spectrum a of Figure 5.6A (potassium isoamylxanthate) shows the three major peaks at 2960, 2935 and 2855  $\text{cm}^{-1}$  assigned to xanthate alkyl chain that could also be observed in Figure 5.4A. The spectrum b of Figure 5.6A (copper isoamylxanthate) show slight shifts of the symmetric stretch,  $\nu_3$ , of  $-\text{CH}_3$  and  $-\text{CH}_2$  group (Table 5) and a clear splitting between asymmetric stretch of  $-\text{CH}_3$  group (2875  $\text{cm}^{-1}$ ) and  $-\text{CH}_2$  group (2855  $\text{cm}^{-1}$ ). The major peaks observed in Figure 5.6B for potassium isoamylxanthate (spectrum a) are the peaks at 1136  $\text{cm}^{-1}$  and 1075  $\text{cm}^{-1}$  both assigned to xanthate functional group (Cases and De Donato, 1991; Leppinen, 1990). Copper isoamylxanthate (spectrum b) of Figure 5.6B shows two major peaks at 1195  $\text{cm}^{-1}$  and 1038  $\text{cm}^{-1}$  both assigned to cuprous xanthate (Leppinen, 1990). The absence of a peak at 1261  $\text{cm}^{-1}$  indicates that the dixanthogen has been successfully removed by washing copper xanthate with ether.

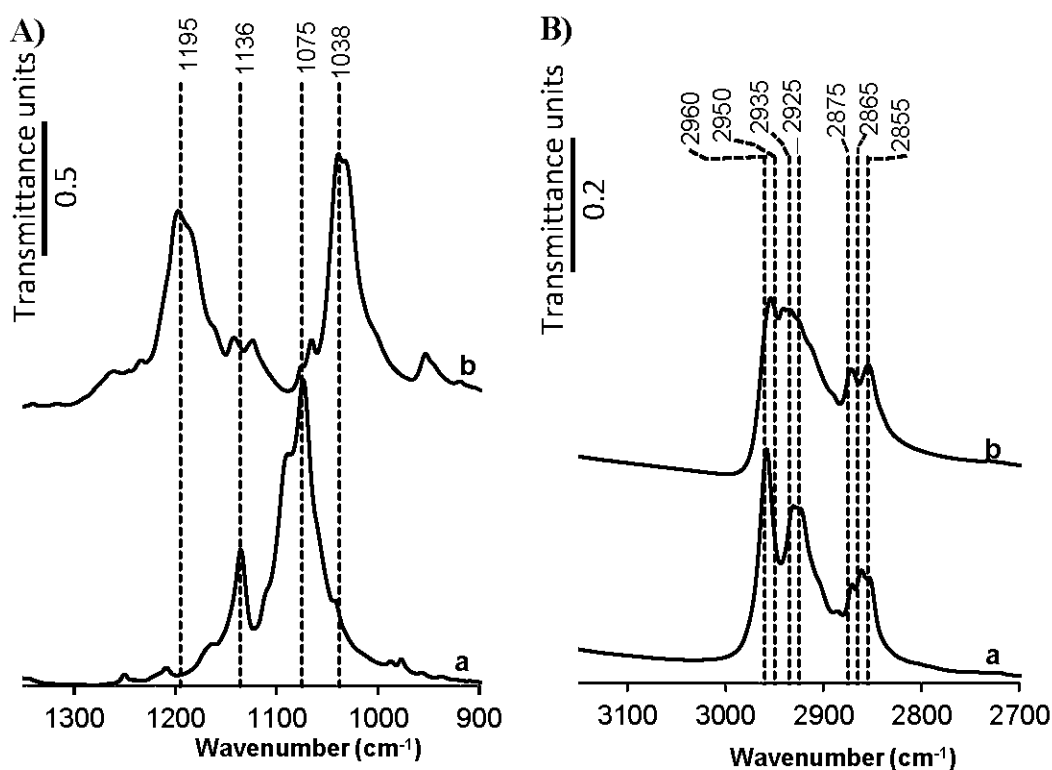


Figure 5.6 Transmission narrow spectra (A) from 3150  $\text{cm}^{-1}$  to 2700  $\text{cm}^{-1}$  and (B) from 1350  $\text{cm}^{-1}$  to 900  $\text{cm}^{-1}$  of (a) solid potassium isoamylxanthate and (b) solid copper isoamylxanthate.

Comparison of tests with and without removing residual copper in solution were performed to evaluate the impact of residual copper in solution on xanthate adsorbed phases. Figure 5.7 illustrates the impact of activation on xanthate adsorption. Spectrum a is the reference spectra without activation (equivalent to spectrum f of Figure 5.4). Spectrum b and c are activated with copper sulphate without and with solution renewal respectively. Surface coverage could be calculated for the test with solution renewal, since the peak at 301 nm was the only peak on the UV spectrum (not presented herein). This confirms that no residual copper was left in solution. As mentioned before, copper activation test without solution renewal did not allow calculating residual xanthate amount due to peak interference with the 301 nm peak. Surface coverage was therefore evaluated using the calibration between UV and DRIFTS data (Figure 5.5). Relative intensity of 1025  $\text{cm}^{-1}$  peak and alkyl area led to similar surface coverage of 12 and 14 respectively. The first correlation was chosen since it has a higher determination

coefficient. Activation with copper sulphate without solution renewal led to similar surface coverage than the reference spectrum, however the xanthate phases present at the arsenopyrite surface were different, as attested by spectrum c of Figure 5.7.

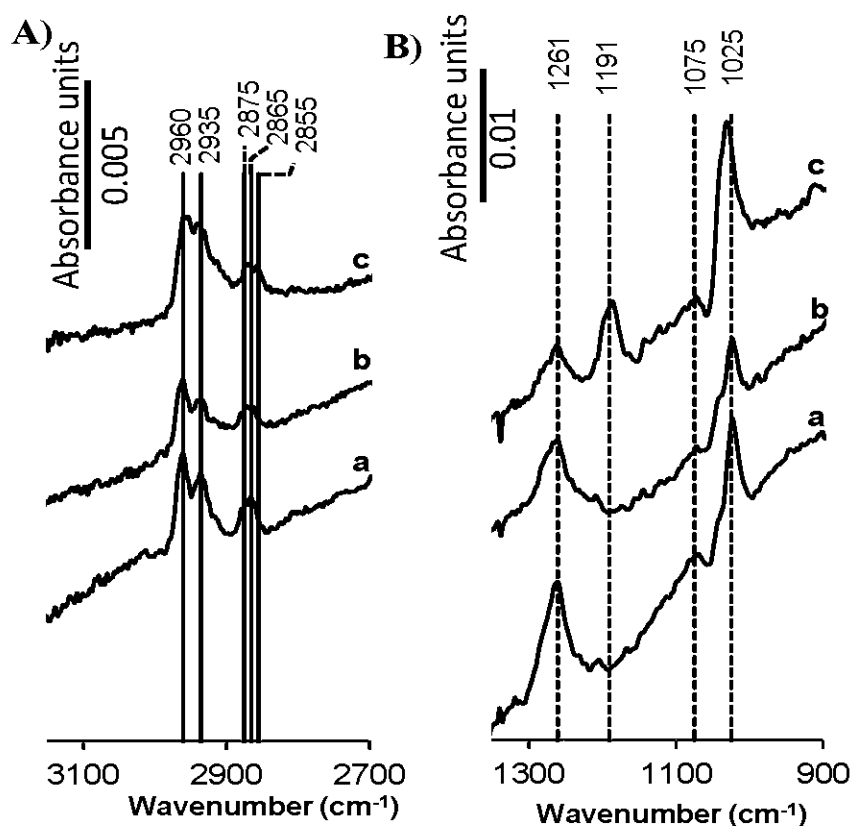


Figure 5.7 DRIFT narrow spectra (A) from 3150 cm<sup>-1</sup> to 2700 cm<sup>-1</sup> and (B) from 1350 cm<sup>-1</sup> to 900 cm<sup>-1</sup> of arsenopyrite conditioned at pH=4 with is oamylxanthate at 2.5.10<sup>-4</sup> mol/L; a: C<sub>Cu</sub>=0 mol/L,  $\theta$ =13; b: C<sub>Cu</sub>=1.8.10<sup>-4</sup> mol/L,  $\theta$ =9 solution changed before collector addition; c: C<sub>Cu</sub>=1.8.10<sup>-4</sup> mol/L,  $\theta$ =12\*, no solution change before collector addition, \*surface coverage calculated from correlation with relative intensity of 1025 cm<sup>-1</sup> peak (figure 5.5).

The alkyl related peaks followed the same profile than copper xanthate (Figure 5.6, spectrum b) and the peak at 1191 cm<sup>-1</sup> attest the presence of copper xanthate at the arsenopyrite surface. Dixanthogen is also present (peak at 1261 cm<sup>-1</sup>) although in less quantity than in the reference spectra. The peak at 1025 cm<sup>-1</sup> slightly shifted toward 1038 cm<sup>-1</sup> frequency accounts for both dixanthogen and copper xanthate. Spectrum b of Figure 5.7 has the same profile than the reference spectra with less intensity and no copper xanthate can be detected

(no peak at  $1191\text{ cm}^{-1}$ ). These tests suggest that residual copper xanthate react rapidly with xanthate to precipitate into copper xanthate both in solution and at the arsenopyrite surface which may hinder arsenopyrite flotation due to the weak bond nature of copper xanthate precipitate to arsenopyrite. The presence of both copper alkyl xanthate and dixanthogen was found in previous work by Persson (1994) on activated sphalerite.

Figure 5.7 shows that when no residual copper is left (solution renewal), copper activation appears to reduce dixanthogen formation at the arsenopyrite surface. The lack of efficiency of copper activation on arsenopyrite may be due to the acidic pH employed, since works on pyrite and pyrrhotite revealed that copper sulphate activation efficiency improves with pH increase along with mineral copper consumption (Huang et al., 2006; Leppinen, 1990). It can also be attributed to insufficient copper conditioning time (von Oertzen et al., 2007).

## 5.5 Conclusion

This work provides results on the evolution of arsenopyrite oxidation products through crushing, air oxidation, conditioning (with or without copper activation), and collector adsorption. This research work on arsenopyrite surface characterization allowed reaching the following conclusion

- Arsenopyrite oxide layer was mainly constituted of arsenic and iron oxides. Sulphates were present as a minor oxide products for all samples and may constitute overlayers above oxides layers.
- Dry-grinded arsenopyrite had a thin (50-200Å) and heterogeneous oxide layer (speciation and distribution). Air oxidation increased the arsenopyrite oxide layer thickness but not its surface coverage. Acidic conditioning increased the oxide layer coverage although it was thinned through a partial dissolution of oxidation products.
- Xanthate adsorbs at the arsenopyrite surface as iron or arsenic xanthate for a quasi-monolayer xanthate coverage. Dixanthogen formation may occur through iron reduction and adsorbs on arsenopyrite to form a thick layer that can extent to about 33 equivalent xanthate monolayer. Saturation may be reached due to passivation of arsenopyrite surface at high xanthate concentration.

- Copper activation without residual copper in solution led to lower dixanthogen formation and adsorption at the arsenopyrite. These results confirm that copper activation is not very successful under acidic conditions (Leppinen, 1990).

### **5.6 Acknowledgments**

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## CHAPITRE 6

### ENVIRONMENTAL DESULPHURIZATION APPLIED TO AN ARSENIAN GOLD

### BEARING ORE FOR THE PREVENTION OF ARSENIC CONTAMINATED

### NEUTRAL DRAINAGE

Ce chapitre se présente comme un article. Cependant celui-ci n'a pas encore été soumis lors du dépôt de la thèse

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#### **6.1 Abstract**

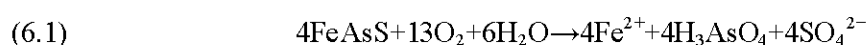
For many gold mine operators, arsenopyrite is often the source of environmental challenges related to tailings management due to contaminated neutral mine drainage (CND). This

contamination happens when arsenic bearing sulphide minerals within the tailings oxidize under atmospheric conditions. Antimony as a companion element of arsenic can also contaminate mine drainage through oxidation of antimony bearing sulphides. Contrary to acid mine drainage, contaminated neutral drainage occurs when neutralizing minerals counterbalance the acidity produced by sulphide oxidation. CND Effluents are characterized by circum-neutral pH and metals release (like arsenic and antimony) at concentration over regulation limits. Environmental desulphurization intends to prevent mine drainage by concentrating sulphides using flotation and producing a desulphurized tailings that can be managed at lower costs. Desulphurization is a promising technique for the control of CND as it has already been applied on tailings to prevent acid mine drainage. This paper presents the application of desulphurization to prevent As-Sb CND from a gold mine tailings (Lapa mine, Qc, Canada) which contains arsenic (2080 g/t) mainly as arsenopyrite and antimony (400 g/t) under different mineral phases such as stibnite or berthierite. The desulphurization tests were performed in a Denver cell on-site and were conducted on the ore prior to cyanidation in order to avoid sulphide passivation. Flotation produced two successive concentrates (the first obtained collectorless being mostly composed of talc and the second contained mainly sulphides concentrated by using xanthate collector) and a desulphurized final residue. Arsenic content was lowered from 0.2 % to 0.02 % by flotation at pH=4.5 and potassium amylxanthate (KAX) at 100 g/t dosage. However, as acidic flotation required high sulfuric acid addition (17 k/t) due to the neutralization potential of the tailings (carbonates), alkaline desulphurization could also be chosen in order to lower desulphurization costs. Flotation at pH=10.5 required addition of copper sulphate (450 g/t) as activator. It produced a desulphurized tailings with arsenic down to 0.04 %.

## 6.2 Introduction

Many polymetallic orebodies worldwide contains arsenopyrite and its occurrence within mine tailings can cause contaminated drainage that can be acidic (acid mine drainage; AMD) or neutral (contaminated neutral drainage; CND). This contamination happens when arsenic bearing sulphide minerals within the tailings are oxidized under atmospheric conditions (Aubertin et al., 2002; Brown Jr and Calas, 2011; Liang and Thomson, 2010). Contrary to acid mine drainage, contaminated neutral drainage occurs when neutralizing minerals

counterbalance the acidity produced by sulphide oxidation or when the rate of reaction is not sufficient to generate acidity, but enough to generate contaminant concentrations higher than regulation criteria (Heikkinen et al., 2009; Plante et al., 2011a). CND Effluents are characterized by circum-neutral pH and metals or metalloids (like arsenic and antimony) release. Oxidation of arsenopyrite (equation 6.1) produces arsenate anions,  $\text{AsO}_4^{3-}$ , that dissolve in water under oxidizing conditions (Cheng et al., 2009; Haffert and Craw, 2008; Lengke et al., 2009).



Arsenic and antimony are companion elements. Arsenic is the object of most studies being a major environmental threat. Antimony is also considered in this work although its toxicity and environmental chemical behavior require further researches (Filella et al., 2009). Environmental desulphurization aims at preventing contamination of mine drainage. The process concentrates sulphides by flotation and produces non acid-generating desulphurized tailings that can be stored at low costs. Desulphurization using flotation has already been proved successful on several mine tailings (Benzaazoua et al., 2004; Benzaazoua et al., 2000; Bruckard and McCallum, 2007; Bussière et al., 1995; Kongolo et al., 2004; Leppinen et al., 1997; Yalcin et al., 2004) but, to the author's knowledge, its application to prevent As CND has not yet been attempted.

Arsenopyrite flotation has mainly been studied in the prospect of decreasing arsenic content from sulphide concentrates sent to smelters (Bruckard et al., 2010; Bruckard et al., 2007; Draskic et al., 1983) and also to concentrate gold bearing arsenopyrite for gold beneficiation (Diaz and Gochin, 1995; Duc, 1992; López Valdivieso et al., 2006; Mavros et al., 1993; Monte et al., 2002). Xanthates are usually used as collector for arsenopyrite from short chain xanthate such as ethyl or isoethylxanthate (Duc, 1992; Sirkeci, 2000) to longer chain xanthate such as isopropyl and amyloxanthate (Duc, 1992; López Valdivieso et al., 2006; Sirkeci, 2000). The xanthates used in this study, potassium ethylxanthate (KEX) and potassium amyloxanthate (KAX), have 2 and 5 carbons respectively within their alkyl chain. The increase of the xanthate alkyl chain length causes a decrease of selectivity and an increase of the collecting power (Lotter and Bradshaw, 2010). It also leads to a decrease of the standard

oxidation potential (SOP) of the couple xanthate/dixanthogen. KEX and KAX have SOPs of -0.06 V and -0.158 V respectively, which means that in the same pH/Eh conditions the KAX will oxidize more into dixanthogen than KEX (Duc, 1992; Kim et al., 2000; López Valdivieso et al., 2006; Lotter and Bradshaw, 2010). Arsenopyrite hydrophobicity induced by xanthates is assigned to dixanthogen formation and adsorption at the arsenopyrite surfaces (Kydroš and Matis, 1995; López Valdivieso et al., 2006) as well as adsorption of As(III) alkyl xanthate (Yekeler and Yekeler, 2005). Works from Duc (1992), Sirkeci (2000) and López Valdivieso et al. (2006) showed that: (i) arsenopyrite floats well at acidic pHs with xanthate as collectors and (ii) arsenopyrite surfaces are depressed at pH higher than 8.5, contrary to pyrite that shows good flotation recovery at alkaline pHs (Mermillod-Blondin, 2005; Persson, 1994; Sirkeci, 2000) (iii) this allows separation of pyrite from arsenopyrite at alkaline pHs around 10 (Diaz and Gochin, 1995; Duc, 1992; Sirkeci, 2000; Tapley and Yan, 2003).

The difference of flotation behavior of arsenopyrite at acidic and alkaline pHs was previously investigated through chemical surface characterization. For acidic condition, iron dissolution from arsenopyrite creates a sulphur rich surface that becomes hydrophobic (Vreudge, 1982). At alkaline pH, cyclic voltammetry studies conducted by Wang et al. (1992) revealed the formation of iron oxides and realgar (AsS) onto the arsenopyrite surface which explains its depression by preventing the reaction of xanthate oxidation into dixanthogen (Beattie and Poling, 1987; Vreudge, 1982).

Furthermore, other studies (Li and Zhang, 1989; López Valdivieso et al., 2006; Monte et al., 2002) showed that copper sulphate can be used as an activator of arsenopyrite for flotation and its use can lower the amount of collector needed for arsenopyrite flotation. The work of Wang et al. (1989) outlined by (López Valdivieso et al., 2006) on adsorption isotherms of copper ions on arsenopyrite suggested that copper ions activate arsenopyrite by the formation of copper arsenosulphide (CuAsS) at acidic pH and copper arsenate ( $\text{Cu}_3(\text{AsO}_4)_2$ ) and arsenite ( $\text{Cu}_3(\text{AsO}_3)_2$ ) at alkaline pH allowing adsorption of xanthate. Li and Zhang (1989), through adsorption isotherms and Auger spectroscopy analyses, reported the formation of CuS onto arsenopyrite surface which allows its flotation. Monte et al. (2002) have worked on

a gold bearing arsenopyrite and pyrite concentrates and stated that for flotation at pH=6, oxidized arsenopyrite benefited from copper sulphate addition.

Desulphurization usually chooses powerful and low cost collectors such as amylxanthate to treat tailings that are likely to generate AMD in the case of cyanide free slurries (Benzaazoua et al., 2000; Mermillod-Blondin, 2005; Yalcin et al., 2004) because xanthates are inhibited by cyanides (De Wet et al., 1997; Prestidge et al., 1993). Armac, an amine acetate, may be used as collector for pulp containing cyanides but this collector induces more entrainment than xanthate (Benzaazoua et al., 2000; Kongolo et al., 2004). On the other hand, implementation of a flotation process (implying the use of organic collector) upstream of a cyanidation process to allow the use of xanthate for desulphurization may lead to some negative impacts such as “carbon fooling”. This is the adsorption of organic compounds on carbons used for gold adsorption. Carbon fooling is not easily avoided by acidic washing especially for xanthate and frother (Salarirad and Behnamfard, 2010). It lowers the gold adsorption kinetic but not the loading capacity (Salarirad and Behnamfard, 2010). Carbon fooling was negligible when the minimum of collector and frother required to achieve optimum recovery was added (Salarirad and Behnamfard, 2010).

This work aims at testing the use of environmental desulphurization by flotation to prevent As-Sb AMD generation. To the authors’ knowledge, this has not yet been attempted. The effect of pH, collector type, dosage, and activator addition were investigated in order to maximize arsenopyrite recovery from the Lapa mine ore, located in the Abitibi region, Quebec, Canada. The Lapa processing plant (Agnico-Eagle Mines Ltd.) produces gold using a standard circuit which consists of grinding, gravimetric separation and cyanide leaching processes. The Lapa tailings are deposited within the LaRonde tailings pond where cyanide destruction occurs through natural UV exposition followed by a Degussa process ( $H_2O_2$ , Soluble silicate). A biological water treatment process oxidizes the remaining thiocyanate phases (Lavoie et Bérubé, 2008).

## 6.3 Material and methods

### 6.3.1 Material sampling

Desulphurization flotation tests were carried at the Lapa concentrator (Agnico-Eagle Mines Ltd) in order to work on fresh slurries, over a total period of 21 days, taking into account potential ore variability. Pulp sampling at Lapa concentrator was performed before the cyanide leaching process (Figure 6.1) twice a day to preserve the pulp physico-chemical properties. The feed solid percentage was approximately 25-30% and the solid chemical and mineralogical compositions were monitored over the testing period.

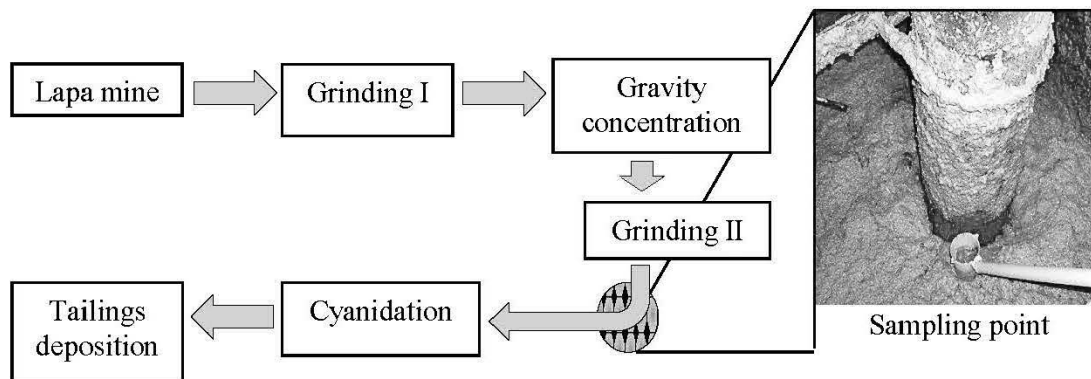


Figure 6.1 Lapa concentrator simplified process showing sampling point before cyanide leaching

### 6.3.2 Characterization methods

The chemical composition of the Lapa tailings sample was evaluated through a complete digestion in HCl/HNO<sub>3</sub>/HF/HClO<sub>4</sub>; the solution was then analyzed using an inductively coupled plasma and atomic emission spectroscopy (ICP-AES, Perkin Elmer). Gold, arsenic and antimony analysis were performed through instrumental neutron activation analysis (INAA) as suggested by Hoffman (1991) for small samples. Specific gravity ( $G_s$ ) was determined with a helium pycnometer (Micromeritics, Accupyc 1330). Particle size distribution was determined using a Malvern Mastersizer laser particle size analyser. The specific surface area (SSA) was analysed by a Micromeritics surface area analyser using the B.E.T. method (Brunauer et al., 1938). Mineralogical characterization was carried out using a Bruker A.X.S. D8 advance x-ray diffraction (XRD) instrument equipped with a copper anticathode (Cu K $\alpha$  radiation). Samples were scanned with steps of 0.005°, from  $2\theta = 5$  to

60°, with a counting time of 1 second per step. The diffractograms were interpreted using EVA software for identification and TOPAS software for mineral quantification based on the Rietveld method (Rietveld, 1993). Mineralogical investigation of the solid samples (polished sections) was also completed through micro-scale optical microscopy (OM) using a metallographic microscope; reflection mode (Nikon Optiphot2-Pol). Further information was obtained through Scanning electron microscope (SEM) observations on a Hitachi S-3500N VP-SEM coupled to an X-ray energy dispersive spectrometer (EDS) (Oxford Instruments). EDS spectra were acquired by INCA software. Observations were performed on polished sections coated with carbon. Acceleration voltage was set at 20 kV and images were recorded in backscattered electrons.

### 6.3.3 Flotation reagents

Flotation requires different types of reagents to produce the proper surface tension for mineral separation. pH regulators reagents were 10 vol.% solution of sulphuric acid ( $H_2SO_4$ ) and hydrated lime ( $Ca(OH)_2$ ). The frother used was MIBC (methyl isobutyl carbinol) from Univar Canada Ltd. Copper sulphate was tested as an activating agent and added as a 10 wt % solution. Xanthates were tested as sulphide collectors. The general formula of potassium xanthate is  $ROCS_2K$  with R being an alkyl chain. Two xanthates with different alkyl chain length were tested: the potassium ethylxanthate (referred as KEX) and the potassium isoamylxanthate (referred as KAX) from Univar Canada Ltd. Their alkyl chain formula are respectively  $R=C_2H_5$  and  $R=C_5H_{11}$ . Their purity was evaluated at 60 % and 65 % respectively by UV spectroscopy (Duc, 1992; Kongolo, 1991; Mermillod-Blondin, 2005; Rao, 1971). Xanthates were used as 10 wt % solution.

### 6.3.4 Conditioning and flotation procedure

The desulphurization process was optimized through testing of different parameters (pH, collector type, dosage, activation). A laboratory Denver D-12 cell equipped with a 5-litres flotation cell was used during the test campaign. A total of 31 flotation tests were performed. Each test consisted of two distinct flotation stages as illustrated in Figure 6.2. The first flotation stage without collector allowed the concentration of the naturally hydrophobic minerals such as phyllosilicates. It consisted of three successive 5 minutes flotation steps with an airflow rate of 3.5 L/min separated by conditioning with 50 g/t frother (2 minutes).



The three concentrates were mixed into a single concentrate referred herein as the *talc concentrate*. This first collectorless flotation stage was identical for all flotation tests and aims at concentrating naturally floatable mineral to avoid dilution of the sulphide concentrate. The second flotation stage produced the concentrate referred herein as the *sulphide concentrate*. Conditioning time was set to 10 minutes for pH control. For tests where copper sulphate was added as an activating agent (450 g/t), the conditioning time was increased by an additional 10 minutes. Xanthate was added (different type of collector at various concentrations) and conditioned for 5 minutes and the frother addition took 1 minute. Airflow was fixed at 3.5 L/min and the froth was manually skimmed with a spatula by the same operator for all flotation tests for 12 minutes. pH and Eh were measured throughout the flotation test but pH was only adjusted during the pH conditioning step.

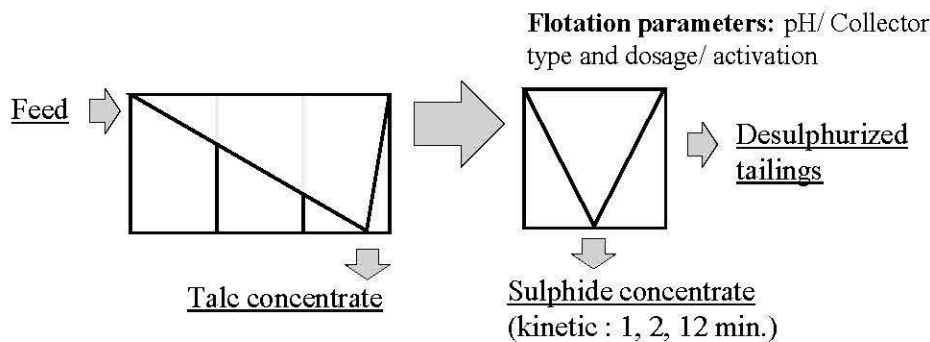


Figure 6.2 Description of the process of the Lapa ore desulphurization through two successive flotation stages

## 6.4 Results

### 6.4.1 On-site testing: feed variability

As indicated in section 6.2.3, the flotation tests were performed over a total time period of 21 days (10 days of effective flotation testing) where fresh feed slurries were daily sampled. XRD analyses of the sampled feed revealed noteworthy mineral variation during the corresponding period (Figure 6.3). Figure 6.3 illustrates such variation with time and allows determination of three feed categories as function of the phyllosilicate minerals grade (talc, muscovite, biotite, chlorite). Figure 6.4A presents the mean mineral composition of each feed category with corresponding error bars. Carbonate proportions are correlated with phyllosilicate proportions (variation from 47 % and 17 % respectively to 33 % and 8 % respectively) but

both are anticorrelated to plagioclase and quartz contents (variation from 15 % and 18 % respectively to 28 % and 29 % respectively). The sulphide proportion remained constant throughout the tested period (approximately 1 %). Figure 6.4B gives evidence that the phyllosilicate variation is mainly due to talc and biotite amounts variation.

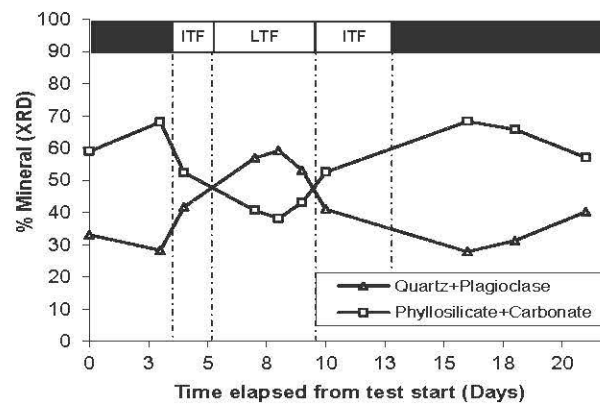


Figure 6.3 Mineralogical variation of the feed (sampled from day 0 to 21) after XRD analysis; Categories were named after the phyllosilicate grade (HTF: high talc feed; ITF: intermediate talc feed and LTF: low talc feed).

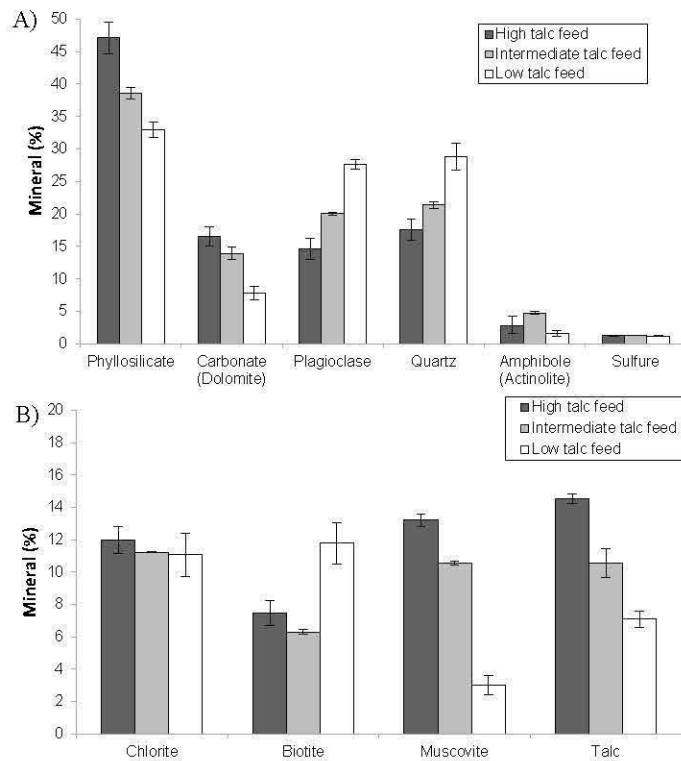


Figure 6.4 Mean mineral composition of the feed showing mineral variation of each category (HTF, ITF, LTF) after XRD analysis (A: total mineralogy; B: phyllosilicate composition).

Error bars represent 95 % of the confidence interval of each mineral class for the feed samples analysed.

## 6.4.2 Flotation tests: environmental purposes

Section 6.4.2 presents results from the flotation tests in terms of sulphur, arsenic and antimony recoveries in the prospect of decreasing the polluting potential of Lapa mine ore (As-Sb presence). Section 6.4.3 describes the results of the same flotation tests in terms of gold recovery in order to evaluate the impact of environmental desulphurization on the existing metallurgical process.

### 6.4.2.1 Talc flotation

The talc concentrate is produced by the first flotation stage (Figure 6.2) with fixed flotation parameters as described in section 6.2.3 and was therefore expected to be similar for all flotation tests. However, important variation of weight percentage from 13 wt % to 40 wt %

and of arsenic recovery from 5 wt % to 18 wt % was observed (Figure 6.5). Arsenic recovery within the talc concentrate was correlated with the weight percentage as illustrated in Figure 6.5.

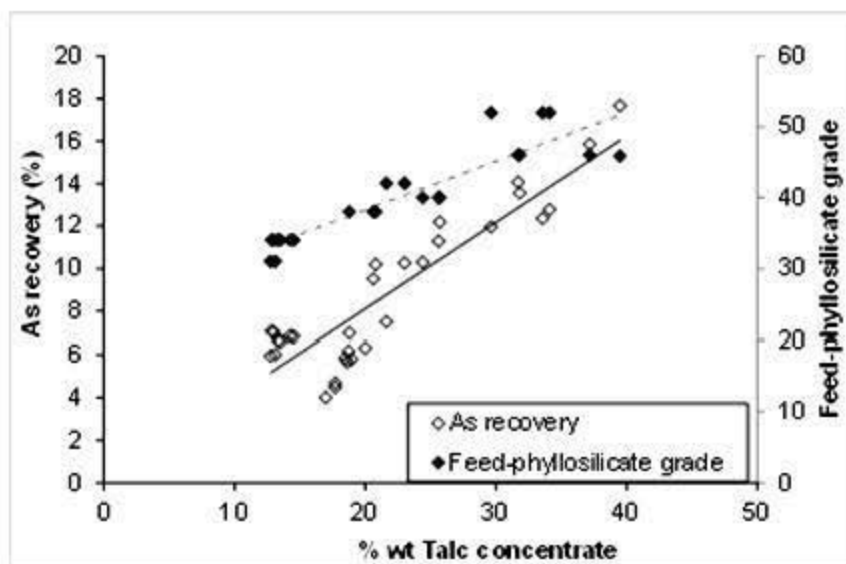


Figure 6.5 Arsenic recovery and feed phyllosilicate amount as function of talc concentrate weight percentage showing linear regressions.

This positive correlation (slope of 0.4; determination coefficient,  $R^2$  of 0.82) suggests that arsenopyrite recovery was mainly due to mechanical entrainment with naturally hydrophobic minerals since there was no evidence of composite particles (figure 6.10). Moreover, the positive correlation existing between the talc concentrate weight percentage and the feed phyllosilicate grade determined by XRD analyses (Figure 6.5) reveals the positive impact of the feed phyllosilicate amount on the arsenic entrainment within the talc concentrate.

#### 6.4.2.2 Sulphide flotation

The sulphide concentrate arsenic recovery (and of other elements) would be biased by the variability of the talc weight percentage (13 wt % to 40 wt %) and of its arsenic recovery (5 to 18 wt %) so that an intermediate feed is used for the concentrate recoveries calculation. This intermediate feed is the tailings of the talc flotation step. Due to the initial low arsenic grade of the ore ( $As = 0.21 \% \pm 0.05 \%$ ) and the low arsenic grade of the talc concentrate ( $As = 0.08 \% \pm 0.04 \%$ ) the variability induced by the talc flotation does not have an important

impact on the intermediate feed arsenic grade and variability ( $As = 0.24 \% \pm 0.07 \%$ ). It is therefore assumed by the authors that the variability of the sulphide entrainment (arsenopyrite and pyrrhotite) in the talc concentrate do not bias the sulphide flotation step in terms of collector consumption and sulphide quantity.

**- Impact of pH and collector type**

The sulphide flotation is produced during the second flotation stage as described in section 6.2.3. Three pHs, two collector types and two dosages were tested at first without any activator addition. The natural pH of the sampled pulp was about 9. Recovery and residual percentages of sulphur, arsenic, and antimony are presented in Figure 6.6. Increase of pH caused a decrease of the recovery for the three elements mentioned whatever the collector dosage and type. The drop of recovery due to pH increase was more pronounced for KAX dosage of 50 g/t than for the 100 g/t dosage (Figure 6.6A1, B1, C1). The arsenic recovery ( $R_{As}$ ) drops from 40 wt % and 92 wt % at pH=4.5 to 7 wt % and 79 wt % at natural pH for KAX dosage of 50 and 100 g/t respectively. One can notice that given the poor results obtained at pH=10.5 for a dosage of 100 g/t ( $R_{As} = 42 \text{ wt } \%$ ), the lower KAX dosage of 50 g/t was not tested herein.

KEX (shorter alkyl chain xanthate) was compared to KAX performance at a dosage of 100 g/t (Figure 6.6A2, B2, C2). Under acid conditions (pH=4.5), KEX gave higher sulphur recovery than KAX with 90 wt % compared to 71 wt %. The two collectors led to similar arsenic recovery ( $R_{As} = 91 \text{ wt } \%$ ). However, KEX led to slightly lower recoveries of antimony (51 wt %) compared to KAX (54 wt %). This indicates a better recovery of pyrrhotite, similar recovery of arsenopyrite and lower recovery of other sulphides (gudmundite, berthierite) as developed in section 6.3.3. KAX collects therefore a larger spectrum of sulphides than KEX. The latter led to a very low recovery of arsenic and sulphur at alkaline conditions ( $R_{As} = 8 \text{ wt } \%$  at pH= 9 and  $R_{As} = 1 \text{ wt } \%$  at pH= 10.5) compared to KAX, even at high KEX dosage of 100 g/t.



#### - Impact of sulphide activation

Addition of copper sulphate as an activator was tested with KAX at three dosages (50, 70, 100 g/t) and with KEX at a dosage of 100 g/t at three different pHs (pH = 4.5, 9, 10.5). Corresponding recovery and residual amount of sulphur, arsenic, and antimony are presented in Figure 6.7. The lower recovery (30 wt % for sulphur, arsenic and antimony) was observed for a pH of 9 (natural pulp pH). Lower recoveries were observed for KAX at 100 g/t dosage ( $R_{As} = 92$  wt %) compared to 70 g/t ( $R_{As} = 94$  wt %) at acidic pH. This may indicate over-dosage of collector at 100 g/t (Figure 6.7A1, B1, C1). At alkaline pH (pH=10.5) and high xanthate dosage (70 and 100 g/t), addition of copper sulphate significantly increased the sulphur and arsenic recoveries up to 62 wt % and 82 wt % respectively compared to test without activation (44 wt % and 42 wt % respectively) (Figure 6.7A and B). It also improved antimony recovery up 53 wt % compared to test without activation with 24 wt % recovery (Figure 6.6C and 6.7C). With addition of copper sulphate, KEX and KAX efficiency were similar except at natural pH (pH=9) where KAX gave lower results of approximately 30 wt % recovery (Figure 6.7A2, B2, C2). The best results were obtained at acid pH of 4.5 with KAX at 70 g/t. Arsenic reached a recovery of 94 wt % (0.02 % residual arsenic). Antimony remained poorly recovered at 60 wt % but still allowed a low residual grade of 0.01 % in the final tailings.

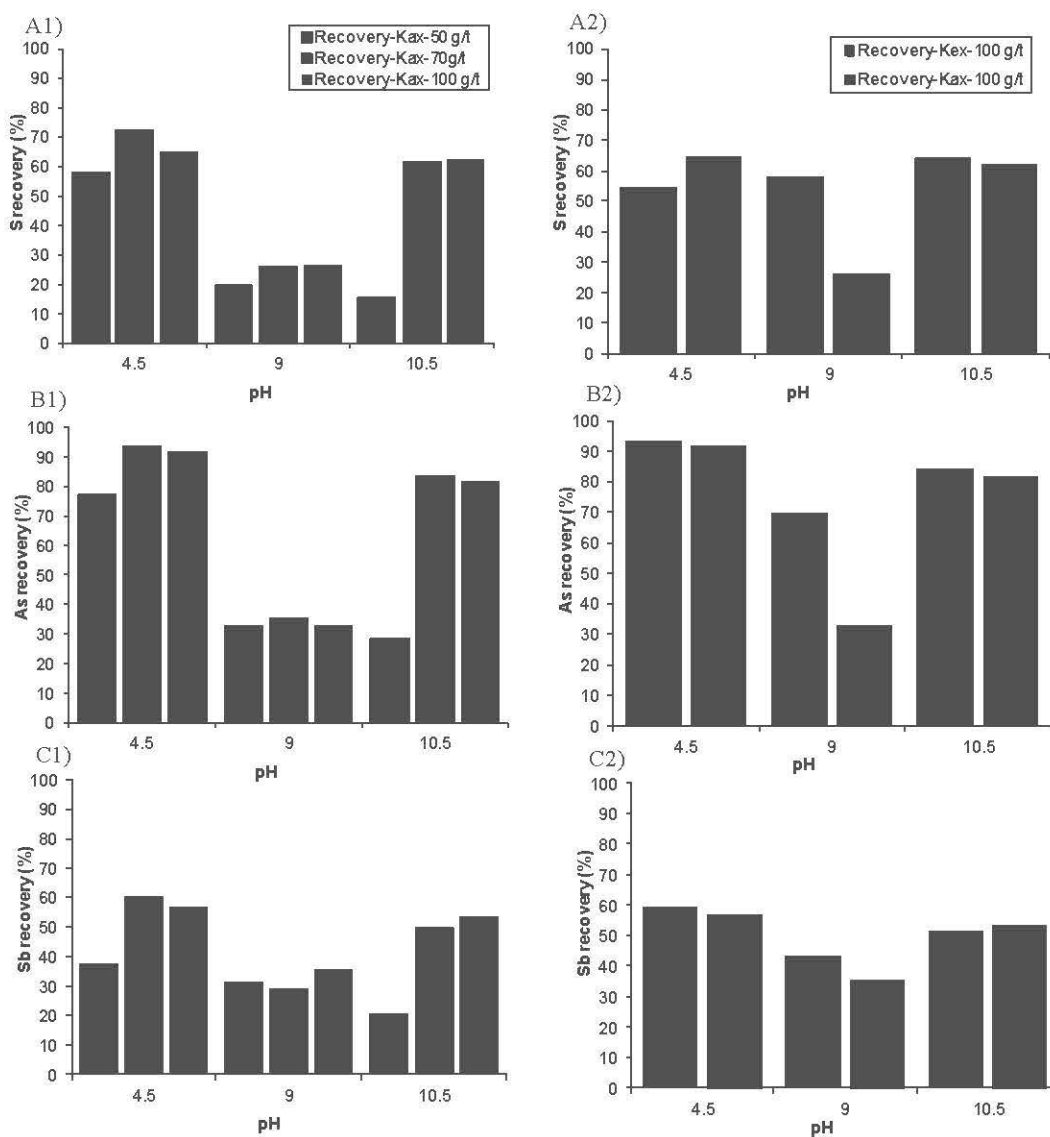


Figure 6.7 Flotation tests with copper sulphate activation. Element recovery as function of pH, KAX dosage (1) and collector type (2); (A: sulphur recovery; B: arsenic recovery and C: antimony recovery)

#### 6.4.2.3 Kinetic flotation modeling

Flotation modeling has long been studied in the prospect of understanding and controlling this multi-phase and complex system (Ek, 1992; Polat and Chander, 2000). Micro-scale quantitative determination of all factors influencing the production rate of the concentrate (collector adhesion, collision and adhesion or transfer to froth probabilities) are still uncertain



and therefore modeling of flotation is often carried at macro-scale level (Ek, 1992; Polat and Chander, 2000; Shean and Cilliers, 2011). Kinetic models are macro-scale phenomenological models that outline the similarity of the flotation process to a chemical reaction process between bubbles and particles (Ek, 1992; Polat and Chander, 2000).

Many studies have used flotation kinetic as a mean to evaluate the impact of different parameters (Bayat et al., 2004; Chaves and Ruiz, 2009; Hernainz Bermudez De Castro and Calero De Hocés, 1996; Hernainz et al., 2005; Yalcin and Kelebek, 2011). It is also a simple technique to evaluate the optimum flotation time without having to perform successive flotation tests at each time step (Ek, 1992). Moreover, modeling flotation tests and establishing relationships between kinetic parameters and flotation data allow to predict and to simulate those parameters for further batch flotation tests and may be used as control strategies in industrial applications (Benzaazoua et al., 2000; Polat and Chander, 2000).

Arsenic recovery as function of flotation time for KAX dosage of 100 g/t at three different pHs is presented in Figures 6.8A1 and 6.8A2 (with and without copper activation respectively). The data were fitted with different kinetic models of first and second order (not presented herein) and they all fitted well the data with determination coefficient,  $R^2$  over 0.97. The Klimpel model was chosen in this study as it fitted the data with a determination coefficient,  $R^2$  over 0.99 and that the first order model reaction between particles and bubbles is known to fit well flotation reactions (Benzaazoua et al., 2000; Kelebek and Nanthakumar, 2007; Klimpel, 1988; Polat and Chander, 2000). Klimpel equation is presented by the following equation with  $R$  as the element recovery,  $R_\infty$  as the maximum recovery (%),  $k$  as the flotation rate constant ( $\text{min}^{-1}$ ) and  $t$  as the flotation time (min.):

$$(6.2) \quad R(t) = R_\infty \left\{ 1 - \frac{1}{kt} (1 - e^{-kt}) \right\}$$

The Klimpel model involves a few assumptions: (i) the rate of the particle–bubble collision process is first-order, (ii) the material is monodispersed (particles and bubbles) and (iii) particle floatabilities have a rectangular distribution (Benzaazoua et al., 2000; Ek, 1992; Klimpel, 1988). Modeling flotation kinetics allows comparing the flotation kinetic constant  $k$

(Klimpel model parameter) as function of flotation parameters (pH, collector dosage and type and copper activation) as illustrated by Figure 6.8B1 and B2.

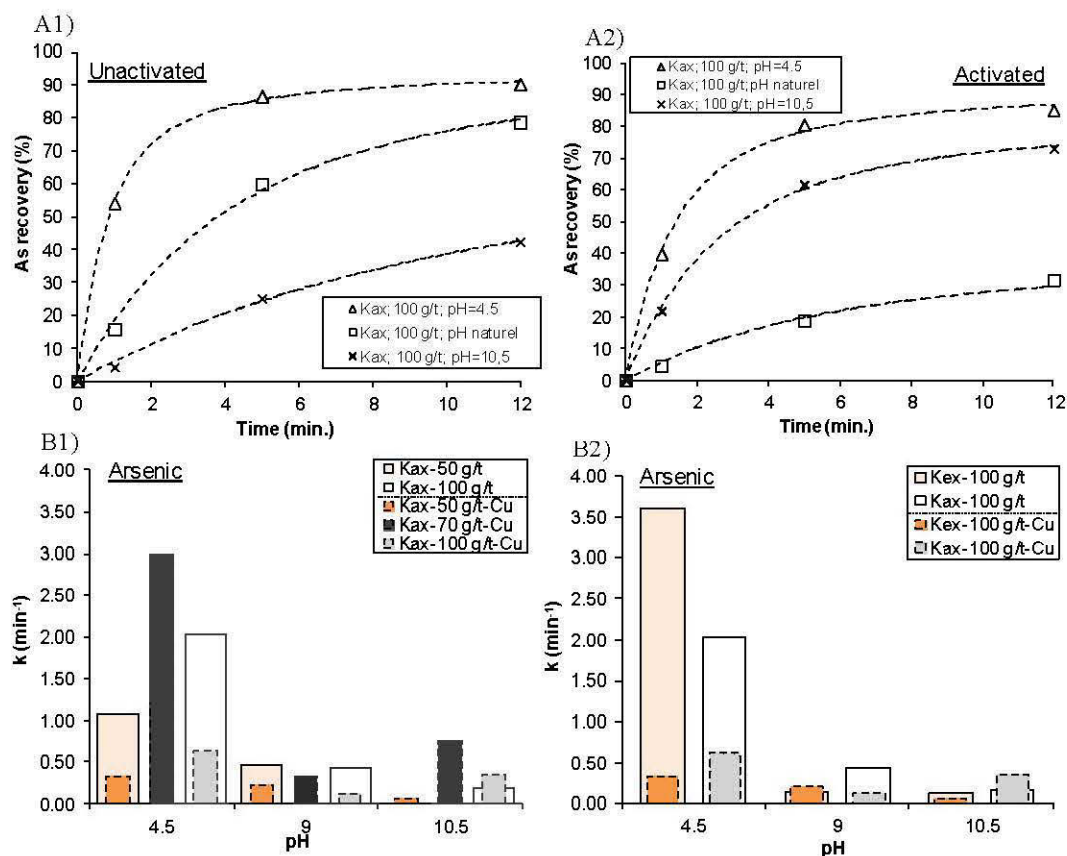


Figure 6.8 A) Kinetic of arsenic recovery as function of pH fitted with Klimpel model (A1: unactivated flotation; A2: copper sulphate activated flotation) and B) evolution of the flotation kinetic constant  $k$  (Klimpel model) as function of pH, collector dosage and type. (Kax without Cu activation was not tested at 70 g/t for all pHs and at 50 g/t for pH= 10.5)

The flotation kinetic depends on all those parameters. The dosage of 70 g/t of KAX at pH = 4.5 activated with copper reaches the highest  $k$  for this collector with  $k = 3.0 \text{ min}^{-1}$ . However KAX was not tested in the same conditions without activation. KEX reaches the highest kinetic constant with  $k = 3.6 \text{ min}^{-1}$  at pH=4.5. Copper activation seems to lower the kinetic constant for both collectors at dosages of 50 and 100 g/t at acidic conditions but slightly increases  $k$  at more alkaline conditions. Fitting parameters of Klimpel models,  $k$  (flotation

kinetic constant) and  $R_{\infty}$  (final recovery) as a function of final recovery of sulphur, arsenic and antimony at different pHs are presented in Figure 6.9.

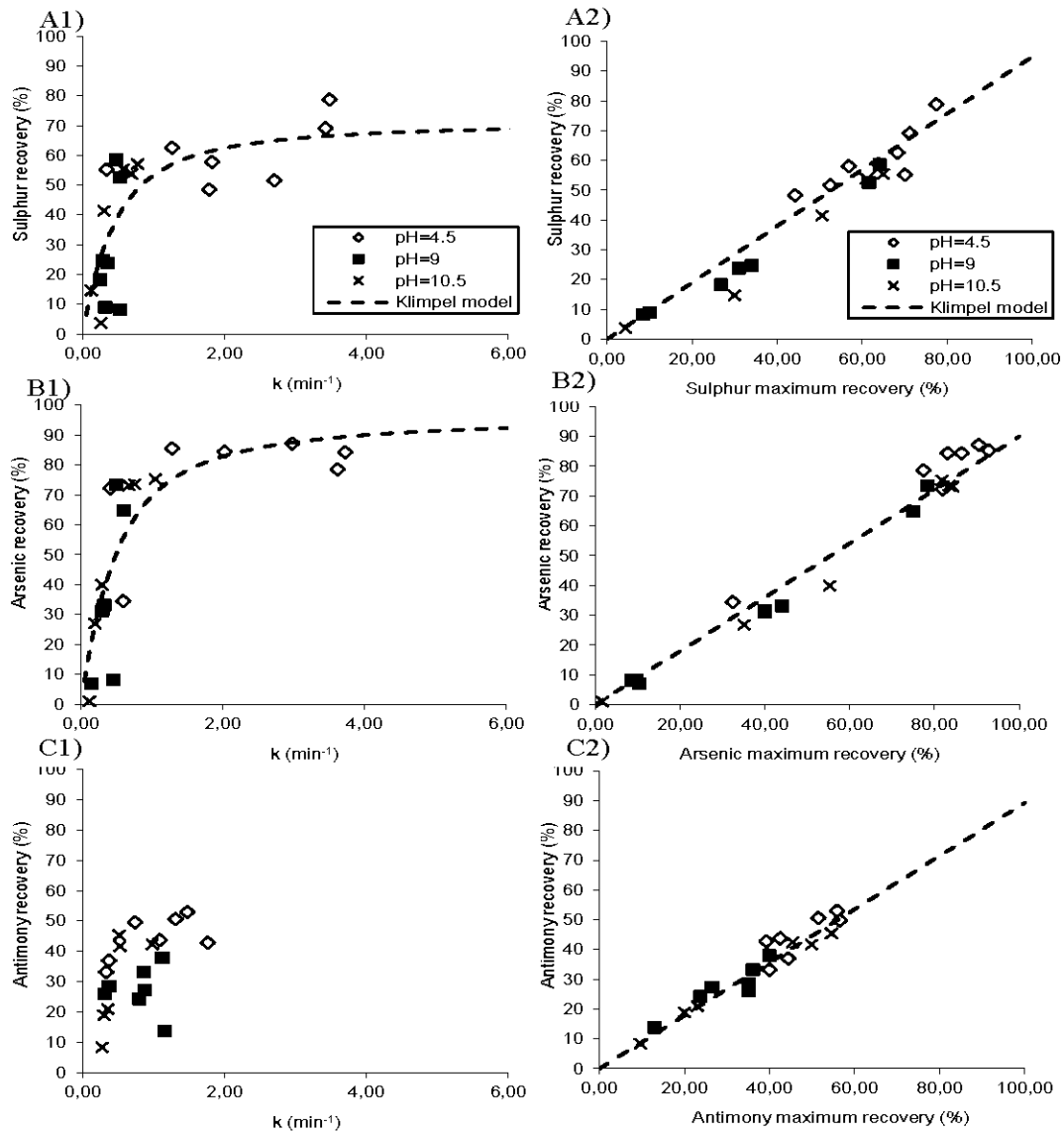


Figure 6.9 Klimpel model parameters  $k$  (A1; B1; C1) and  $R_{\infty}$  (A2; B2; C2) as function of sulphur (A), arsenic (B) and antimony recovery (C)

The graph corresponding to sulphur and arsenic recovery against the flotation constant,  $k$ , were fitted for arsenic and sulphur data using Klimpel equation (Figure 6.9A1 and B1) as already done by Benzaazoua et al. (2000). However no correlation could be observed for

antimony (Figure 6.9C1). Correlation between recovery and  $k$  (flotation constant) indicated that for arsenic and sulphur, acid pH provide both high recovery and fast flotation ( $k$  between 2 and 4  $\text{min}^{-1}$ ) as also illustrated in Figure 6.8. Flotation at alkaline pH is slower and  $k$  does not exceed 0.5 and 1  $\text{min}^{-1}$  for sulphur and arsenic respectively, but equivalent arsenic and sulphur recovery can be achieved (Figure 6.9A and B). The flotation constants around 1-4  $\text{min}^{-1}$  were of the same order than the sulphide flotation constant found in other works (Benzaazoua et al., 2000; Kelebek and Nanthakumar, 2007; Yalcin and Kelebek, 2011). For antimony, alkaline pH led to both lower kinetic and lower recovery (Figure 6.9C). For this element, collector type and activator addition did not have an impact on the flotation kinetic.

Figures 6.9A2, B2 and C2 show sulphur, arsenic and antimony recovery as a function of maximum recovery,  $R_{\infty}$ . The linear relationship between those two parameters with a coefficient of 0.9 for the three elements indicates that the flotation time (12 minute) nearly reached the maximum recovery determined by the kinetic model. This implies that optimum separation time was reached.

The relationship established for arsenic and sulphur between recovery data and Klimpel model parameters  $k$  and  $R_{\infty}$  enable to predict those parameters from test flotation recovery (Benzaazoua et al., 2000).

#### 6.4.3 Physical, chemical and mineralogical characterization of flotation products

Process mineralogy aims at integrating mineralogy and metallurgical approaches for improved performance of mine plants (Coetzee et al., 2011; Lotter, 2011; Zhou, 2008). This approach is adopted on the flotation test with KAX at 100 g/t and pH = 4.5 chosen as the optimal test (arsenic recovery of 92 wt %; 0.02 % of residual arsenic). Flotation products (feed, final tailings and concentrates) issuing from this test experiment were characterized using multiples and complementary techniques (mineralogical, chemical and physical characterization) to better understand the flotation results.

The physical characterization of the flotation products is presented in Table 6.1. All materials have similar particle size distribution (PSD) except for the sulphide concentrate which shifts slightly toward finer PSD and hence has the highest specific surface area. The talc concentrate have a similar PSD than the feed and the desulphurized tailings although it has a

higher specific surface area which reflects its higher phyllosilicate content due to the higher specific surface area of these minerals (Table 6.2).

Table 6.1 Particle size analysis and physical properties of the flotation products

	Feed	Talc concentrate	Sulphide concentrate	Desulphurized tailings
<b>Physical characteristics</b>				
D10 ( $\mu\text{m}$ )	2.65	3.09	1.68	3.09
D50 ( $\mu\text{m}$ )	15.40	15.40	9.00	16.57
Cu=D60/D10	7.88	6.77	7.28	7.28
SSA ( $\text{m}^2/\text{g}$ )	2.4	3.5	4.3	2.4
$S_G$ ( $\text{g}/\text{cm}^3$ )	2.8	2.9	3.1	2.8

Table 6.2 presents the chemical and mineralogical characteristics related to the flotation products. The main constituents are quartz, plagioclase, dolomite and phyllosilicate. The phyllosilicates are mainly constituted of talc, chlorite, biotite and muscovite. Talc proportions within talc concentrate and sulphide concentrate are 34 % and 8 % respectively.

Although the sulphide content was small, XRD analysis carried on the feed and the desulphurized tailings detected some pyrrhotite. No sulphides were detected in the talc concentrate by XRD analysis but sulphides such as arsenopyrite, berthierite (Figure 6.10), chalcopyrite and pyrrhotite were present as traces in all these samples as revealed by SEM-EDS micro-analysis. Mineral characterization gave evidence that arsenopyrite was mainly present as liberated particles of about 5 to 10  $\mu\text{m}$  within the talc concentrate which is favorable for mechanical entrainment (Figure 6.10C and D), contrary to the desulphurized tailings which contains mainly locked sulphide (within gangue mineral like silicates; as illustrated by the Figure 6.10A and B). The presence of fine sulphide particles of about 10  $\mu\text{m}$  (pyrrhotite, arsenopyrite, berthierite) within the talc concentrate that increases with talc weight and feed phyllosilicate amount (Figure 6.5) confirm the mechanical entrainment phenomenon suggested in section 6.3.2.1 (Jameson, 2010; Trahar, 1981). The mixed/locked sulphides within the desulphurized tailings could not be recovered by flotation due to insufficient liberation of those grains (Figure 6.10A and B). They would contribute to the contamination of mine drainage if they present exposed surfaces.

Table 6.2 Chemical analysis and mineralogical quantification of flotation products

	Feed	Talc concentrate	Sulphide concentrate	Desulphurized tailings
Weight (%)	100	14.5	6.6	78.9
<b>Major Elements</b>				
As (wt %)	0.21	0.09	2.53	0.02
Fe (wt %)	5.25	5.53	13.42	4.54
S (wt %)	0.37	0.19	5.02	0.17
Mg (wt %)	4.58	10.9	3.93	3.48
Ca (wt %)	2.90	1.45	2.25	2.99
K (wt %)	1.72	0.87	1.61	1.88
Na (wt %)	1.51	0.75	1.35	1.56
Cu (g/t)	58	80	601	6
Sb (g/t)	240	220	2000	110
Au (g/t)	4.4	5.6	46.0	0.7
<b>Mineral quantification (XRD / Rietveld)</b>				
Quartz (%)	26	9	16	32
Phyllosilicate (%)	34	70	35	25
Plagioclase (%)	27	16	26	32
Dolomite (%)	10	5	6	9
Actinolite (%)	2	/	2	1
Arsenopyrite (%)	/	/	6	/
Pyrrhotite (%)	1	/	8	1
Chalcopyrite	/	/	1	/
<b>Mineral calculation (from chemical analysis *)</b>				
Arsenopyrite (%)	0.46	0.20	5.5	0.04
Pyrrhotite (%)	0.63	0.33	8.7	0.37
Chalcopyrite (%)	0.02	0.02	0.2	0.00
Berthierite (%)	0.04	0.04	0.4	0.02

\*As assigned to arsenopyrite, Cu assigned to chalcopyrite, Sb assigned to berthierite, remaining sulphur amount assigned to pyrrhotite.

The sulphide concentrate contains 15 % of sulphides, mainly pyrrhotite and arsenopyrite and a few chalcopyrite, as revealed by XRD and SEM-EDS micro-analysis (Figure 6.11). Other sulphides such as berthierite,  $\text{FeSb}_2\text{S}_4$  (Figure 6.11), Gersdorffite,  $\text{NiAsS}$ , Stibnite,  $\text{Sb}_2\text{S}_3$ , and Ullmannite,  $\text{SbNiS}$  were also detected by SEM-EDS micro-analysis as was also outlined in another mineralogical characterization on the Lapa ore (Mermillod-Blondin et al., 2011).

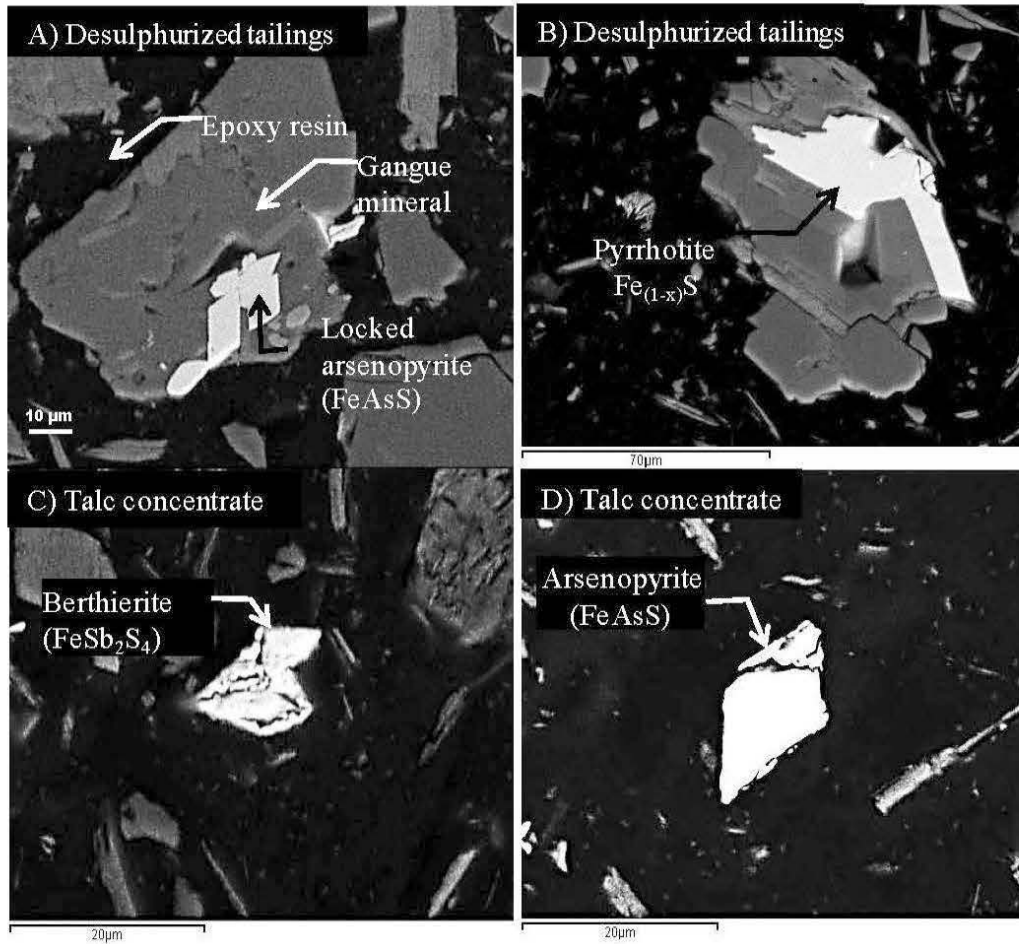


Figure 6.10 SEM back-scattered images illustrating the locked arsenopyrite (A) and the partly locked pyrrhotite (B) within the desulphurized tailings, and the liberated fine gudmundite (C) and arsenopyrite (D) within the talc concentrate.

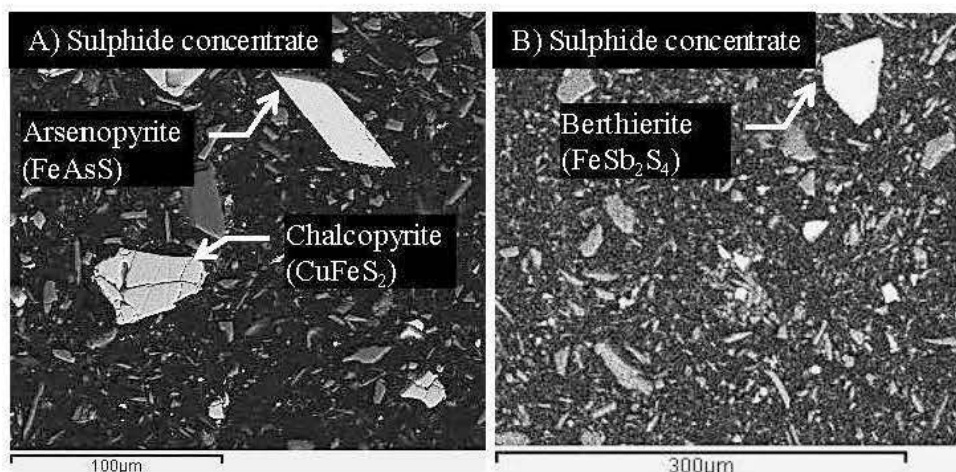


Figure 6.11 SEM back-scattered images illustrating the different sulphides in the sulphide concentrate

#### 6.4.4 Environmental desulphurization: an integrated approach

Since environmental desulphurization is placed before cyanide leaching to avoid sulphide surface passivation, it is important to evaluate the distribution of gold between the three flotation products (talc and sulphide concentrates and tailings). Gold analysis was therefore carried for almost all flotation samples. Gold kinetics flotation was not evaluated for lack of material needed for its analysis. The talc concentrate shows important variation of gold recovery from 5 wt % to 20 wt % depending on the feed composition but no correlation could be established between gold recovery and the arsenopyrite entrainment phenomenon (section 6.3.2.1). Figure 6.12 shows the impact of flotation parameter (conditioning pH, collector type and dosage) on gold recovery. Without copper activation, gold recovery decreases with the increase of conditioning pH from 84 wt % and 68 wt % at pH of 4.5 to 65 wt % and 16 wt % at pH of 10.5 for KAX and KEX dosages respectively at 100 g/t (Figure 6.12A1 and A2). For flotation tests with copper sulphate activation, gold recovery is increased in alkaline conditions reaching 86 wt % with 100 g/t KAX compared to 68 wt % without activation.

Mine operation would largely benefit from integrating environmental considerations during the flowsheet design. Figure 6.13 illustrates this approach consisting in the integration of environmental desulphurization within the metallurgical flowsheet. It suggests a modified flowsheet including an upstream environmental desulphurization step.



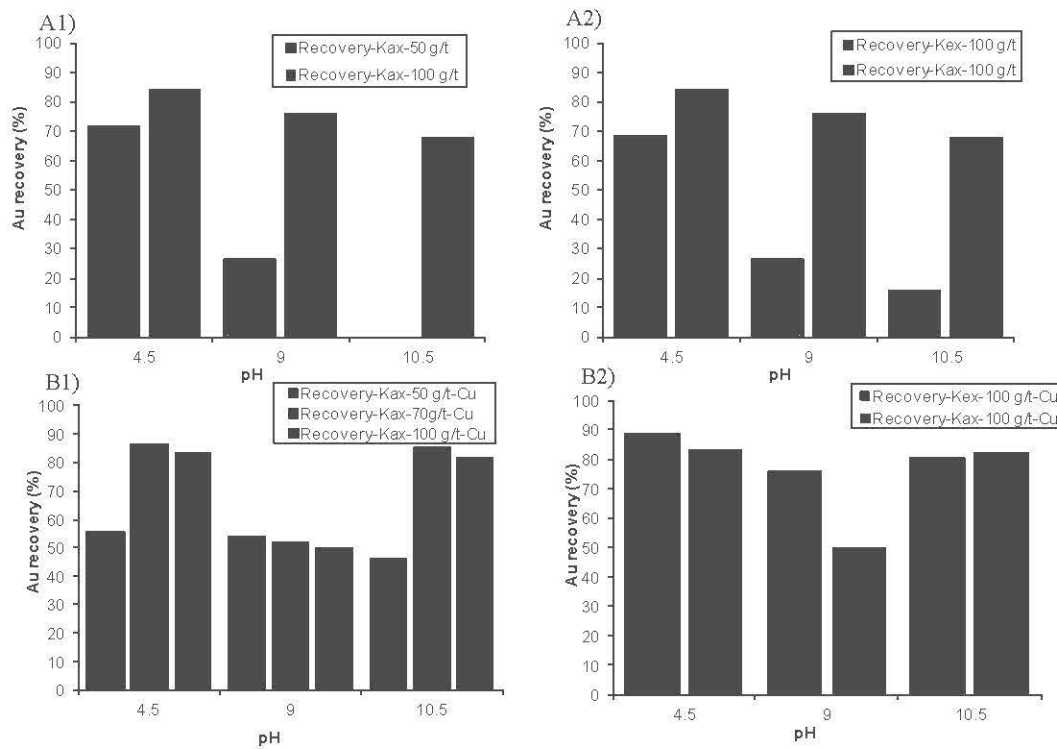


Figure 6.12 Gold recovery as function of pH, KAX dosage (1) and collector type (2); (A: flotation without copper sulphate activation; B: flotation tests with copper activation)

The optimal test (KAX dosage at 100 g/t; pH = 4.5) is chosen from environmental considerations and the recoveries are presented taking into account the talc concentrate to evaluate arsenic and gold distribution (Figure 6.13) between the three flotation products (talc and sulphide concentrates and desulphurized tailings). Although gold is mainly in the sulphide concentrate, it is also present in the talc concentrate and the desulphurized tailings in significant amounts. Therefore if environmental desulphurization step was applied upstream of cyanide leaching step, two different circuits for gold recovery should be investigated. Higher amount of sulphides such as pyrrhotite, arsenopyrite and antimony bearing sulphide may interfere with gold leaching during the sulphide concentrate cyanidation. The use of high lime and  $PbNO_3$  additives may increase gold leaching even with high sulphide concentration (Deschênes et al., 2005; Deschênes et al., 2009).

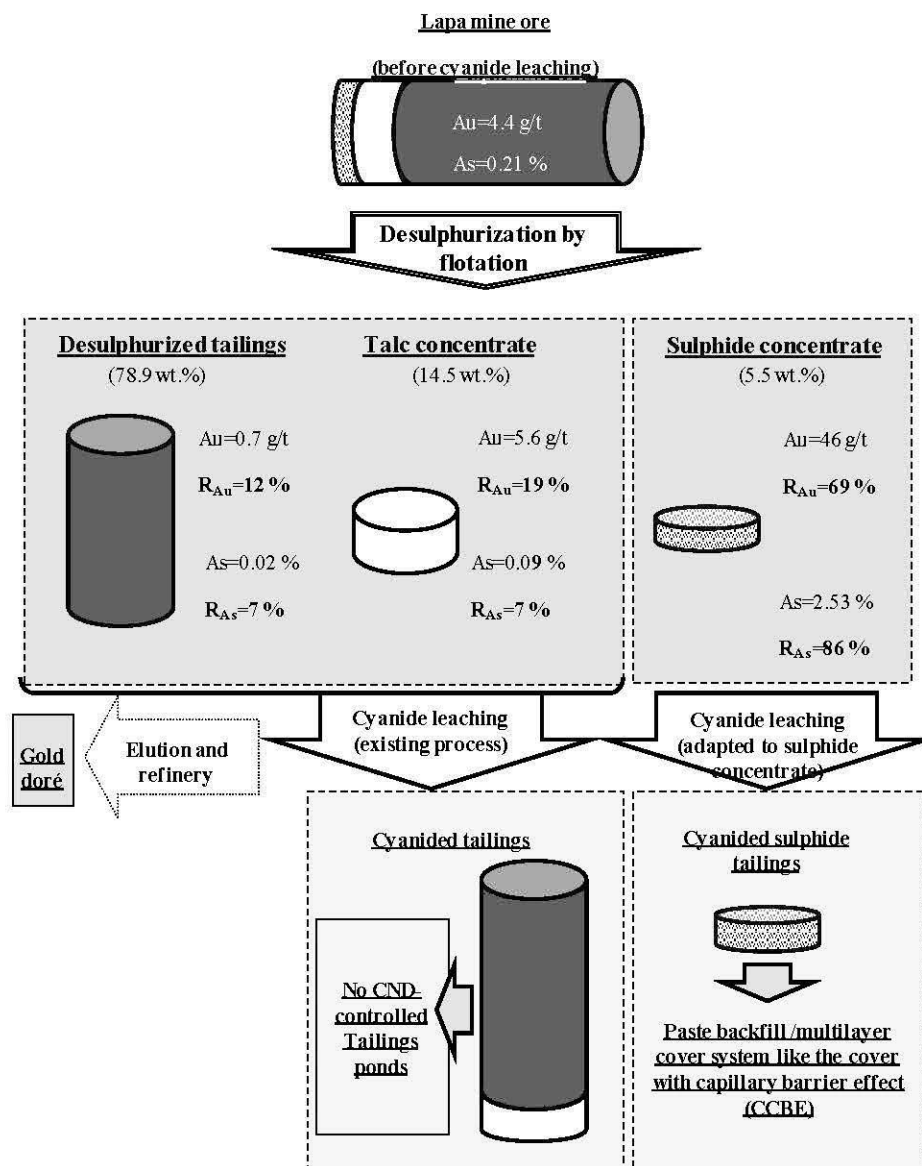


Figure 6.13 Simplified flowsheet of Lapa process plant illustrating the integration of environmental desulphurization to the metallurgical process before cyanide leaching (recovery and grades correspond to optimal test at pH =4.5;  $K_{ax}$  at 100 g/t). Recoveries calculation includes the talc concentrate in the mass balance.

The presence of residual flotation reagents (collector and flother) would also be a concern for gold leaching passivation but addition of optimal reagent dosage (lowest dosage to achieve high recovery) may limit this phenomenon (Salarirad and Behnamfard, 2010). The sulphide concentrate once gold is extracted can be stored as an acid generating material mixed with

paste backfill or under an oxygen barrier like a CCBE (cover with capillary barrier effect). The talc concentrate and the desulphurized tailings can be stored in no CND-controlled disposal system (Figure 6.13). Assessment of the performance of environmental desulphurization on arsenic and antimony release from Lapa mine ore is evaluated in a companion paper (Derycke et al., 2012b).

### 6.5 Conclusions and recommendations

Environmental desulphurization was applied on Lapa mine ore (upstream desulphurization) rather than on its tailings (downstream desulphurization) to prevent surface passivation due to cyanide leaching. This work provides results on the desulphurization of Lapa mine ore before cyanide leaching and led to the following conclusions and recommendations :

- Environmental desulphurization of Lapa mine ore was successful. The greatest performance of Lapa desulphurization test reached 0.02 % of residual arsenic in the desulphurized tailings for a flotation done at pH=4.5 with KAX at 100 g/t and an initial arsenic amount of 0.2 wt % (arsenic recovery of 92 wt %). Recovery of antimony was lower (54 wt %) but it also reached low residual concentration of 0.01 wt % in the desulphurized tailings for an initial antimony amount of 0.04 wt %
- Equivalent results are obtained with flotation at pH=10.5 reaching 0.04 wt % of residual arsenic in the desulphurized tailings (arsenic recovery of 94 wt %) with copper sulphate addition (450 g/t) and KAX at 70 g/t.
- Addition of high amount of sulphuric acid (17 kg/t) needed for flotation at pH=4.5 may bring froth flotation at alkaline pH as an interesting option.
- Remaining sulphides (arsenopyrite and pyrrhotite) within desulphurized tailings were mainly locked in gangue grains so that further grinding would be required to concentrate those sulphides, if performance increase is needed.

The authors suggest evaluating the kinetic of arsenic entrainment during the talc flotation so that it may be possible to separate the talc concentrate into more or less arsenic rich fraction. Processing the talc concentrate through physical separation to remove fine particles of arsenopyrite could also be considered.

## **6.6 Acknowledgement**

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## CHAPITRE 7

### ASSESSMENT OF THE PERFORMANCE OF ENVIRONMENTAL DESULPHURIZATION ON ARSENIC RELEASE FROM TAILINGS

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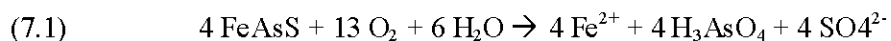
#### **7.1 Abstract**

Contaminated (acid or neutral) mine drainage management is one of the most important environmental challenges related to tailings management for most polymetallic mine operators around the world. The contamination happens when sulphide minerals within tailings oxidize under atmospheric conditions. Contrary to acid mine drainage, contaminated neutral drainage (CND) occurs when neutralizing minerals counterbalance the acidity produced by sulphide oxidation. CND effluents are characterized by circum-neutral pH and metals release (like arsenic or antimony). Tailings desulphurization is an attractive alternative

technique for the control of both types of contaminated mine drainage. This paper presents the application of desulphurization to prevent CND from a gold mine tailings (Lapa mine, Qc, Canada) which contains arsenic (2080 g/t), mainly as arsenopyrite and antimony (405 g/t) as antimony bearing sulphides. Desulphurization tests conducted by ore flotation produced two successive concentrates (the first being mostly composed of talc and the second contained mainly sulphides) and a desulphurized final residue. To predict their arsenic release potential, the present work evaluates the environmental behavior of the initial ore (reference), the talc concentrate and the desulphurized residue using laboratory kinetic test (weathering cells) and arsenic batch sorption test.

## 7.2 Introduction

Contaminated neutral drainage (CND) is characterized by circum-neutral pH effluents with concentrations of metals such as arsenic, nickel or zinc above regulations (Mayes et al., 2009; Plante et al., 2010; Warrender et al., 2009). Many mine wastes containing arsenopyrite produce arsenic contaminated mine drainage as the mineral is often contained in tailings being barren or gold free. Arsenopyrite can be oxidized through the following reaction resulting in arsenic leaching as arsenate in circum-neutral pHs and oxidizing conditions (Haffert and Craw, 2008):



Prevention of CND or acid mine drainage (AMD) would require removing one of the components of the sulphide oxidation reaction shown above. Some techniques such as tailings covers intend to prevent oxygen and/or water infiltration to tailings. Environmental desulphurization aims at removing sulphides and producing a desulphurized tailings that does not generate contaminated mine drainage. In most cases, the sulphide concentrate, as a small volume, has a greater number of storage options such as paste backfill (Benzaazoua et al., 2004). Desulphurization has been used on several mine tailings to prevent AMD (Leppinen et al., 1997; Benzaazoua et al., 2000; Yalcin et al., 2004) but, to the author's knowledge, its application to prevent CND has not yet been attempted.

Lapa processing plant (Agnico-Eagle Mines Ltd.) produces gold using a standard circuit which consists of grinding and gravimetric separation followed by milling and cyanidation processes. The Lapa tailings are deposited in the main pond within the LaRonde mine site where cyanide destruction occurs through natural UV exposition followed by a Degussa process ( $H_2O_2$ , Soluble silicate) to remove remaining cyanide phases. Desulphurization by flotation was undertaken upstream of the cyanidation in two flotation stages that produced a talc concentrate and then a sulphide concentrate. As some arsenic was entrained in the talc concentrate, determination of arsenic release potential of this product is essential to decide whether to combine the talc concentrate with the desulphurized tailings or with the sulphide concentrate if the arsenic release is too important.

The aim of this paper is to evaluate and assess the performance of environmental desulphurization on arsenic release from the Lapa mine arsenic bearing wastes.

### **7.3 Materials and Methods**

#### **7.3.1 Materials**

In order to work on fresh slurries, desulphurization flotation tests were conducted at the Lapa concentrator using a laboratory Denver D-12 cell. Pulp sampling was done before the cyanidation process twice a day to preserve the pulp physico-chemical properties. Feed solid percentage and chemical composition was monitored during the testing period. Testing was carried on a desulphurized tailings with an arsenic grade of 0.02 wt% and sulphur grade of 0.17 wt%. The two flotation stages produced two concentrates: the first concentrate mostly consisted of phyllosilicates (mainly talc) floated without collector and the second concentrate was composed of about 15 wt% sulphide floated with a xanthate collector at a pH=4.5, which provided an arsenic recovery of 86 %. The feed, the desulphurized tailings, the talc concentrate and a talc concentrate–tailings blend in balanced massic proportion (16 wt% talc concentrate and 84 wt% tailings) were tested to evaluate their geochemical properties. The blend of talc concentrate and tailings was tested in the prospect of combining the talc concentrate to the desulphurized tailings as an option for Lapa tailings management.



### 7.3.2 Physical, chemical and mineralogical characterization methods

The chemical composition of the Lapa tailings sample was evaluated through a complete digestion in HCl/HNO<sub>3</sub>/HF/HClO<sub>4</sub>; the solution was then analyzed using an inductively coupled plasma and atomic emission spectroscopy (ICP-AES, Perkin Elmer). Arsenic and antimony analysis were performed through instrumental neutron activation analysis (INAA). The liquid samples (weathering cell leachates) were also analysed for chemical content by ICP-AES. Specific gravity (Gs) was determined with a helium pycnometer (Micromeritics, Accupyc 1330). Particle size distribution was determined using a Malvern Mastersizer laser particle size analyser. The specific surface area (SSA) was analysed by a Micromeritics surface area analyser using the B.E.T. method (Brunauer et al., 1938). Mineralogical characterization was done using a Bruker A.X.S. D8 advance x-ray diffraction (XRD) instrument equipped with a copper anticathode. Spectra were interpreted using EVA software for identification and the quantitative Rietveld method with TOPAS software (Rietveld, 1993). Mineralogical investigation of the solid samples (polished sections) was also completed through micro-scale optical microscopy (OM) using a metallographic microscope; reflection mode (Nikon Optiphot2-Pol). Further information was obtained through Scanning electron microscope (SEM) observations on a Hitachi S-3500N VP-SEM coupled to an X-ray energy dispersive spectrometer (EDS) (Oxford Instruments). EDS spectra were acquired by INCA software. Observations were performed on polished sections coated with carbon. Acceleration voltage was set at 20 kV and images were recorded in backscattered electrons.

### 7.3.3 Environmental characterization methods

#### 7.3.3.1 Static and kinetic tests

Acid-base accounting was performed using the modified Sobek method (Lawrence and Wang, 1997) to evaluate the acid-generating potential (AGP). The acidity potential (AP) is calculated from the sample sulphur percentage (under the sulphide form) assuming that all sulphide are available for oxidation, and neutralization potential (NP) is determined using an acid-base titration.

Geochemical behaviour of the solid samples was investigated through small scale leaching cells referred as weathering cells (Cruz et al., 2001; Villeneuve, 2004). Weathering cells are

used to accelerate tailings alteration in order to evaluate their reactivity. Cyclic flushes were performed on 67 g. of material with 50 mL deionized water twice a week, on days 3 and 7. The leachates were analyzed for pH, Eh, conductivity and chemical content by ICP-AES (after 0.45  $\mu\text{m}$  filtration and acidification with  $\text{HNO}_3$ ). The weathering cells were exposed to ambient air throughout the test period and kept in a humid state by regular deionized water spraying as weathering cell (Figure 7.1). Thirty-five cycles were performed in this study to reach a geochemical steady state.

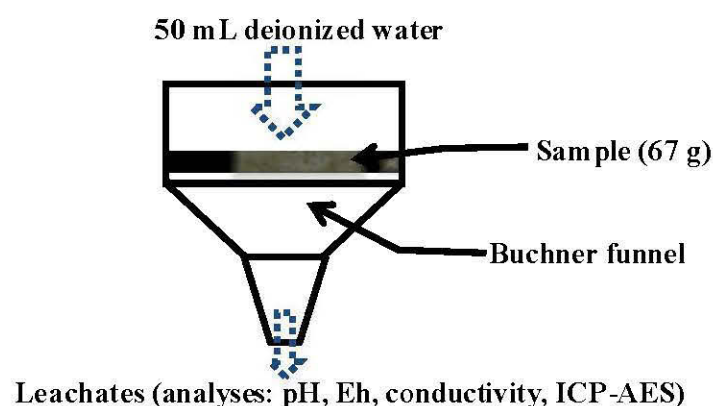


Figure 7.1: Weathering cells installation (adapted from Cruz et al. 2001).

### 7.3.3.2 Retention test

Arsenic retention tests were conducted on the feed, the desulphurized tailings and the talc concentrate. The arsenic retention test is a batch test that mixes a given tailing mass with different As(V) concentrations (1; 2; 5; 10; 20 mg/L) at background pH. The feed and tailings samples were tested in triplicates for the 2 and 20 mg/l As concentrations. High repeatability was observed with standard deviation of the amount of arsenic retained by the solid phase below  $10^{-3}$  mg/m<sup>2</sup>. Blank tests with arsenic-free solution were conducted to evaluate the arsenic leached from each material. As(V) synthetic solution was prepared from sodium arsenite heptahydrate ( $\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$ ) purchased from Sigma-Aldrich and a constant ionic strength background was established with 0.05 M of  $\text{NaNO}_3$ . All tests were carried out with 125 mL solution in an Erlenmeyer flask using a liquid/solid ratio of 25 mg/L. The Erlenmeyer flasks were shaken for 24 hours at room temperature ( $25.0 \pm 1.0^\circ\text{C}$ ) and the content was then filtered using a 0.45  $\mu\text{m}$  membrane filter. The liquid phase was analysed for

pH, Eh and chemical content by ICP-AES (after acidification). Test parameters were chosen in accordance with the literature (Plante et al., 2010; Lim et al., 2009; Gu et al., 2010; Paikaray et al., 2011). The amount of arsenic retained by the solid phase was calculated by the following equation 7.2:

$$(7.2) \quad Q_{\text{retention}} = \frac{(C_i - C_e^*)V}{m}$$

$Q_{\text{retention}}$  is the retained amount of arsenic by the mineral surfaces (mg/kg).  $V$  is the solution volume (L) and  $m$  is the sample mass (g).  $C_i$  is the initial arsenic concentration (mg/L) and  $C_e^*$  is the corrected equilibrium arsenic concentration calculated by the following equation 7.3:

$$(7.3) \quad C_e^* = C_e - C_o \quad (3)$$

$C_e$  and  $C_o$  are respectively the equilibrium arsenic concentration and the arsenic released by the material in the blank test (mg/L).

Interpretation of the retention phenomena can be made through the modeling of retention isotherms also referred as sorption isotherms. Langmuir and Freundlich models were used to evaluate if the sorption mechanism followed a homogeneous active site and a monolayer adsorption process (Langmuir) or heterogeneous active sites and a multilayer adsorption (Freundlich).

## 7.4 Results and Discussion

### 7.4.1 Physical, chemical and mineralogical characterization of samples

Table 7.1 presents the chemical and mineralogical characteristics of the products.

Table 7.1 Chemical characterization of the feed and flotation products.

	Feed	Talc concentrate	Desulphurized tailings	Blend talc concentrate-tailings*
Weight (%)	100	14.5	78.9	93.4
<b>Major elements</b>				
As (wt%)	0.21	0.09	0.02	0.03
Fe (wt%)	5.25	5.53	4.54	4.70
S (wt%)	0.37	0.19	0.17	0.17
Mg (wt%)	4.58	10.9	3.48	4.67
Ca (wt%)	2.90	1.45	2.99	2.74
K (wt%)	1.72	0.87	1.88	1.72
Na (wt%)	1.51	0.75	1.56	1.43
Cu (g/t)	58	80	6	18
Sb (g/t)	240	220	110	130

\* Calculated from talc and tailings analyses

The materials main constituents are quartz, plagioclase, dolomite and phyllosilicate. The phyllosilicates are mainly chlorite, biotite, muscovite and talc. Talc proportions within the feed, talc concentrate and desulphurized tailings are 8, 34, and 1 %, respectively (Table 7.1).

Table 7.2 Mineralogical characterization of the feed and flotation products

	Feed	Talc concentrate	Desulphurized tailings	Blend talc concentrate-tailings*
<b>Mineralogical quantification (XRD / Rietveld)</b>				
Quartz (%)	26	9	32	28
Phyllosilicate (%)	34	70	25	32
Plagioclase (%)	27	16	32	29
Dolomite (%)	10	5	9	8
Actinolite (%)	2	/	1	1
Sulphide (%)	1	/	1	1
<b>Mineral calculation (from chemical analysis**)</b>				
Arsenopyrite (%)	0.46	0.20	0.04	0.07
Pyrrhotite (%)	0.63	0.33	0.37	0.36
Chalcopyrite (%)	0.02	0.02	0.00	0.01
Berthierite (%)	0.04	0.04	0.02	0.02

\*Calculated from talc and tailings analyses; \*\*As assigned to arsenopyrite, Cu assigned to chalcopyrite, Sb assigned to berthierite, remaining sulphur assigned to pyrrhotite

XRD analysis detected some pyrrhotite within the feed and the desulphurized tailings. However arsenopyrite was present in all samples as shown by OM analysis and SEM-EDS micro-analysis (Figure 7.2). Mineral characterization gave evidence that arsenopyrite was mainly present as liberated particles of about 5 to 10  $\mu\text{m}$  in the talc concentrate, contrary to the desulphurized tailings which contained mainly locked arsenopyrite as illustrated by the figure 7.2. Berthierite ( $\text{FeSb}_2\text{S}_4$ ) was identified by SEM-EDS micro-analysis.

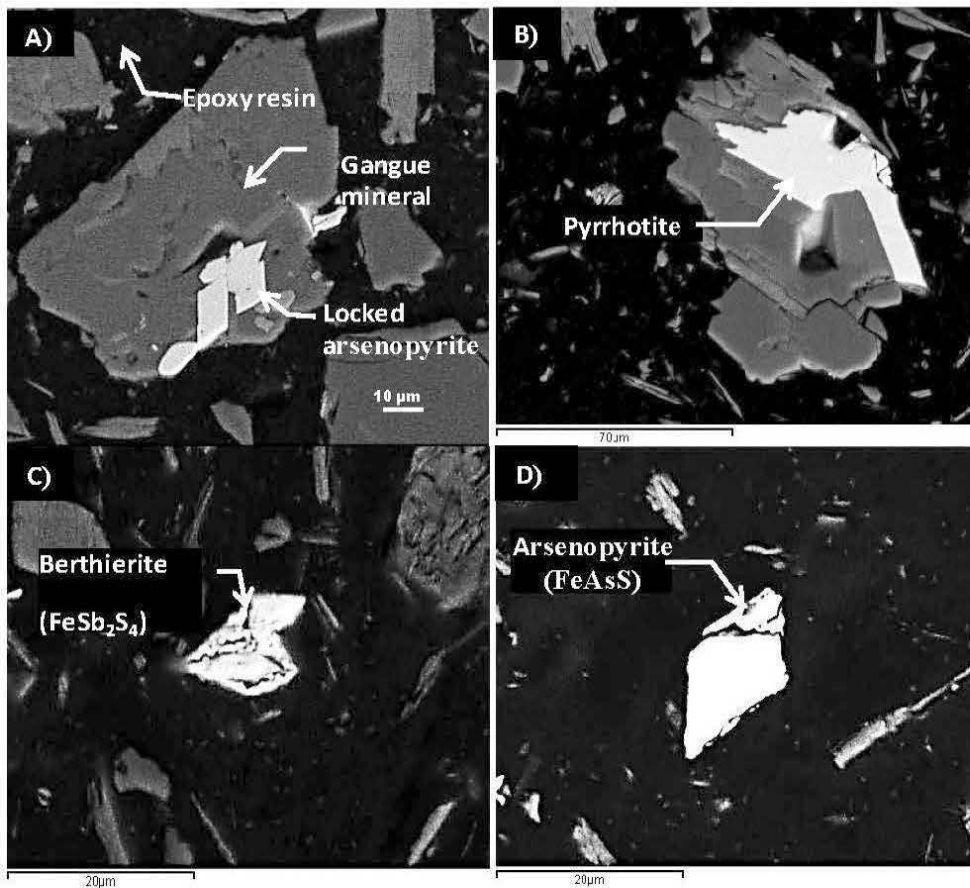


Figure 7.2 SEM images illustrating A) locked arsenopyrite and B) partly locked pyrrhotite within the desulphurized tailings, C) liberated fine berthierite and D) arsenopyrite within the talc concentrate.

Physical characterization and acid generating potential classification are summarized in Tables 7.3 and 7.4. The high specific surface area reflects the phyllosilicate content of the different material as the talc concentrate has the higher specific surface area. All materials have similar particle size distribution. The net neutralization potential ( $\text{NNP}=\text{NP}-\text{AP}$ ) and the

NP/AP ratio are tailings classification criterion used for acid generating potential interpretation (Aubertin et al., 2002; SRK, 1989, Adams et al., 1997). All samples have NNP above 20 CaCO<sub>3</sub> kg/t and NP/AP ratio above 2 and are therefore classified as non-acid generating.

Table 7.3 Physical characteristics of the feed and the flotation products.

	<b>Feed</b>	<b>Talc concentrate</b>	<b>Desulphurized tailings</b>	<b>Blend talc concentrate-tailings*</b>
<b>Physical characteristics</b>				
D10 (µm)	2.65	3.09	3.09	/
D50 (µm)	15.40	15.40	16.57	/
Cu=D60/D10	7.88	6.77	7.28	/
SSA (m <sup>2</sup> /g)	2.4	3.5	2.4	/
Gs (g/cm <sup>3</sup> )	2.8	2.9	2.8	/

Table 7.4 Acid generating potential of the feed and the flotation products.

	<b>Feed</b>	<b>Talc concentrate</b>	<b>Desulphurized tailings</b>	<b>Blend talc concentrate-tailings*</b>
<b>Environmental characteristics</b>				
AP	11.6	5.9	5.3	5.3
NP	71.1	36.5	69.9	66.2
NNP	59.6	30.6	64.2	60.8
NP/AP	6.2	6.2	13.1	12.5

#### 7.4.2 Kinetic tests

The weathering cell leachate chemistry is presented in Figure 7.3 showing pH, conductivity, arsenic and antimony release related to sulphide mineral oxidation. Figure 7.4 shows the evolution of the major ions Ca, Mg, Al and S release related to neutralizing minerals dissolution and acidifying mineral oxidation. Sulphur was assumed to be expressed as sulphate phases and iron is not presented here as its concentration was below the detection limit for all samples during the test (precipitation in situ of iron as ferrihydrite according to Visual Minteq simulations). The pH remained neutral at about 7.5-8 for all samples and the Eh, not presented in this paper, remained oxidizing at 400- 600 mV (SHE) allowing oxidation of the sulphides present in the samples. The conductivity quickly stabilized to approximately 150 µS/cm, typical of those encountered in neutral mine drainage (Plante et al., 2011b). The

feed and talc concentrate samples had similar leachates characteristics (conductivity, element release). Arsenic, antimony and sulphur release decreased steadily during the first 60 days to reach a dissolved concentration of 1 mg/L for arsenic and antimony and 2 mg/L for sulphur. Calcium and magnesium release also decreased for the first 25 days to reach a dissolved concentration of 15 and 3 mg/L respectively. On the other hand, the leachates from the desulphurized tailings and the desulphurized tailings and talc concentrate blend samples displayed similar trends. The sulphur (likely sulphates) release concentration decreased steadily during the first 60 days reaching a dissolved concentration of 0.6 mg/L.

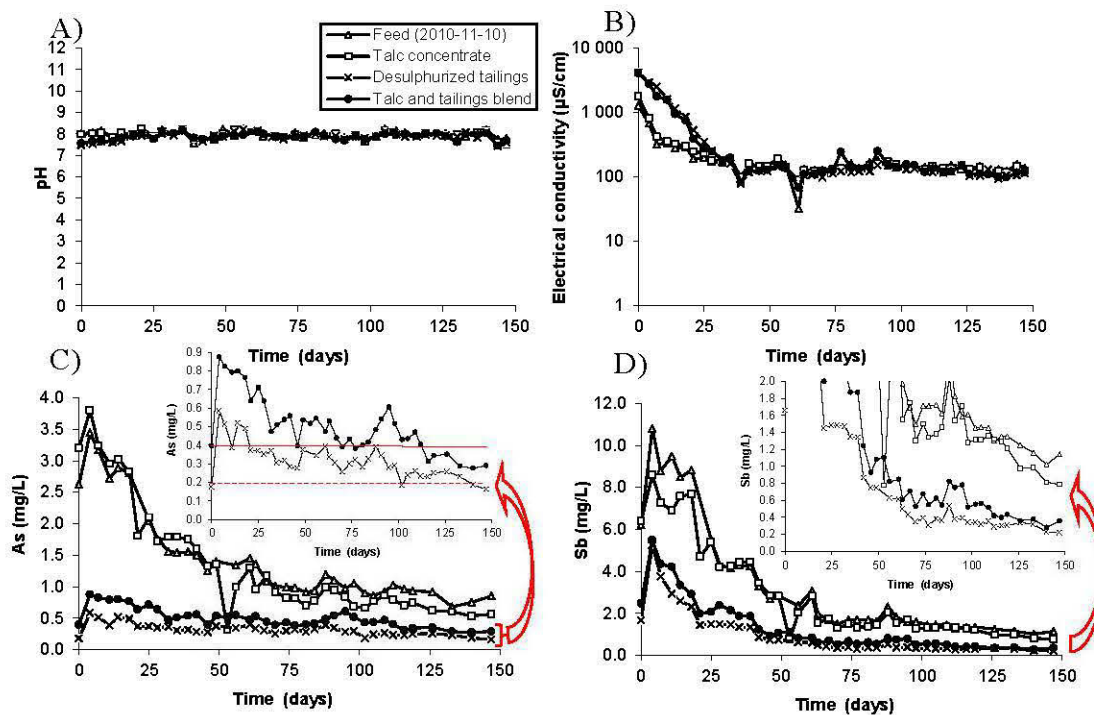


Figure 7.3 Water quality evolution during the weathering cells tests conducted on the desulphurization products. Notes: log scale for electrical conductivity; the line on the graph C represents the punctual upper limit of As concentration (norm from Directive 019, 2005); the dotted line corresponds to mean upper limit of As concentration. Arsenic concentration limits were used for Sb release concentrations as there are no official limits for this contaminant

The arsenic release decreased progressively reaching 0.2 mg/L for the desulphurized tailings and 0.3 mg/L for the blend of tailings and talc concentrate. The blend of desulphurized tailings and talc concentrate was slightly above the limit set at 0.2 mg/L by the Directive 019 (2005) for maximum mean arsenic aqueous emission but the arsenic release for the

desulphurized tailings stayed within this limits. Antimony release decreased steadily to stabilize around 0.2-0.5 mg/L after 60 days for the desulphurized tailings and the blend. The calcium and magnesium release concentrations within the desulphurized tailings and the blend decreased during the first 25 days reaching a dissolved concentration of 15 and 3 mg/L like the feed and the talc concentrate respectively. During this period, the sulphate release was greater from the desulphurized tailings and the blend than from the feed and talc concentrate but after reaching the steady state, this trend was reversed.

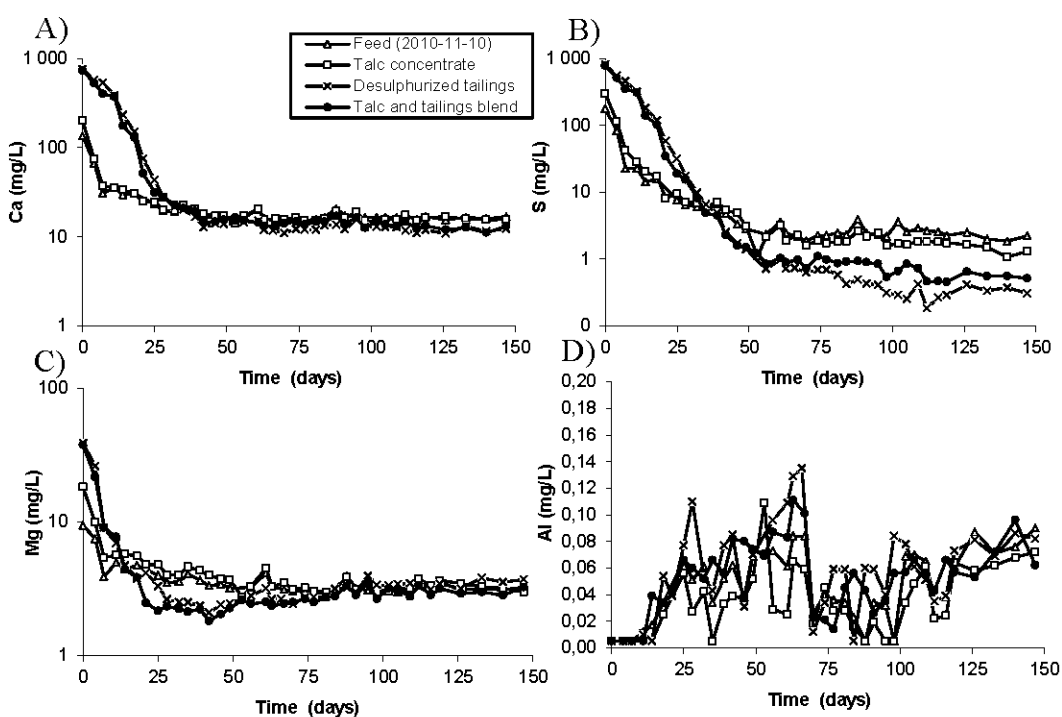


Figure 7.4 Water quality evolution during the weathering cells testing on desulphurization products; Note: log scale for Ca, S and Mg.

This trend inversion may be explained by the fact that the remaining sulphides contained in the desulphurized tailings are mainly pyrrhotite that may have been destabilized/activated by the acid conditioning during flotation leading to a first 25 days of higher sulphur release (no gypsum detected in materials). The concentrations of released elements were added and normalized to the sample mass and leachate volume to obtain cumulated value in mg/kg (not presented in the paper). The slope of the cumulated element versus time when a plateau was



reached (after 25 days) represents the element release rate (mg/kg/days) which was calculated by linear regression on this portion (Plante et al. 2011a). Release rate data corresponding to the most pertinent elements are presented in Table 7.5. All linear regressions had high determination coefficient above 0.96. The feed and the talc concentrate released much more arsenic, antimony and sulphate than the desulphurized tailings and the blend which also released more neutralizing cations. The depletion of sulphur and antimony (related to the oxidation of sulphides), calcium and magnesium (related to the dissolution of neutralizing minerals) is presented in Figure 7.5. The depletion curves of sulphur and calcium show a two-stage geochemical behavior with a first progressive decrease and a plateau at about 25 days. This kind of depletion trend has been outlined in previous works (Benzaazoua et al. 2004; Cruz et al. 2001; Plante et al. 2011a).

Table 7.5 Release rates of arsenic, sulphur and neutralizing cations with corresponding determination coefficient ( $R^2$ ).

	Release rates (mg/kg/day)			
	As ( $R^2$ )	S ( $R^2$ )	Sb ( $R^2$ )	Ca+Mg+Mn ( $R^2$ )
Feed	0.209 (0.999)	0.464 (0.997)	0.372 (0.998)	2.773 (0.999)
Talc concentrate	0.198 (0.997)	0.448 (0.993)	0.361 (0.994)	2.803 (0.999)
Desulphurized tailings	0.056 (0.996)	0.145 (0.967)	0.087 (0.989)	3.866 (0.995)
Talc and tailings blend	0.075 (0.998)	0.1680 (0.984)	0.1216 (0.984)	3.461 (0.995)

The first stage may be related to a rapid dissolution of pre-oxidized soluble phases and to fine particles quicker dissolution. The second stage may be related to passivation due to precipitation of secondary minerals around the sulphide particle. The depletion curve of arsenic and antimony followed a constant decrease that may be related to progressive oxidation of arsenopyrite and berthierite particles.

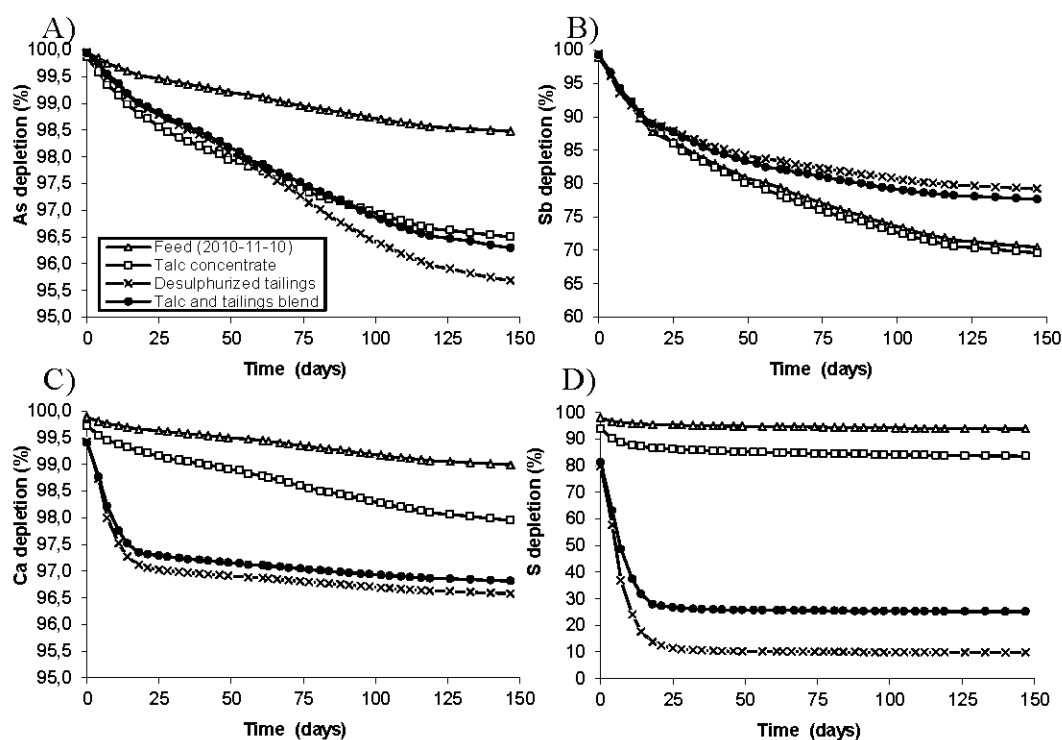


Figure 7.5 Arsenic (A), antimony (B), calcium (C) and sulphur (D) depletion curves of the four products studied by weathering cells.

The experimental conditions of Eh-pH within the weathering cells are represented in Figure 7.6 illustrating Eh-pH arsenic species distribution diagram. In the experiment, the arsenate ion  $\text{HAsO}_4^{2-}$  and the antimony ion  $\text{Sb}(\text{OH})_6^-$  were respectively the major arsenic and antimony phases present in solution. In order to evaluate the impact of arsenic retention phenomena on the arsenic release behaviour during the weathering cell testing, the arsenic retention potential of the different materials was estimated through retention tests. As (V) was chosen as the major arsenic phase present in weathering cell leachates (Figure 7.6).

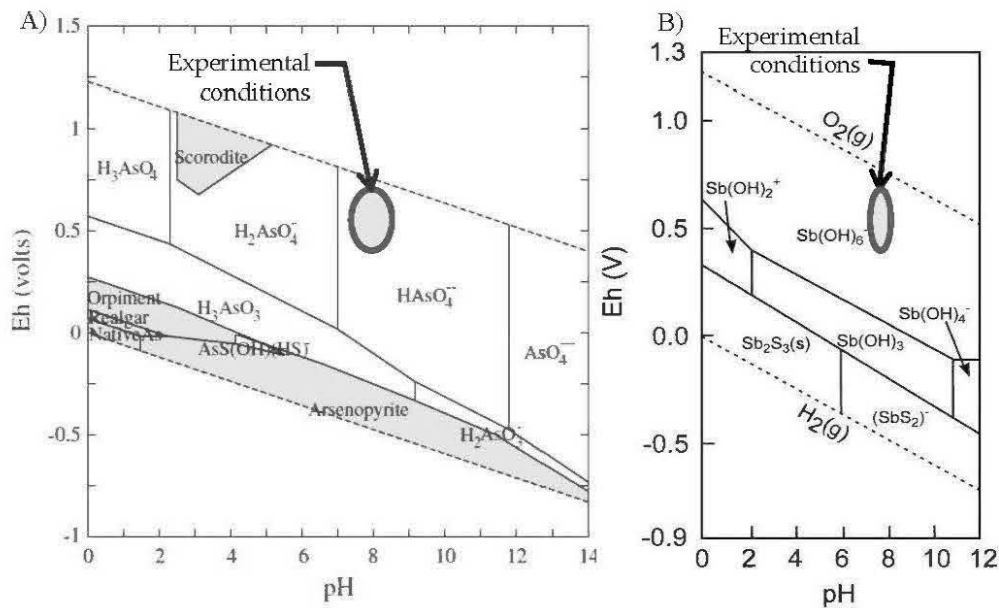


Figure 7.6 Eh-pH diagram of the system As-O-H-S modified after Lu et al. 2010 (A) and of the system Sb-S-H<sub>2</sub>O modified after Filella et al. 2002 (B). Circled area corresponds to experimental conditions.

### 7.4.3 Retention test

The blank test allowed determination of initially retained arsenic quantity for each tested material. During the blank test, the feed and talc concentrate had the highest concentration of arsenic release with 1.36 and 1.40 mg/L respectively. The desulphurized tailings did not release significant amount of arsenic with only 0.12 mg/L dissolved arsenic in the blank test. Results of retention isotherm tests are presented in Figure 7.7. The three tested materials showed arsenic isotherms without a strict plateau (Limousin et al., 2007). The isotherms were well fitted with both Langmuir and Freundlich models with determination coefficient above 0.95 (fitting parameters not presented herein). Therefore it is difficult to ascertain whether the arsenic retention process results from a monolayer or multilayer process involving homogeneous or heterogeneous active sites.

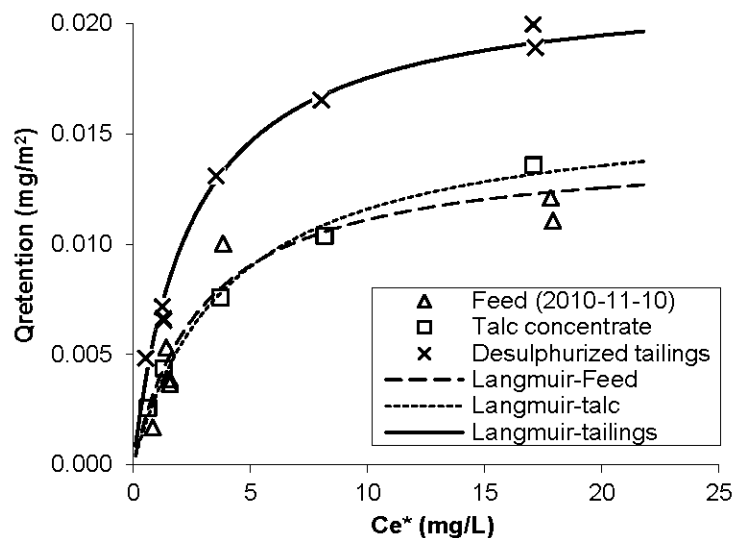


Figure 7.7 Arsenic retention isotherms ( $\text{mg/m}^2$ ) of the feed, the talc concentrate and the desulphurized tailings showing data point and Langmuir fit arsenic retention.

Some differences could be observed between the three materials tested: the feed and talc concentrate had similar arsenic retention isotherm in accordance with their similar specific surface area (Figure 7.7). The desulphurized tailings seemed to have slightly higher arsenic retention capacities than the two other materials in accordance with less arsenic release in the blank test.

The maximum sorption capacity estimated from the Langmuir model gave evidence that the three materials of this study had poor arsenic retention capacities of around 50 mg/kg probably due to the neutral pH of leachates as described in Chakraborty et al. (2007) which evaluated the arsenic retention ability of phyllosilicates and determined that a maximum arsenic retention of 200 mg/kg is reached at acidic pH. Therefore at neutral to high pH, the arsenic retention phenomenon probably does not have a major impact on arsenic release. However complementary testing could be performed such as saturation of arsenic sites by adding arsenic in deionized water sprayed on the weathering cells or by recycling the leachates (Plante, 2010)

## 7.5 Conclusion and Recommendations

The evaluation of the arsenic release potential on various flotation products resulting from an environmental desulphurization process (talc concentrate and desulphurized tailings) led to the following conclusions and recommendations:

The weathering cells results suggest that the desulphurized tailings could be classified as a non-arsenic generating material regarding the Directive 019 arsenic limits. However, scale-up testing such as columns or field cell are recommended for final statement.

- Desulphurization lowered antimony release in leachates bringing its concentrations close to arsenic concentration limits.
- The feed and the talc concentrate have equivalent arsenic release potential. The latter is above the limits of arsenic concentration in effluents set by Directive 019 regulation for the mining industry in Quebec (mean upper limit of 0.2 mg/L).
- The talc concentrate has half the arsenic content of the feed but still has high arsenic generating potential. This high arsenic generation potential is probably related to the dissolution of highly reactive fine particles of arsenopyrite entrained in the talc concentrate during its flotation.
- The leachates from the blend of talc and tailings were slightly above the Directive 019 limits for arsenic generation. Therefore, the talc concentrate should be stored with the sulphide concentrate as an arsenic generating material. The authors suggest evaluating the kinetic of arsenic entrainment during the talc flotation so that it may be possible to separate the talc concentrate into more or less arsenic rich fraction and to minimize the volume of arsenic generating material. Processing the talc concentrate through physical separation to remove fine particles of arsenopyrite could also be considered.
- The arsenic retention capacity of the three tested materials is low due to the neutral pH of leachates. Arsenic retention probably does not have a major impact on the arsenic release phenomenon observed in the weathering cells at neutral pH but

complementary testing such as site saturation or leachate recycling could confirm these results.

The sorption capacities of the different minerals constituting the Lapa material were not investigated separately as pure minerals. Further investigations would be required to evaluate the sorption capacity of each constituting mineral on the overall arsenic retention process. The role of phyllosilicates such as chlorite and biotite as well as siderite in arsenic retention have been evaluated in the literature (Lin and Puls 2000; Chakraborty et al. 2007; Guo et al. 2011).

#### **7.6 Acknowledgement**

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## CHAPITRE 8

### CONCLUSION

#### 8.1 Sommaire

Ce projet s'inscrit à la suite de travaux portant sur la désulfuration environnementale par flottation visant à prévenir le DMA (Benzaazoua et al., 2008 ; Benzaazoua et al., 2000 ; Bussière et al., 1997 ; Demers et al., 2008 ; McLaughlin et Stuparyk, 1994 ; Mermillod-Blondin, 2005 ; Yalcin et al., 2004). La désulfuration par flottation est appliquée ici à deux problématiques environnementales particulières à savoir la diminution d'émission de SO<sub>2</sub> et le contrôle du drainage neutre contaminé (DNC) à l'arsenic. Les caractéristiques des produits miniers liés à ces problématiques posent des défis techniques lorsqu'ils doivent être traités par séparation minéralurgique (en l'occurrence par flottation). Ainsi, un des produits miniers est un minerai d'hémo-ilménite qui contient de la pyrite sous forme grossière (mine Tio, Rio Tinto Fer et Titane). L'autre matériau est un rejet minier générateur de DNC à l'arsenic issu d'un gisement aurifère dont le minerai est traité par cyanuration (inhibition de la collection des sulfures par les xanthates) et qui contient une quantité importante de minéraux naturellement hydrophobes comme le talc (mine Lapa, Agnico-Eagle Mines Ltd.). La phase arsénifère majoritaire de ce minerai est l'arsénopyrite.

L'étude de ces produits miniers et des produits de flottation issus de leur traitement est abordée dans ce travail par une caractérisation multidisciplinaire alliant analyses chimique, physique et minéralogique. Cette caractérisation approfondie est essentielle pour comprendre les comportements minéralurgique (ex : entraînement) et environnementaux des produits miniers lors de la flottation. Les défis liés à la flottation de ces produits miniers sont également abordés d'un point de vue fondamental à travers la caractérisation surfacique de minéraux purs (pyrite et arsénopyrite) et des phases adsorbées après l'ajout de collecteur de type xanthate en solution.



L'objectif de ce travail de doctorat est d'optimiser la désulfuration environnementale de produits miniers aux caractéristiques diverses afin de diminuer leur potentiel polluant. L'efficacité de ces traitements au niveau de la qualité des eaux de drainage qui peuvent découler des produits après traitement est également étudiée par tests de lixiviation. D'autre part, ce projet vise à améliorer la compréhension des mécanismes d'interactions entre les sulfures et le film hydrophobe formé par des collecteurs de type xanthates. Pour répondre à ces objectifs, la thèse comporte six parties dont les conclusions et recommandations sont détaillées dans les prochaines sections :

1. Caractérisation des espèces superficielles présentes à la surface de particules de pyrite de différentes tailles granulométriques après broyage. Les analyses de caractérisation surfacique sont menées par spectroscopie aux rayons X (XPS) et par spectroscopie infrarouge à transformée de Fourier (FTIR). L'évolution des surfaces par oxydation à l'air ou suite à un conditionnement aqueux à différents pHs est aussi abordée.
2. Caractérisation des phases adsorbées à la suite d'ajout de collecteurs de type xanthates sur de la pyrite de différentes tailles granulométriques. Différentes longueurs et ramifications de la chaîne alkyl des xanthates sont testées. Le taux de recouvrement du collecteur est calculé par analyse des xanthates restant en solution par spectroscopie ultraviolet (UV). La nature des phases xanthées adsorbées est déterminée par spectroscopie infrarouge (FTIR).
3. Désulfuration du minerai d'hémo-ilménite issu de la mine Tio (Rio Tinto Fer et Titane). Les tests sont effectués en cellule de flottation Denver de cinq litres de volume. Différentes longueurs et ramifications de chaîne alkyl des xanthates sont testées à différents pHs de conditionnement de la pulpe. Les résultats sont évalués en termes de récupération en soufre et teneur résiduelle en xanthates.
4. Caractérisation des espèces superficielles présentes à la surface de l'arsénopyrite pure après broyage et conditionnement ainsi que des phases xanthées adsorbées à la suite d'ajout de collecteur de type xanthates. Les mêmes procédures d'analyses appliquées à la pyrite sont utilisées pour l'arsénopyrite. L'ablation ionique associée à l'analyse XPS est utilisée pour caractériser l'arsénopyrite après broyage car les spectres FTIR sont peu exploitables.

5. Désulfuration du minerai aurifère issu de la mine Lapa (Agnico-Eagle Mines Ltd.). Les tests sont réalisés en cellule de flottation Denver de cinq litres sur le site de la mine pour éviter un vieillissement des surfaces. La flottation des minéraux naturellement hydrophobes (phyllosilicates) est effectuée préalablement à la concentration des sulfures. Différents types de xanthates sont testés. L'influence du pH de flottation et de l'ajout de sulfate de cuivre comme activant est évaluée sur les récupérations en soufre et en arsenic ainsi que sur la cinétique de flottation.

6. Évaluation de l'efficacité de la désulfuration environnementale du minerai aurifère de la mine Lapa à travers l'analyse de la qualité des eaux de drainage selon différents scénarios de gestion des produits de flottation (en particulier l'influence des phyllosilicates sur le relargage de l'arsenic). La caractérisation environnementale des produits de flottation est faite par des tests statiques (PA, PN) et des tests cinétiques en mini-cellules d'altération. Le potentiel de sorption d'arsenic des matériaux est également évalué à des pH proches de la neutralité (pH des eaux de drainage).

La méthodologie de cette thèse ainsi résumée permet d'aborder les principales conclusions et recommandations de chacun des chapitres.

## 8.2 Chapitre 2

Dans ce chapitre, la pyrite pure est broyée puis tamisée produisant trois fractions granulométriques (F1 : 32-63  $\mu\text{m}$ ; F2 : 63-150  $\mu\text{m}$ ; F3 : 150-425  $\mu\text{m}$ ) qui représentent l'éventail granulométrique de ce minéral dans le minerai d'hémo-ilménite. Ces fractions sont produites dans des conditions de broyage similaires (temps/énergie). Leur caractérisation surfacique est effectuée à l'aide de techniques d'analyse surfacique complémentaires que sont les spectroscopies aux rayons X (XPS) et infrarouge à transformée de Fourier (FTIR), qui ont respectivement une profondeur d'analyse de quelques nanomètres ( $\sim 40 \text{ \AA}$ ) et de quelques microns ( $\sim 25000 \text{ \AA}$ ). Les résultats obtenus au niveau de la caractérisation surfacique après broyage révèlent l'existence de phases oxydées d'expansion tridimensionnelle (spectre FTIR avec présence importante de sulfates et d'oxydes de fer) sur une surface présentant également des zones non oxydées (analyse de zones non oxydées en XPS) pour les trois fractions granulométriques étudiées. Les phases oxydées présentes sont essentiellement des sulfates et des oxydes de fer ferreux et ferriques. La présence de soufre élémentaire et/ou de

polysulfures est également mise en évidence par XPS. Après broyage, les trois fractions ont une couche d'oxydation externe similaire. Cependant la composition globale (incluant les couches sous-jacentes non analysés en XPS) contient d'autant plus de sulfate ferreux que la granulométrie est grossière. Cette différence peut avoir un impact sur la flottation puisqu'une partie des phases oxydées est dissoute lors de l'adsorption des xanthates (réactions d'oxydo-réduction). Les analyses surfaciques des trois fractions granulométriques révèlent une dissolution préférentielle des sulfates ferriques. En accord avec d'autres travaux (Kongolo, 1991; Wang et Forssberg, 1991; Mermillod-Blondin, 2005), un conditionnement à pH acide favorise la prédominance de sulfates de type ferreux alors qu'un pH basique développe plus de sulfates ferriques hydratés et hydroxylés quelle que soit la fraction granulométrique. Cependant, plus la fraction est grossière moins les sulfates sont hydratés et hydroxylés.

### 8.3 Chapitre 3

Ce chapitre constitue la suite des travaux développés dans le chapitre 2. Il évalue l'impact du type de chaîne alkyl des xanthates (longueur et ramification) ainsi que la taille des particules (trois fractions : F1, F2, F3) sur la quantité et la nature des phases xanthées adsorbées à la surface de la pyrite pure. Les tests d'adsorption de collecteurs ont montré que la quantité de xanthates adsorbés en fonction du pH de conditionnement est variable selon les fractions. Ainsi, l'augmentation du pH, dans le cas de la fraction F1 (32-63  $\mu\text{m}$ ) provoque une diminution de la quantité de xanthates adsorbés tel que constaté dans des travaux antérieurs (Cases et al., 1993; Mermillod-Blondin, 2005). Cette diminution n'est pas observée pour les fractions F2 et F3 (63-150  $\mu\text{m}$  et 150-425  $\mu\text{m}$ ), probablement du fait de la moindre présence des sulfates hydratés et hydroxylés, responsables de la dépression de la pyrite à pH basique (chapitre 2). Une flottation à pH basique des particules grossières pourrait donc être envisagée avec moins de risque de dépression des surfaces.

D'autre part, quelle que soit la fraction granulométrique ou le type de xanthate testé, l'augmentation du pH favorise la présence de dixanthogène au détriment du complexe fer-xanthate. À pH acide la nature des phases xanthées adsorbées dépend majoritairement de la longueur de la chaîne des xanthates quelle que soit la fraction granulométrique. Ainsi la quantité de xanthate de fer comparée à celle du dixanthogène diminue avec l'augmentation de la longueur de la chaîne et de la ramification de celle-ci. Enfin, l'augmentation de la

ramification des xanthates permet d'obtenir un recouvrement surfacique des xanthates plus élevé à longueur équivalente.

En perspective de ses travaux, l'utilisation mixte de collecteur chaîne courte/ chaîne longue et ramifiée pourrait être envisagée de façon à favoriser l'adsorption de structure monocouche de type fer-xanthate (ethylxanthate) sous-jacent à une structure multicouche de dixanthogène (triméthyl hexylxanthate). Ceci pourrait permettre d'associer un lien fort de type fer-xanthate à une importante hydrophobicité apportée par le collecteur à chaîne longue et ramifiée.

#### 8.4 Chapitre 4

Dans ce chapitre, la désulfuration environnementale par flottation est appliquée à un concentré d'hémo-ilménite issu de la mine Tio (Rio Tinto Fer et Titane, RTFT) en vue de diminuer les émissions de  $\text{SO}_2$  générées au cours de son grillage à haute température. L'optimisation de la flottation de la pyrite grossière est envisagée ici par des moyens physico-chimiques. Dans ce but, le KAX-51 (collecteur à chaîne longue et ramifié utilisé dans l'industrie) est utilisé, ainsi que deux autres collecteurs synthétisés pour l'étude dotés de plus longues chaînes alkyls. Cette étude constitue une application industrielle des études fondamentales développées dans les chapitres 2 et 3. Les tests de flottation sont réalisés en cellule Denver de 5 L en laboratoire. Les résultats sont évalués en termes de récupération en soufre (sulfures). La quantité de xanthate résiduel est également analysée afin d'estimer la quantité de xanthate adsorbée. Le collecteur à chaîne longue et ramifiée (triméthyl hexylxanthate) est celui qui s'adsorbe le mieux. Il permet d'atteindre une récupération de 84% avec deux étapes de flottation à 75 g/t de xanthate chacune et à un pH de 10,5. La flottation de la pyrite grossière donne des résultats équivalents à pH acide (pH=4,5) et basique (pH=9,5) pour les mêmes dosages de collecteur. Ces résultats confirment les observations faites dans le chapitre 3 : les particules grossières sont moins susceptibles d'être déprimées car elles présentent moins de phases hydrophyles à leurs surfaces (sulfate et oxydes) que les particules fines en conditions alcalines. Par ailleurs, les collecteurs à chaîne longue sont plus performants que leurs homologues à chaînes plus courtes dans des conditions alcalines. Une analyse granulochimique des produits de flottation démontre que 90% des sulfures inférieurs à 425  $\mu\text{m}$  sont récupérés dans le concentré par le triméthyl hexylxanthate. Cependant les sulfures supérieurs à 850  $\mu\text{m}$  ont une faible récupération de 30

% et atteignent la limite de la flottation en utilisant des collecteurs à chaîne longues. Les sulfures restants dans le rejet désulfurés sont constitués de pyrite libre millimétrique et de pyrite non libérée en grain mixte avec d'autres minéraux. L'association de conditions hydrodynamiques plus favorables à la flottation des particules grossières avec des collecteurs à chaînes longues pourraient permettre de concentrer les minéraux de pyrite libre grossière restant dans le rejet désulfuré.

## 8.5 Chapitre 5

Ce chapitre décrit les travaux de la caractérisation surfacique de l'arsénopyrite pure broyée puis tamisée à la fraction 32-63  $\mu\text{m}$ . Tout comme pour la pyrite, la XPS et la FTIR ont été utilisées pour leur complémentarité en termes de profondeur d'analyse. Cependant, de par la faible épaisseur des phases oxydées présentes à la surface de l'arsénopyrite, le spectre infrarouge, qui ne montre que peu de détails, est difficilement interprétable. L'ablation ionique couplée à des analyses XPS a donc été effectuée sur de l'arsénopyrite après broyage afin d'évaluer la spéciation des phases oxydées sous-jacentes à la couche d'oxydation la plus externe analysée par XPS ( $\sim 40 \text{ \AA}$ ). La caractérisation surfacique de l'arsénopyrite après broyage révèle une surface riche en oxydes de fer et d'arsenic avec quelques traces de sulfates. La couche d'oxydation est mince (50-200  $\text{\AA}$ ) avec un recouvrement non homogène de la surface (analyse de zone non oxydée en XPS). Le conditionnement à pH acide accroît le recouvrement latéral de la couche d'oxydation à la surface de l'arsénopyrite mais diminue son épaisseur par dissolution des phases oxydées présentes. L'arsenic est présent dans les phases d'oxydation sous forme d'As(I) (phases intermédiaire analysée en XPS) et d'As(III) (absence d'As (V)). Des tests de sorption d'isoamyloxanthate ont également été réalisés à pH acide et la nature et la quantité de phases xanthées adsorbées ont été analysées en couplant spectroscopies ultraviolet et infrarouge suivant le protocole utilisé pour la pyrite (Chapitre 3). Les complexes de xanthates de fer ou d'arsenic sont détectés à des concentrations proches d'un recouvrement monocouche de xanthate. En revanche, la formation de dixanthogène est observée à des concentrations plus élevées et plafonne avec une structure multicouche équivalente à 33 monocouches de xanthates. L'activation au sulfate de cuivre n'améliore pas l'adsorption de xanthate à pH acide et en présence de cuivre résiduel en solution les xanthates précipitent sous forme de xanthate de cuivre en solution et à la surface de l'arsénopyrite.

## 8.6 Chapitre 6

Ce chapitre décrit l'application de la désulfuration environnementale par flottation du minerai aurifère de la mine Lapa (Agnico-Eagle Mines Ltd.) en amont de la cyanuration. Les essais ont été effectués sur site afin de minimiser le vieillissement de la pulpe. Ce minerai contient de l'arsénopyrite et des sulfures porteurs d'antimoine qui se retrouvent dans le rejet et posent le problème de drainage neutre contaminé à l'arsenic et à l'antimoine. L'échantillonnage du minerai est effectué en amont du procédé de cyanuration afin d'éviter la passivation des surfaces par les cyanures. Cette étude a montré que le concentré de talc, obtenu par flottation naturelle des phyllosilicates préalablement à la concentration des sulfures, contient de fines particules d'arsénopyrite ( $\sim 10 \mu\text{m}$ ) qui ont été entraînées (et non flottées). Pour la concentration des sulfures, le collecteur KAX-51 permet d'atteindre de bons résultats à 75 et 100 g/t avec deux tests optimaux à  $\text{pH}=4,5$  et à  $\text{pH}=10,5$  avec activation au sulfate de cuivre. La quantité importante d'acide à ajouter pour atteindre un  $\text{pH}$  de 4,5 pourrait rendre plus économique la flottation à  $\text{pH}$  basique avec activation au sulfate de cuivre bien que celle-ci ait une cinétique de flottation plus lente qu'en  $\text{pH}$  acide. Des récupérations maximales de 92 % d'arsenic et de 50 % d'antimoine ont été atteintes dans le concentré de sulfure permettant d'atteindre des teneurs résiduelles en arsenic de 0,02% et en antimoine de 0,01 % pour des teneurs initiales respectives de 0,2 % et de 0,04 %. Les principaux sulfures concentrés par flottation sont la pyrrhotite et l'arsénopyrite avec quelques traces de sulfures d'antimoine tel que la berthièrite. Le rejet désulfuré contient des sulfures résiduels (pyrrhotite et arsénopyrite) non libérés (taille : 10-50  $\mu\text{m}$ ) et donc non récupérables par flottation. Finalement, en s'appuyant sur les résultats prometteurs de cette étude, un procédé minéralurgique intégrant la désulfuration environnementale est proposé. Deux circuits de cyanuration devraient être envisagés qui séparent les matériaux générateurs d'arsenic de ceux qui sont non générateurs d'arsenic. Le concentré de talc et le rejet de désulfuration pourront, s'ils sont non générateurs de DNC à l'arsenic et l'antimoine (Chapitre 7), être stockés en parc à résidu après cyanuration (procédé existant). La cyanuration du concentré de sulfure devra être adaptée à sa teneur élevée en sulfure qui peut compromettre la lixiviation de l'or. L'ajout de chaux et de nitrate de plomb peut alors permettre d'augmenter cette mise en solution (Deschênes et al., 2009). La présence d'agents de flottation tels que du collecteur et du moussant peut également être néfaste pour la cyanuration. Mais une optimisation du

dosage de ces réactifs en les réduisant au minimum permet d'éviter l'effet de « carbon fooling » causé par la fixation de composés organiques à la surface des charbons actifs (Salarirad and Behnamfard, 2010).

## 8.7 Chapitre 7

Ce chapitre évalue l'efficacité de la désulfuration de minerai arsénifère de la mine Lapa (Agnico-Eagle Mine Ltd.) afin de réduire la contamination des eaux à travers différents scénarios de gestion des produits de flottation (en particulier pour le concentré de talc). Tel que décrit dans le chapitre 6, le concentré de talc contient des fines particules d'arsénopyrite entraîné. On évalue dans cette étude si le rejet désulfuré et le concentré de talc sont non générateurs de DMA ou de DNC As-Sb. Cette étude montre qu'aucun des matériaux testés (alimentation, concentré de talc, rejet et mixte rejet/concentré de talc) n'est générateur d'acide d'après les critères de classification des rejets miniers (SRK, 1989; Adams et al., 1997). Les mini-cellules d'altération mises en place sur ces quatre matériaux indiquent que le pH reste autour de la neutralité. L'alimentation et le concentré de talc ont un comportement similaire en termes de qualité des eaux de drainage et la concentration en arsenic y est comme attendu supérieure aux normes de la Directive 019. L'antimoine est présent dans les eaux de drainage en quantité similaire à l'arsenic. Cependant au contraire de l'arsenic, il n'existe pas de normes concernant cet élément. Cette étude montre que le rejet désulfuré respecte la Directive 019 pour la teneur en arsenic de ses eaux lixiviées. Si le concentré de talc est ajouté au rejet (proportions massiques respectées), le mélange se situe à la limite de la Directive 019 au niveau de la concentration en arsenic des eaux de drainage. La capacité de sorption de l'arsenic a été testée pour le concentré de talc, l'alimentation et le rejet désulfuré à pH naturel (importance du phénomène sur le DNC). Les matériaux ont une faible capacité de sorption de l'arsenic à hauteur de 50 mg/kg. L'impact de la sorption sur des tests tels que les mini-cellules n'est donc probablement pas significatif. Cependant, il serait utile d'effectuer des tests à grande échelle (colonne, cellule de terrain) de saturation des sites ou de recyclage des eaux lixiviées, ce qui permettrait de confirmer les conclusions tirées de cette étude (Plante, 2010). La désulfuration environnementale par flottation du minerai arsénifère de la mine Lapa a atteint son objectif de diminuer le potentiel polluant de ce produit minier en diminuant la concentration en arsenic et en antimoine de ses eaux de drainage. Le concentré de talc doit

cependant être considéré comme générateur de DNC à l'arsenic et ne peut être stocké avec le rejet désulfuré (limite Directive 019). Cependant, une séparation des fines particules d'arsénopyrite par un procédé de séparation minéralurgique pourrait être envisagée afin de diminuer le volume de rejet générateur de DNC. Une cinétique d'entraînement des fines particules d'arsénopyrite au cours de la flottation des phyllosilicates pourraient également être entreprise dans ce même but.

### 8.8 Dernières remarques

L'étude de minéraux purs (pyrite et arsénopyrite) a permis de caractériser de façon approfondie leurs surfaces suite au broyage ainsi que leur évolution par oxydation à l'air, par conditionnement aqueux à différent pH et par adsorption de différents types de xanthates. L'étude fondamentale entreprise dans cette thèse apporte des connaissances complémentaires sur les mécanismes d'adsorption des xanthates sur la pyrite appliquée à des tailles granulométriques grossières et sur l'arsénopyrite de taille standard. L'impact du type de chaîne alkyl sur les mécanismes d'adsorption de la pyrite est également démontré.

Dans l'optique d'établir un lien plus fort entre l'étude fondamentale et son application en flottation, une échelle intermédiaire peut alors être adoptée en utilisant des minéraux purs (broyés à une granulométrie similaire à celle des sulfures présents dans le produit minier) comme « sonde » dans une cellule de flottation en laboratoire. En effet l'étude des surfaces est difficile dans le cas de mélanges pluri minéralogique (cas des minerais/rejets miniers) en revanche l'analyse surfacique de ces minéraux purs permettrait d'évaluer de façon plus précise et réaliste l'influence des conditions physico-chimique de la pulpe sur la surface des sulfures. Il faudrait cependant s'assurer que la membrane utilisée contenant les minéraux purs n'inhibe pas la diffusion des composés organiques tels que les xanthates présent dans la cellule de flottation.

Dans ce projet, les connaissances fondamentales acquises sur la pyrite et l'arsénopyrite ont été appliquées à deux produits miniers (le concentré d'hémo-ilménite de la mine Tio et le minerai de la mine Lapa) afin de répondre à de nouvelles problématiques de la désulfuration environnementale: la prévention d'émission de  $SO_2$  et de génération de DNC à l'arsenic.



Le choix des paramètres de flottation d'un produit minier dans le cadre de la désulfuration environnementale dépend des caractéristiques minéralogiques de ce dernier et du contexte métallurgique dans lequel le procédé s'insère. Dans ce projet, la présence de pyrite grossière pour le concentré d'hémo-ilménite constitue un défi technique reliée aux limites granulométriques connues de la flottation. Pour le minerai de la mine Lapa, la flottation est placée en amont de la cyanuration du minerai afin d'éviter une inhibition des xanthates. Par ailleurs l'entraînement des fines particules d'arsénopyrite par les phyllosilicates nécessiterait une séparation préalable ou ultérieure de ces fines particules hautement réactives afin de diminuer le volume de matériel générateur d'arsenic.

Le choix de la désulfuration environnementale comme méthode de gestion intégrée des rejets miniers est de plus en plus souvent considérée par l'industrie minière comme moyen de prévention des pollutions liées à l'oxydation des sulfures (drainage minier contaminé ou émission de  $\text{SO}_2$ ). Ces travaux démontrent que la désulfuration peut être appliquée avec succès à d'autres problématiques environnementales que la prévention du DMA. Son intégration au traitement métallurgique est souhaitable de façon à éviter une étape de réactivation des surfaces coûteuse en acide sulfurique et parfois difficile à réaliser en sortie de concentrateur. Il conviendrait donc lors de l'étape du développement du procédé de traitement du minerai d'optimiser à la fois la récupération des valeurs économiques et la diminution du potentiel polluant. Des procédés autres que la flottation peuvent être appliqués en fonction des propriétés physico-chimiques des minéraux à séparer. Ainsi en présence de fines particules de sulfures, l'utilisation d'un hydrocyclone ou d'un autre procédé de séparation physique pourrait être choisie préalablement à la flottation. La cohabitation entre flottation et cyanuration peut être délicate à appliquer puisque ces deux procédés de physico-chimie de surface s'inhibent l'un et l'autre (cyanuration en amont : les cyanures inhibent l'adsorption des xanthates; flottation en amont : les xanthates inhibent l'adsorption de l'or sur les charbons actifs). Un dosage optimal des agents de flottation permettrait cependant de minimiser l'impact sur la cyanuration (Salaharidad et Behnamfard, 2010). Par ailleurs le développement de collecteurs de sulfures insensibles aux cyanures tout en restant sélectifs peut également être une solution de cohabitation cyanuration/flottation. Enfin, l'adoption de normes environnementales sur la qualité des effluents intermédiaires pourrait favoriser les

pratiques de destruction des agents de flottation (collecteurs et moussants) avant cyanuration ou des cyanures avant flottation (avec réactivation des surfaces).

### **8.9 Déclaration**

Je déclare être l'auteur principal des travaux de laboratoire et de la rédaction des chapitres de cette thèse. Le comité d'encadrement est composé de Mostafa Benzaazoua, directeur de thèse, de Mukendi Kongolo et Bruno Bussière, co-directeurs et de Raphaël Mermillod-Blondin, membre externe du comité.



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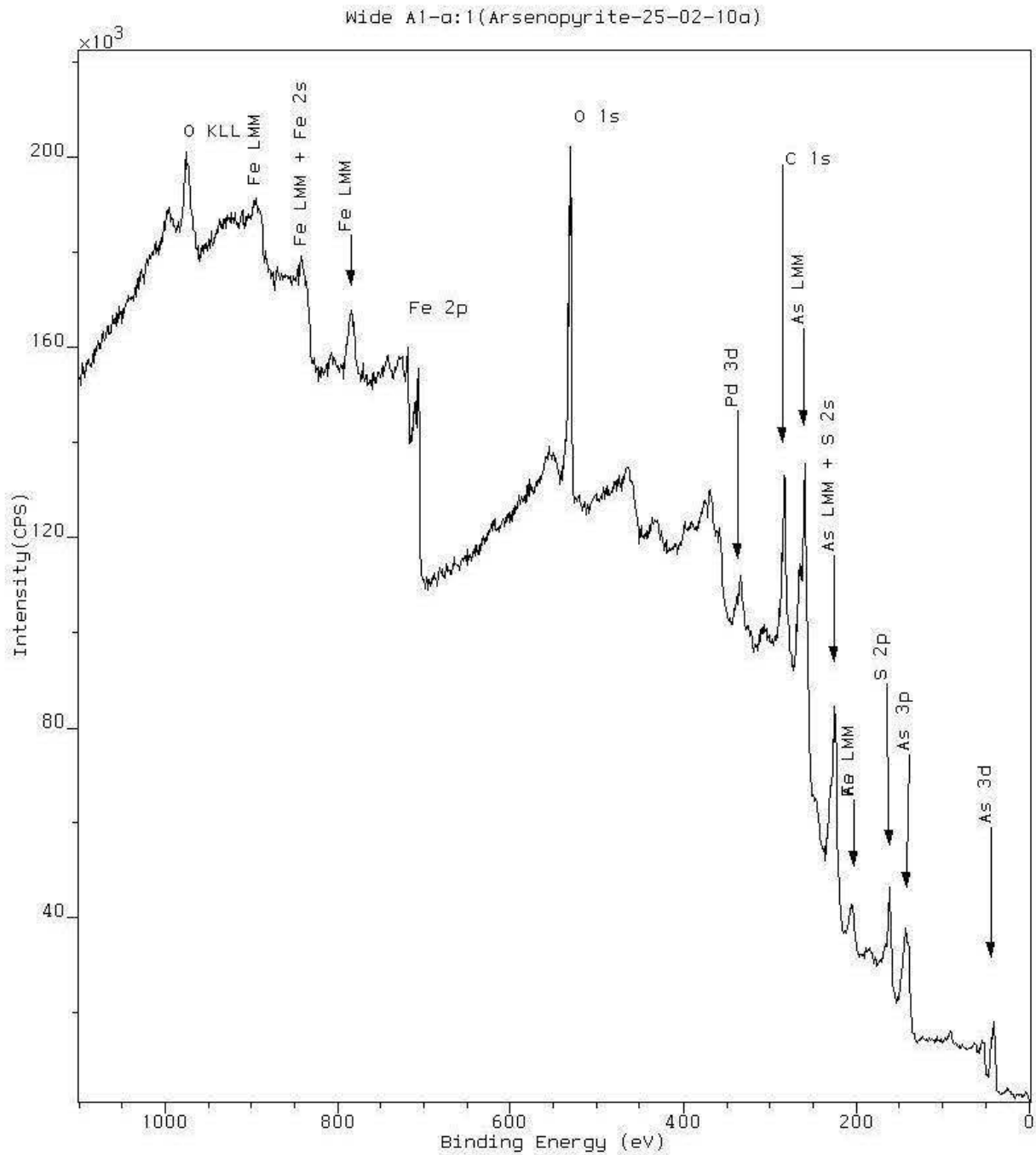
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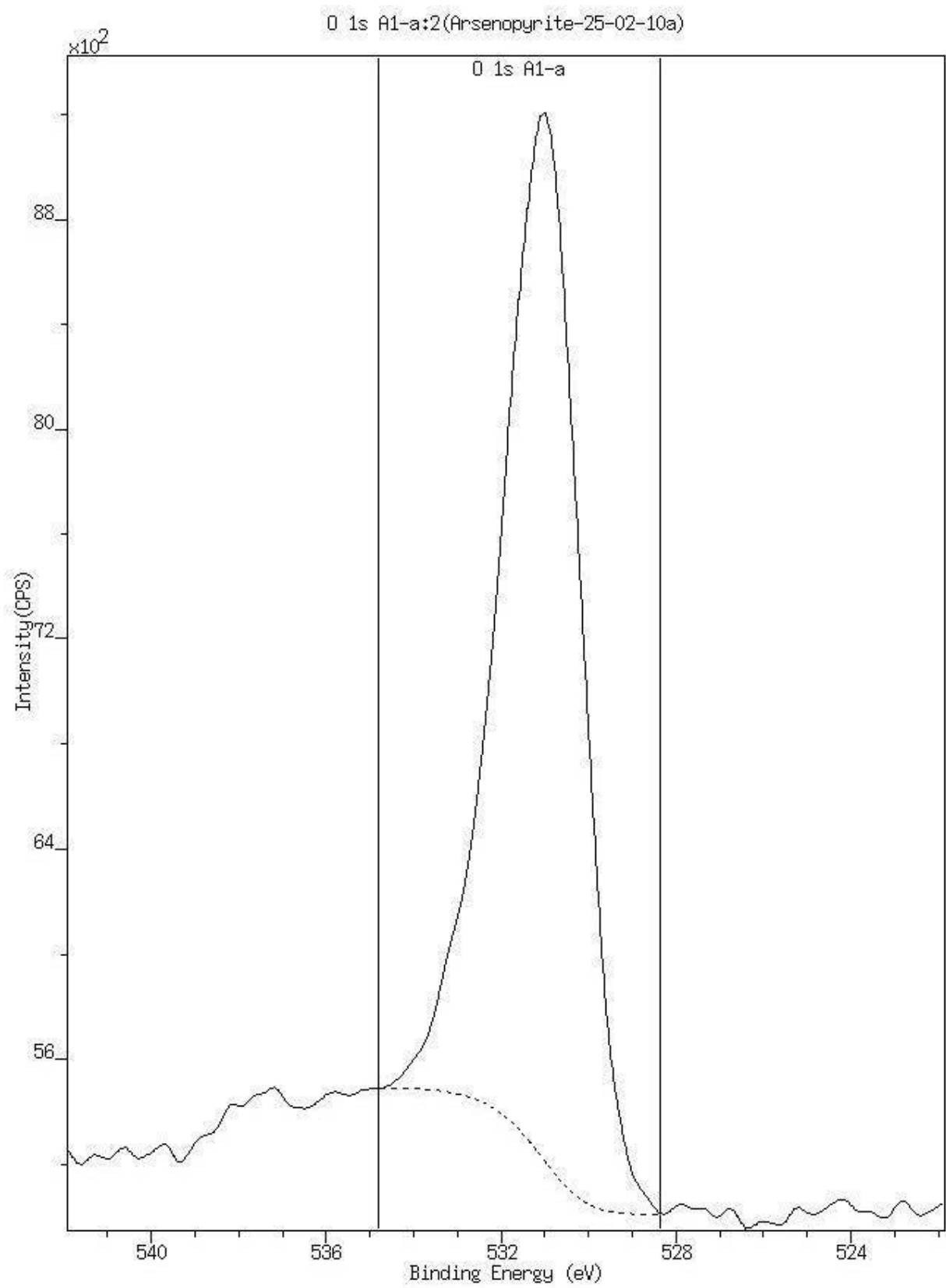
APPENDICE A

XPS-PYRITE DU PERU ET ARSÉNOPYRITE DE PANASQUEIRA (CD-ROM)

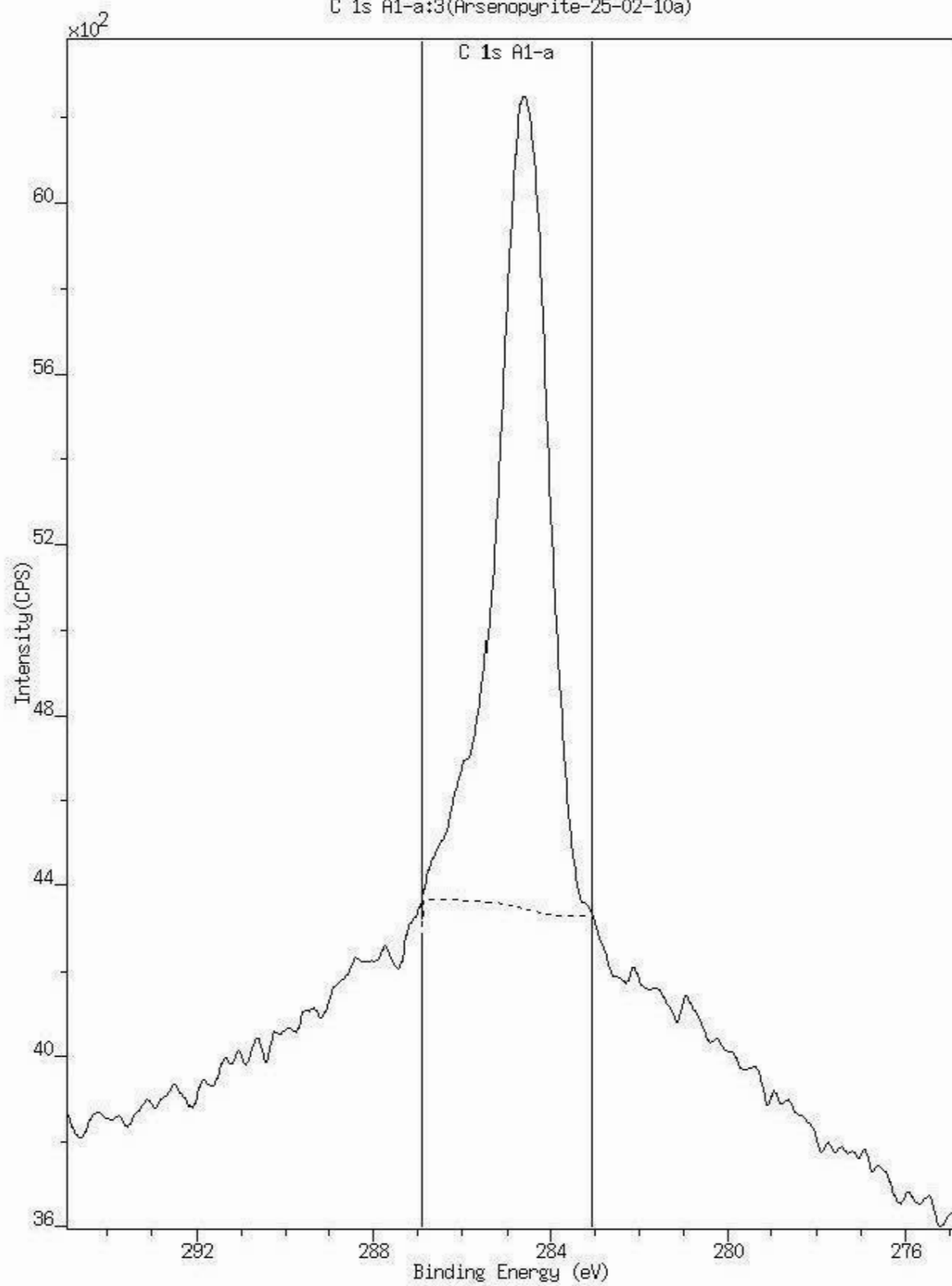
# Arsenopyrite



Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
O 1s Al-a	531.000	2.026	8874.4	0.780	15.999	31.04	15.92
C 1s Al-a	284.600	1.203	2681.8	0.278	12.011	26.53	10.21
Fe 2p Al-a-sn	707.200	0.889	7690.3	1.971	55.846	10.32	18.47
S 2p Al-a-sn	162.000	1.047	3620.8	0.668	32.065	15.83	16.27
As 3d Al-a-sn	40.900	1.402	3439.0	0.677	74.922	16.29	39.13

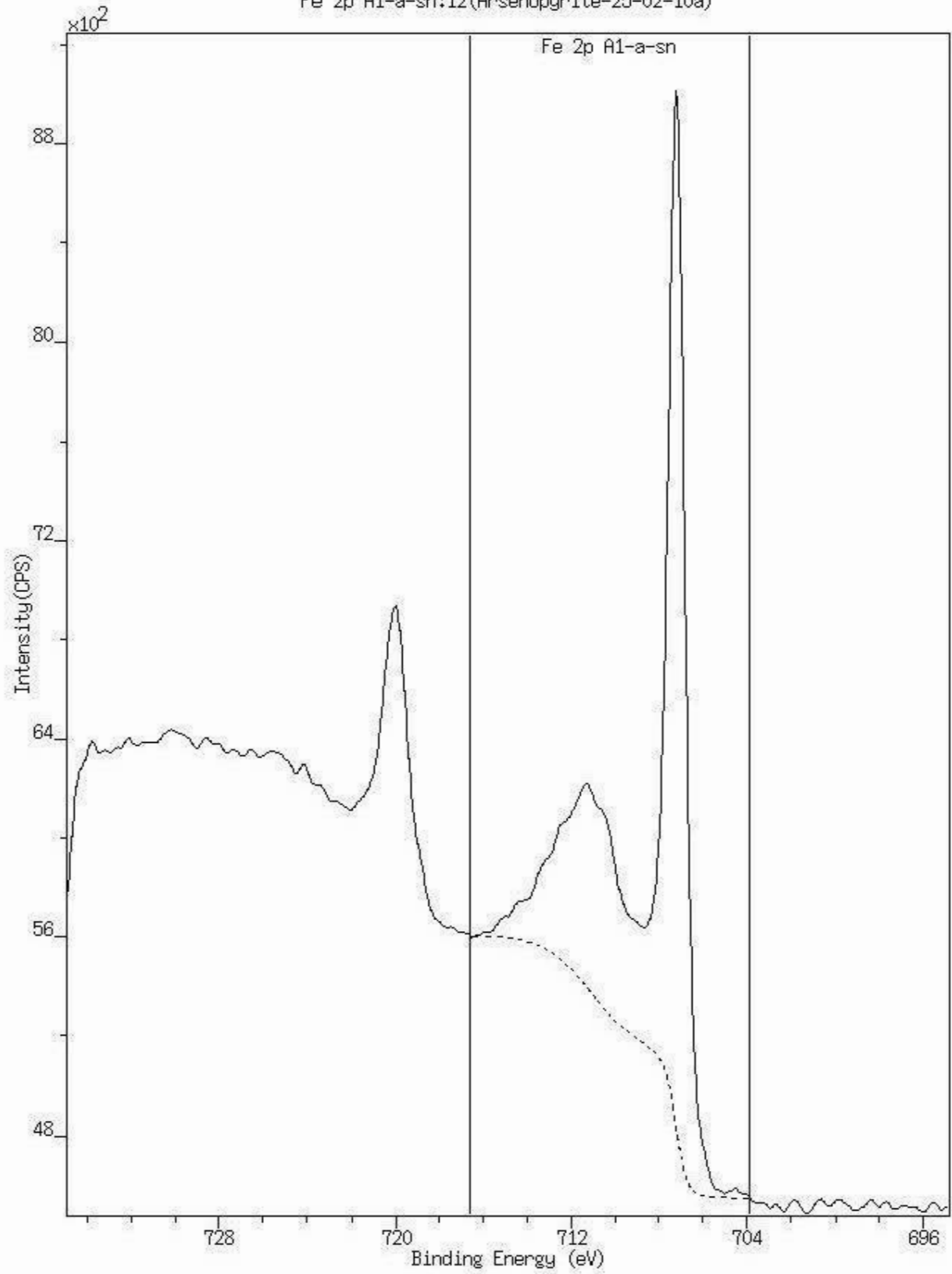


C 1s A1-a:3(Arsenopyrite-25-02-10a)

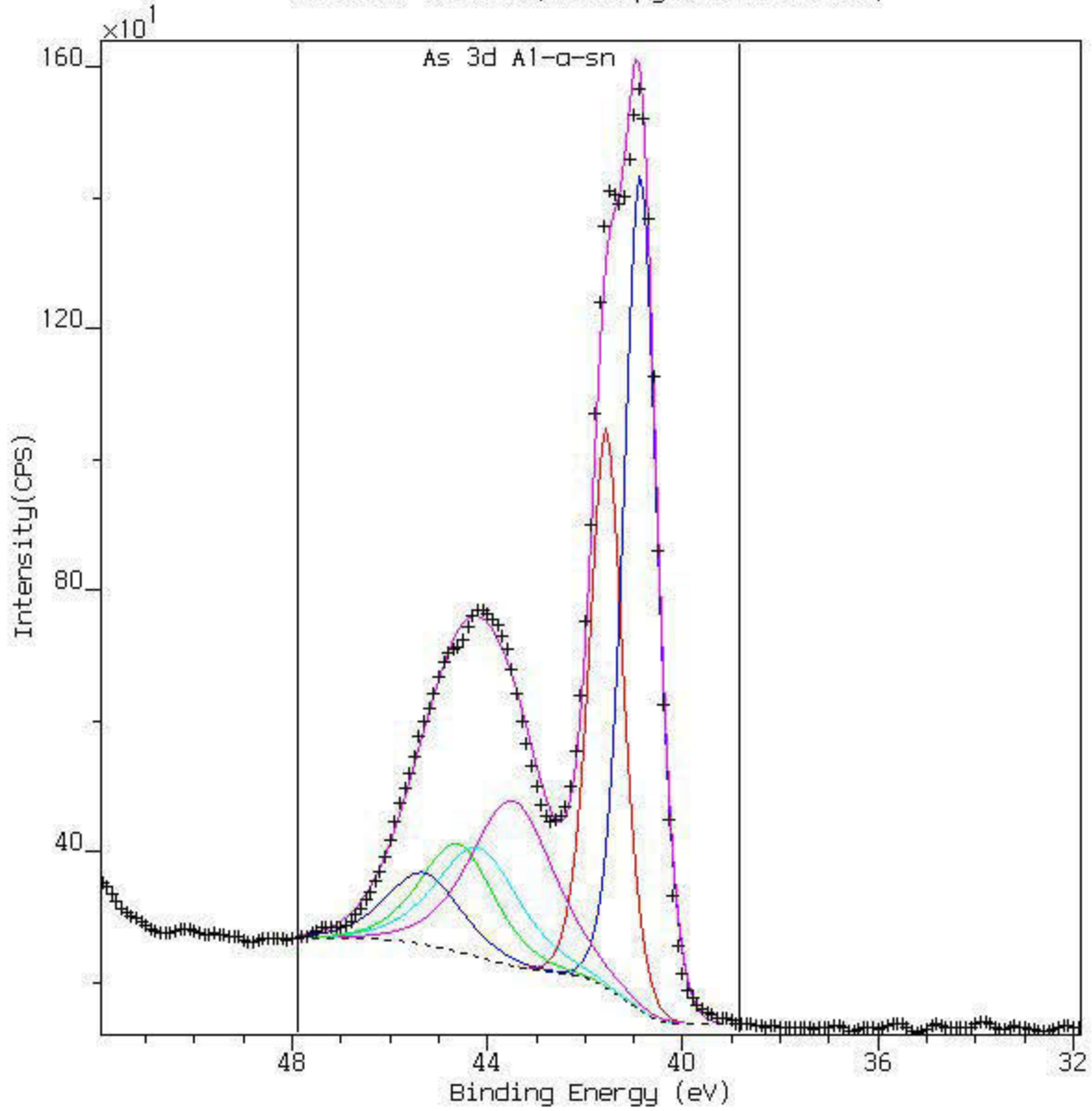




Fe 2p A1-a-sn:12(Arsenopyrite-25-02-10a)



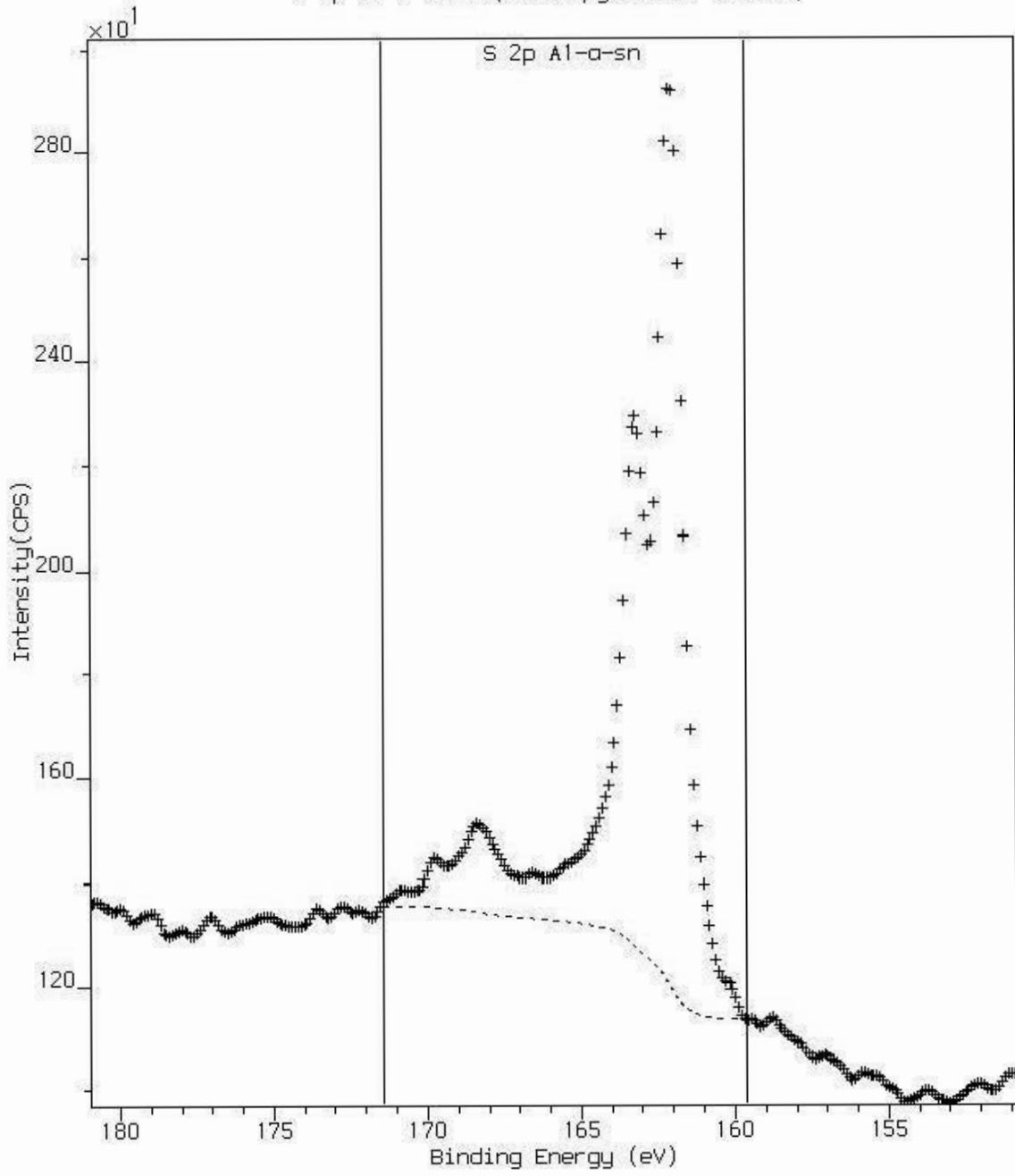
As 3d A1-a-sn:14(Arsenopyrite-25-02-10a)

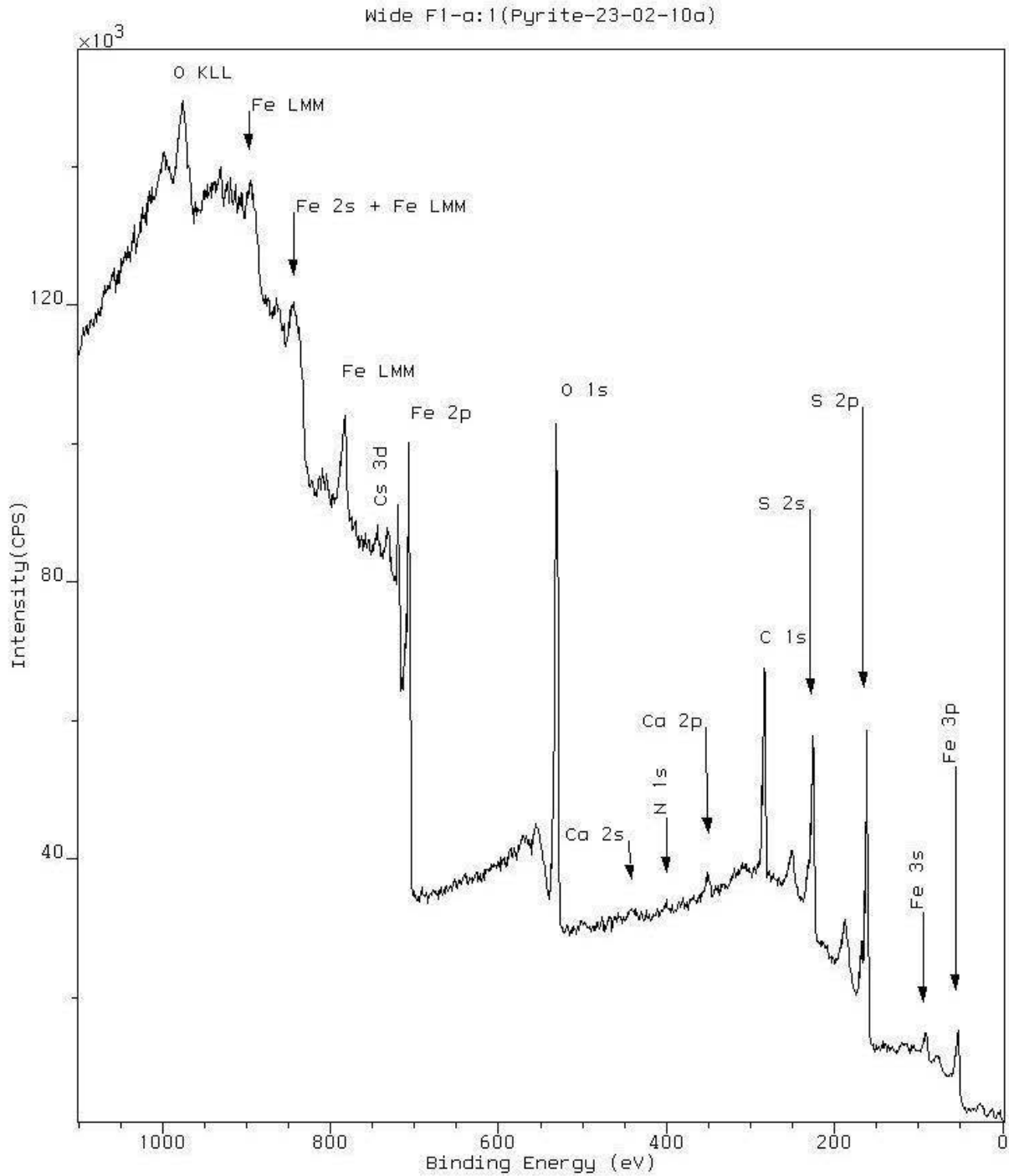


Quantification Report  
 /data/LEM/2010/Arsenopyrite-25-02-10a.dset Mon Mar 15 15:10:19 2010

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
As 3d5 AsI-S	40.894	0.782	1160.6	0.677	74.922	33.68	33.68
As 3d3 AsI-S	41.594	0.782	774.0	0.677	74.922	22.45	22.45
As 3d5 As ox1	43.491	2.007	577.4	0.677	74.922	16.72	16.72
As 3d3 As ox1	44.191	2.007	382.1	0.677	74.922	11.06	11.06
As 3d5 As ox2	44.637	1.769	333.9	0.677	74.922	9.66	9.66
As 3d3 As ox2	45.337	1.769	222.0	0.677	74.922	6.42	6.42

S 2p A1-a-sn:13(Arsenopyrite-25-02-10a)



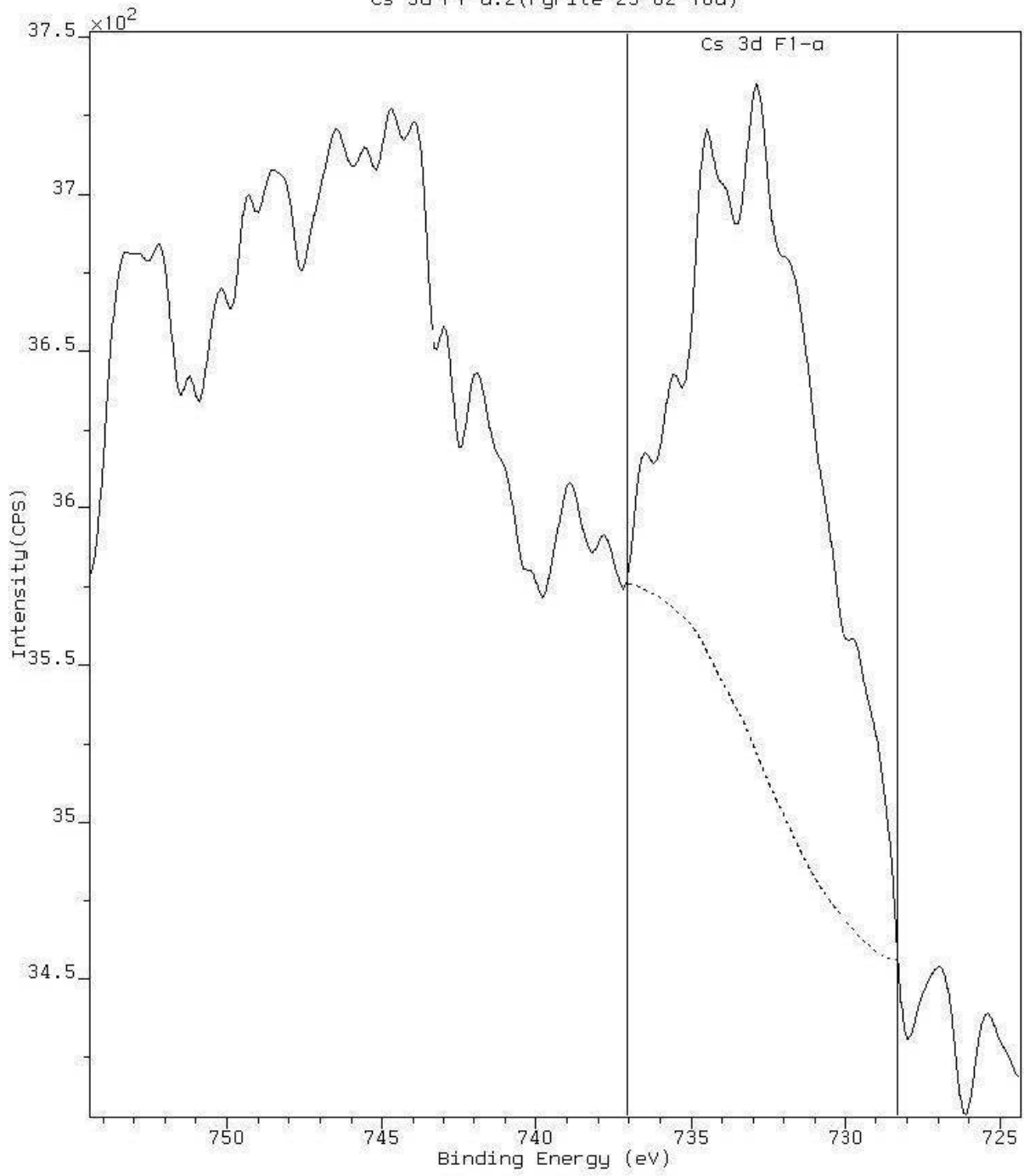


**Quantification Report**

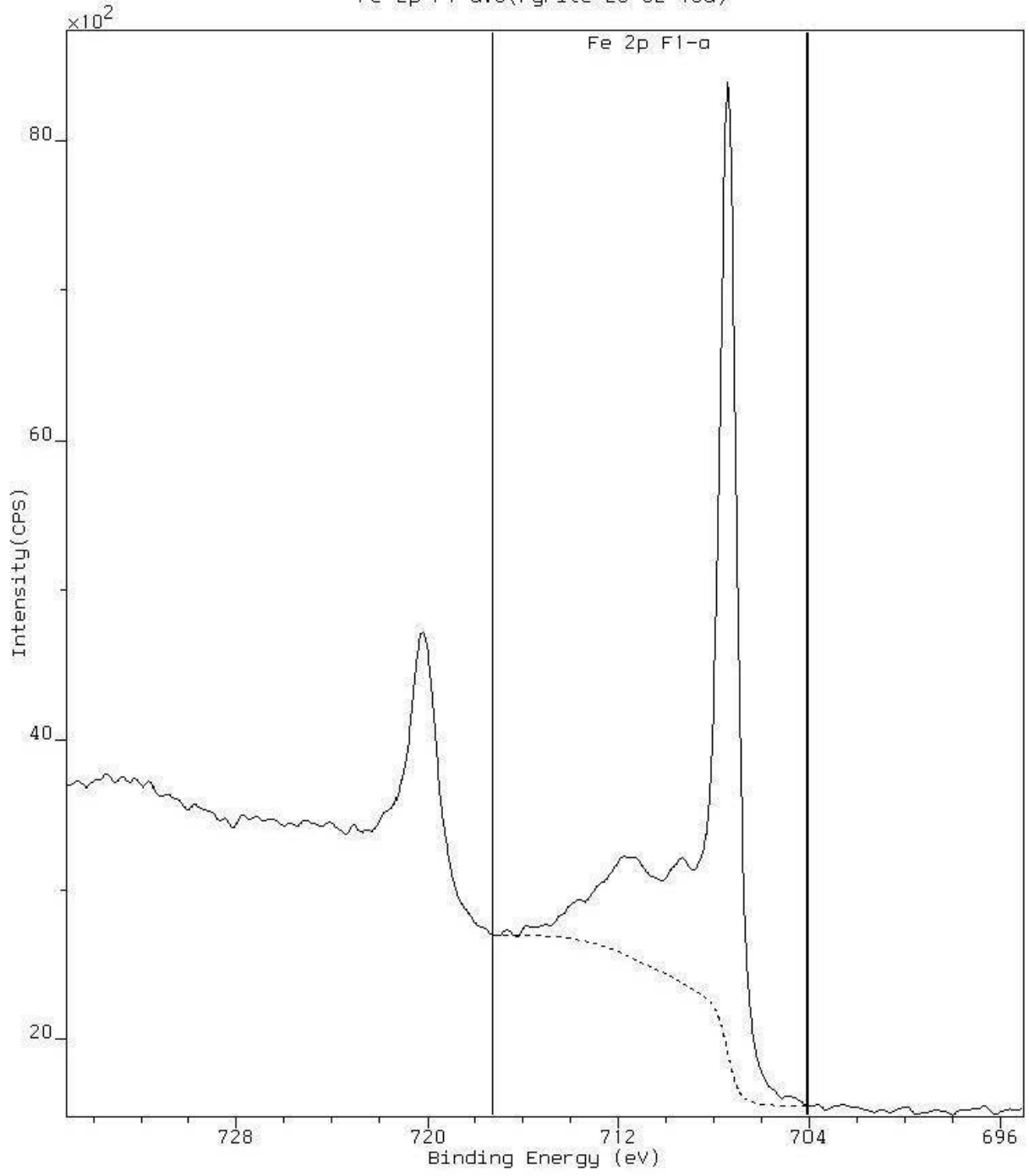
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Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSP	Atomic Mass	Atomic Conc %	Mass Conc %
Cs 3d F1-a	732.900	4.562	1013.6	7.041	132.905	0.28	1.62
Fe 2p F1-a	707.400	0.842	10023.1	1.971	55.846	9.86	24.21
O 1s F1-a	531.900	1.690	12420.7	0.780	15.999	31.84	22.40
N 1s F1-a	401.800	1.576	162.9	0.477	14.007	0.69	0.42
C 1s F1-a	284.650	1.342	4615.0	0.278	12.011	33.46	17.67
S 2p F1-a	162.500	0.767	7456.7	0.668	32.065	23.88	33.67

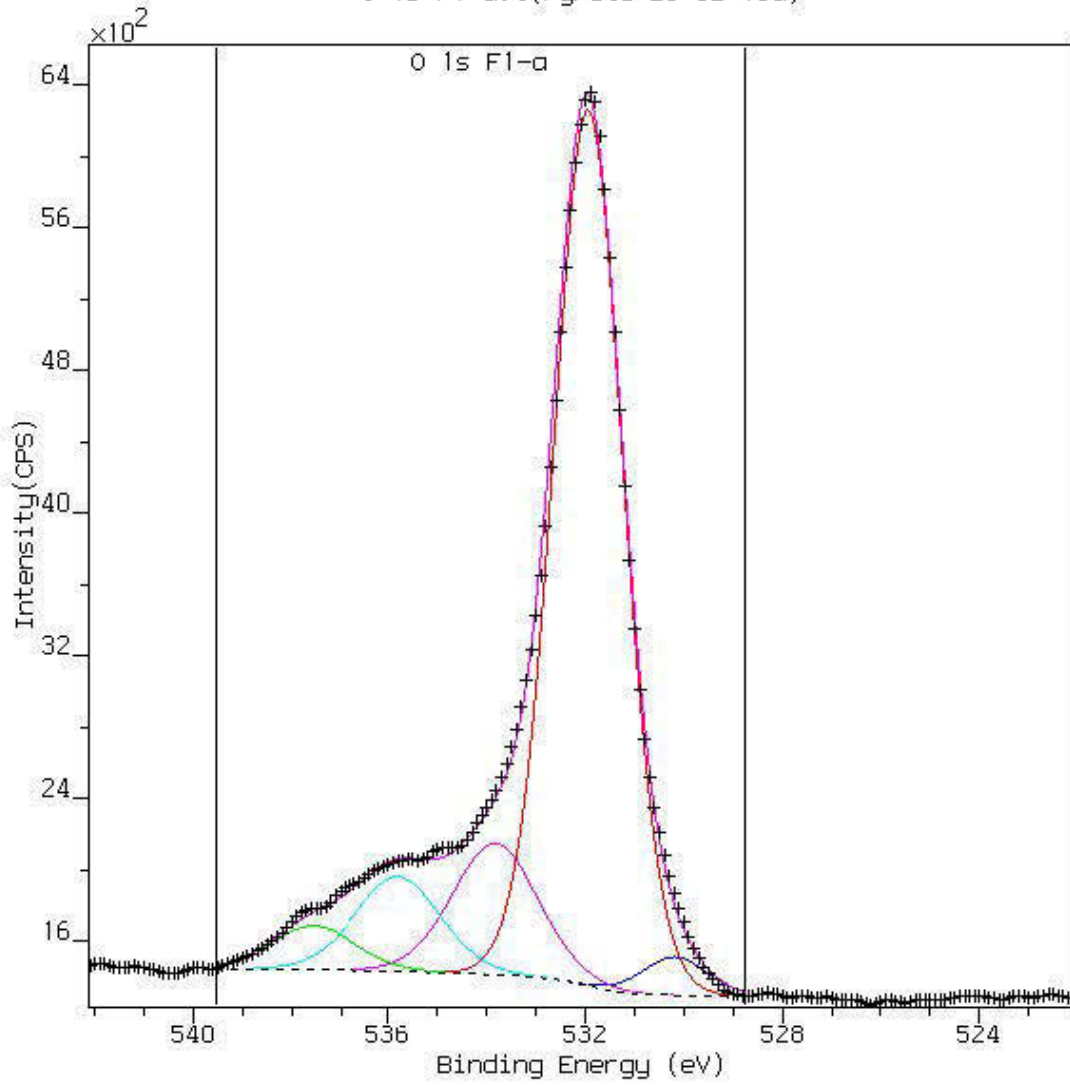
Cs 3d F1-a:2(Pyrite-23-02-10a)



Fe 2p F1-a:3(Pyrite-23-02-10a)



O 1s F1-a:4(Pyrite-23-02-10a)

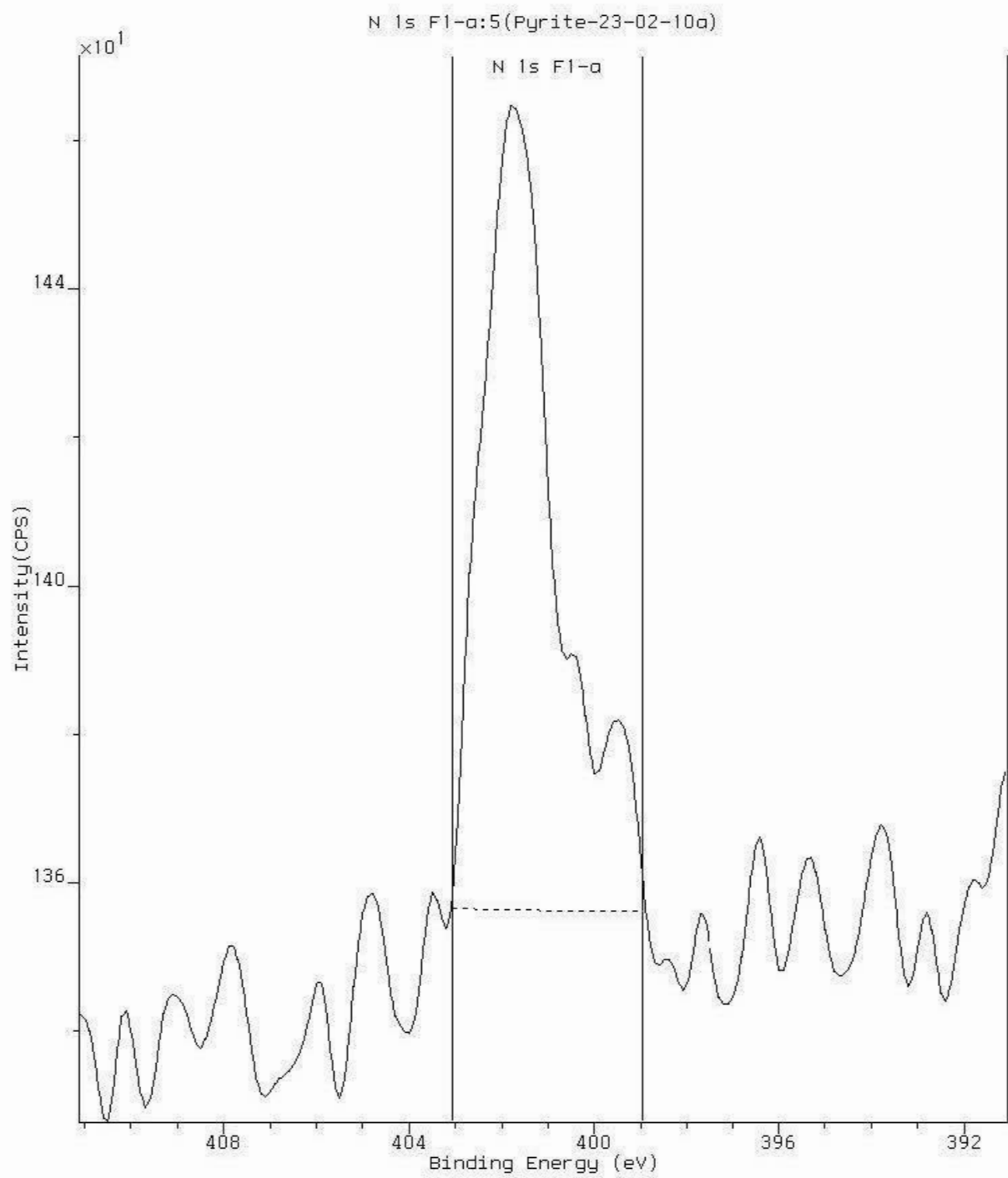


Quantification Report

/C:/data/LEM/2010/Pyrite-23-02-10a.dset

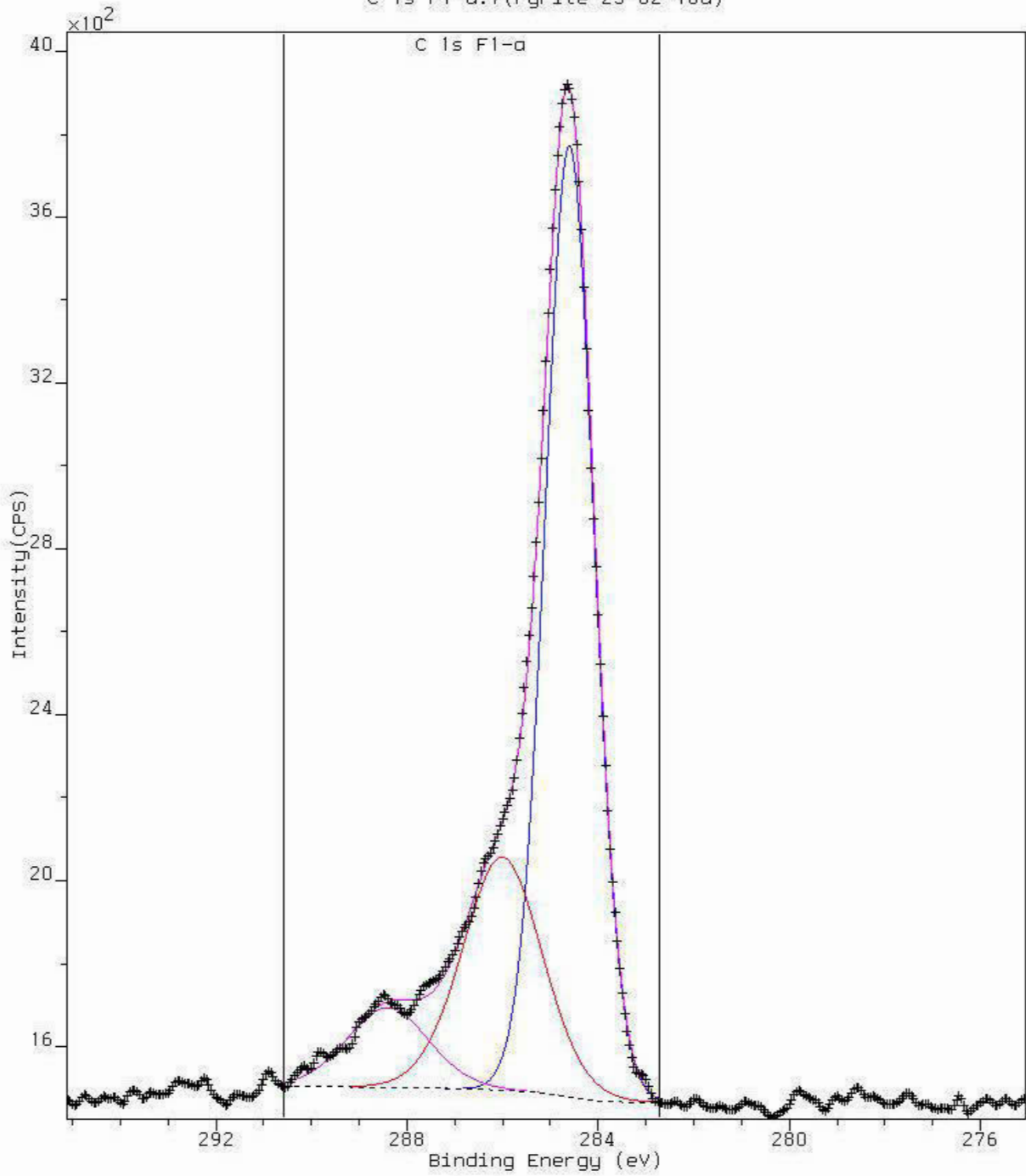
Mon Mar 15 10:46:48 2010

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
<i>o 1s o2-</i>	530.187	1.500	354.0	0.780	15.999	2.83	2.83
<i>o 1s o-H</i>	531.939	1.637	8831.5	0.780	15.999	70.59	70.59
<i>o 1s a</i>	533.837	2.000	1618.7	0.780	15.999	12.94	12.94
<i>o 1s b</i>	535.824	2.000	1169.2	0.780	15.999	9.34	9.34
<i>o 1s c</i>	537.568	2.000	539.0	0.780	15.999	4.31	4.31



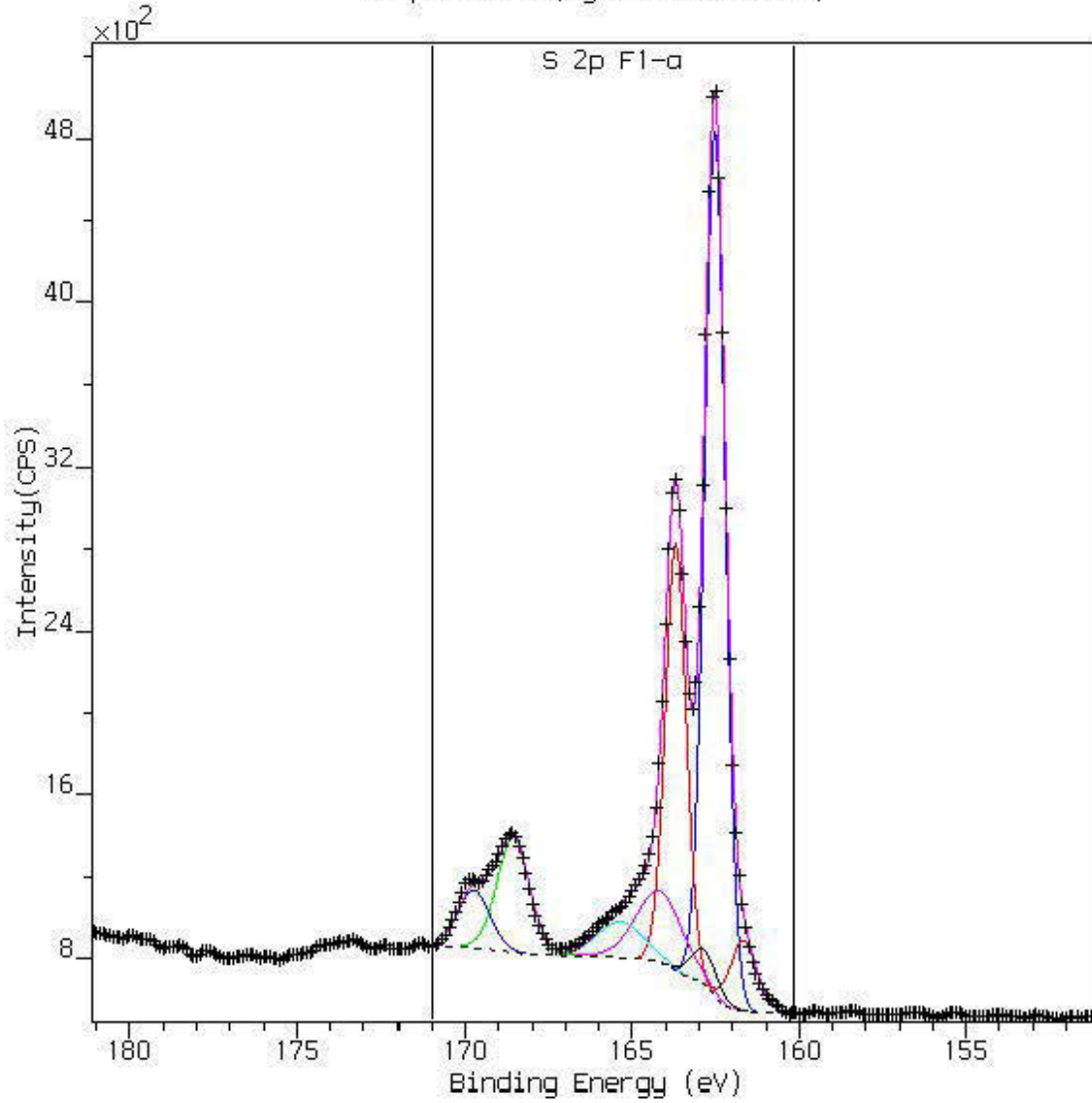


C 1s F1-a:7(Pyrite-23-02-10a)



<i>Peak</i>	<i>Position BE (eV)</i>	<i>FWHM (eV)</i>	<i>Raw Area (CPS)</i>	<i>RSF</i>	<i>Atomic Mass</i>	<i>Atomic Conc %</i>	<i>Mass Conc %</i>
<i>C 1s C-(C, H)</i>	<i>284.617</i>	<i>1.189</i>	<i>3002.7</i>	<i>0.278</i>	<i>12.011</i>	<i>65.14</i>	<i>65.14</i>
<i>C 1s C-O</i>	<i>286.016</i>	<i>1.931</i>	<i>1189.4</i>	<i>0.278</i>	<i>12.011</i>	<i>25.80</i>	<i>25.80</i>
<i>C 1s O-C=O</i>	<i>288.402</i>	<i>1.978</i>	<i>417.2</i>	<i>0.278</i>	<i>12.011</i>	<i>9.05</i>	<i>9.05</i>

S 2p F1-a:10(Pyrite-23-02-10a)

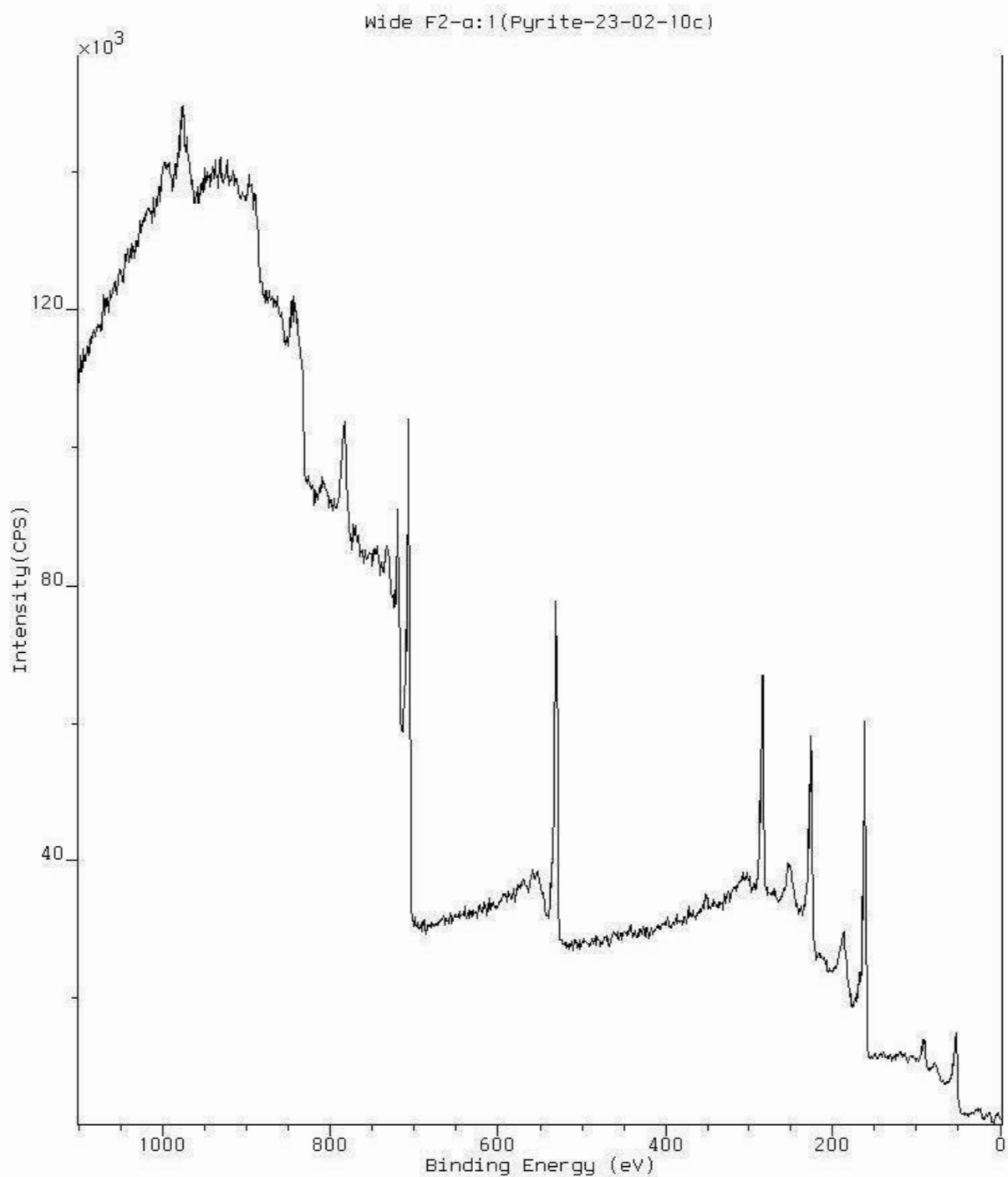


Quantification Report

/C:/data/LEM/2010/Pyrite-23-02-10a.dset

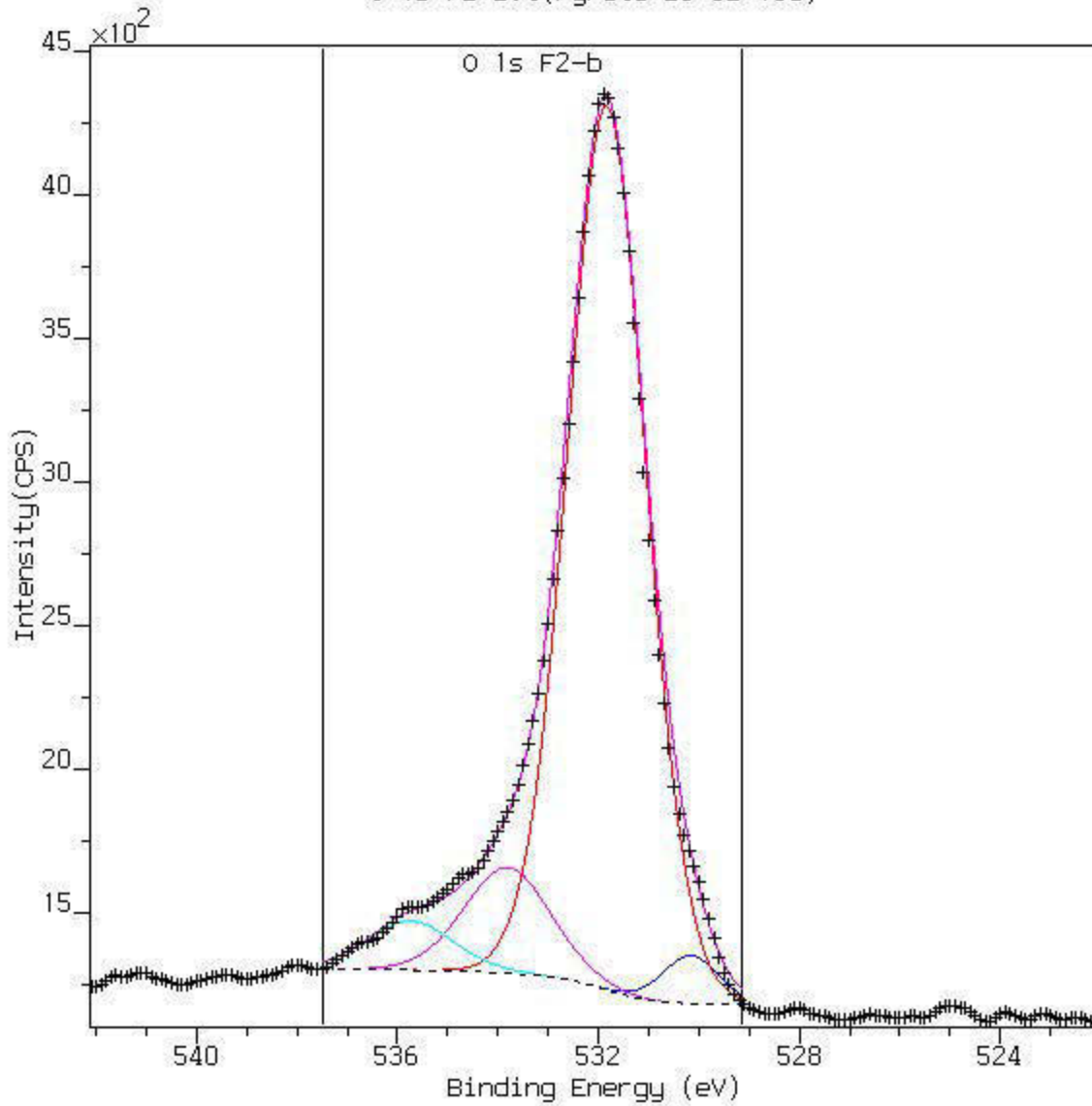
Mon Mar 15 10:27:18 2010

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSP	Atomic Mass	Atomic Conc %	Mass Conc %
S 2p 3/2 S -I	162.569	0.705	3318.0	0.668	32.065	44.51	44.51
S 2p 1/2 S -I	163.738	0.705	1658.4	0.668	32.065	22.23	22.23
S 2p 3/2 S 0	164.230	1.600	618.6	0.668	32.065	8.29	8.29
S 2p 1/2 S 0	165.400	1.600	309.0	0.668	32.065	4.14	4.14
S 2p 3/2 S VI	168.576	1.104	690.7	0.668	32.065	9.23	9.23
S 2p 1/2 S VI	169.757	1.104	344.3	0.668	32.065	4.60	4.60
S 2p 3/2 -II	161.704	0.903	348.0	0.668	32.065	4.67	4.67
S 2p 1/2 -II	162.884	0.903	173.7	0.668	32.065	2.33	2.33



<i>Peak</i>	<i>Position BE (eV)</i>	<i>FWHM (eV)</i>	<i>Raw Area (CPS)</i>	<i>RSF</i>	<i>Atomic Mass</i>	<i>Atomic Conc %</i>	<i>Mass Conc %</i>
<i>O 1s F2-b</i>	<i>531.900</i>	<i>1.819</i>	<i>7289.4</i>	<i>0.780</i>	<i>15.999</i>	<i>21.88</i>	<i>14.63</i>
<i>C 1s F2-b</i>	<i>284.650</i>	<i>1.258</i>	<i>4376.0</i>	<i>0.278</i>	<i>12.011</i>	<i>37.15</i>	<i>18.65</i>
<i>Fe 2p F2-b</i>	<i>707.400</i>	<i>0.844</i>	<i>10309.1</i>	<i>1.971</i>	<i>55.846</i>	<i>11.87</i>	<i>27.70</i>
<i>S 2p F2-b</i>	<i>162.500</i>	<i>0.760</i>	<i>7764.7</i>	<i>0.668</i>	<i>32.065</i>	<i>29.11</i>	<i>39.02</i>

O 1s F2-b:4(Pyrite-23-02-10c)



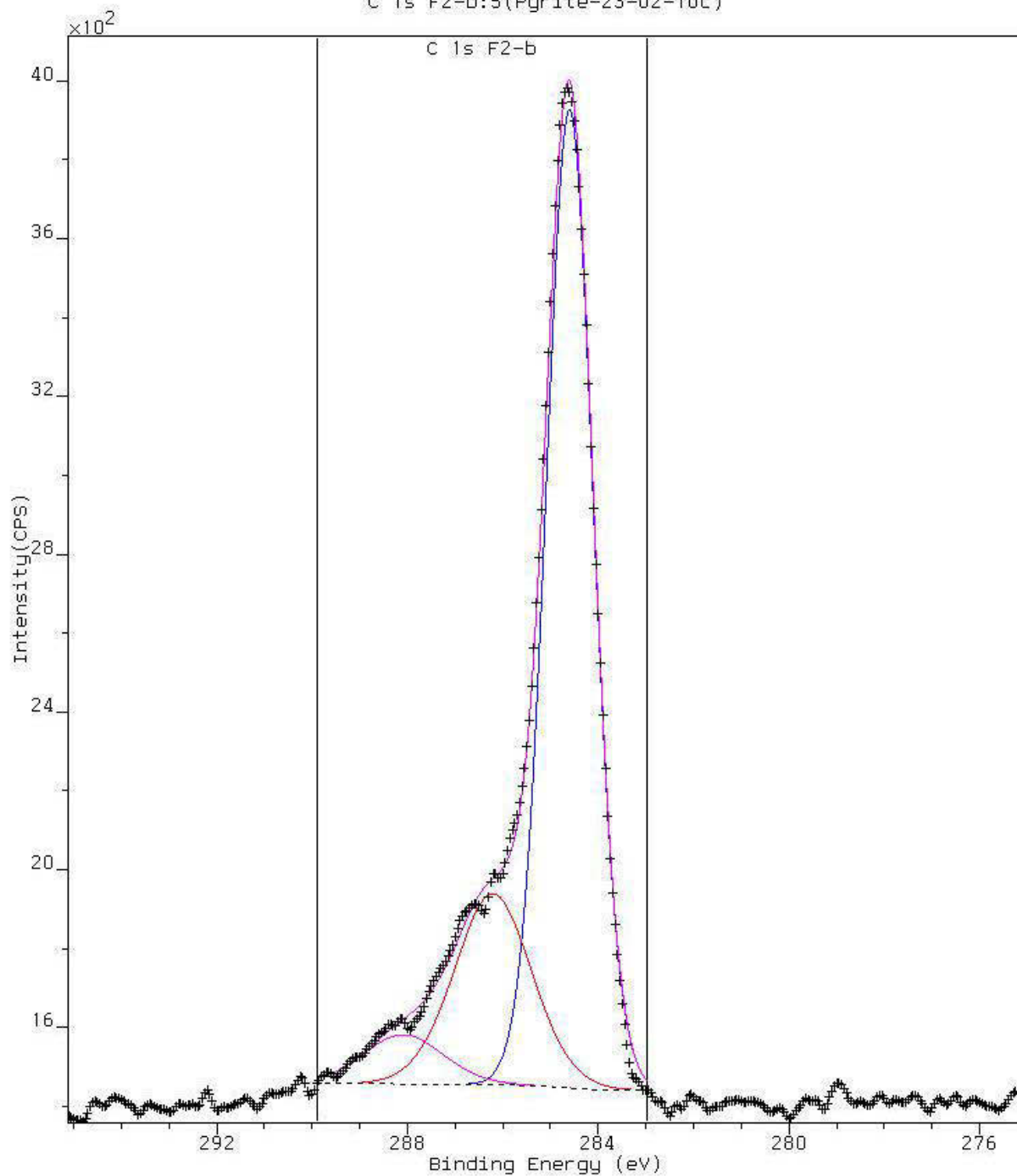
Quantification Report

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Mon Mar 15 10:52:57 2010

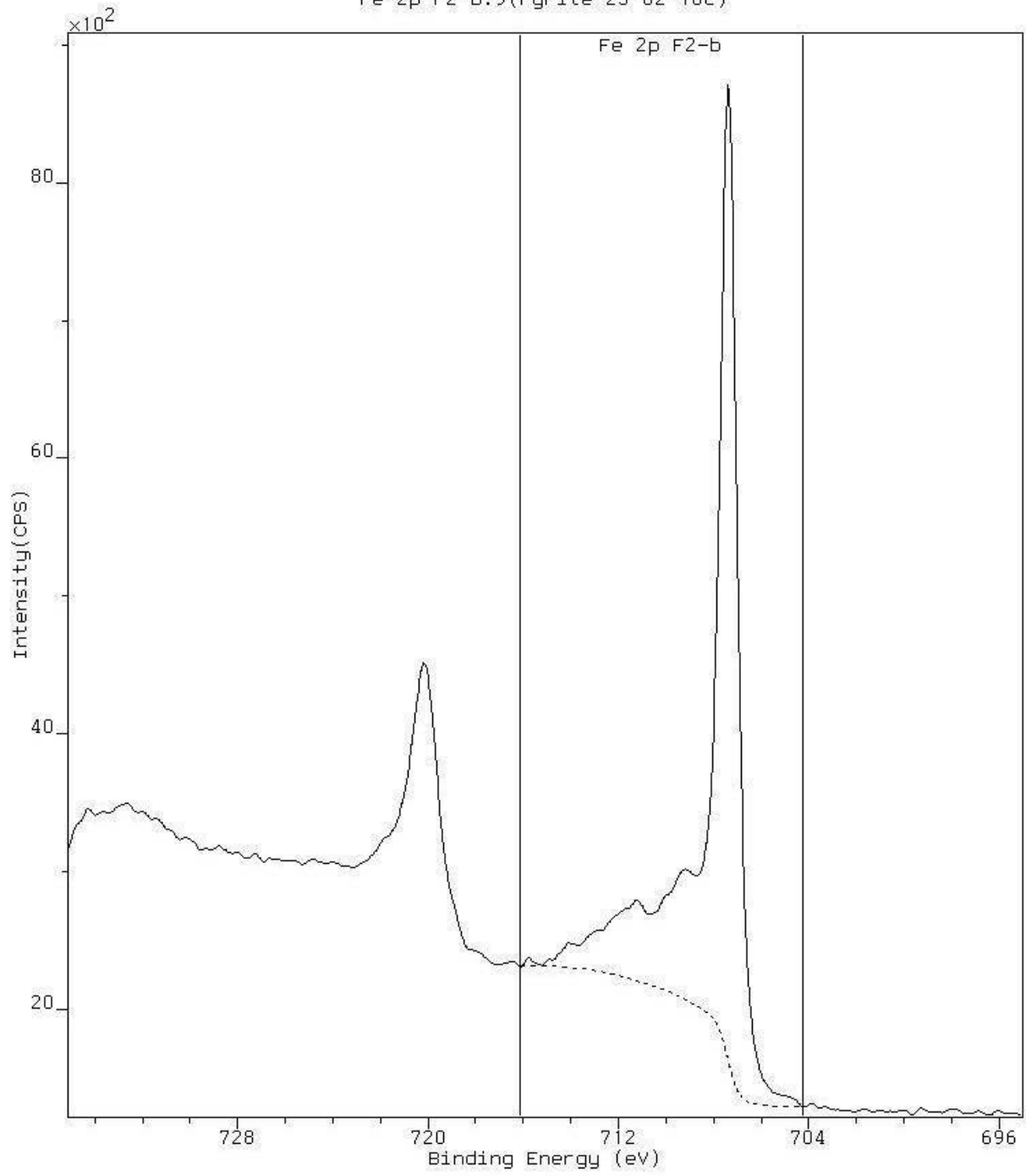
Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSP	Atomic Mass	Atomic Conc %	Mass Conc %
<i>O 1s O2-</i>	530.157	1.295	239.1	0.780	15.999	3.17	3.17
<i>O 1s O-H</i>	531.855	1.808	6124.8	0.780	15.999	81.18	81.18
<i>O 1s a</i>	533.820	2.000	807.5	0.780	15.999	10.70	10.70
<i>O 1s b</i>	535.757	2.000	373.5	0.780	15.999	4.95	4.95

C 1s F2-b:5(Pyrite-23-02-10c)

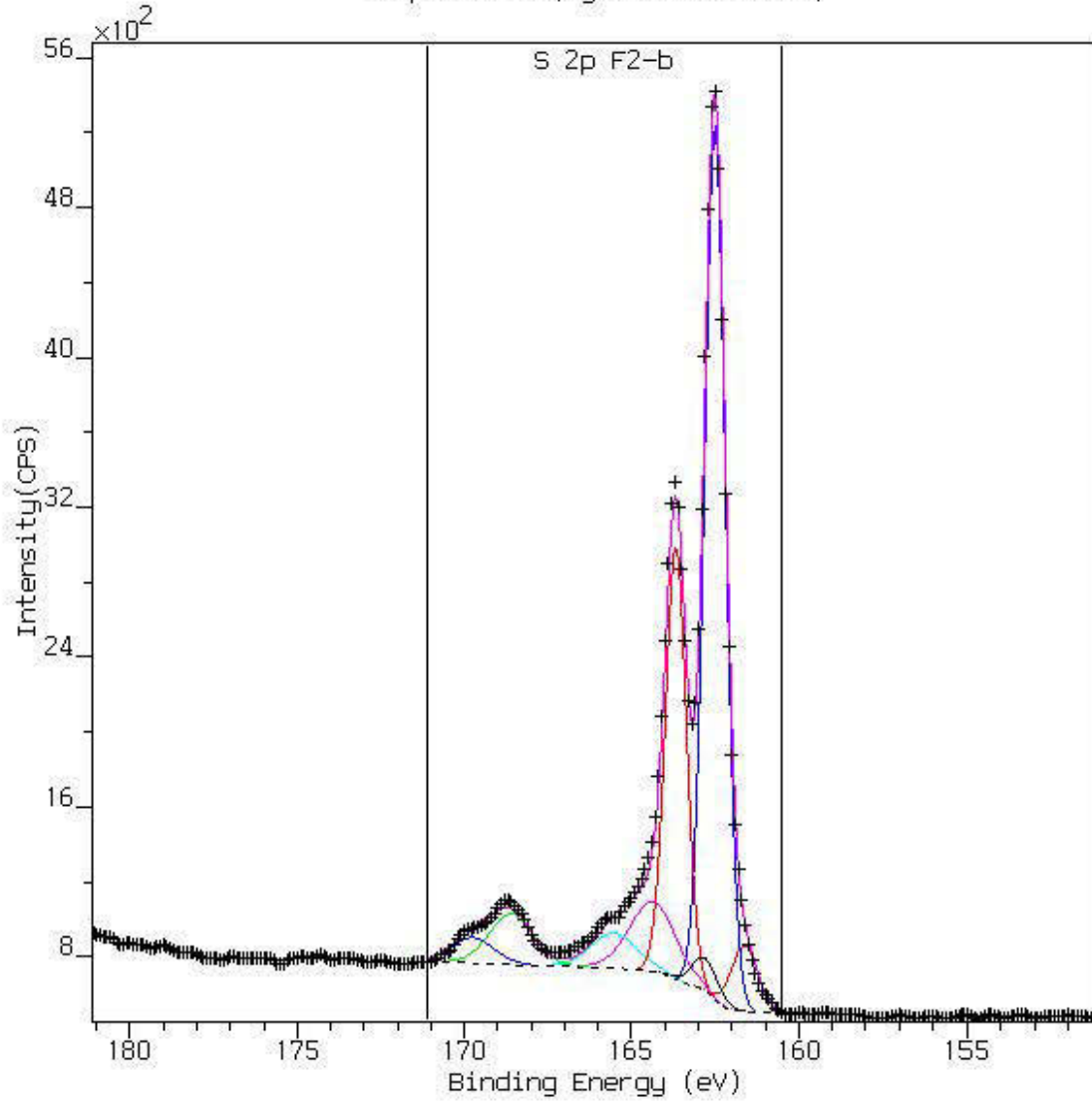


<i>Peak</i>	<i>Position BE (eV)</i>	<i>FWHM (eV)</i>	<i>Raw Area (CPS)</i>	<i>RSF</i>	<i>Atomic Mass</i>	<i>Atomic Conc %</i>	<i>Mass Conc %</i>
<i>C 1s C-(C, H)</i>	<i>284.612</i>	<i>1.156</i>	<i>3149.7</i>	<i>0.278</i>	<i>12.011</i>	<i>71.46</i>	<i>71.46</i>
<i>C 1s C-O</i>	<i>286.211</i>	<i>1.867</i>	<i>992.4</i>	<i>0.278</i>	<i>12.011</i>	<i>22.51</i>	<i>22.51</i>
<i>C 1s O-C=O</i>	<i>288.105</i>	<i>1.937</i>	<i>265.7</i>	<i>0.278</i>	<i>12.011</i>	<i>6.03</i>	<i>6.03</i>

Fe 2p F2-b:9(Pyrite-23-02-10c)

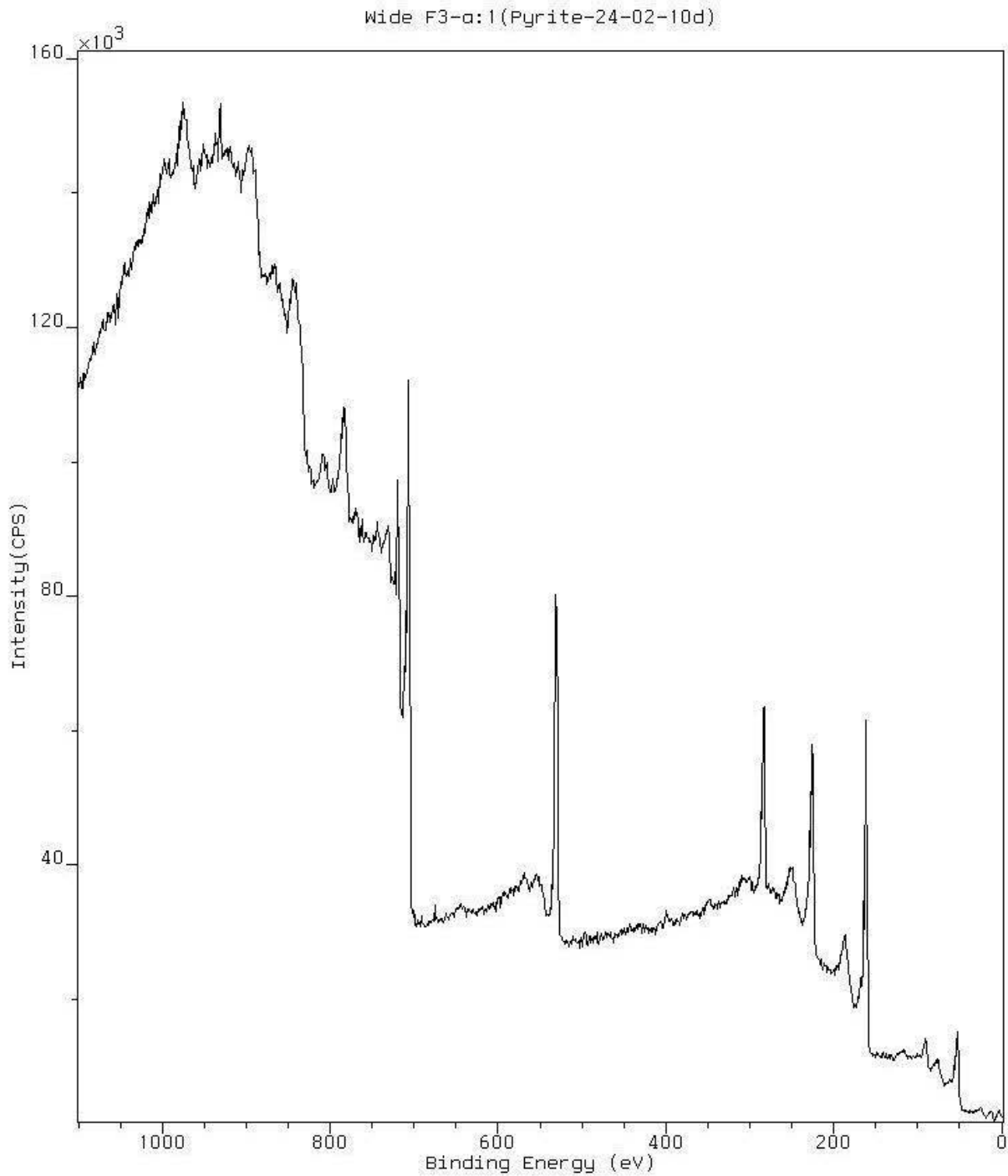


S 2p F2-b:10(Pyrite-23-02-10c)



**Quantification Report**  
 /C:/data/LEM/2010/Pyrite-23-02-10c.dset Mon Mar 15 10:24:41 2010

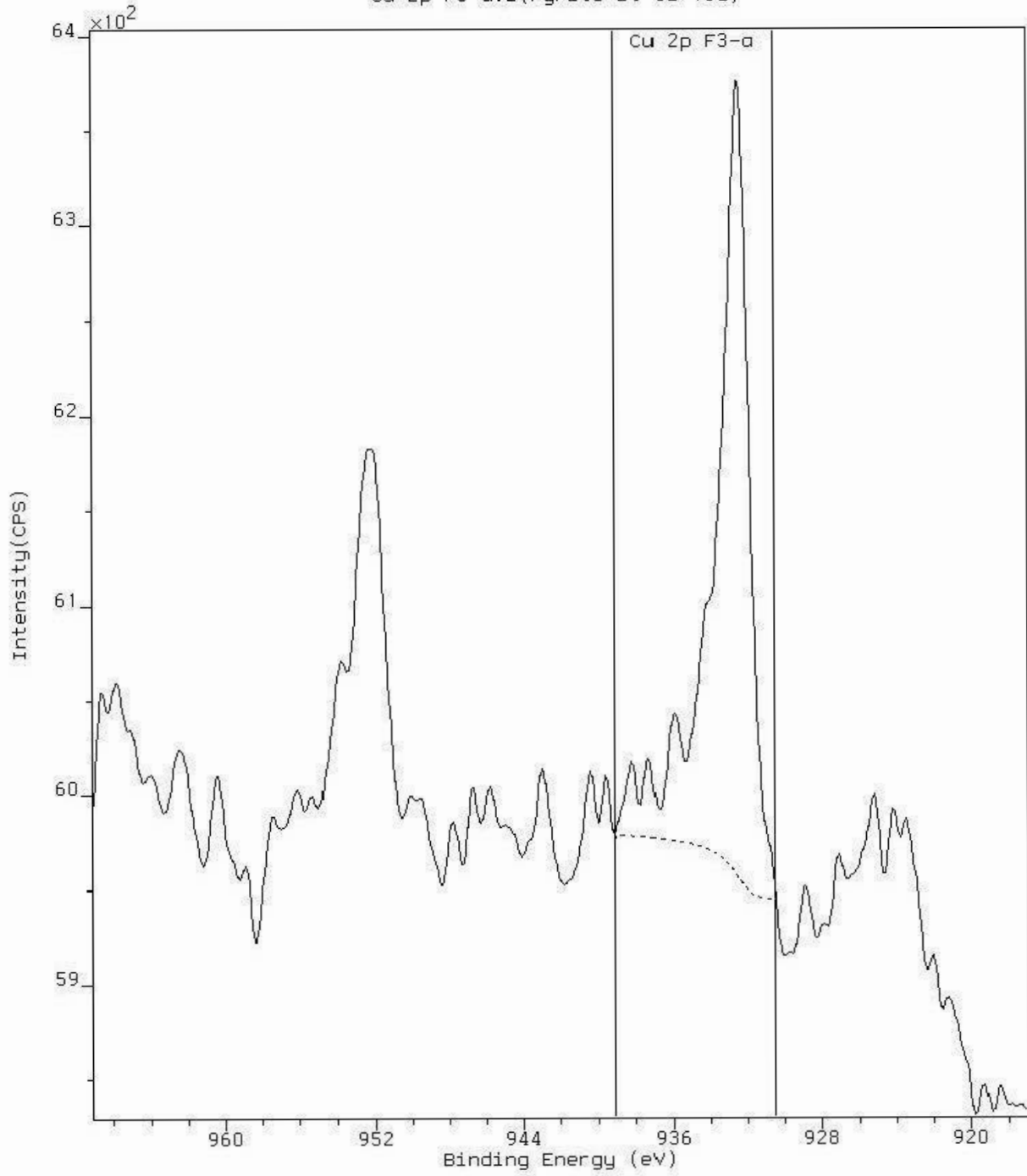
Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSP	Atomic Mass	Atomic Conc %	Mass Conc %
s 2p 3/2 s -I	162.544	0.705	3680.5	0.668	32.065	47.76	47.76
s 2p 1/2 s -I	163.714	0.705	1839.6	0.668	32.065	23.85	23.85
s 2p 3/2 s 0	164.403	1.600	658.9	0.668	32.065	8.54	8.54
s 2p 1/2 s 0	165.573	1.600	329.1	0.668	32.065	4.26	4.26
s 2p 3/2 s VI	168.601	1.500	450.2	0.668	32.065	5.82	5.82
s 2p 1/2 s VI	169.781	1.500	223.9	0.668	32.065	2.89	2.89
s 2p 3/2 -II	161.655	0.903	353.1	0.668	32.065	4.59	4.59
s 2p 1/2 -II	162.835	0.903	176.1	0.668	32.065	2.28	2.28



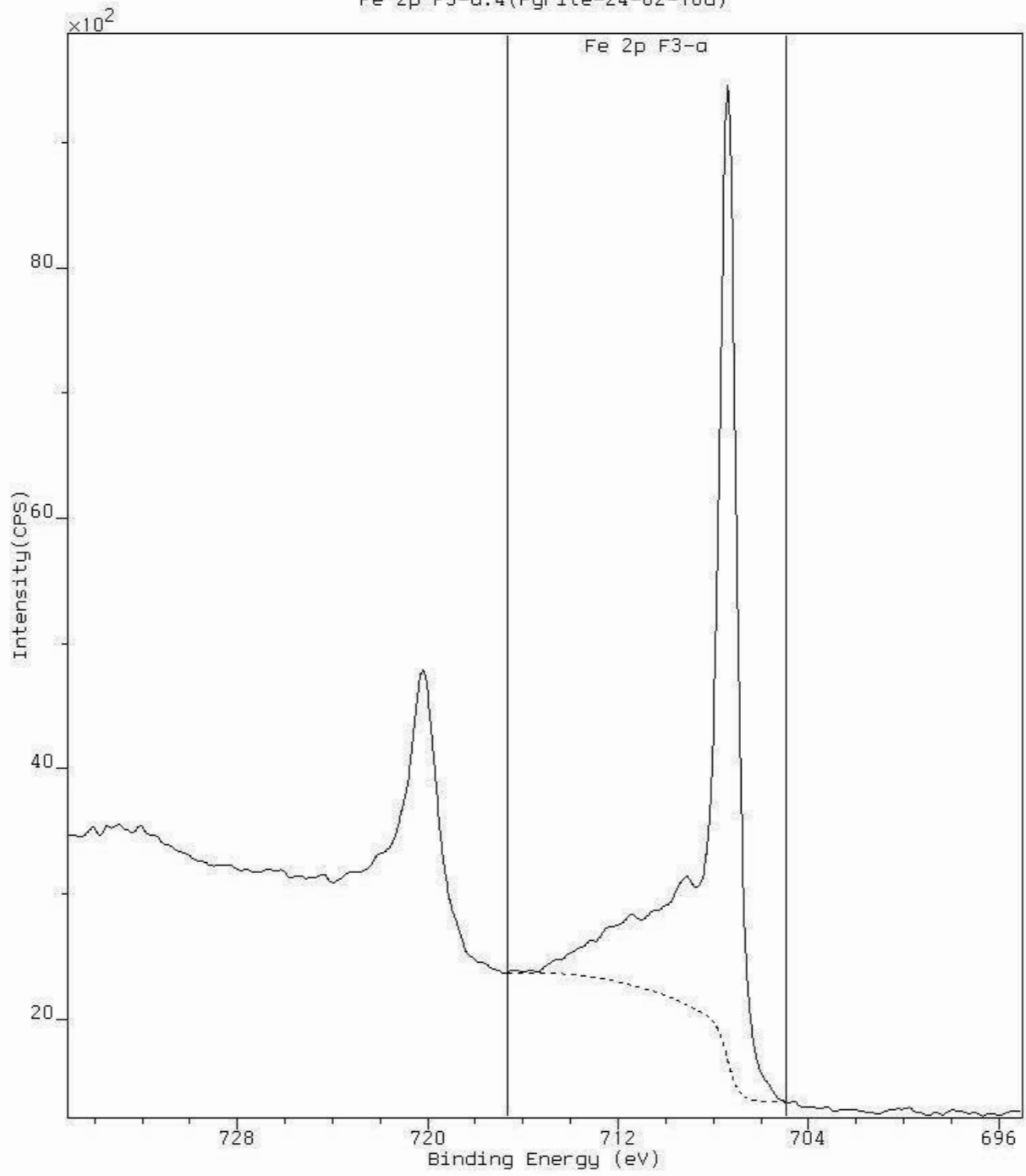
<i>Peak</i>	<i>Position BE (eV)</i>	<i>FWHM (eV)</i>	<i>Raw Area (CPS)</i>	<i>RSF</i>	<i>Atomic Mass</i>	<i>Atomic Conc %</i>	<i>Mass Conc %</i>
<i>Cu 2p F3-a</i>	<i>932.500</i>	<i>1.591</i>	<i>947.3</i>	<i>3.547</i>	<i>63.549</i>	<i>0.54</i>	<i>1.40</i>
<i>Fe 2p F3-a</i>	<i>707.400</i>	<i>0.829</i>	<i>11007.1</i>	<i>1.971</i>	<i>55.846</i>	<i>12.15</i>	<i>27.73</i>
<i>O 1s F3-a</i>	<i>531.900</i>	<i>1.834</i>	<i>8039.9</i>	<i>0.780</i>	<i>15.999</i>	<i>23.13</i>	<i>15.13</i>
<i>C 1s F3-a</i>	<i>284.600</i>	<i>1.322</i>	<i>4129.4</i>	<i>0.278</i>	<i>12.011</i>	<i>33.60</i>	<i>16.50</i>
<i>N 1s F3-a</i>	<i>401.900</i>	<i>2.958</i>	<i>241.0</i>	<i>0.477</i>	<i>14.007</i>	<i>1.14</i>	<i>0.65</i>
<i>S 2p F3-a</i>	<i>162.500</i>	<i>0.766</i>	<i>8195.0</i>	<i>0.668</i>	<i>32.065</i>	<i>29.45</i>	<i>38.60</i>



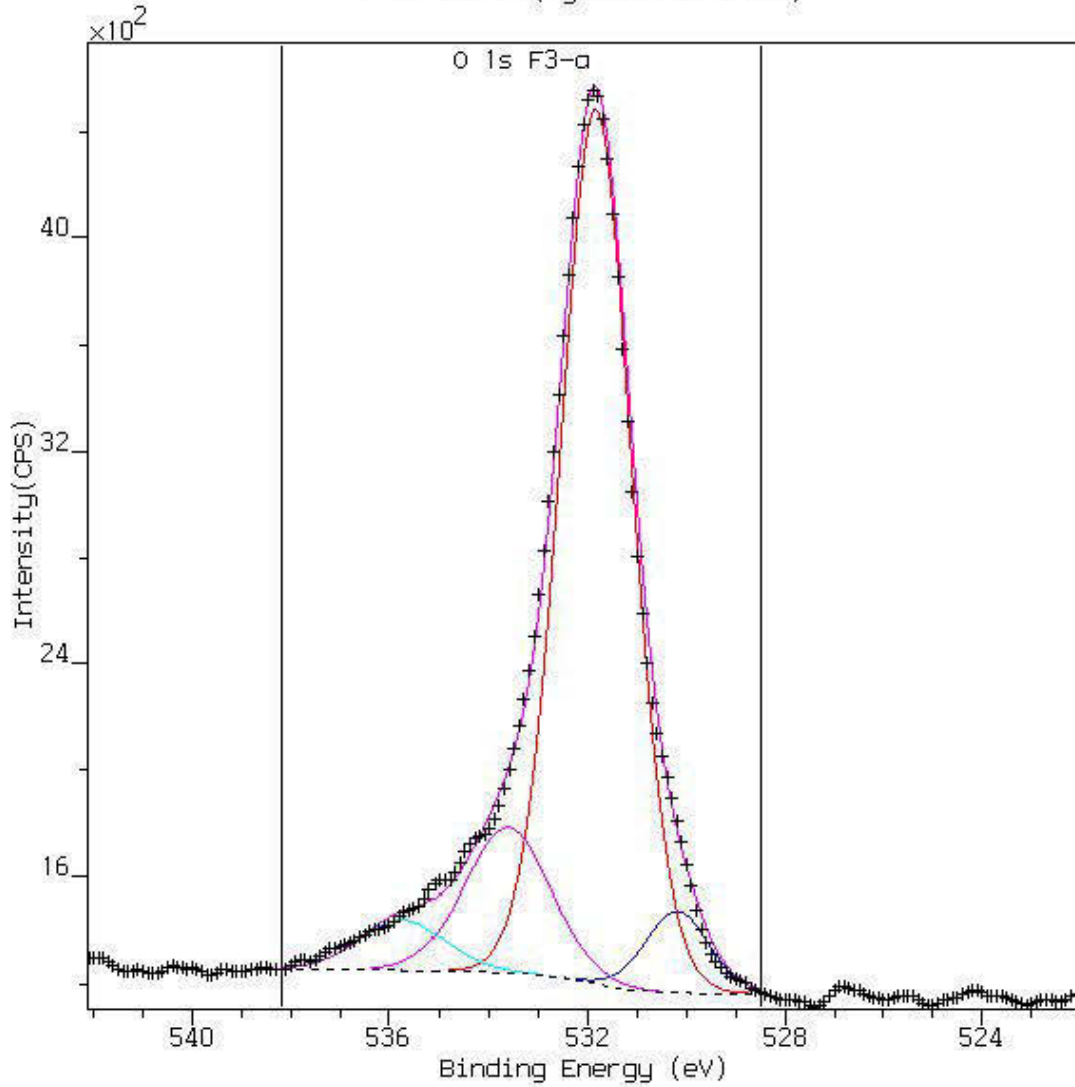
Cu 2p F3-a:2(Pyrite-24-02-10d)



Fe 2p F3-a:4(Pyrite-24-02-10d)



O 1s F3-a:5(Pyrite-24-02-10d)



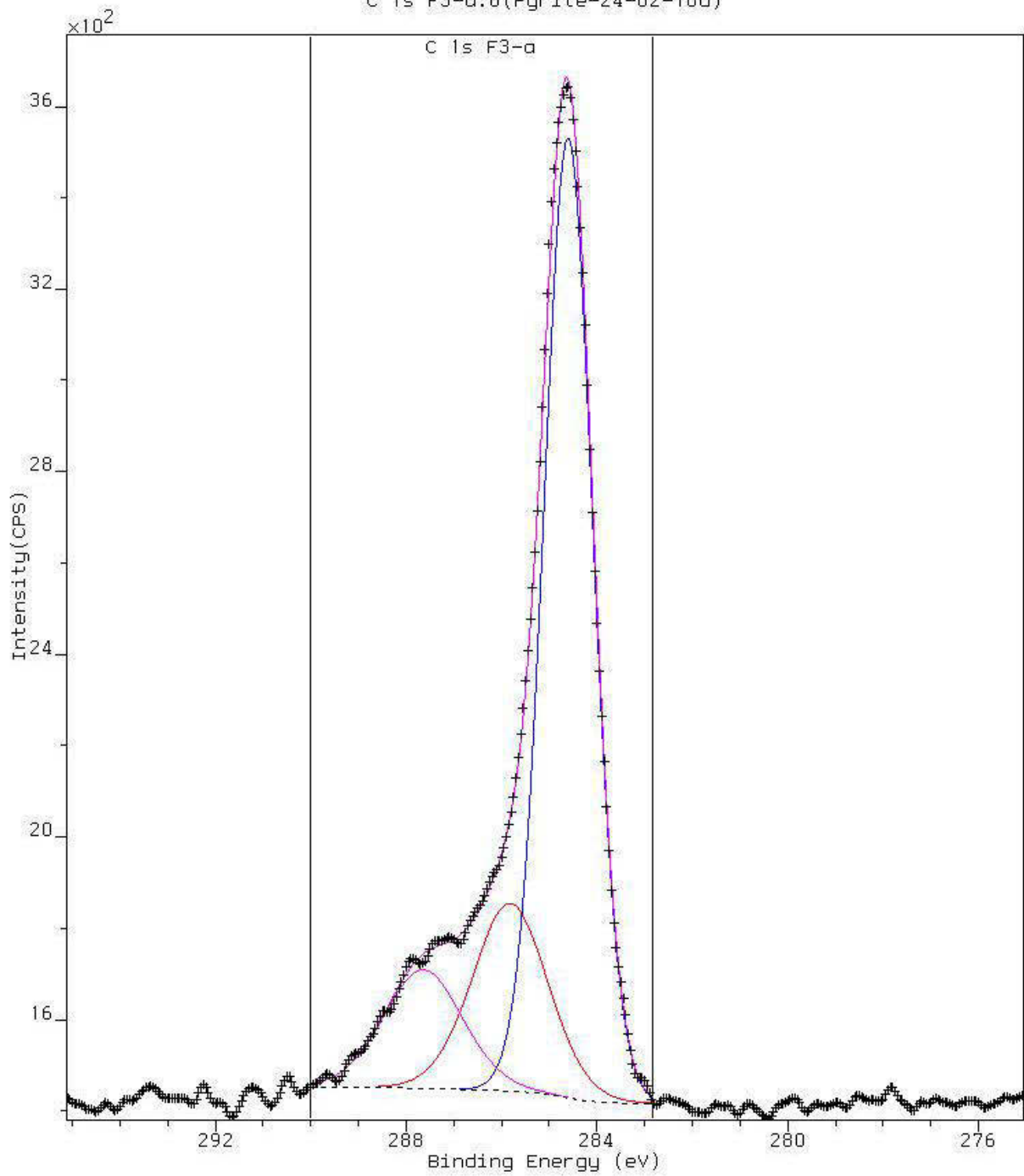
Quantification Report

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Mon Mar 15 11:08:50 2010

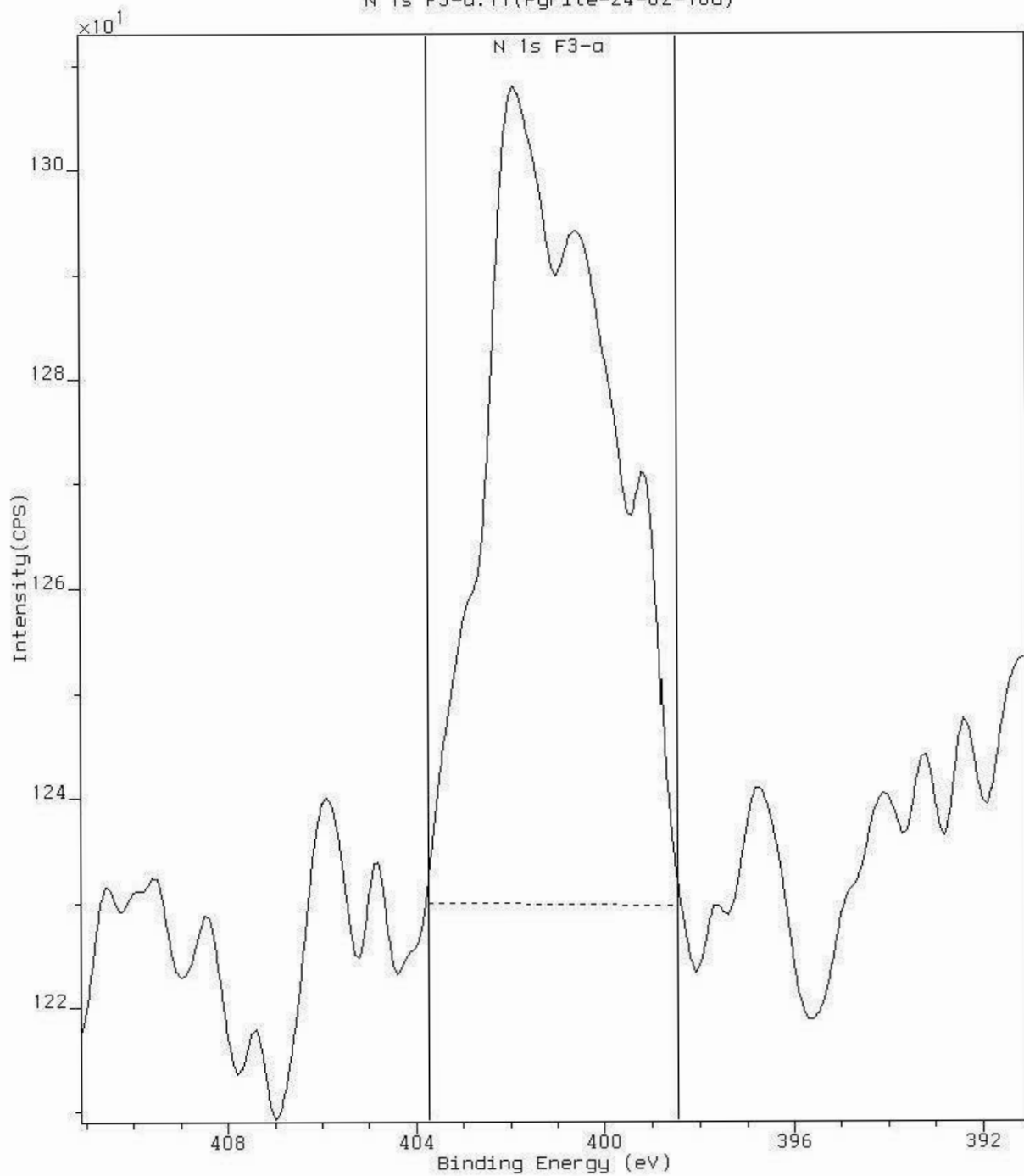
Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	REF	Atomic Mass	Atomic Conc %	Mass Conc %
O 1s O <sup>2-</sup>	530.187	1.500	505.6	0.780	15.999	6.19	6.19
O 1s O-H	531.880	1.676	6062.4	0.780	15.999	74.18	74.18
O 1s a	532.630	2.000	1189.3	0.780	15.999	14.55	14.55
O 1s b	535.765	2.000	415.9	0.780	15.999	5.09	5.09

C 1s F3-a:6(Pyrite-24-02-10d)

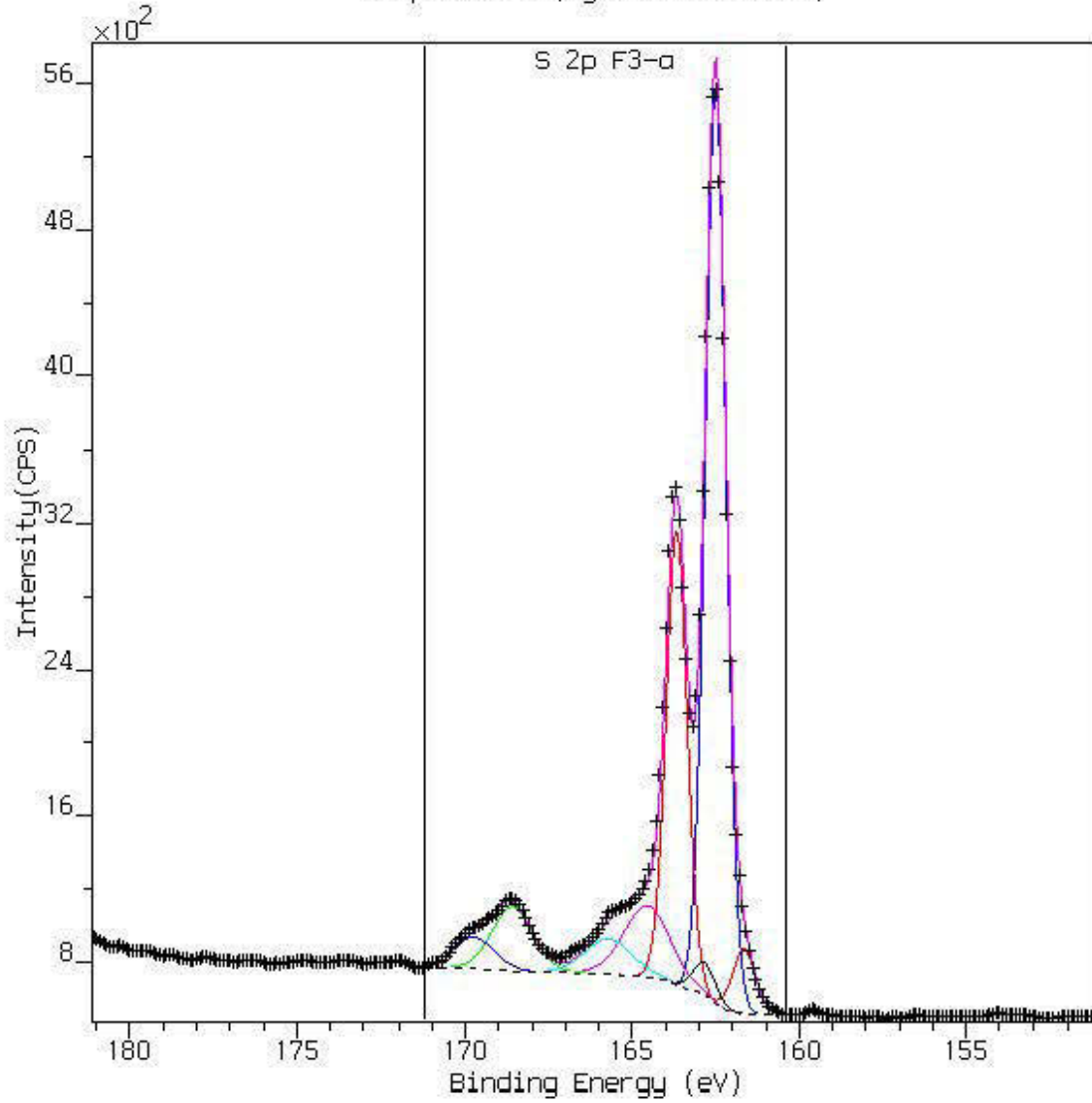


<i>Peak</i>	<i>Position BE (eV)</i>	<i>FWHM (eV)</i>	<i>Raw Area (CPS)</i>	<i>RSF</i>	<i>Atomic Mass</i>	<i>Atomic Conc %</i>	<i>Mass Conc %</i>
<i>C 1s C-(C, H)</i>	<i>284.615</i>	<i>1.194</i>	<i>2759.8</i>	<i>0.278</i>	<i>12.011</i>	<i>66.83</i>	<i>66.83</i>
<i>C 1s C-O</i>	<i>285.843</i>	<i>1.823</i>	<i>822.8</i>	<i>0.278</i>	<i>12.011</i>	<i>19.92</i>	<i>19.92</i>
<i>C 1s O-C=O</i>	<i>287.651</i>	<i>1.919</i>	<i>547.2</i>	<i>0.278</i>	<i>12.011</i>	<i>13.25</i>	<i>13.25</i>

N 1s F3-a:11(Pyrite-24-02-10d)



S 2p F3-a:12(Pyrite-24-02-10d)

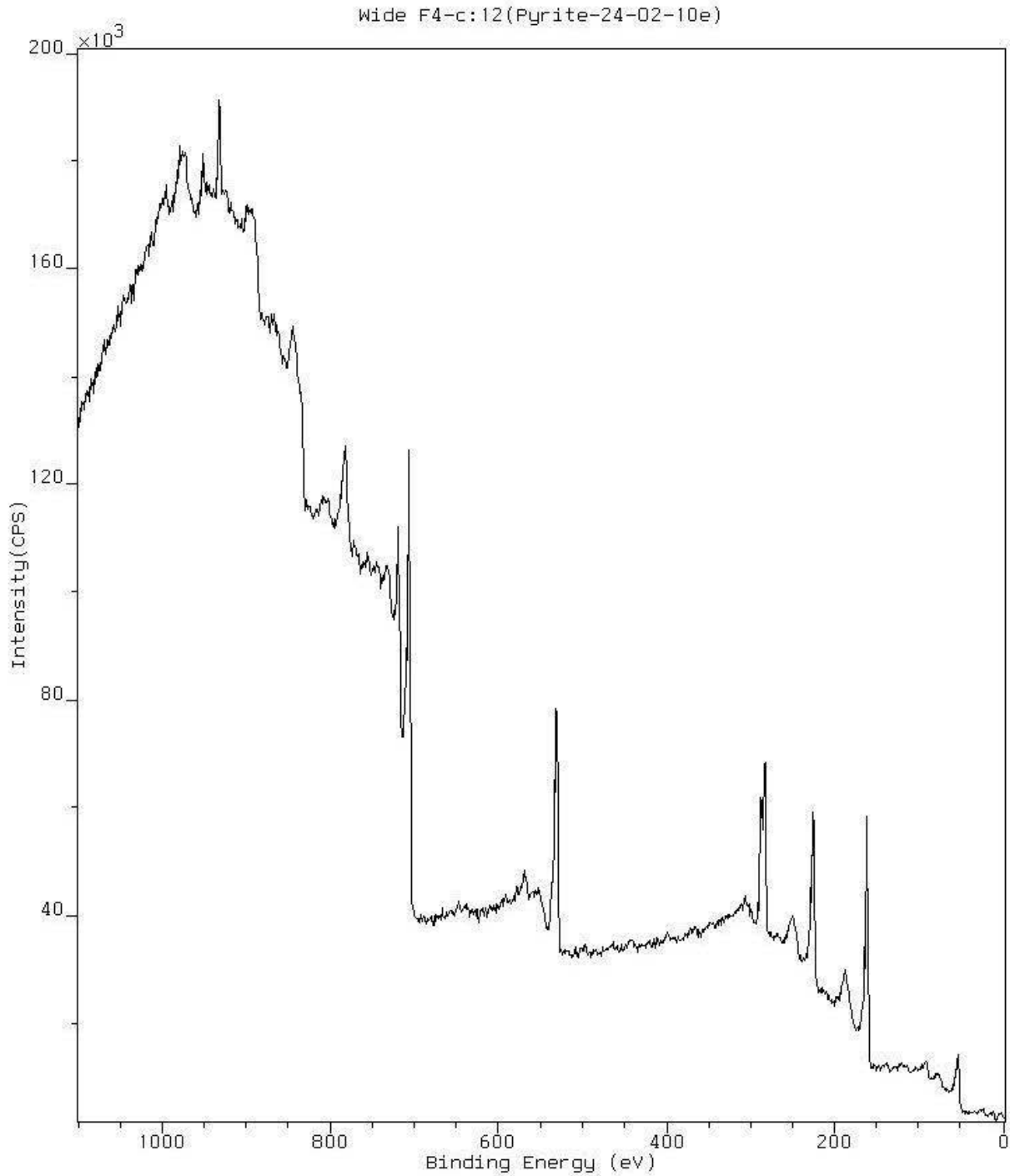


Quantification Report

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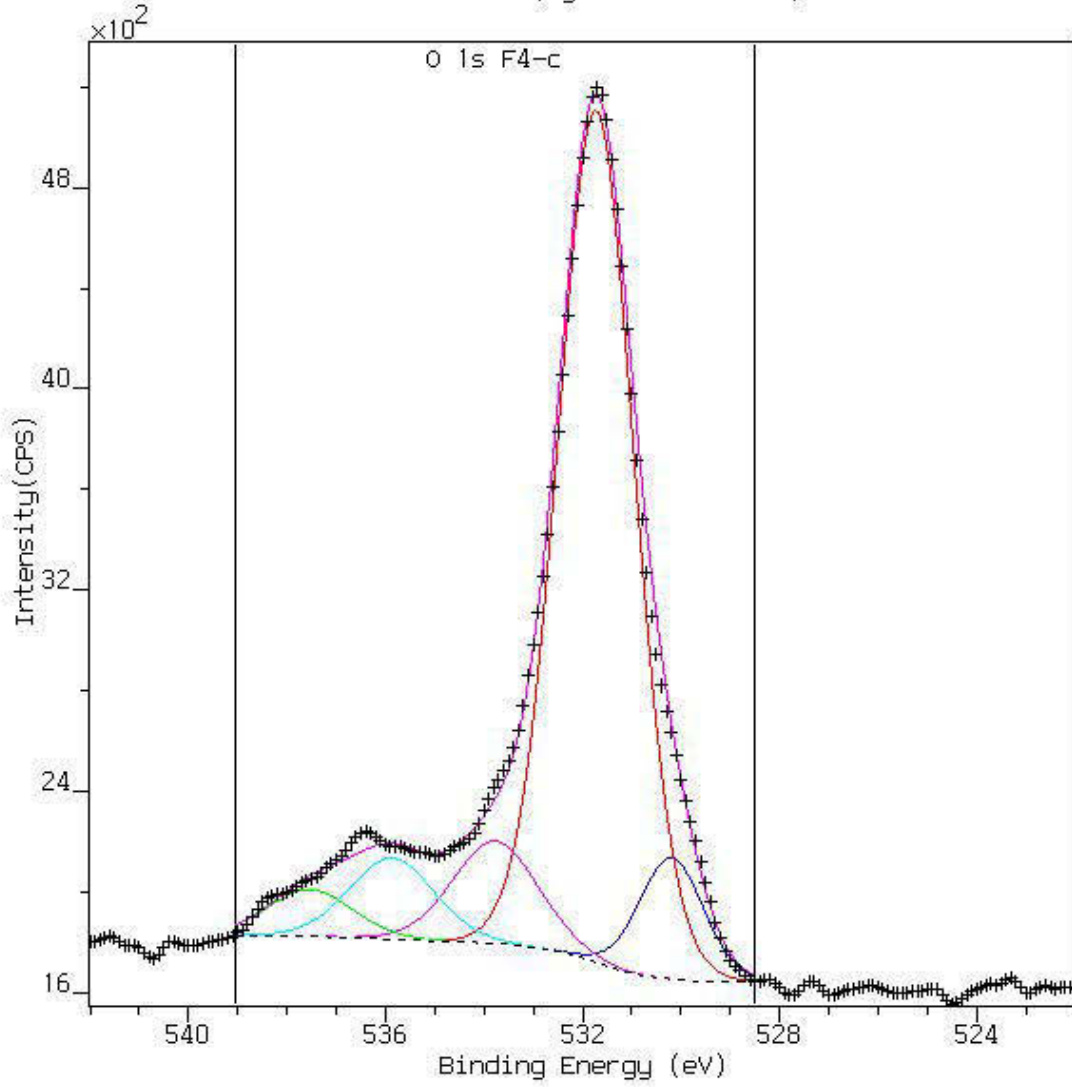
Mon Mar 15 10:20:03 2010

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF	Atomic Mass	Atomic Cono %	Mass Cono %
S 2p 3/2 S -I	162.544	0.705	3968.5	0.668	32.065	47.85	47.85
S 2p 1/2 S -I	163.714	0.705	1983.6	0.668	32.065	23.90	23.90
S 2p 3/2 S 0	164.601	1.600	685.4	0.668	32.065	8.25	8.25
S 2p 1/2 S 0	165.771	1.600	342.4	0.668	32.065	4.12	4.12
S 2p 3/2 S VI	168.601	1.600	574.1	0.668	32.065	6.89	6.89
S 2p 1/2 S VI	169.781	1.600	285.8	0.668	32.065	3.43	3.43
S 2p 3/2 -II	161.679	0.776	307.6	0.668	32.065	3.71	3.71
S 2p 1/2 -II	162.859	0.776	153.4	0.668	32.065	1.85	1.85



<i>Peak</i>	<i>Position BE (eV)</i>	<i>FWHM (eV)</i>	<i>Raw Area (CPS)</i>	<i>RSF</i>	<i>Atomic Mass</i>	<i>Atomic Conc %</i>	<i>Mass Conc %</i>
<i>O 1s F4-c</i>	<i>531.700</i>	<i>1.886</i>	<i>9341.3</i>	<i>0.780</i>	<i>15.999</i>	<i>19.00</i>	<i>12.94</i>
<i>Cu 2p F4-c</i>	<i>932.400</i>	<i>1.410</i>	<i>2799.8</i>	<i>3.547</i>	<i>63.549</i>	<i>1.12</i>	<i>3.04</i>
<i>Fe 2p F4-c</i>	<i>707.300</i>	<i>0.833</i>	<i>15176.8</i>	<i>1.971</i>	<i>55.846</i>	<i>11.84</i>	<i>28.15</i>
<i>C 1s F4-c</i>	<i>284.550</i>	<i>1.262</i>	<i>7527.3</i>	<i>0.278</i>	<i>12.011</i>	<i>43.31</i>	<i>22.14</i>
<i>S 2p F4-c</i>	<i>162.400</i>	<i>0.745</i>	<i>9725.6</i>	<i>0.668</i>	<i>32.065</i>	<i>24.72</i>	<i>33.73</i>

O 1s F4-c:6(Pyrite-24-02-10e)

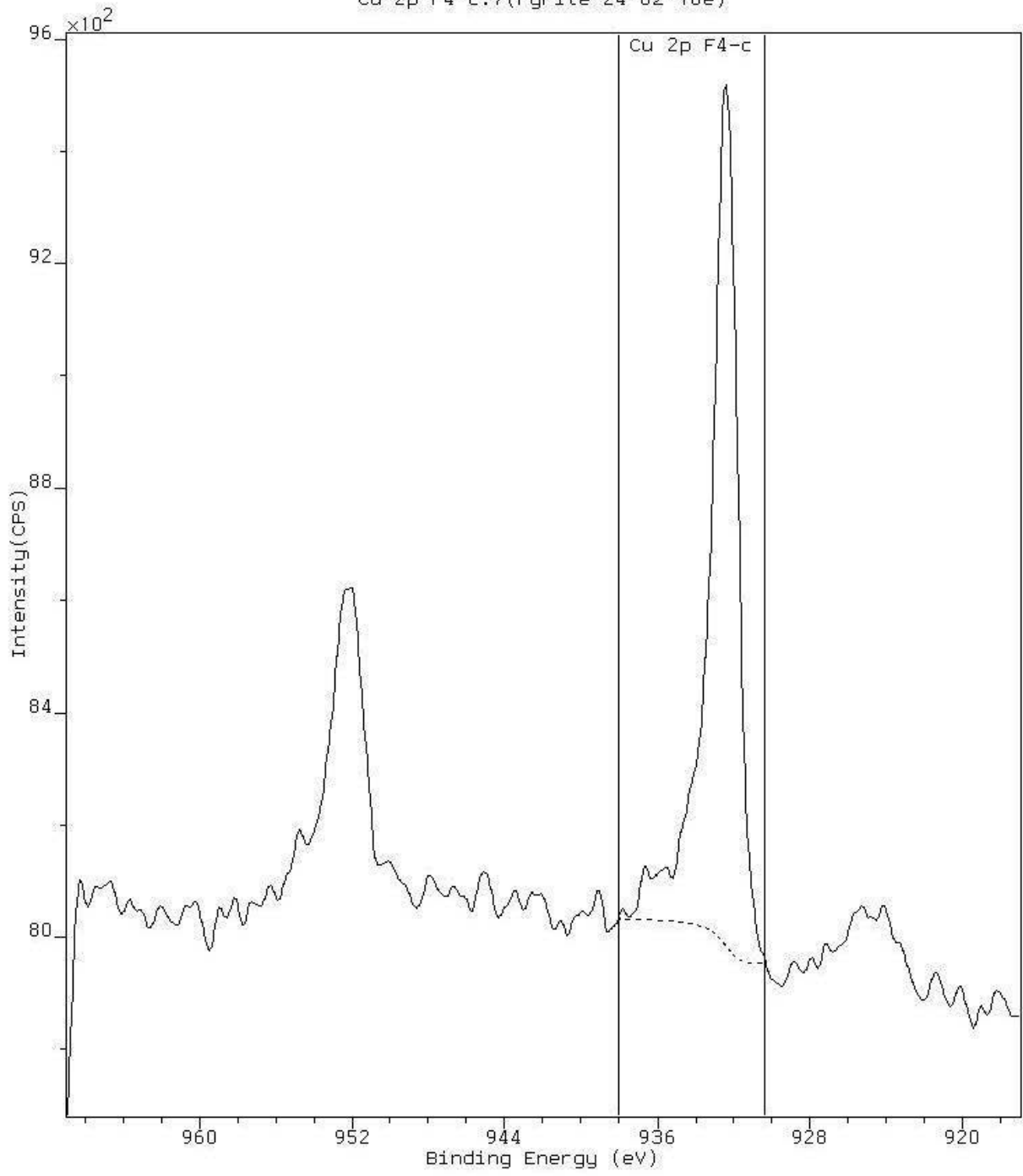


*Quantification Report*  
 /C:/data/LEI/2010/Pyrite-24-02-10e.dset Mon Mar 15 11:13:47 2010

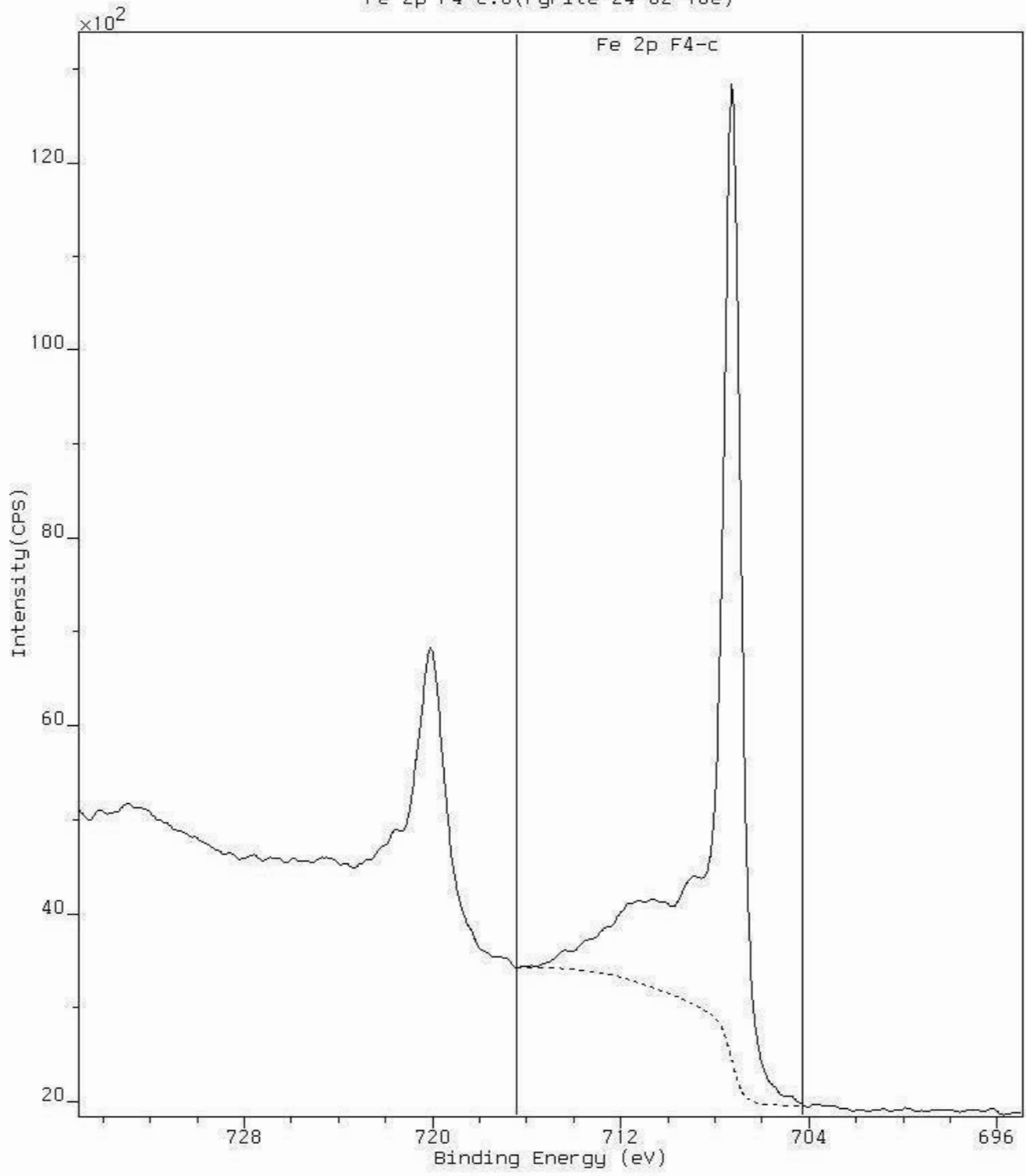
Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
<i>o 1s o2-</i>	530.187	1.500	799.6	0.780	15.999	8.40	8.40
<i>o 1s o-H</i>	531.732	1.795	6695.3	0.780	15.999	70.35	70.35
<i>o 1s a</i>	533.778	2.000	898.8	0.780	15.999	9.44	9.44
<i>o 1s b</i>	535.883	2.000	712.3	0.780	15.999	7.48	7.48
<i>o 1s c</i>	537.538	2.000	411.1	0.780	15.999	4.32	4.32



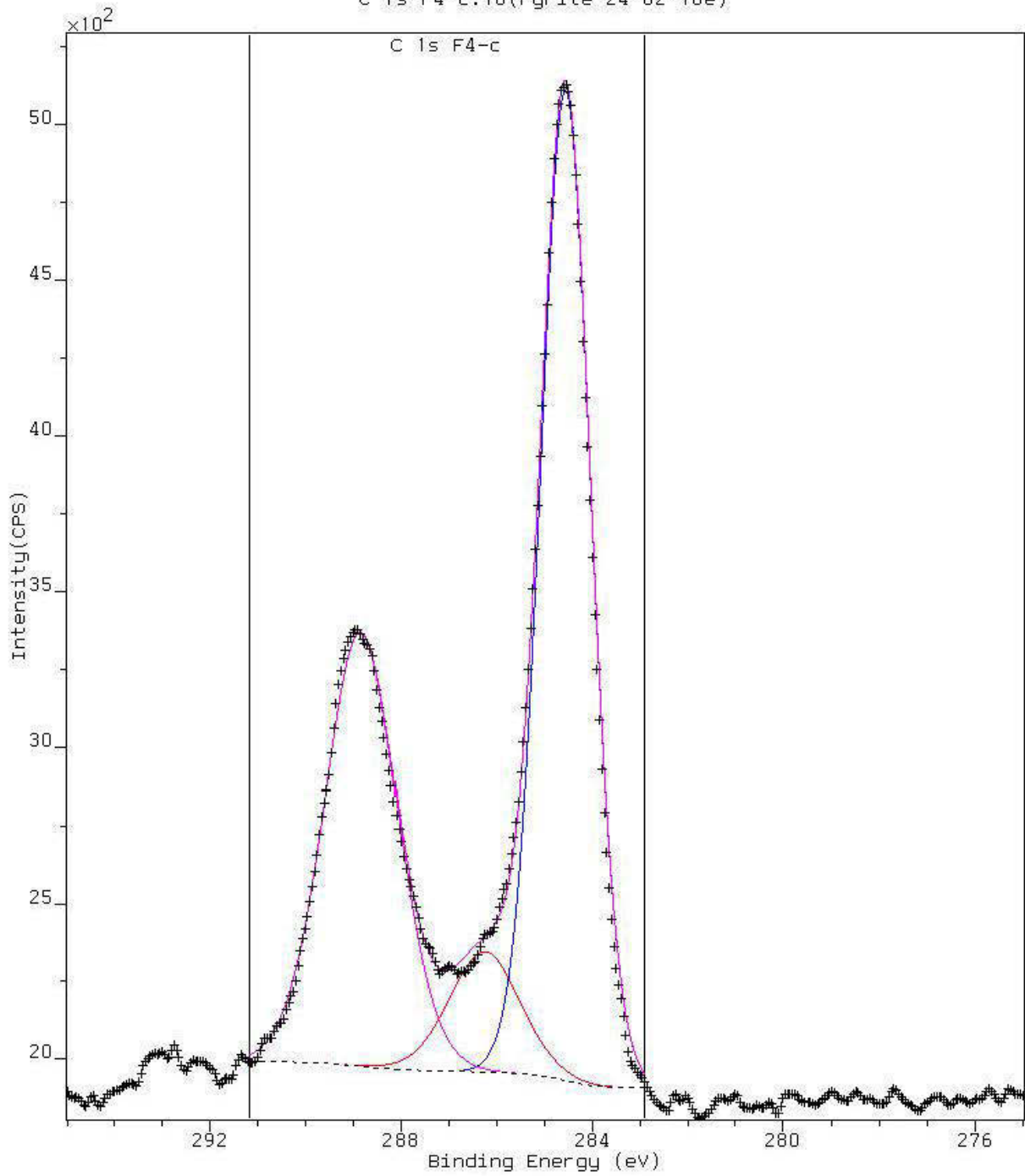
Cu 2p F4-c:7(Pyrite-24-02-10e)



Fe 2p F4-c:8(Pyrite-24-02-10e)

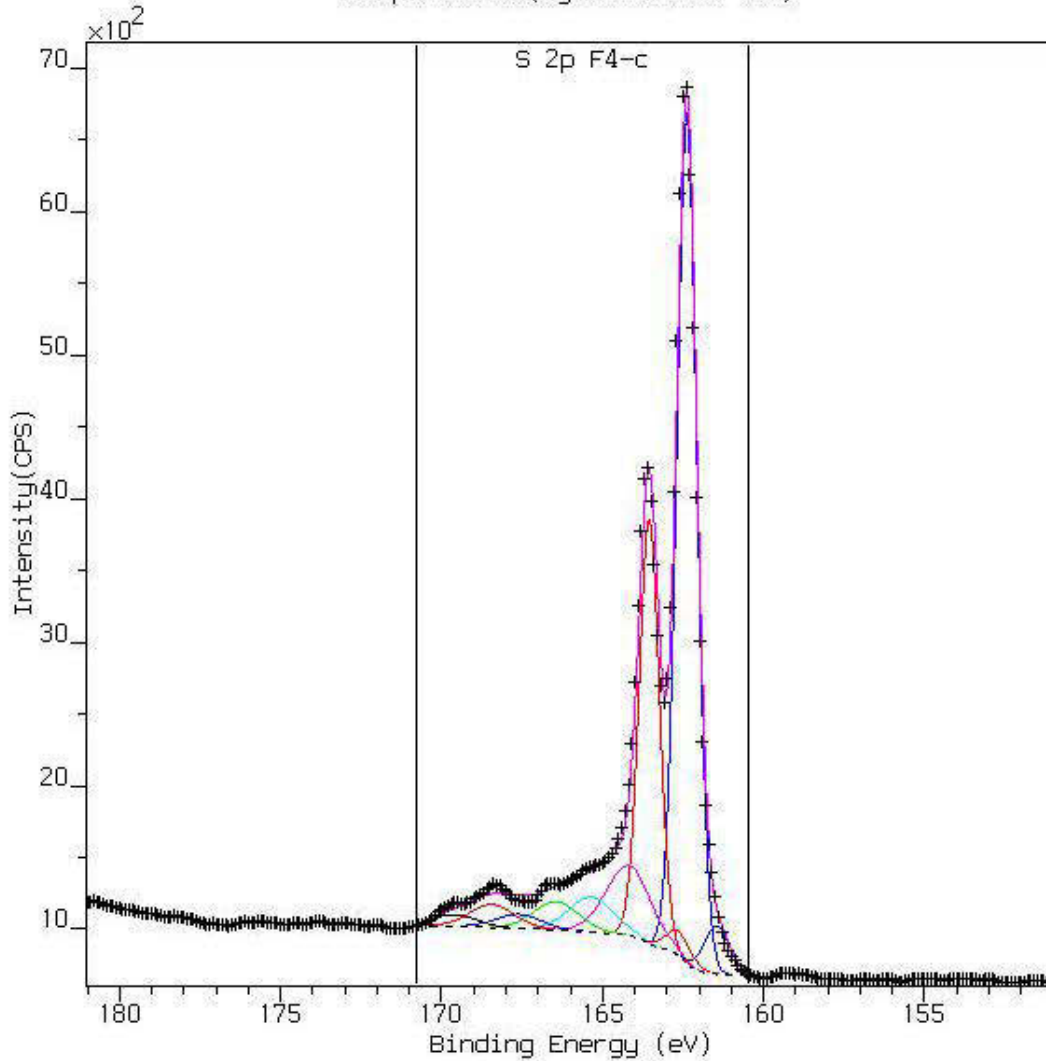


C 1s F4-c:10(Pyrite-24-02-10e)



<i>Peak</i>	<i>Position BE (eV)</i>	<i>FWHM (eV)</i>	<i>Raw Area (CPS)</i>	<i>RSF</i>	<i>Atomic Mass</i>	<i>Atomic Conc %</i>	<i>Mass Conc %</i>
<i>C 1s C-(C, H)</i>	<i>284.576</i>	<i>1.235</i>	<i>4310.9</i>	<i>0.278</i>	<i>12.011</i>	<i>55.79</i>	<i>55.79</i>
<i>C 1s C-O</i>	<i>286.276</i>	<i>1.713</i>	<i>728.4</i>	<i>0.278</i>	<i>12.011</i>	<i>9.43</i>	<i>9.43</i>
<i>C 1s O-C=O</i>	<i>288.858</i>	<i>1.758</i>	<i>2687.2</i>	<i>0.278</i>	<i>12.011</i>	<i>34.78</i>	<i>34.78</i>

S 2p F4-c:11(Pyrite-24-02-10e)

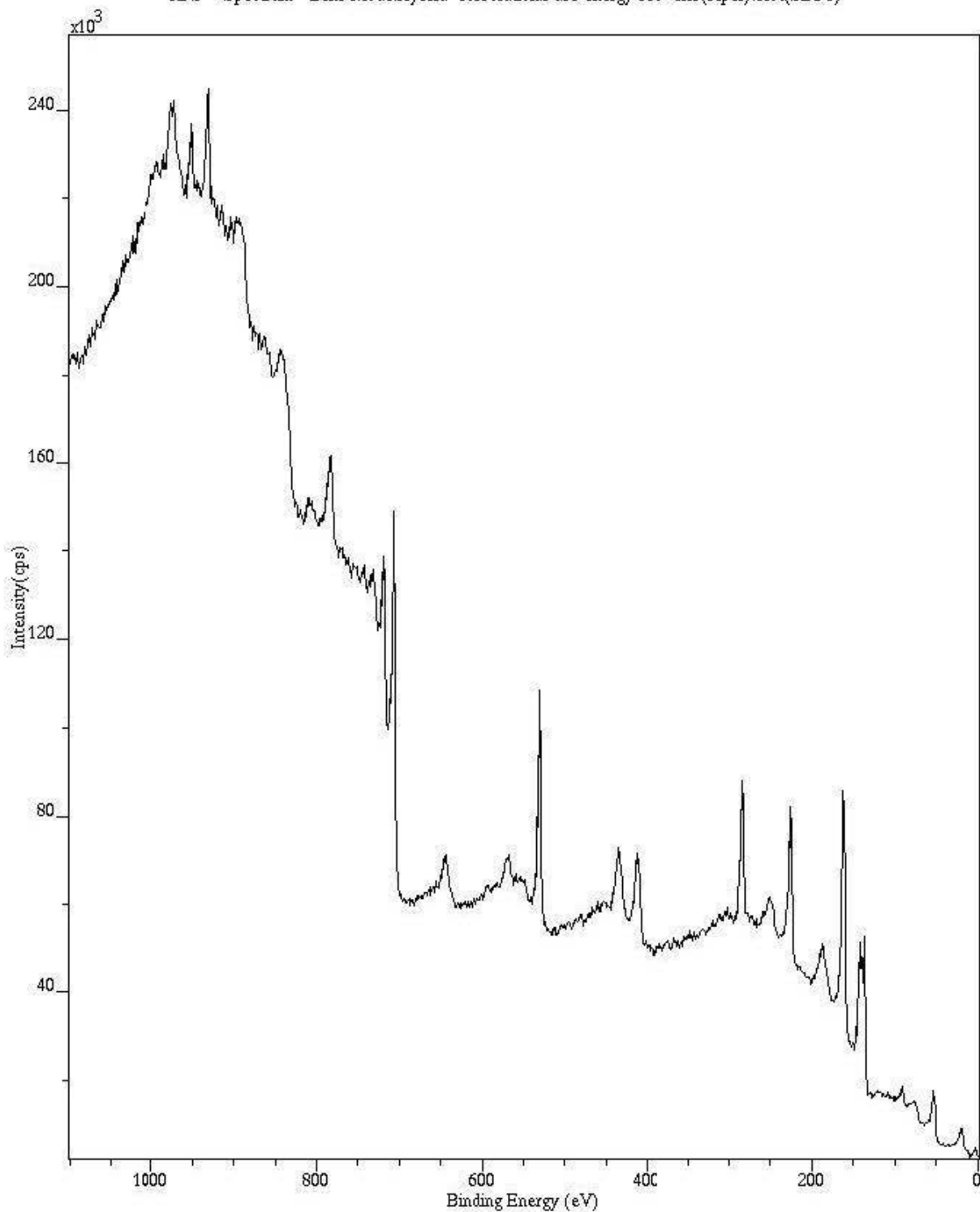


Quantification Report  
 /c:/data/LEK/2010/Pyrite-24-02-10e.dset Mon Mar 15 10:10:57 2010

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
s 2p 3/2 s -I	162.420	0.705	4686.0	0.668	32.065	47.91	47.91
s 2p 1/2 s -I	163.590	0.705	2342.2	0.668	32.065	23.93	23.93
s 2p 3/2 s 0	164.230	1.600	866.2	0.668	32.065	8.85	8.85
s 2p 1/2 s 0	165.400	1.600	432.7	0.668	32.065	4.41	4.41
s 2p 3/2 s IV	166.493	1.600	350.5	0.668	32.065	3.57	3.57
s 2p 1/2 s IV	167.664	1.600	175.3	0.668	32.065	1.79	1.79
s 2p 3/2 s VI	168.477	1.600	283.8	0.668	32.065	2.89	2.89
s 2p 1/2 s VI	169.658	1.600	141.5	0.668	32.065	1.44	1.44
s 2p 3/2 -II	161.481	0.903	339.6	0.668	32.065	3.47	3.47
s 2p 1/2 -II	162.661	0.903	169.6	0.668	32.065	1.73	1.73

Wide Py150425N:5(Pyrite-150-425-14mars-ssN2-08-04-11)

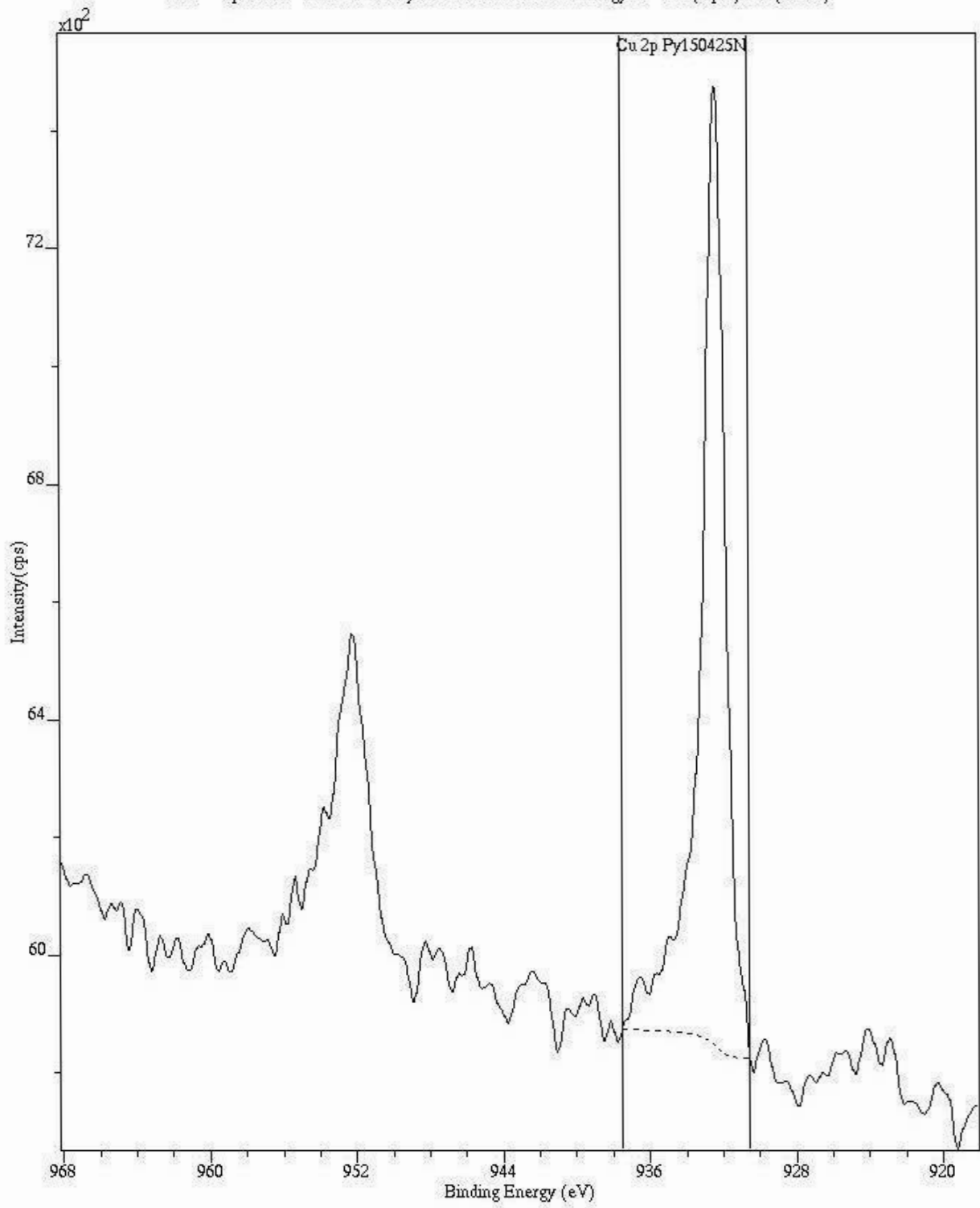
XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 160 Iris(Aper):slot(SLOT)



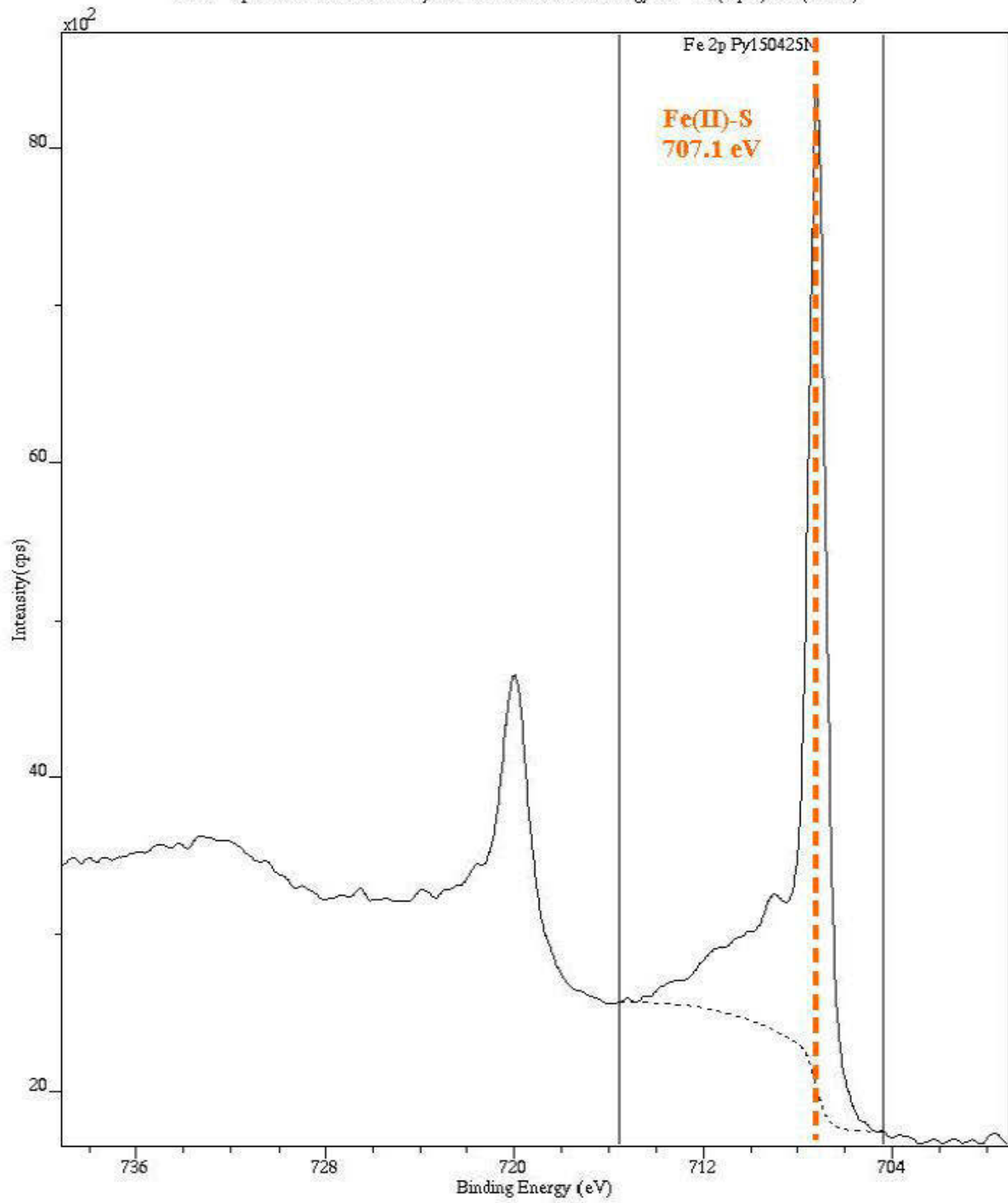
Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
O 1s Py150425N	Reg	531.550	2.789	6448.7	0.780	15.999	19.35	10.70
C 1s Py150425N	Reg	284.650	1.377	4316.9	0.278	12.011	37.69	15.64
Cu 2p Py150425N	Reg	932.350	1.258	2777.8	3.547	63.549	1.60	3.51
Fe 2p Py150425N	Reg	707.150	0.856	9046.8	1.971	55.846	10.37	20.00
Pb 4f Py150425N	Reg	137.450	2.099	8620.9	8.329	207.206	2.62	18.72
S 2p Py150425N	Reg	162.450	0.766	7622.4	0.668	32.065	28.37	31.43

Cu2p Py150425N:6(Pyrite-150-425-14mars-ssN2-08-04-11)

XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)

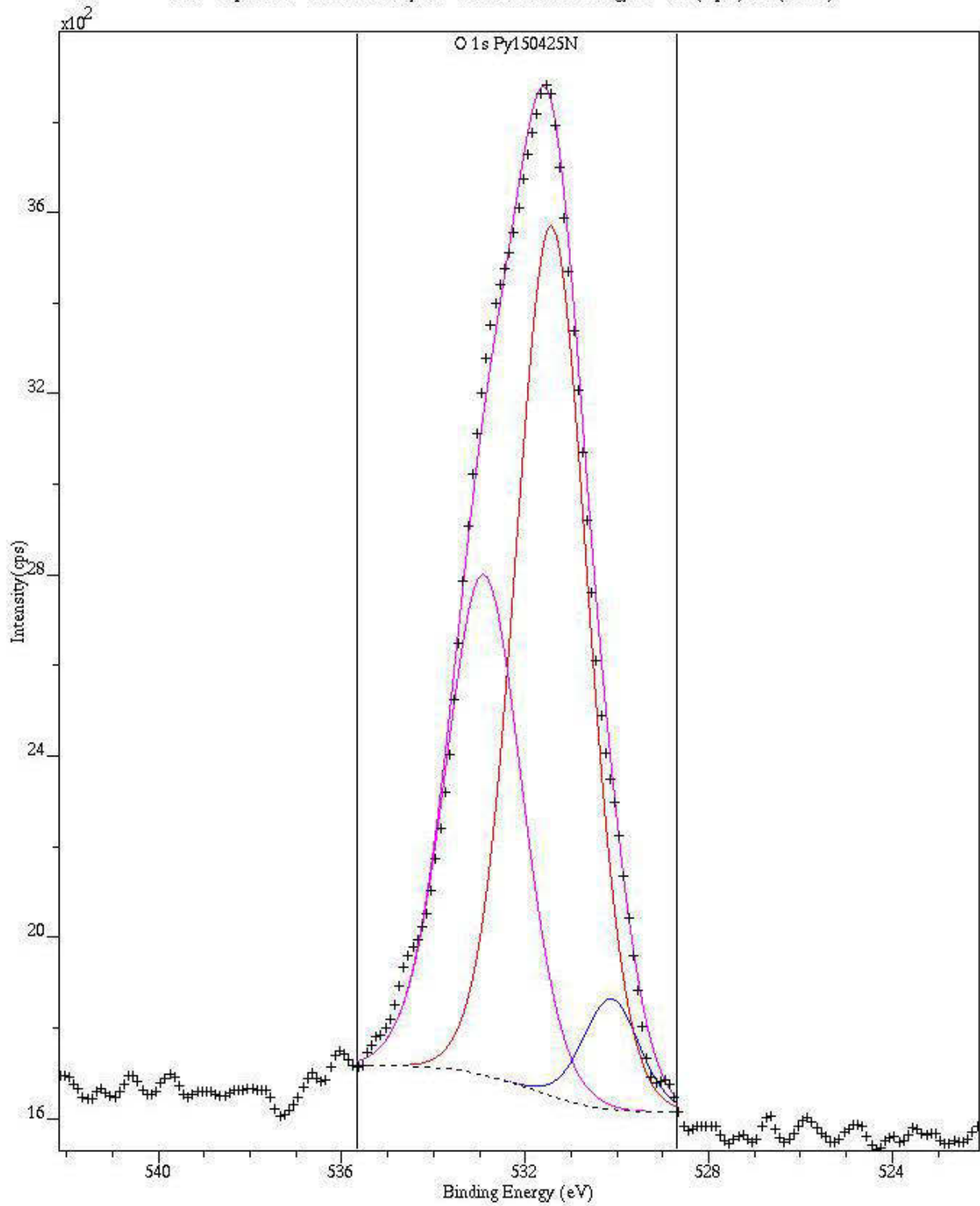


Fe2p Py150425N.7(Pyrite-150-425-14mars-ssN2-08-04-11)  
XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)



O1s Py150425N3(Pyrite-150-425-14mars-ssN2-08-04-11)

XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)

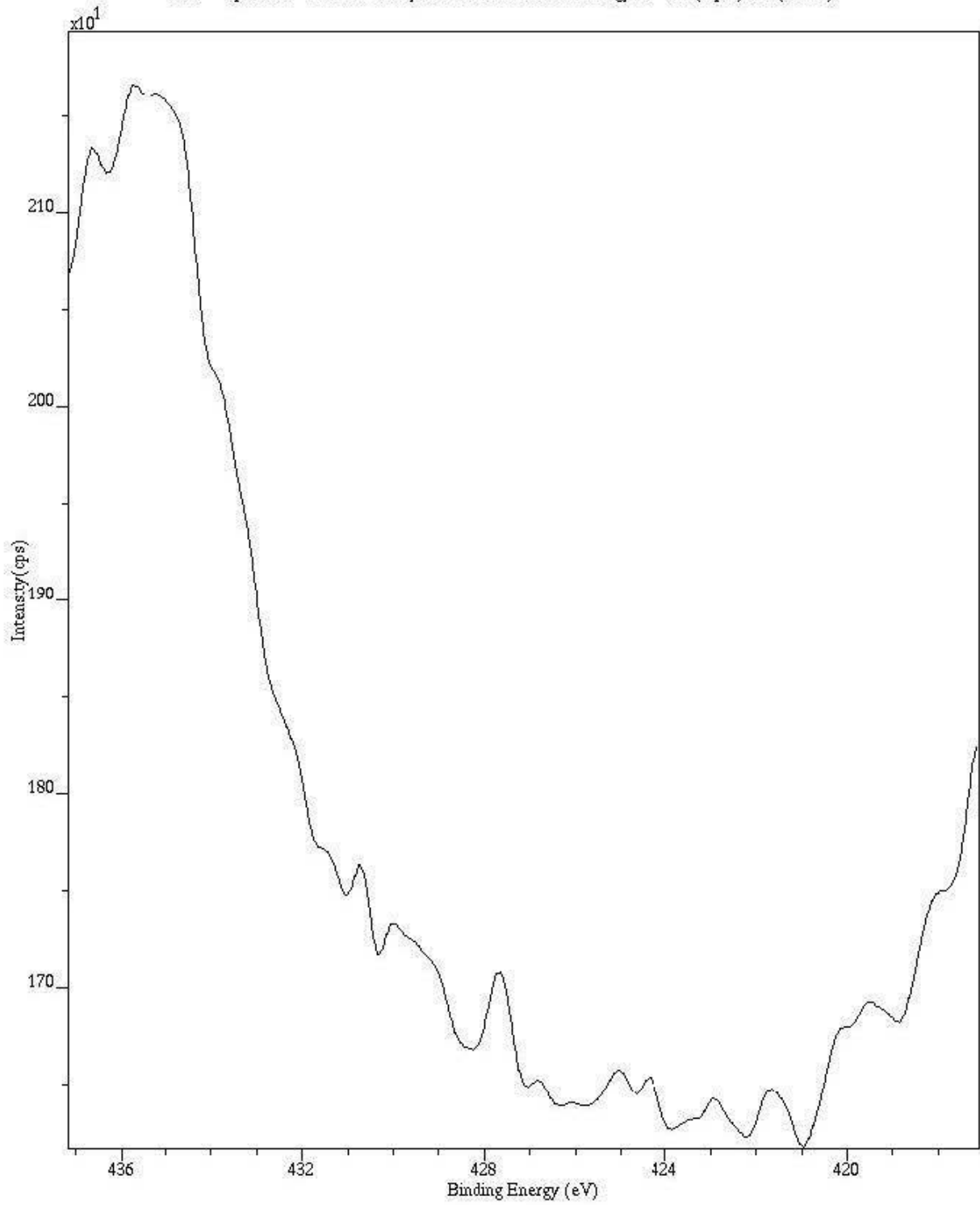


Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
O 1s Oxide	Comp	530.113	1.417	379.9	0.780	15.999	5.78	5.78
O 1s O-H	Comp	531.448	1.824	3851.2	0.780	15.999	58.64	58.64
O 1s H2O	Comp	532.918	1.923	2337.1	0.780	15.999	35.58	35.58



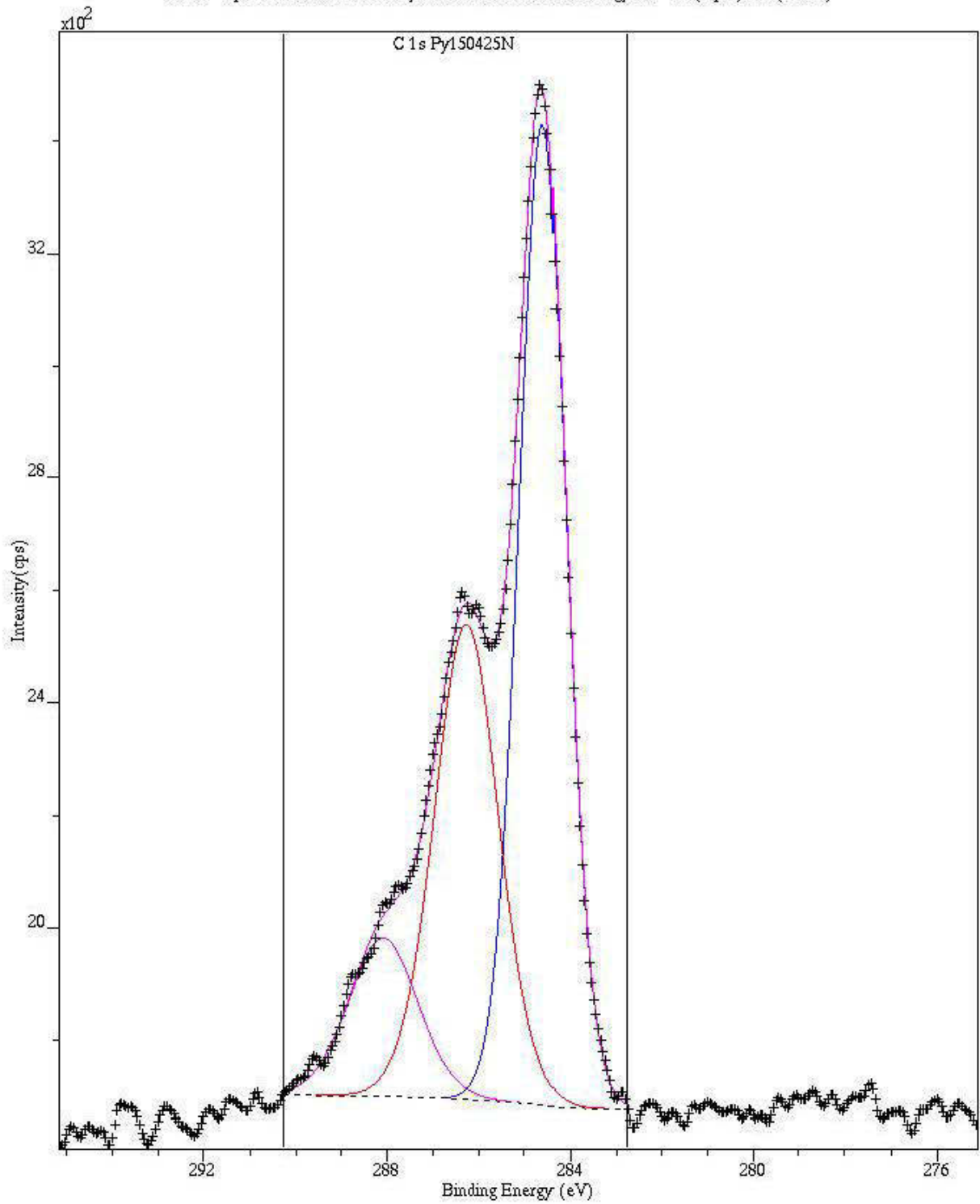
N 1s Py150425N:8(Pyrite-150-425-14mars-ssN2-08-04-11)

XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)



C1s Py150425N.4(Pyrite-150-425-14mars-ssN2-08-04-11)

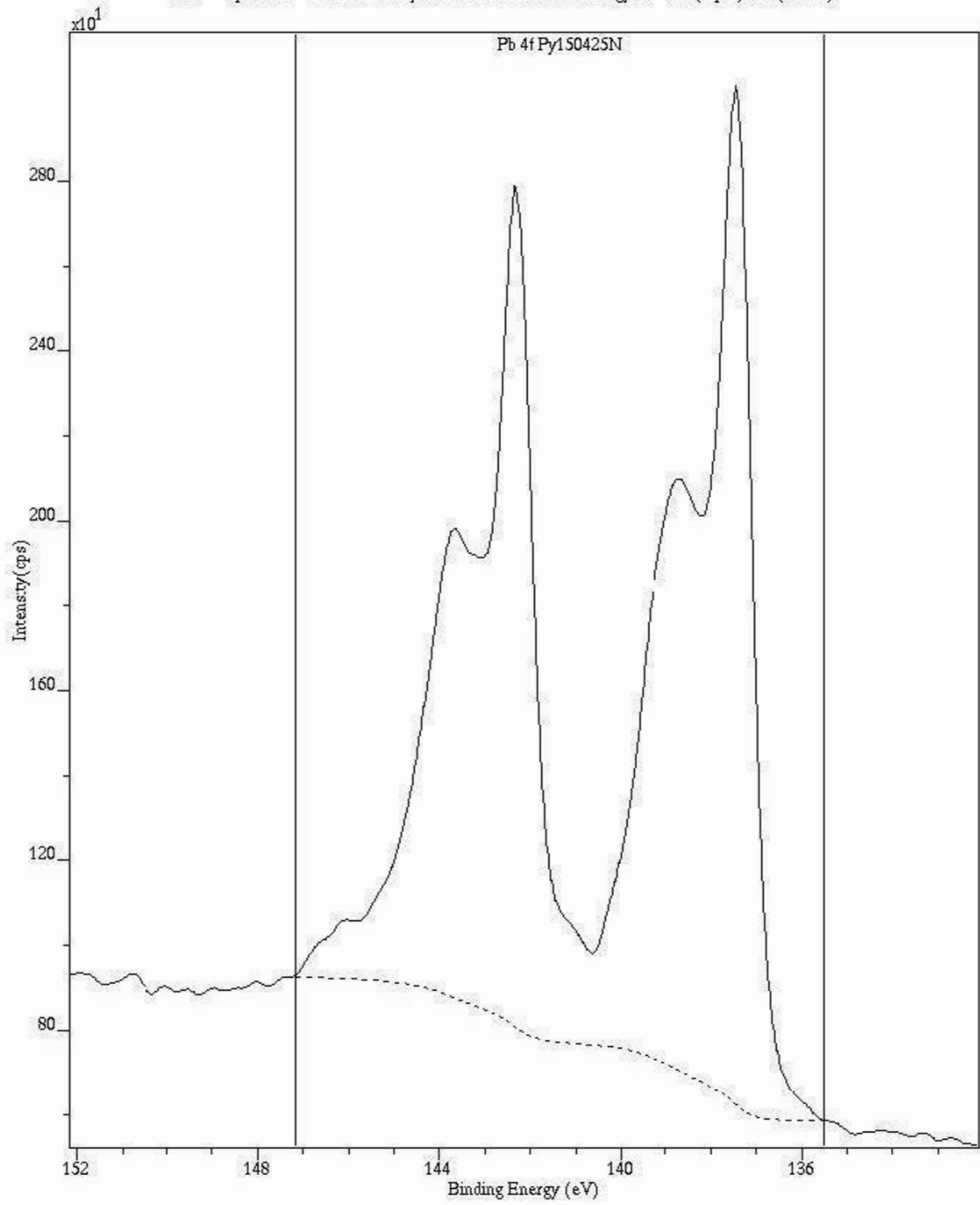
XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)

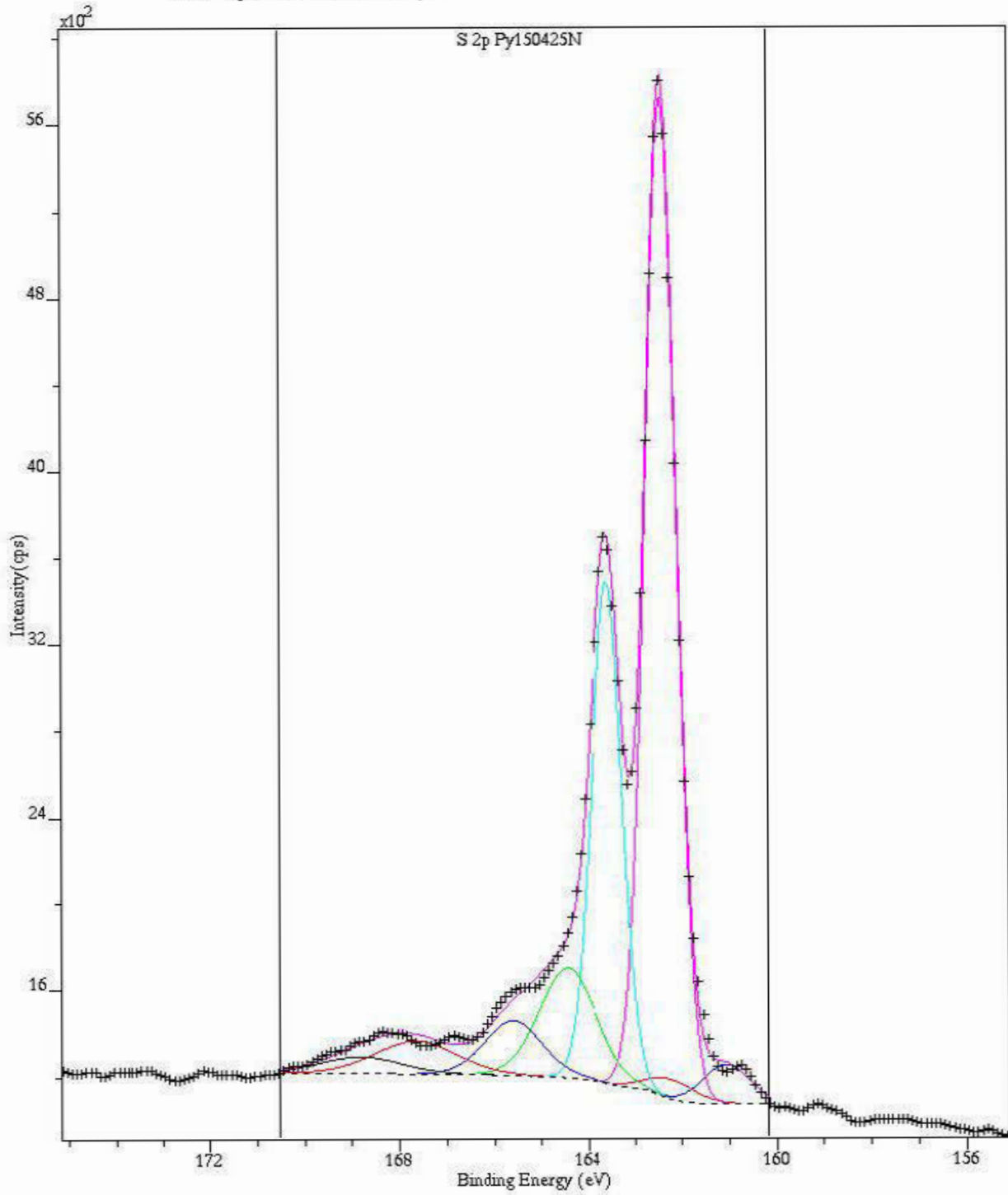


Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
C 1s C-(C,H)	Comp	284.614	1.186	2276.0	0.278	12.011	52.47	52.47
C 1s C-O	Comp	286.276	1.630	1516.3	0.278	12.011	34.98	34.98
C 1s O-C=O	Comp	288.108	1.751	543.8	0.278	12.011	12.55	12.55

Pb4f Py150425N:9(Pyrite-150-425-14mars-ssN2-08-04-11)

XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)

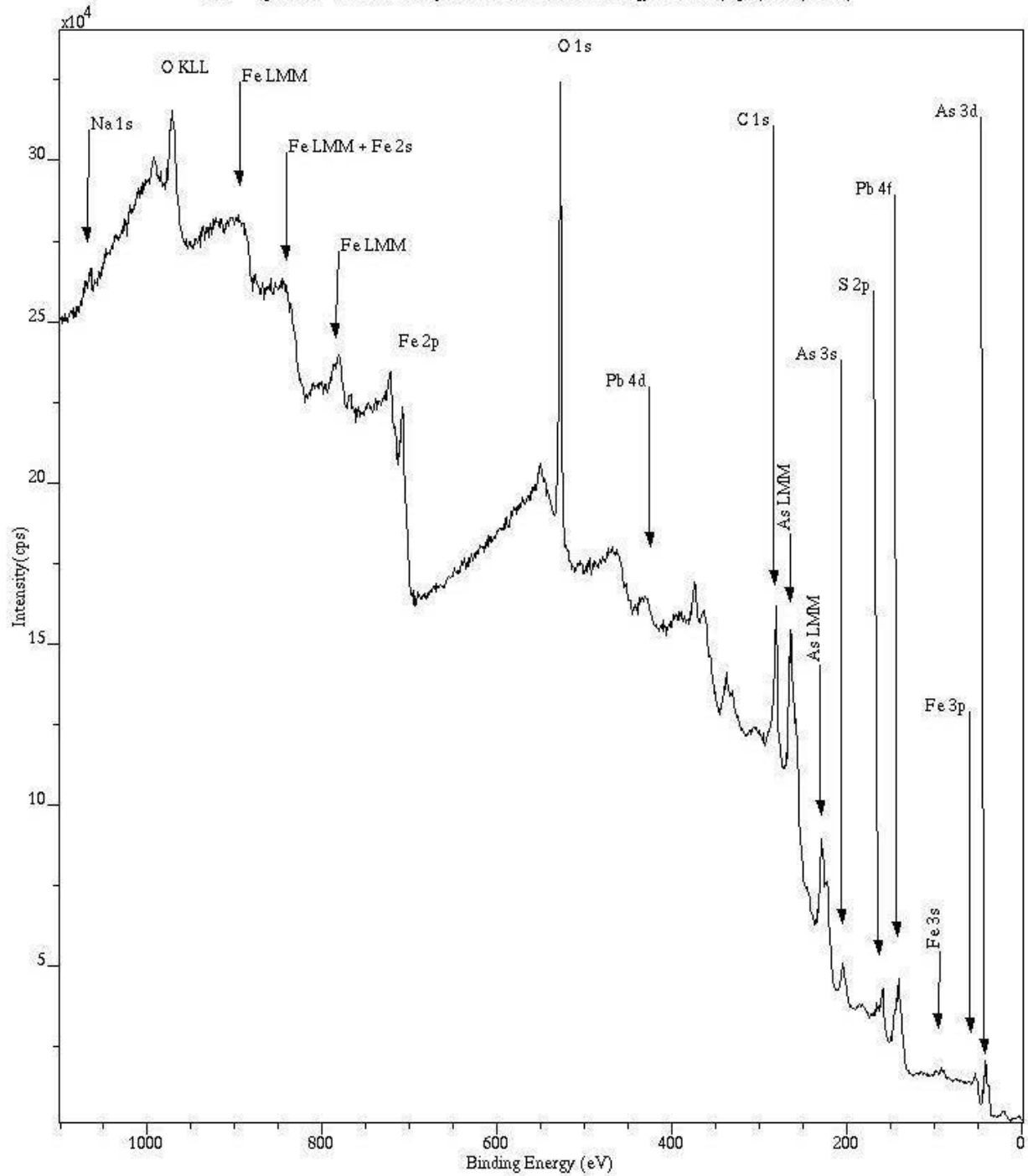




Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSP	Atomic Mass	Atomic Conc %	Mass Conc %
S 2p 3/2 (-II)	Comp	161.071	1.143	228.5	0.668	32.065	2.96	2.96
S 2p 1/2 (-II)	Comp	162.231	1.143	114.3	0.668	32.065	1.48	1.48
S 2p 3/2 (-I)	Comp	162.429	0.740	3807.1	0.668	32.065	49.33	49.33
S 2p 1/2 (-I)	Comp	163.589	0.740	1903.6	0.668	32.065	24.65	24.65
S 2p 3/2 (0)	Comp	164.441	1.392	778.5	0.668	32.065	10.07	10.07
S 2p 1/2 (0)	Comp	165.601	1.392	388.4	0.668	32.065	5.02	5.02
S 2p 3/2 (+VI)	Comp	167.683	1.997	334.4	0.668	32.065	4.32	4.32
S 2p 1/2 (+VI)	Comp	168.843	1.997	167.2	0.668	32.065	2.16	2.16

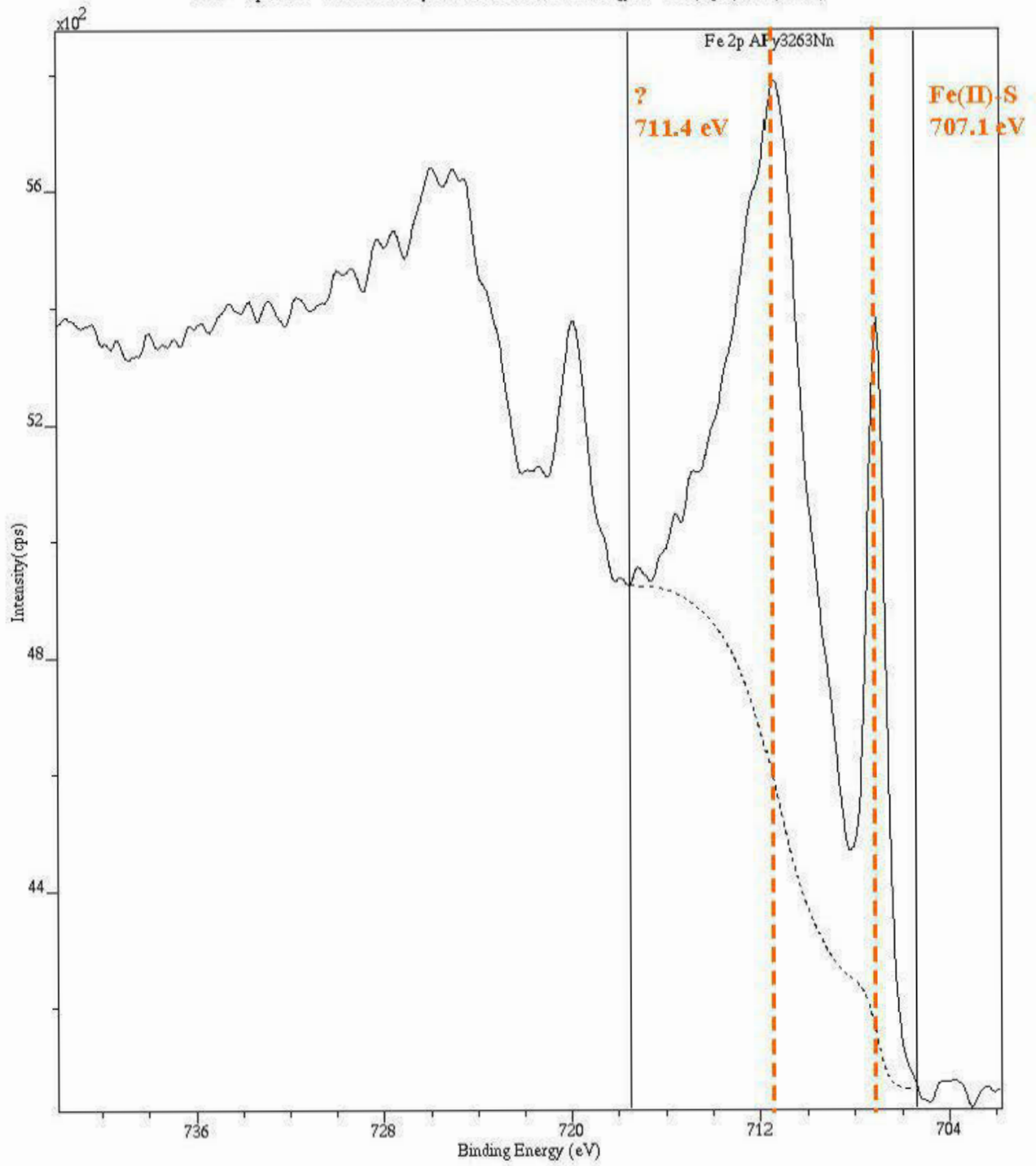
# Arsenopyrite 32-63µm

Wide APy3263Nm.4(Arsenopyrite-32-63-ssN2-15mars-08-04-11)  
 XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 160 Inis(Aper):slot(SLOT)

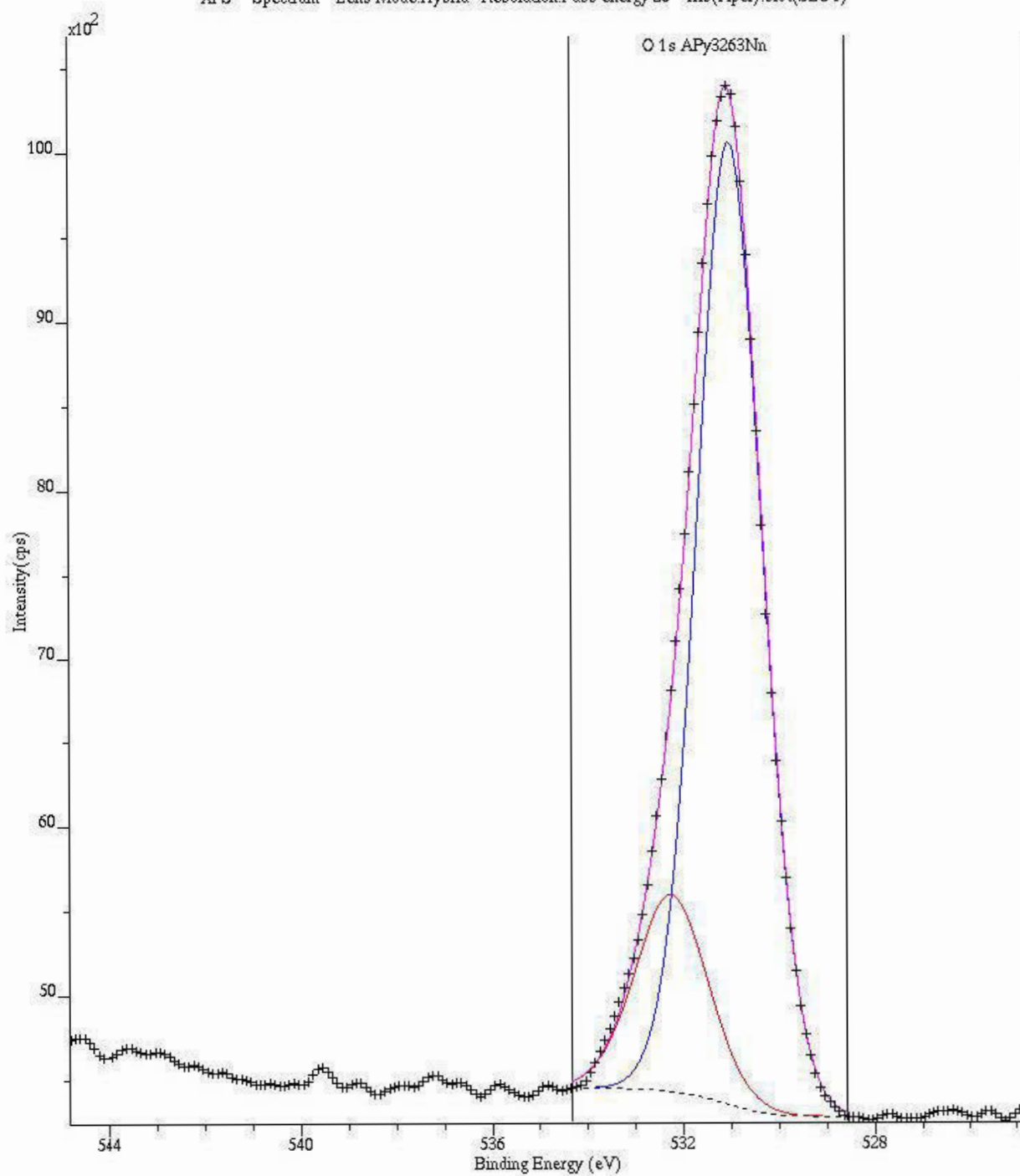


Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
Fe 2p APy3263Nm	Reg	707.050	0.926	5920.9	1.971	55.846	6.85	13.52
O 1s APy3263Nm	Reg	531.050	1.780	12117.8	0.780	15.999	36.74	20.77
Pb 4f APy3263Nm	Reg	144.150	3.332	5269.4	8.329	207.206	1.61	11.77
C 1s APy3263Nm	Reg	284.600	1.318	4084.7	0.278	12.011	36.03	15.29
S 2p Fy150425Nm	Reg	162.050	1.973	1933.4	0.668	32.065	7.27	8.24
As3d Fy150425Nm	Reg	44.950	2.240	2910.7	0.677	74.922	11.49	30.42

Fe2p APy3263Na.6(Arsenopyrite-32-63-ssN2-15mars-08-04-11)  
XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)

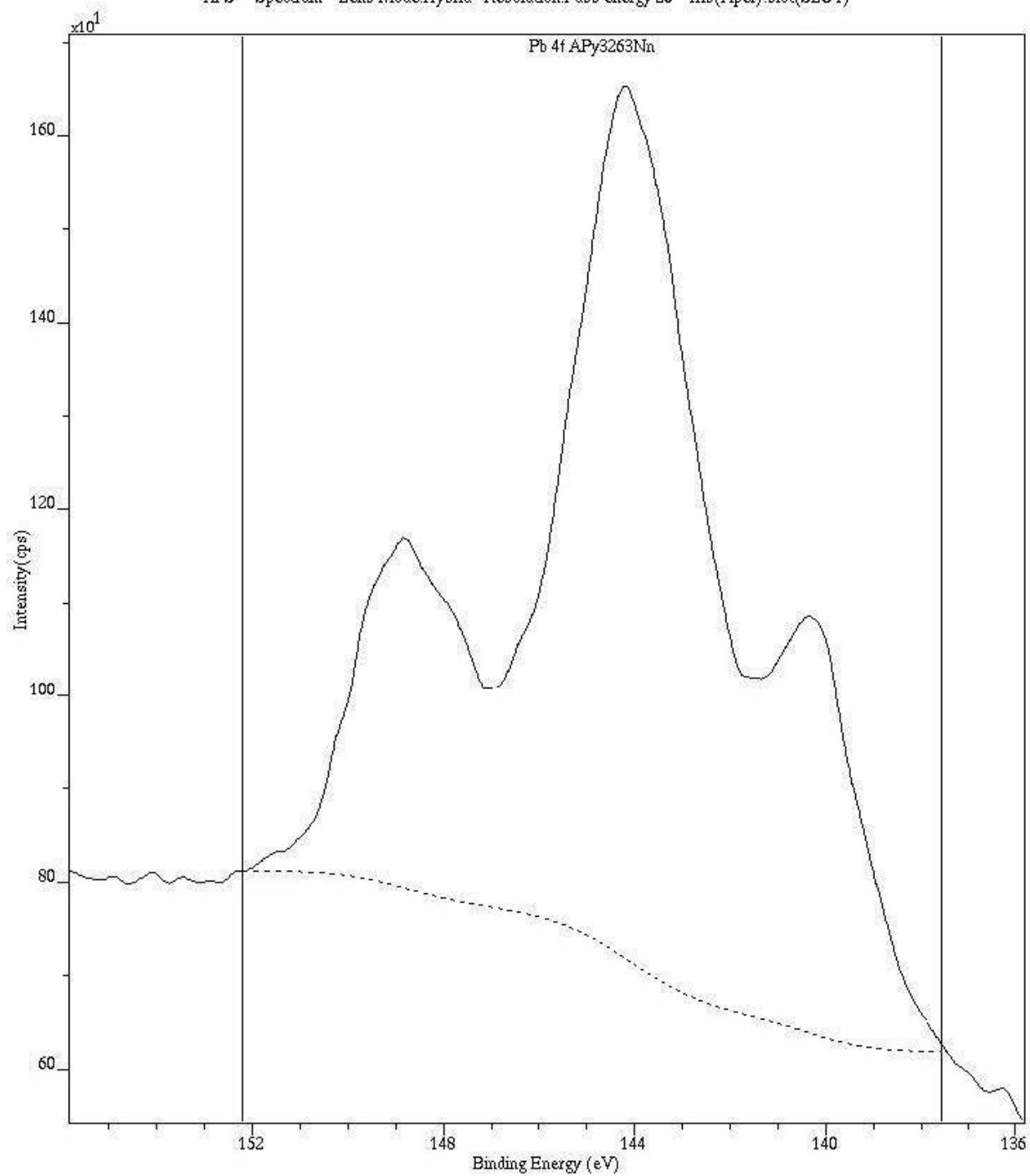


O 1s APy3263Nn.7(Arsenopyrite-32-63-ssN2-15mars-08-04-11)  
 XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)



Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
O 1s O-H	Comp	531.007	1.575	9901.1	0.780	15.999	81.53	81.53
O 1s ?	Comp	532.243	1.752	2243.2	0.780	15.999	18.47	18.47

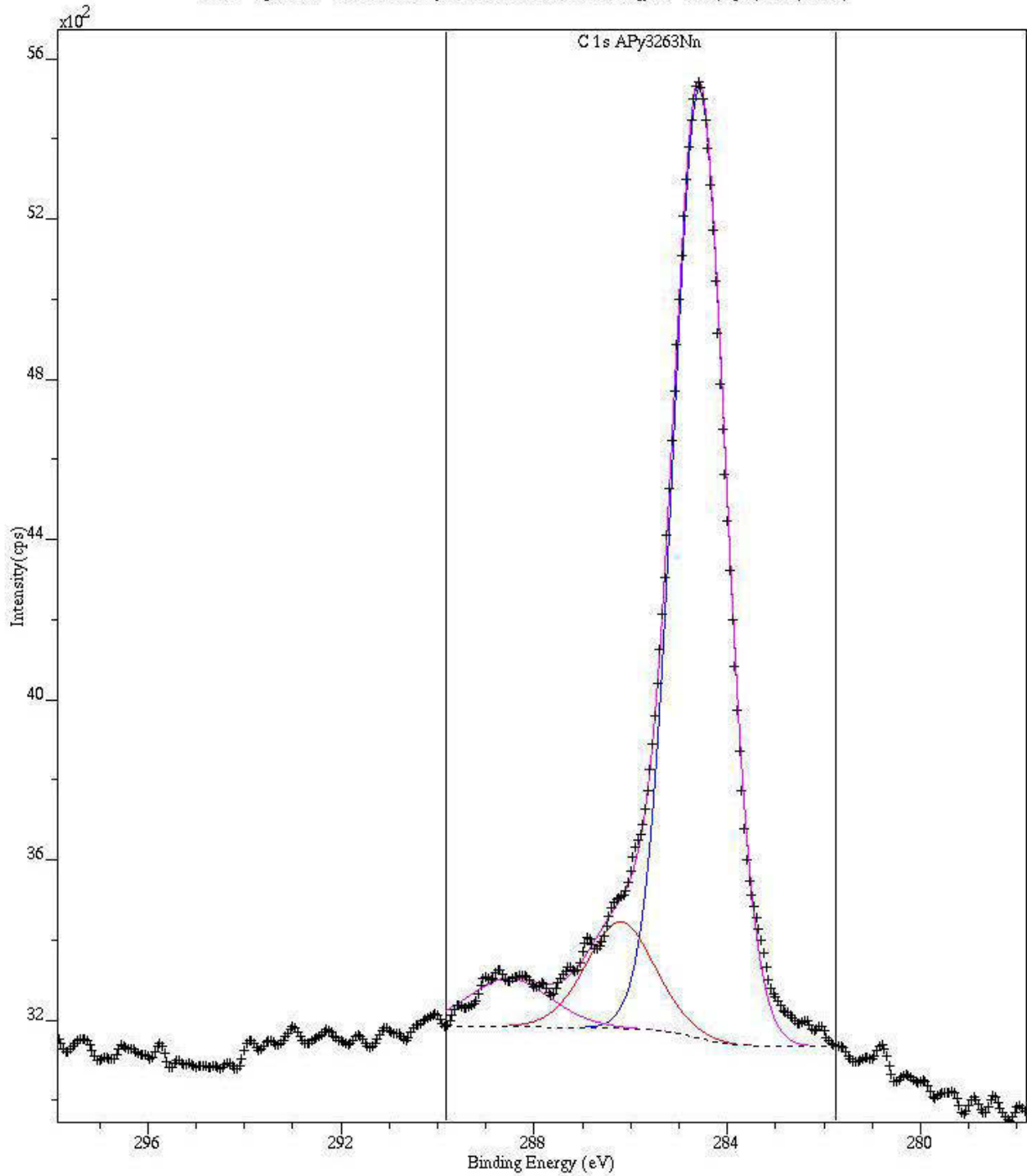
Pb4f APy3263Nn.8(Arsenopyrite-32-63-ssN2-15mars-08-04-11)  
XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)



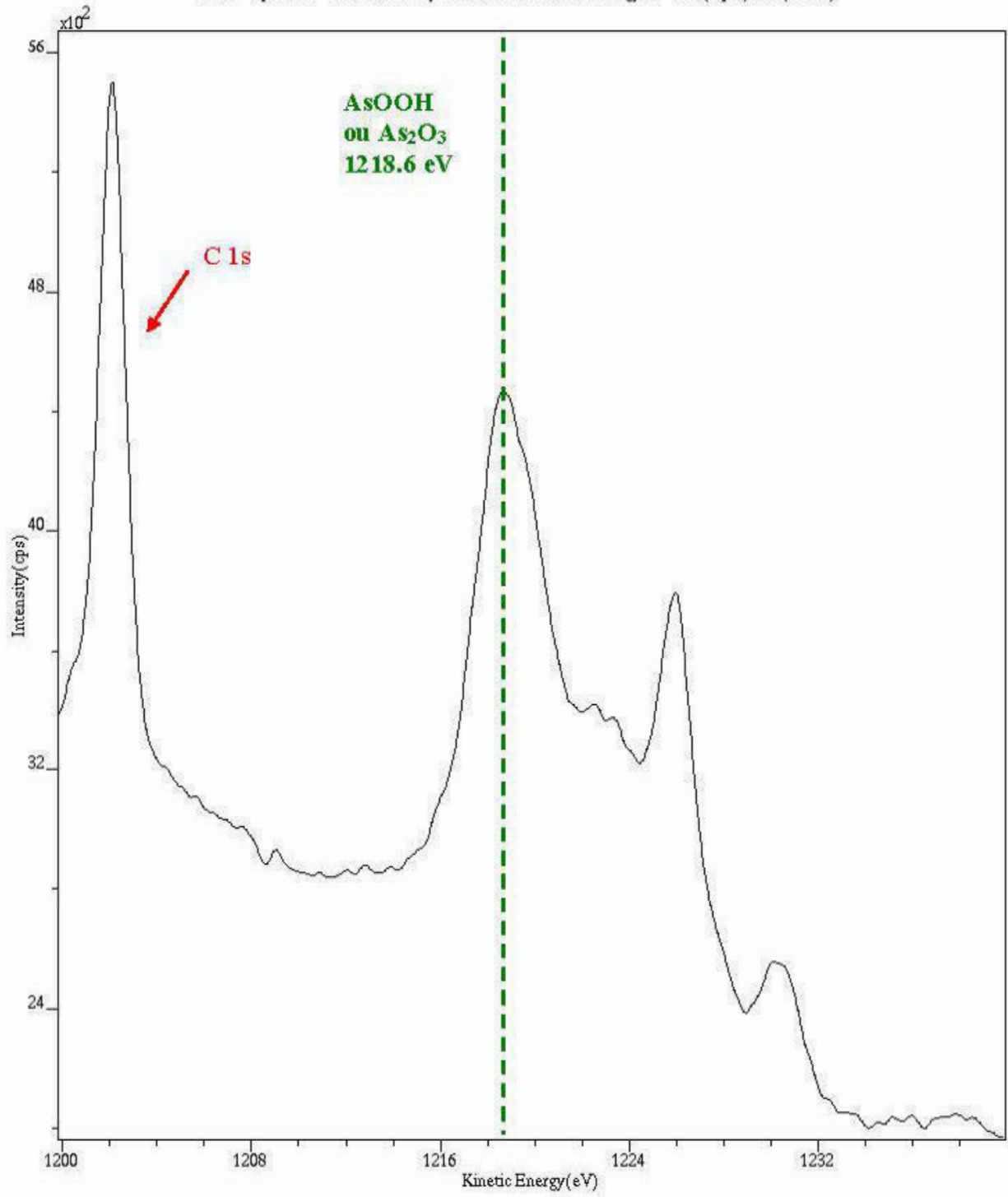


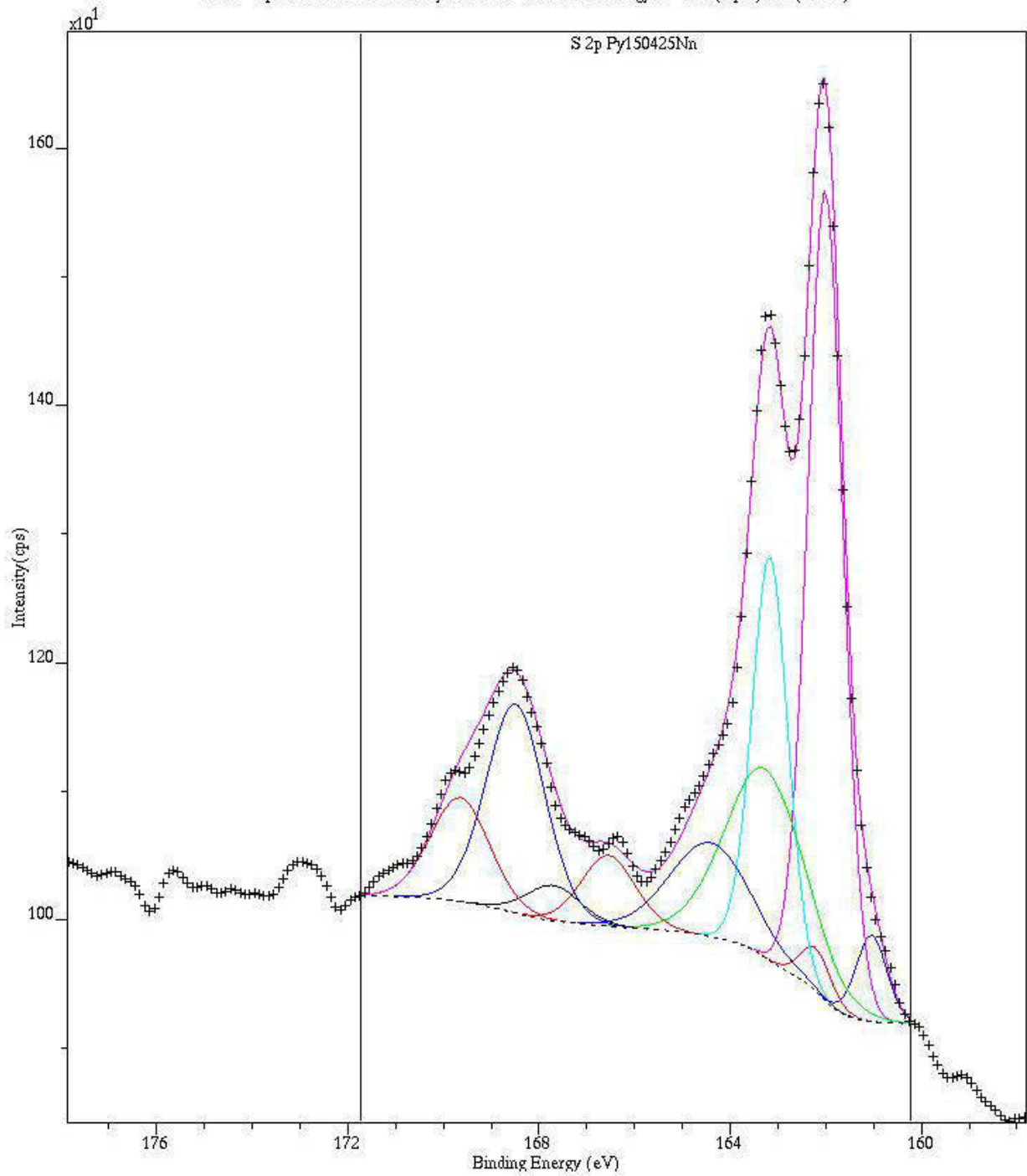
C 1s APy3263Nn.9(Arsenopyrite-32-63-ssN2-15mars-08-04-11)

XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)



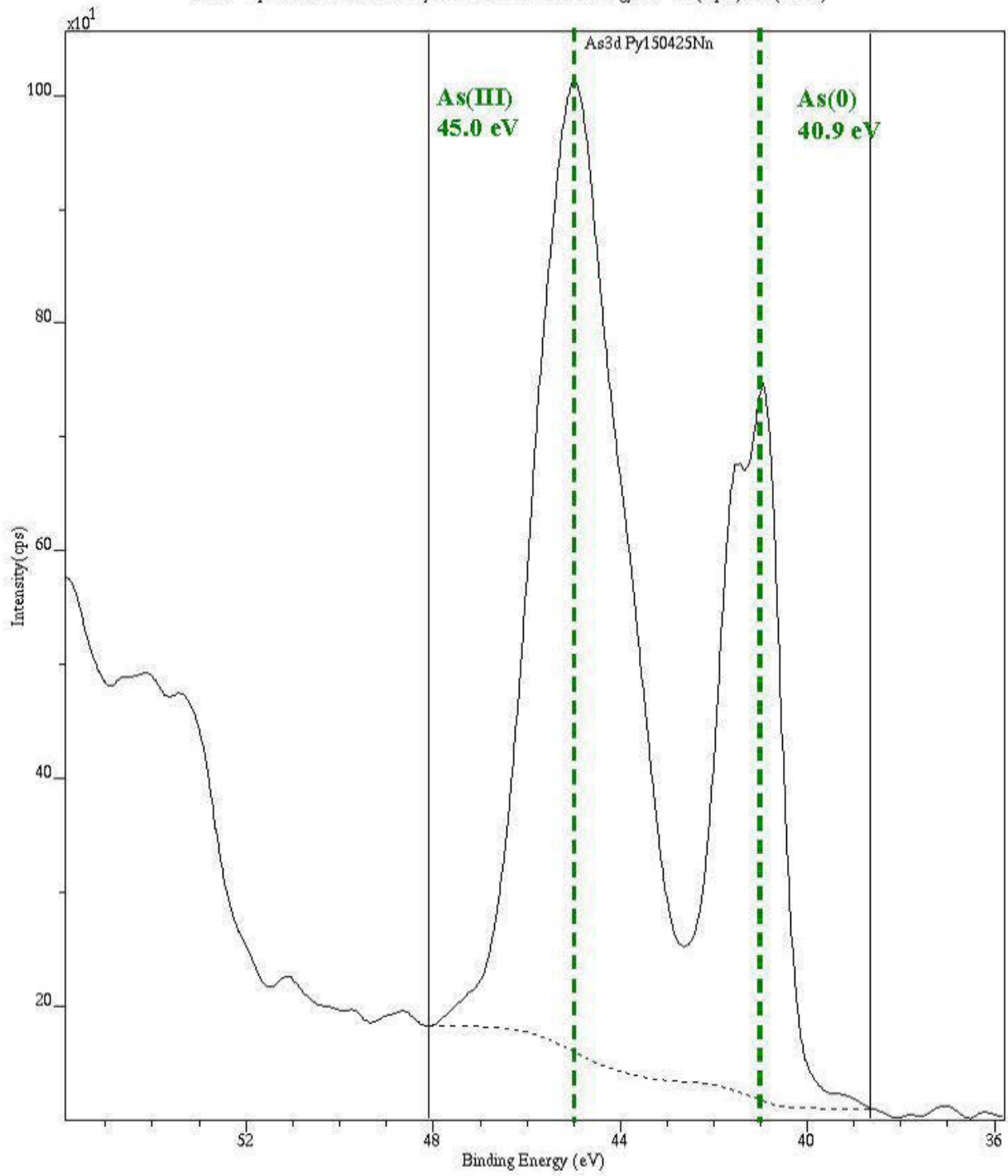
Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
C 1s C-(C,H)	Comp	284.600	1.283	3340.2	0.278	12.011	81.82	81.82
C 1s C-O	Comp	286.222	1.633	478.5	0.278	12.011	11.73	11.73
C 1s O-C=O	Comp	288.535	1.999	263.1	0.278	12.011	6.45	6.45





Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
s 2p 3/2 (-II)	Comp	161.042	0.739	55.2	0.668	32.065	2.84	2.84
s 2p 1/2 (-II)	Comp	162.202	0.739	27.6	0.668	32.065	1.42	1.42
s 2p 3/2 (-I)	Comp	162.016	0.852	596.0	0.668	32.065	30.70	30.70
s 2p 1/2 (-I)	Comp	163.175	0.852	297.8	0.668	32.065	15.33	15.33
s 2p 3/2 (0)	Comp	163.278	1.929	311.4	0.668	32.065	16.02	16.02
s 2p 1/2 (0)	Comp	164.438	1.929	155.4	0.668	32.065	7.99	7.99
s 2p 3/2 ?	Comp	166.558	1.300	79.8	0.668	32.065	4.10	4.10
s 2p 1/2 ?	Comp	167.718	1.300	39.9	0.668	32.065	2.05	2.05
s 2p 3/2 (+VI)	Comp	168.509	1.420	254.1	0.668	32.065	13.03	13.03
s 2p 1/2 (+VI)	Comp	169.669	1.420	127.1	0.668	32.065	6.51	6.51

As3dPy150425Nn:12(Arsenopyrite-32-63-ssN2-15mars-08-04-11)  
XPS Spectrum Lens Mode:Hybrid Resolution:Pass energy 20 Iris(Aper):slot(SLOT)



## APPENDICE B

FTIR – PYRITE DU PÉRU ET ARSÉNOPYRITE DE PANASQUEIRA (CD-ROM)

<b>Figure 2.3</b>			
n°spectre	VD97	VD96	VD95
nom	F3	F2	F1
cm-1	a	b	c
4001,5686	0,04243	0,10892	0,21915
3999,64014	0,04239	0,10883	0,21895
3997,71167	0,04242	0,10879	0,21895
3995,7832	0,04242	0,10874	0,21880
3993,85474	0,04231	0,10863	0,21845
3991,92627	0,04225	0,10851	0,21838
3989,9978	0,04225	0,10841	0,21837
3988,06934	0,04213	0,10822	0,21805
3986,14087	0,04208	0,10815	0,21780
3984,2124	0,04209	0,10820	0,21767
3982,28394	0,04205	0,10804	0,21757
3980,35547	0,04204	0,10789	0,21741
3978,427	0,04197	0,10785	0,21720
3976,49854	0,04195	0,10783	0,21709
3974,57007	0,04197	0,10778	0,21700
3972,6416	0,04189	0,10763	0,21674
3970,71313	0,04186	0,10749	0,21638
3968,78467	0,04183	0,10739	0,21633
3966,8562	0,04169	0,10719	0,21617
3964,92773	0,04170	0,10718	0,21596
3962,99927	0,04193	0,10731	0,21607
3961,0708	0,04181	0,10704	0,21566
3959,14233	0,04166	0,10687	0,21530
3957,21387	0,04182	0,10695	0,21528
3955,2854	0,04176	0,10684	0,21509
3953,35693	0,04164	0,10672	0,21499
3951,42847	0,04170	0,10662	0,21477
3949,5	0,04206	0,10682	0,21479
3947,57153	0,04180	0,10643	0,21420
3945,64307	0,04137	0,10598	0,21392
3943,7146	0,04212	0,10679	0,21495
3941,78613	0,04192	0,10640	0,21395
3939,85767	0,04118	0,10556	0,21306
3937,9292	0,04161	0,10599	0,21382
3936,00073	0,04144	0,10586	0,21336
3934,07227	0,04161	0,10609	0,21377
3932,1438	0,04228	0,10650	0,21431
3930,21533	0,04139	0,10538	0,21248
3928,28687	0,04090	0,10496	0,21213
3926,3584	0,04170	0,10577	0,21350
3924,42993	0,04174	0,10575	0,21289
3922,50146	0,04098	0,10494	0,21170
3920,573	0,04128	0,10516	0,21248

3918,64453	0,04195	0,10577	0,21301
3916,71606	0,04163	0,10530	0,21207
3914,7876	0,04077	0,10433	0,21087
3912,85913	0,04072	0,10444	0,21099
3910,93066	0,04120	0,10494	0,21171
3909,0022	0,04080	0,10438	0,21091
3907,07373	0,04116	0,10482	0,21157
3905,14526	0,04258	0,10600	0,21333
3903,2168	0,04201	0,10485	0,21174
3901,28833	0,04119	0,10393	0,21069
3899,35986	0,04141	0,10415	0,21092
3897,4314	0,04048	0,10329	0,20929
3895,50293	0,03987	0,10300	0,20862
3893,57446	0,04130	0,10466	0,21140
3891,646	0,04248	0,10538	0,21250
3889,71753	0,03963	0,10195	0,20697
3887,78906	0,04034	0,10336	0,20972
3885,8606	0,04304	0,10596	0,21356
3883,93213	0,03938	0,10130	0,20613
3882,00366	0,04045	0,10316	0,20962
3880,0752	0,04275	0,10539	0,21189
3878,14673	0,03887	0,10101	0,20523
3876,21826	0,04048	0,10340	0,20979
3874,28979	0,04186	0,10425	0,20985
3872,36133	0,04014	0,10213	0,20741
3870,43286	0,04216	0,10441	0,21182
3868,50439	0,04001	0,10140	0,20605
3866,57593	0,03930	0,10116	0,20645
3864,64746	0,04187	0,10406	0,21073
3862,71899	0,04020	0,10165	0,20593
3860,79053	0,03973	0,10149	0,20646
3858,86206	0,04016	0,10205	0,20677
3856,93359	0,04049	0,10233	0,20693
3855,00513	0,04339	0,10521	0,21406
3853,07666	0,04270	0,10276	0,21002
3851,14819	0,03693	0,09669	0,20002
3849,21973	0,03868	0,09993	0,20443
3847,29126	0,03975	0,10123	0,20586
3845,36279	0,04044	0,10180	0,20633
3843,43433	0,04092	0,10215	0,20697
3841,50586	0,04048	0,10138	0,20541
3839,57739	0,04116	0,10205	0,20728
3837,64893	0,04061	0,10096	0,20680
3835,72046	0,03840	0,09833	0,20203
3833,79199	0,03963	0,10026	0,20445
3831,86353	0,04051	0,10122	0,20570
3829,93506	0,03886	0,09931	0,20231

3828,00659	0,04003	0,10096	0,20529
3826,07813	0,04026	0,10083	0,20428
3824,14966	0,03899	0,09959	0,20252
3822,22119	0,04223	0,10315	0,20930
3820,29272	0,04049	0,09980	0,20282
3818,36426	0,03812	0,09792	0,20098
3816,43579	0,04090	0,10124	0,20726
3814,50732	0,03848	0,09779	0,20072
3812,57886	0,03792	0,09797	0,20066
3810,65039	0,03928	0,09975	0,20286
3808,72192	0,04024	0,10057	0,20467
3806,79346	0,04064	0,10030	0,20455
3804,86499	0,03770	0,09698	0,19896
3802,93652	0,04020	0,10029	0,20519
3801,00806	0,04098	0,10009	0,20464
3799,07959	0,03675	0,09553	0,19713
3797,15112	0,03950	0,09931	0,20297
3795,22266	0,03955	0,09884	0,20164
3793,29419	0,03777	0,09715	0,19916
3791,36572	0,03916	0,09906	0,20203
3789,43726	0,03875	0,09837	0,20050
3787,50879	0,03854	0,09811	0,20058
3785,58032	0,03948	0,09896	0,20175
3783,65186	0,03849	0,09771	0,19956
3781,72339	0,03862	0,09804	0,20045
3779,79492	0,03973	0,09898	0,20157
3777,86646	0,03845	0,09725	0,19904
3775,93799	0,03806	0,09712	0,19917
3774,00952	0,03835	0,09754	0,19945
3772,08105	0,03891	0,09800	0,20035
3770,15259	0,03978	0,09850	0,20117
3768,22412	0,03818	0,09651	0,19815
3766,29565	0,03851	0,09716	0,19938
3764,36719	0,03873	0,09716	0,19892
3762,43872	0,03756	0,09605	0,19741
3760,51025	0,03923	0,09813	0,20083
3758,58179	0,03904	0,09727	0,19895
3756,65332	0,03763	0,09571	0,19700
3754,72485	0,03837	0,09679	0,19893
3752,79639	0,03922	0,09746	0,20068
3750,86792	0,04026	0,09781	0,20225
3748,93945	0,03657	0,09309	0,19425
3747,01099	0,03697	0,09444	0,19635
3745,08252	0,04130	0,09907	0,20468
3743,15405	0,03778	0,09381	0,19516
3741,22559	0,03589	0,09280	0,19264
3739,29712	0,03888	0,09667	0,19886
3737,36865	0,04015	0,09723	0,19998



3735,44019	0,03993	0,09613	0,19770
3733,51172	0,03955	0,09565	0,19738
3731,58325	0,03802	0,09401	0,19531
3729,65479	0,03766	0,09381	0,19421
3727,72632	0,03931	0,09585	0,19700
3725,79785	0,03968	0,09589	0,19704
3723,86938	0,03868	0,09475	0,19539
3721,94092	0,03865	0,09504	0,19593
3720,01245	0,03803	0,09450	0,19518
3718,08398	0,03751	0,09429	0,19508
3716,15552	0,03702	0,09403	0,19454
3714,22705	0,03762	0,09494	0,19656
3712,29858	0,03907	0,09582	0,19800
3710,37012	0,03773	0,09349	0,19438
3708,44165	0,03679	0,09347	0,19530
3706,51318	0,03599	0,09265	0,19323
3704,58472	0,03665	0,09281	0,19302
3702,65625	0,03871	0,09491	0,19643
3700,72778	0,03759	0,09332	0,19356
3698,79932	0,03649	0,09230	0,19246
3696,87085	0,03722	0,09333	0,19401
3694,94238	0,03684	0,09288	0,19328
3693,01392	0,03675	0,09280	0,19348
3691,08545	0,03791	0,09382	0,19542
3689,15698	0,03713	0,09242	0,19461
3687,22852	0,03443	0,08934	0,19016
3685,30005	0,03444	0,09002	0,18985
3683,37158	0,03544	0,09172	0,19240
3681,44312	0,03610	0,09231	0,19345
3679,51465	0,03568	0,09163	0,19164
3677,58618	0,03685	0,09295	0,19538
3675,65771	0,03914	0,09444	0,19797
3673,72925	0,03421	0,08889	0,18819
3671,80078	0,03495	0,09084	0,19270
3669,87231	0,03766	0,09324	0,19628
3667,94385	0,03429	0,08914	0,18865
3666,01538	0,03439	0,09022	0,19068
3664,08691	0,03557	0,09163	0,19269
3662,15845	0,03555	0,09137	0,19183
3660,22998	0,03515	0,09085	0,19106
3658,30151	0,03596	0,09173	0,19300
3656,37305	0,03688	0,09223	0,19411
3654,44458	0,03439	0,08931	0,18929
3652,51611	0,03546	0,09112	0,19231
3650,58765	0,03845	0,09381	0,19725
3648,65918	0,03650	0,09042	0,19228
3646,73071	0,03453	0,08877	0,18924
3644,80225	0,03448	0,08935	0,18999

3642,87378	0,03477	0,08996	0,19102
3640,94531	0,03550	0,09078	0,19198
3639,01685	0,03510	0,09014	0,19097
3637,08838	0,03496	0,08998	0,19115
3635,15991	0,03590	0,09086	0,19276
3633,23145	0,03525	0,08986	0,19075
3631,30298	0,03582	0,09059	0,19294
3629,37451	0,03878	0,09312	0,19761
3627,44604	0,03513	0,08823	0,18923
3625,51758	0,03367	0,08771	0,18884
3623,58911	0,03523	0,08990	0,19210
3621,66064	0,03524	0,08997	0,19228
3619,73218	0,03614	0,09089	0,19449
3617,80371	0,03475	0,08896	0,19126
3615,87524	0,03351	0,08833	0,19089
3613,94678	0,03488	0,09027	0,19410
3612,01831	0,03394	0,08907	0,19213
3610,08984	0,03356	0,08882	0,19281
3608,16138	0,03455	0,08953	0,19361
3606,23291	0,03341	0,08830	0,19131
3604,30444	0,03298	0,08837	0,19201
3602,37598	0,03393	0,08941	0,19370
3600,44751	0,03402	0,08954	0,19405
3598,51904	0,03312	0,08859	0,19286
3596,59058	0,03335	0,08882	0,19320
3594,66211	0,03403	0,08947	0,19423
3592,73364	0,03312	0,08841	0,19267
3590,80518	0,03277	0,08845	0,19330
3588,87671	0,03430	0,09018	0,19629
3586,94824	0,03404	0,08940	0,19467
3585,01978	0,03212	0,08757	0,19232
3583,09131	0,03225	0,08822	0,19375
3581,16284	0,03258	0,08871	0,19442
3579,23438	0,03233	0,08849	0,19415
3577,30591	0,03232	0,08857	0,19422
3575,37744	0,03233	0,08858	0,19436
3573,44897	0,03227	0,08849	0,19438
3571,52051	0,03190	0,08820	0,19399
3569,59204	0,03258	0,08896	0,19561
3567,66357	0,03386	0,08995	0,19686
3565,73511	0,03246	0,08821	0,19406
3563,80664	0,03133	0,08736	0,19353
3561,87817	0,03189	0,08815	0,19474
3559,94971	0,03192	0,08819	0,19463
3558,02124	0,03161	0,08792	0,19456
3556,09277	0,03152	0,08786	0,19459
3554,16431	0,03174	0,08811	0,19518
3552,23584	0,03189	0,08811	0,19522

3550,30737	0,03127	0,08750	0,19426
3548,37891	0,03150	0,08792	0,19517
3546,45044	0,03213	0,08836	0,19573
3544,52197	0,03150	0,08756	0,19460
3542,59351	0,03104	0,08717	0,19446
3540,66504	0,03101	0,08725	0,19464
3538,73657	0,03103	0,08739	0,19490
3536,80811	0,03125	0,08747	0,19513
3534,87964	0,03099	0,08718	0,19463
3532,95117	0,03061	0,08693	0,19449
3531,02271	0,03083	0,08709	0,19497
3529,09424	0,03104	0,08719	0,19499
3527,16577	0,03076	0,08690	0,19451
3525,2373	0,03067	0,08684	0,19463
3523,30884	0,03072	0,08679	0,19474
3521,38037	0,03030	0,08636	0,19431
3519,4519	0,03012	0,08628	0,19427
3517,52344	0,03022	0,08626	0,19433
3515,59497	0,03007	0,08611	0,19431
3513,6665	0,02998	0,08612	0,19435
3511,73804	0,03009	0,08616	0,19449
3509,80957	0,03022	0,08619	0,19467
3507,8811	0,02991	0,08578	0,19417
3505,95264	0,02974	0,08570	0,19419
3504,02417	0,03015	0,08620	0,19469
3502,0957	0,02997	0,08585	0,19413
3500,16724	0,02953	0,08542	0,19391
3498,23877	0,02966	0,08563	0,19432
3496,3103	0,02976	0,08559	0,19426
3494,38184	0,02955	0,08541	0,19409
3492,45337	0,02942	0,08534	0,19412
3490,5249	0,02956	0,08537	0,19439
3488,59644	0,02968	0,08547	0,19452
3486,66797	0,02952	0,08534	0,19424
3484,7395	0,02934	0,08520	0,19425
3482,81104	0,02951	0,08529	0,19457
3480,88257	0,02952	0,08515	0,19430
3478,9541	0,02928	0,08492	0,19400
3477,02563	0,02942	0,08504	0,19428
3475,09717	0,02941	0,08503	0,19417
3473,1687	0,02922	0,08484	0,19398
3471,24023	0,02928	0,08491	0,19412
3469,31177	0,02928	0,08499	0,19412
3467,3833	0,02935	0,08492	0,19407
3465,45483	0,02928	0,08473	0,19400
3463,52637	0,02912	0,08467	0,19395
3461,5979	0,02916	0,08466	0,19382
3459,66943	0,02907	0,08455	0,19373

3457,74097	0,02895	0,08451	0,19372
3455,8125	0,02895	0,08451	0,19364
3453,88403	0,02895	0,08446	0,19374
3451,95557	0,02887	0,08433	0,19360
3450,0271	0,02893	0,08440	0,19358
3448,09863	0,02919	0,08459	0,19398
3446,17017	0,02896	0,08429	0,19354
3444,2417	0,02872	0,08417	0,19330
3442,31323	0,02894	0,08434	0,19372
3440,38477	0,02888	0,08421	0,19350
3438,4563	0,02881	0,08422	0,19348
3436,52783	0,02882	0,08414	0,19360
3434,59937	0,02880	0,08410	0,19340
3432,6709	0,02886	0,08426	0,19353
3430,74243	0,02870	0,08402	0,19342
3428,81396	0,02872	0,08394	0,19329
3426,8855	0,02883	0,08405	0,19346
3424,95703	0,02868	0,08401	0,19327
3423,02856	0,02882	0,08410	0,19335
3421,1001	0,02904	0,08415	0,19355
3419,17163	0,02883	0,08399	0,19318
3417,24316	0,02869	0,08394	0,19313
3415,3147	0,02881	0,08404	0,19340
3413,38623	0,02885	0,08410	0,19339
3411,45776	0,02884	0,08411	0,19341
3409,5293	0,02877	0,08408	0,19336
3407,60083	0,02872	0,08402	0,19329
3405,67236	0,02877	0,08406	0,19338
3403,7439	0,02874	0,08407	0,19327
3401,81543	0,02880	0,08399	0,19318
3399,88696	0,02887	0,08403	0,19334
3397,9585	0,02880	0,08407	0,19325
3396,03003	0,02876	0,08392	0,19305
3394,10156	0,02872	0,08390	0,19309
3392,1731	0,02871	0,08395	0,19306
3390,24463	0,02868	0,08378	0,19288
3388,31616	0,02860	0,08379	0,19282
3386,3877	0,02865	0,08389	0,19279
3384,45923	0,02869	0,08376	0,19277
3382,53076	0,02851	0,08365	0,19266
3380,60229	0,02846	0,08368	0,19262
3378,67383	0,02850	0,08365	0,19265
3376,74536	0,02837	0,08350	0,19241
3374,81689	0,02836	0,08349	0,19225
3372,88843	0,02839	0,08356	0,19227
3370,95996	0,02833	0,08352	0,19224
3369,03149	0,02839	0,08348	0,19222
3367,10303	0,02843	0,08349	0,19223

3365,17456	0,02839	0,08346	0,19213
3363,24609	0,02827	0,08339	0,19198
3361,31763	0,02819	0,08339	0,19182
3359,38916	0,02818	0,08337	0,19170
3357,46069	0,02813	0,08333	0,19172
3355,53223	0,02814	0,08334	0,19166
3353,60376	0,02810	0,08322	0,19150
3351,67529	0,02797	0,08304	0,19143
3349,74683	0,02803	0,08305	0,19135
3347,81836	0,02806	0,08309	0,19134
3345,88989	0,02793	0,08301	0,19128
3343,96143	0,02793	0,08301	0,19111
3342,03296	0,02792	0,08302	0,19104
3340,10449	0,02785	0,08294	0,19100
3338,17603	0,02788	0,08288	0,19097
3336,24756	0,02795	0,08284	0,19097
3334,31909	0,02788	0,08278	0,19087
3332,39063	0,02774	0,08276	0,19075
3330,46216	0,02774	0,08272	0,19068
3328,53369	0,02769	0,08265	0,19063
3326,60522	0,02764	0,08261	0,19062
3324,67676	0,02775	0,08262	0,19051
3322,74829	0,02763	0,08259	0,19025
3320,81982	0,02746	0,08250	0,19012
3318,89136	0,02753	0,08238	0,19015
3316,96289	0,02749	0,08234	0,19010
3315,03442	0,02741	0,08235	0,18994
3313,10596	0,02744	0,08226	0,18990
3311,17749	0,02741	0,08219	0,18994
3309,24902	0,02737	0,08224	0,18989
3307,32056	0,02728	0,08213	0,18967
3305,39209	0,02716	0,08199	0,18947
3303,46362	0,02723	0,08206	0,18942
3301,53516	0,02727	0,08201	0,18931
3299,60669	0,02713	0,08181	0,18905
3297,67822	0,02703	0,08174	0,18889
3295,74976	0,02700	0,08170	0,18888
3293,82129	0,02696	0,08164	0,18882
3291,89282	0,02696	0,08163	0,18873
3289,96436	0,02697	0,08159	0,18869
3288,03589	0,02690	0,08146	0,18849
3286,10742	0,02683	0,08140	0,18836
3284,17896	0,02684	0,08140	0,18840
3282,25049	0,02677	0,08131	0,18828
3280,32202	0,02670	0,08122	0,18812
3278,39355	0,02671	0,08116	0,18808
3276,46509	0,02660	0,08107	0,18796
3274,53662	0,02658	0,08106	0,18780

3272,60815	0,02664	0,08108	0,18775
3270,67969	0,02652	0,08099	0,18763
3268,75122	0,02642	0,08086	0,18752
3266,82275	0,02643	0,08078	0,18744
3264,89429	0,02637	0,08071	0,18725
3262,96582	0,02632	0,08068	0,18722
3261,03735	0,02628	0,08058	0,18712
3259,10889	0,02618	0,08043	0,18686
3257,18042	0,02617	0,08048	0,18690
3255,25195	0,02615	0,08046	0,18684
3253,32349	0,02605	0,08027	0,18656
3251,39502	0,02604	0,08015	0,18648
3249,46655	0,02595	0,08015	0,18638
3247,53809	0,02588	0,08021	0,18626
3245,60962	0,02593	0,08012	0,18611
3243,68115	0,02582	0,07999	0,18590
3241,75269	0,02573	0,07999	0,18585
3239,82422	0,02577	0,07989	0,18568
3237,89575	0,02566	0,07975	0,18547
3235,96729	0,02558	0,07972	0,18554
3234,03882	0,02561	0,07966	0,18544
3232,11035	0,02556	0,07967	0,18525
3230,18188	0,02550	0,07964	0,18516
3228,25342	0,02547	0,07948	0,18495
3226,32495	0,02544	0,07939	0,18489
3224,39648	0,02536	0,07933	0,18475
3222,46802	0,02523	0,07922	0,18452
3220,53955	0,02524	0,07915	0,18453
3218,61108	0,02519	0,07904	0,18434
3216,68262	0,02510	0,07902	0,18421
3214,75415	0,02516	0,07900	0,18426
3212,82568	0,02502	0,07879	0,18407
3210,89722	0,02489	0,07873	0,18400
3208,96875	0,02496	0,07875	0,18391
3207,04028	0,02486	0,07861	0,18361
3205,11182	0,02474	0,07848	0,18348
3203,18335	0,02471	0,07840	0,18343
3201,25488	0,02470	0,07843	0,18335
3199,32642	0,02471	0,07843	0,18326
3197,39795	0,02464	0,07834	0,18301
3195,46948	0,02454	0,07825	0,18282
3193,54102	0,02454	0,07819	0,18286
3191,61255	0,02459	0,07818	0,18271
3189,68408	0,02452	0,07812	0,18242
3187,75562	0,02450	0,07808	0,18244
3185,82715	0,02450	0,07801	0,18235
3183,89868	0,02435	0,07786	0,18210
3181,97021	0,02423	0,07781	0,18199

3180,04175	0,02418	0,07779	0,18187
3178,11328	0,02414	0,07773	0,18182
3176,18481	0,02411	0,07763	0,18169
3174,25635	0,02399	0,07753	0,18144
3172,32788	0,02392	0,07748	0,18136
3170,39941	0,02397	0,07738	0,18124
3168,47095	0,02393	0,07730	0,18101
3166,54248	0,02384	0,07726	0,18095
3164,61401	0,02378	0,07715	0,18083
3162,68555	0,02372	0,07709	0,18063
3160,75708	0,02365	0,07705	0,18049
3158,82861	0,02357	0,07697	0,18034
3156,90015	0,02351	0,07688	0,18022
3154,97168	0,02349	0,07675	0,18010
3153,04321	0,02349	0,07672	0,17997
3151,11475	0,02342	0,07671	0,17977
3149,18628	0,02332	0,07663	0,17955
3147,25781	0,02331	0,07657	0,17949
3145,32935	0,02330	0,07651	0,17944
3143,40088	0,02330	0,07643	0,17932
3141,47241	0,02323	0,07631	0,17914
3139,54395	0,02310	0,07621	0,17887
3137,61548	0,02302	0,07612	0,17864
3135,68701	0,02293	0,07606	0,17857
3133,75854	0,02296	0,07607	0,17851
3131,83008	0,02294	0,07591	0,17826
3129,90161	0,02286	0,07587	0,17820
3127,97314	0,02286	0,07593	0,17823
3126,04468	0,02274	0,07573	0,17795
3124,11621	0,02268	0,07562	0,17780
3122,18774	0,02267	0,07564	0,17768
3120,25928	0,02258	0,07551	0,17745
3118,33081	0,02260	0,07541	0,17740
3116,40234	0,02258	0,07541	0,17725
3114,47388	0,02251	0,07532	0,17706
3112,54541	0,02248	0,07523	0,17708
3110,61694	0,02241	0,07525	0,17696
3108,68848	0,02235	0,07515	0,17672
3106,76001	0,02235	0,07499	0,17657
3104,83154	0,02233	0,07500	0,17655
3102,90308	0,02225	0,07497	0,17653
3100,97461	0,02215	0,07485	0,17628
3099,04614	0,02205	0,07473	0,17607
3097,11768	0,02204	0,07470	0,17606
3095,18921	0,02206	0,07468	0,17585
3093,26074	0,02198	0,07456	0,17564
3091,33228	0,02191	0,07451	0,17559
3089,40381	0,02188	0,07452	0,17549

3087,47534	0,02185	0,07440	0,17537
3085,54688	0,02184	0,07427	0,17521
3083,61841	0,02178	0,07431	0,17507
3081,68994	0,02167	0,07425	0,17498
3079,76147	0,02163	0,07408	0,17487
3077,83301	0,02166	0,07406	0,17475
3075,90454	0,02156	0,07400	0,17457
3073,97607	0,02149	0,07396	0,17444
3072,04761	0,02146	0,07396	0,17425
3070,11914	0,02136	0,07383	0,17402
3068,19067	0,02138	0,07379	0,17392
3066,26221	0,02135	0,07378	0,17382
3064,33374	0,02121	0,07366	0,17366
3062,40527	0,02119	0,07359	0,17346
3060,47681	0,02118	0,07358	0,17337
3058,54834	0,02116	0,07351	0,17334
3056,61987	0,02108	0,07341	0,17309
3054,69141	0,02096	0,07336	0,17291
3052,76294	0,02100	0,07334	0,17284
3050,83447	0,02105	0,07329	0,17269
3048,90601	0,02098	0,07324	0,17259
3046,97754	0,02087	0,07317	0,17249
3045,04907	0,02082	0,07309	0,17235
3043,12061	0,02084	0,07307	0,17227
3041,19214	0,02082	0,07303	0,17214
3039,26367	0,02073	0,07290	0,17190
3037,33521	0,02064	0,07280	0,17178
3035,40674	0,02064	0,07278	0,17171
3033,47827	0,02065	0,07273	0,17160
3031,5498	0,02060	0,07268	0,17148
3029,62134	0,02055	0,07261	0,17132
3027,69287	0,02045	0,07242	0,17116
3025,7644	0,02039	0,07238	0,17100
3023,83594	0,02046	0,07245	0,17089
3021,90747	0,02044	0,07235	0,17082
3019,979	0,02044	0,07229	0,17074
3018,05054	0,02052	0,07232	0,17069
3016,12207	0,02043	0,07218	0,17052
3014,1936	0,02030	0,07202	0,17032
3012,26514	0,02028	0,07202	0,17028
3010,33667	0,02020	0,07199	0,17017
3008,4082	0,02010	0,07187	0,16998
3006,47974	0,02005	0,07184	0,16982
3004,55127	0,01999	0,07179	0,16965
3002,6228	0,01994	0,07166	0,16953
3000,69434	0,01994	0,07163	0,16949
2998,76587	0,01988	0,07156	0,16934
2996,8374	0,01977	0,07147	0,16912



2994,90894	0,01974	0,07144	0,16906
2992,98047	0,01968	0,07135	0,16895
2991,052	0,01957	0,07125	0,16877
2989,12354	0,01952	0,07120	0,16866
2987,19507	0,01944	0,07110	0,16856
2985,2666	0,01937	0,07101	0,16842
2983,33813	0,01936	0,07093	0,16828
2981,40967	0,01932	0,07088	0,16812
2979,4812	0,01930	0,07089	0,16802
2977,55273	0,01922	0,07080	0,16799
2975,62427	0,01909	0,07070	0,16792
2973,6958	0,01904	0,07069	0,16783
2971,76733	0,01898	0,07060	0,16776
2969,83887	0,01897	0,07060	0,16771
2967,9104	0,01891	0,07068	0,16770
2965,98193	0,01880	0,07056	0,16767
2964,05347	0,01884	0,07047	0,16757
2962,125	0,01883	0,07051	0,16755
2960,19653	0,01885	0,07048	0,16756
2958,26807	0,01889	0,07042	0,16746
2956,3396	0,01882	0,07037	0,16738
2954,41113	0,01884	0,07034	0,16730
2952,48267	0,01884	0,07026	0,16716
2950,5542	0,01872	0,07017	0,16705
2948,62573	0,01871	0,07018	0,16693
2946,69727	0,01872	0,07016	0,16686
2944,7688	0,01867	0,07014	0,16682
2942,84033	0,01865	0,07018	0,16674
2940,91187	0,01870	0,07015	0,16676
2938,9834	0,01879	0,07015	0,16682
2937,05493	0,01882	0,07022	0,16682
2935,12646	0,01877	0,07025	0,16678
2933,198	0,01880	0,07021	0,16678
2931,26953	0,01878	0,07019	0,16683
2929,34106	0,01872	0,07023	0,16682
2927,4126	0,01878	0,07023	0,16680
2925,48413	0,01877	0,07021	0,16676
2923,55566	0,01863	0,07020	0,16658
2921,6272	0,01854	0,07009	0,16639
2919,69873	0,01852	0,06995	0,16627
2917,77026	0,01845	0,06982	0,16603
2915,8418	0,01834	0,06970	0,16572
2913,91333	0,01829	0,06961	0,16549
2911,98486	0,01826	0,06949	0,16528
2910,0564	0,01818	0,06938	0,16509
2908,12793	0,01810	0,06931	0,16495
2906,19946	0,01808	0,06921	0,16479
2904,271	0,01806	0,06914	0,16457

2902,34253	0,01800	0,06910	0,16438
2900,41406	0,01797	0,06904	0,16433
2898,4856	0,01796	0,06896	0,16428
2896,55713	0,01791	0,06890	0,16412
2894,62866	0,01794	0,06890	0,16397
2892,7002	0,01795	0,06886	0,16385
2890,77173	0,01783	0,06871	0,16369
2888,84326	0,01777	0,06866	0,16359
2886,91479	0,01772	0,06865	0,16347
2884,98633	0,01768	0,06856	0,16329
2883,05786	0,01768	0,06852	0,16323
2881,12939	0,01762	0,06847	0,16316
2879,20093	0,01763	0,06841	0,16304
2877,27246	0,01763	0,06841	0,16298
2875,34399	0,01752	0,06838	0,16287
2873,41553	0,01751	0,06834	0,16281
2871,48706	0,01752	0,06829	0,16267
2869,55859	0,01746	0,06829	0,16251
2867,63013	0,01746	0,06824	0,16254
2865,70166	0,01741	0,06819	0,16248
2863,77319	0,01737	0,06820	0,16242
2861,84473	0,01740	0,06819	0,16248
2859,91626	0,01739	0,06824	0,16242
2857,98779	0,01736	0,06827	0,16233
2856,05933	0,01739	0,06824	0,16235
2854,13086	0,01745	0,06827	0,16232
2852,20239	0,01738	0,06820	0,16215
2850,27393	0,01727	0,06805	0,16200
2848,34546	0,01719	0,06791	0,16179
2846,41699	0,01705	0,06771	0,16149
2844,48853	0,01693	0,06760	0,16127
2842,56006	0,01695	0,06763	0,16113
2840,63159	0,01692	0,06759	0,16106
2838,70313	0,01688	0,06748	0,16093
2836,77466	0,01693	0,06747	0,16077
2834,84619	0,01690	0,06747	0,16066
2832,91772	0,01685	0,06738	0,16044
2830,98926	0,01685	0,06733	0,16029
2829,06079	0,01682	0,06729	0,16026
2827,13232	0,01684	0,06724	0,16019
2825,20386	0,01686	0,06725	0,16011
2823,27539	0,01680	0,06725	0,16005
2821,34692	0,01678	0,06722	0,15990
2819,41846	0,01678	0,06716	0,15971
2817,48999	0,01677	0,06708	0,15965
2815,56152	0,01674	0,06708	0,15967
2813,63306	0,01668	0,06708	0,15954
2811,70459	0,01668	0,06706	0,15937

2809,77612	0,01673	0,06703	0,15932
2807,84766	0,01669	0,06698	0,15928
2805,91919	0,01666	0,06700	0,15920
2803,99072	0,01665	0,06698	0,15912
2802,06226	0,01660	0,06691	0,15898
2800,13379	0,01661	0,06690	0,15889
2798,20532	0,01662	0,06691	0,15888
2796,27686	0,01659	0,06696	0,15882
2794,34839	0,01662	0,06695	0,15874
2792,41992	0,01661	0,06690	0,15866
2790,49146	0,01659	0,06693	0,15857
2788,56299	0,01667	0,06691	0,15859
2786,63452	0,01665	0,06687	0,15859
2784,70605	0,01661	0,06686	0,15842
2782,77759	0,01660	0,06684	0,15833
2780,84912	0,01658	0,06684	0,15835
2778,92065	0,01663	0,06682	0,15824
2776,99219	0,01666	0,06677	0,15816
2775,06372	0,01660	0,06679	0,15813
2773,13525	0,01658	0,06677	0,15803
2771,20679	0,01663	0,06670	0,15799
2769,27832	0,01665	0,06675	0,15797
2767,34985	0,01665	0,06679	0,15789
2765,42139	0,01666	0,06678	0,15788
2763,49292	0,01668	0,06684	0,15787
2761,56445	0,01666	0,06682	0,15781
2759,63599	0,01665	0,06677	0,15777
2757,70752	0,01667	0,06678	0,15770
2755,77905	0,01664	0,06673	0,15761
2753,85059	0,01664	0,06674	0,15759
2751,92212	0,01667	0,06677	0,15753
2749,99365	0,01661	0,06670	0,15748
2748,06519	0,01662	0,06665	0,15744
2746,13672	0,01667	0,06665	0,15730
2744,20825	0,01665	0,06667	0,15726
2742,27979	0,01665	0,06668	0,15728
2740,35132	0,01671	0,06665	0,15716
2738,42285	0,01673	0,06665	0,15702
2736,49438	0,01670	0,06666	0,15691
2734,56592	0,01667	0,06661	0,15677
2732,63745	0,01661	0,06656	0,15669
2730,70898	0,01663	0,06659	0,15673
2728,78052	0,01668	0,06661	0,15674
2726,85205	0,01661	0,06654	0,15662
2724,92358	0,01662	0,06652	0,15655
2722,99512	0,01671	0,06658	0,15655
2721,06665	0,01668	0,06657	0,15647
2719,13818	0,01665	0,06657	0,15638

2717,20972	0,01664	0,06658	0,15635
2715,28125	0,01662	0,06651	0,15630
2713,35278	0,01665	0,06652	0,15627
2711,42432	0,01668	0,06662	0,15627
2709,49585	0,01668	0,06661	0,15619
2707,56738	0,01670	0,06656	0,15615
2705,63892	0,01671	0,06659	0,15614
2703,71045	0,01673	0,06661	0,15603
2701,78198	0,01682	0,06664	0,15599
2699,85352	0,01686	0,06666	0,15605
2697,92505	0,01681	0,06663	0,15601
2695,99658	0,01681	0,06665	0,15591
2694,06812	0,01682	0,06666	0,15585
2692,13965	0,01682	0,06666	0,15583
2690,21118	0,01689	0,06672	0,15577
2688,28271	0,01694	0,06676	0,15568
2686,35425	0,01698	0,06680	0,15571
2684,42578	0,01707	0,06687	0,15573
2682,49731	0,01709	0,06686	0,15568
2680,56885	0,01710	0,06691	0,15571
2678,64038	0,01719	0,06700	0,15568
2676,71191	0,01720	0,06700	0,15561
2674,78345	0,01721	0,06702	0,15558
2672,85498	0,01730	0,06709	0,15554
2670,92651	0,01737	0,06715	0,15558
2668,99805	0,01742	0,06719	0,15563
2667,06958	0,01743	0,06722	0,15559
2665,14111	0,01746	0,06728	0,15551
2663,21265	0,01756	0,06735	0,15551
2661,28418	0,01765	0,06747	0,15556
2659,35571	0,01775	0,06758	0,15551
2657,42725	0,01785	0,06766	0,15556
2655,49878	0,01791	0,06776	0,15563
2653,57031	0,01790	0,06780	0,15559
2651,64185	0,01794	0,06786	0,15563
2649,71338	0,01805	0,06790	0,15569
2647,78491	0,01811	0,06792	0,15561
2645,85645	0,01815	0,06800	0,15555
2643,92798	0,01824	0,06803	0,15556
2641,99951	0,01831	0,06808	0,15562
2640,07104	0,01833	0,06817	0,15559
2638,14258	0,01839	0,06821	0,15548
2636,21411	0,01844	0,06821	0,15546
2634,28564	0,01844	0,06825	0,15550
2632,35718	0,01847	0,06827	0,15544
2630,42871	0,01847	0,06826	0,15535
2628,50024	0,01842	0,06822	0,15528
2626,57178	0,01840	0,06815	0,15519

2624,64331	0,01843	0,06814	0,15517
2622,71484	0,01845	0,06814	0,15512
2620,78638	0,01835	0,06804	0,15493
2618,85791	0,01829	0,06796	0,15488
2616,92944	0,01829	0,06794	0,15484
2615,00098	0,01817	0,06782	0,15468
2613,07251	0,01813	0,06777	0,15470
2611,14404	0,01811	0,06777	0,15472
2609,21558	0,01799	0,06762	0,15457
2607,28711	0,01793	0,06754	0,15446
2605,35864	0,01786	0,06747	0,15434
2603,43018	0,01771	0,06728	0,15420
2601,50171	0,01762	0,06714	0,15406
2599,57324	0,01756	0,06703	0,15390
2597,64478	0,01749	0,06691	0,15379
2595,71631	0,01738	0,06682	0,15366
2593,78784	0,01726	0,06663	0,15348
2591,85938	0,01717	0,06651	0,15337
2589,93091	0,01711	0,06646	0,15332
2588,00244	0,01703	0,06633	0,15317
2586,07397	0,01691	0,06615	0,15295
2584,14551	0,01678	0,06600	0,15285
2582,21704	0,01667	0,06589	0,15277
2580,28857	0,01658	0,06579	0,15264
2578,36011	0,01648	0,06566	0,15254
2576,43164	0,01638	0,06554	0,15243
2574,50317	0,01628	0,06539	0,15225
2572,57471	0,01616	0,06525	0,15207
2570,64624	0,01607	0,06514	0,15194
2568,71777	0,01599	0,06502	0,15186
2566,78931	0,01589	0,06490	0,15177
2564,86084	0,01579	0,06478	0,15162
2562,93237	0,01566	0,06467	0,15150
2561,00391	0,01560	0,06457	0,15141
2559,07544	0,01557	0,06449	0,15134
2557,14697	0,01547	0,06442	0,15131
2555,21851	0,01540	0,06433	0,15127
2553,29004	0,01531	0,06423	0,15111
2551,36157	0,01522	0,06415	0,15095
2549,43311	0,01521	0,06408	0,15087
2547,50464	0,01512	0,06400	0,15077
2545,57617	0,01503	0,06388	0,15063
2543,64771	0,01502	0,06384	0,15055
2541,71924	0,01496	0,06380	0,15046
2539,79077	0,01488	0,06370	0,15035
2537,8623	0,01481	0,06361	0,15029
2535,93384	0,01475	0,06350	0,15022
2534,00537	0,01472	0,06347	0,15014

2532,0769	0,01470	0,06351	0,15010
2530,14844	0,01463	0,06341	0,15004
2528,21997	0,01453	0,06330	0,14992
2526,2915	0,01454	0,06328	0,14979
2524,36304	0,01454	0,06324	0,14977
2522,43457	0,01444	0,06317	0,14970
2520,5061	0,01443	0,06315	0,14962
2518,57764	0,01447	0,06314	0,14962
2516,64917	0,01442	0,06305	0,14953
2514,7207	0,01437	0,06300	0,14943
2512,79224	0,01432	0,06297	0,14935
2510,86377	0,01426	0,06286	0,14924
2508,9353	0,01424	0,06279	0,14923
2507,00684	0,01420	0,06277	0,14922
2505,07837	0,01418	0,06274	0,14912
2503,1499	0,01421	0,06270	0,14903
2501,22144	0,01422	0,06268	0,14896
2499,29297	0,01420	0,06265	0,14891
2497,3645	0,01417	0,06263	0,14883
2495,43604	0,01413	0,06263	0,14874
2493,50757	0,01415	0,06253	0,14873
2491,5791	0,01413	0,06246	0,14868
2489,65063	0,01410	0,06250	0,14854
2487,72217	0,01415	0,06245	0,14845
2485,7937	0,01418	0,06237	0,14844
2483,86523	0,01414	0,06234	0,14838
2481,93677	0,01409	0,06230	0,14831
2480,0083	0,01406	0,06229	0,14822
2478,07983	0,01404	0,06228	0,14818
2476,15137	0,01405	0,06229	0,14823
2474,2229	0,01407	0,06229	0,14818
2472,29443	0,01405	0,06222	0,14807
2470,36597	0,01407	0,06220	0,14804
2468,4375	0,01406	0,06219	0,14802
2466,50903	0,01404	0,06218	0,14799
2464,58057	0,01408	0,06217	0,14793
2462,6521	0,01405	0,06213	0,14783
2460,72363	0,01400	0,06210	0,14778
2458,79517	0,01401	0,06209	0,14777
2456,8667	0,01398	0,06203	0,14773
2454,93823	0,01391	0,06195	0,14766
2453,00977	0,01386	0,06192	0,14759
2451,0813	0,01386	0,06193	0,14754
2449,15283	0,01388	0,06192	0,14751
2447,22437	0,01384	0,06185	0,14748
2445,2959	0,01382	0,06180	0,14741
2443,36743	0,01381	0,06183	0,14733
2441,43896	0,01377	0,06181	0,14730

2439,5105	0,01377	0,06176	0,14728
2437,58203	0,01378	0,06174	0,14724
2435,65356	0,01374	0,06173	0,14722
2433,7251	0,01373	0,06172	0,14719
2431,79663	0,01375	0,06170	0,14714
2429,86816	0,01373	0,06168	0,14704
2427,9397	0,01369	0,06167	0,14693
2426,01123	0,01369	0,06166	0,14690
2424,08276	0,01370	0,06163	0,14684
2422,1543	0,01375	0,06159	0,14676
2420,22583	0,01379	0,06156	0,14670
2418,29736	0,01376	0,06153	0,14664
2416,3689	0,01379	0,06150	0,14657
2414,44043	0,01383	0,06149	0,14656
2412,51196	0,01379	0,06143	0,14659
2410,5835	0,01377	0,06139	0,14660
2408,65503	0,01381	0,06140	0,14653
2406,72656	0,01383	0,06137	0,14643
2404,7981	0,01384	0,06135	0,14640
2402,86963	0,01381	0,06135	0,14633
2400,94116	0,01382	0,06134	0,14631
2399,0127	0,01382	0,06133	0,14634
2397,08423	0,01382	0,06131	0,14629
2395,15576	0,01382	0,06130	0,14623
2393,22729	0,01382	0,06134	0,14621
2391,29883	0,01382	0,06136	0,14616
2389,37036	0,01382	0,06134	0,14611
2387,44189	0,01382	0,06133	0,14606
2385,51343	0,01383	0,06131	0,14602
2383,58496	0,01383	0,06129	0,14597
2381,65649	0,01383	0,06127	0,14592
2379,72803	0,01383	0,06125	0,14588
2377,79956	0,01383	0,06124	0,14583
2375,87109	0,01383	0,06122	0,14578
2373,94263	0,01383	0,06120	0,14574
2372,01416	0,01383	0,06118	0,14569
2370,08569	0,01383	0,06116	0,14564
2368,15723	0,01383	0,06115	0,14559
2366,22876	0,01384	0,06113	0,14555
2364,30029	0,01384	0,06111	0,14550
2362,37183	0,01384	0,06109	0,14545
2360,44336	0,01384	0,06107	0,14541
2358,51489	0,01384	0,06106	0,14536
2356,58643	0,01384	0,06104	0,14531
2354,65796	0,01384	0,06102	0,14527
2352,72949	0,01384	0,06100	0,14522
2350,80103	0,01384	0,06098	0,14517
2348,87256	0,01384	0,06097	0,14512

2346,94409	0,01385	0,06095	0,14508
2345,01563	0,01385	0,06093	0,14503
2343,08716	0,01385	0,06091	0,14498
2341,15869	0,01385	0,06089	0,14494
2339,23022	0,01385	0,06088	0,14489
2337,30176	0,01385	0,06086	0,14484
2335,37329	0,01385	0,06084	0,14480
2333,44482	0,01385	0,06082	0,14475
2331,51636	0,01385	0,06080	0,14470
2329,58789	0,01386	0,06078	0,14466
2327,65942	0,01386	0,06077	0,14461
2325,73096	0,01386	0,06075	0,14456
2323,80249	0,01386	0,06073	0,14451
2321,87402	0,01386	0,06071	0,14447
2319,94556	0,01386	0,06069	0,14442
2318,01709	0,01386	0,06068	0,14437
2316,08862	0,01386	0,06066	0,14433
2314,16016	0,01386	0,06064	0,14428
2312,23169	0,01386	0,06062	0,14423
2310,30322	0,01387	0,06060	0,14419
2308,37476	0,01387	0,06059	0,14414
2306,44629	0,01387	0,06057	0,14409
2304,51782	0,01387	0,06055	0,14404
2302,58936	0,01387	0,06053	0,14400
2300,66089	0,01387	0,06051	0,14395
2298,73242	0,01387	0,06050	0,14390
2296,80396	0,01387	0,06048	0,14386
2294,87549	0,01387	0,06046	0,14381
2292,94702	0,01387	0,06044	0,14376
2291,01855	0,01388	0,06042	0,14372
2289,09009	0,01388	0,06041	0,14367
2287,16162	0,01388	0,06039	0,14362
2285,23315	0,01388	0,06037	0,14357
2283,30469	0,01388	0,06035	0,14353
2281,37622	0,01388	0,06033	0,14348
2279,44775	0,01388	0,06032	0,14343
2277,51929	0,01388	0,06030	0,14339
2275,59082	0,01388	0,06028	0,14334
2273,66235	0,01389	0,06028	0,14329
2271,73389	0,01389	0,06033	0,14325
2269,80542	0,01389	0,06022	0,14320
2267,87695	0,01389	0,06025	0,14317
2265,94849	0,01389	0,06022	0,14313
2264,02002	0,01389	0,06013	0,14307
2262,09155	0,01389	0,06011	0,14298
2260,16309	0,01389	0,06008	0,14297
2258,23462	0,01389	0,05999	0,14295
2256,30615	0,01389	0,05994	0,14287



2254,37769	0,01390	0,05997	0,14289
2252,44922	0,01390	0,05993	0,14284
2250,52075	0,01390	0,05985	0,14279
2248,59229	0,01390	0,05981	0,14274
2246,66382	0,01389	0,05975	0,14269
2244,73535	0,01390	0,05970	0,14282
2242,80688	0,01387	0,05970	0,14284
2240,87842	0,01383	0,05973	0,14272
2238,94995	0,01382	0,05973	0,14270
2237,02148	0,01381	0,05971	0,14263
2235,09302	0,01376	0,05963	0,14246
2233,16455	0,01369	0,05957	0,14239
2231,23608	0,01367	0,05958	0,14238
2229,30762	0,01367	0,05958	0,14235
2227,37915	0,01365	0,05954	0,14229
2225,45068	0,01361	0,05950	0,14222
2223,52222	0,01358	0,05947	0,14220
2221,59375	0,01358	0,05950	0,14225
2219,66528	0,01353	0,05948	0,14225
2217,73682	0,01346	0,05941	0,14221
2215,80835	0,01346	0,05940	0,14223
2213,87988	0,01346	0,05936	0,14211
2211,95142	0,01345	0,05931	0,14191
2210,02295	0,01342	0,05930	0,14182
2208,09448	0,01334	0,05920	0,14167
2206,16602	0,01330	0,05912	0,14159
2204,23755	0,01330	0,05913	0,14157
2202,30908	0,01329	0,05913	0,14147
2200,38062	0,01325	0,05912	0,14140
2198,45215	0,01322	0,05911	0,14133
2196,52368	0,01323	0,05908	0,14122
2194,59521	0,01315	0,05904	0,14118
2192,66675	0,01304	0,05899	0,14113
2190,73828	0,01305	0,05898	0,14101
2188,80981	0,01306	0,05896	0,14095
2186,88135	0,01305	0,05892	0,14092
2184,95288	0,01308	0,05891	0,14087
2183,02441	0,01311	0,05889	0,14085
2181,09595	0,01312	0,05886	0,14075
2179,16748	0,01308	0,05887	0,14070
2177,23901	0,01301	0,05882	0,14071
2175,31055	0,01300	0,05879	0,14065
2173,38208	0,01301	0,05880	0,14068
2171,45361	0,01290	0,05869	0,14063
2169,52515	0,01282	0,05857	0,14049
2167,59668	0,01291	0,05860	0,14057
2165,66821	0,01293	0,05866	0,14064
2163,73975	0,01285	0,05865	0,14060

2161,81128	0,01285	0,05860	0,14055
2159,88281	0,01284	0,05858	0,14051
2157,95435	0,01280	0,05859	0,14057
2156,02588	0,01281	0,05850	0,14058
2154,09741	0,01275	0,05839	0,14056
2152,16895	0,01270	0,05840	0,14063
2150,24048	0,01271	0,05838	0,14058
2148,31201	0,01268	0,05835	0,14055
2146,38354	0,01267	0,05838	0,14066
2144,45508	0,01265	0,05838	0,14067
2142,52661	0,01263	0,05835	0,14063
2140,59814	0,01262	0,05835	0,14064
2138,66968	0,01253	0,05834	0,14061
2136,74121	0,01249	0,05832	0,14060
2134,81274	0,01256	0,05829	0,14062
2132,88428	0,01254	0,05826	0,14053
2130,95581	0,01247	0,05824	0,14050
2129,02734	0,01240	0,05819	0,14047
2127,09888	0,01231	0,05815	0,14026
2125,17041	0,01228	0,05814	0,14007
2123,24194	0,01229	0,05808	0,14001
2121,31348	0,01226	0,05803	0,13995
2119,38501	0,01224	0,05802	0,13986
2117,45654	0,01223	0,05797	0,13978
2115,52808	0,01217	0,05798	0,13964
2113,59961	0,01211	0,05798	0,13949
2111,67114	0,01206	0,05789	0,13942
2109,74268	0,01203	0,05784	0,13937
2107,81421	0,01198	0,05782	0,13936
2105,88574	0,01190	0,05779	0,13932
2103,95728	0,01184	0,05777	0,13921
2102,02881	0,01177	0,05778	0,13919
2100,10034	0,01168	0,05776	0,13921
2098,17188	0,01161	0,05771	0,13916
2096,24341	0,01159	0,05772	0,13916
2094,31494	0,01152	0,05772	0,13916
2092,38647	0,01146	0,05767	0,13913
2090,45801	0,01146	0,05766	0,13917
2088,52954	0,01140	0,05760	0,13911
2086,60107	0,01129	0,05754	0,13896
2084,67261	0,01125	0,05754	0,13891
2082,74414	0,01124	0,05748	0,13884
2080,81567	0,01118	0,05747	0,13881
2078,88721	0,01112	0,05752	0,13884
2076,95874	0,01111	0,05750	0,13878
2075,03027	0,01107	0,05741	0,13874
2073,10181	0,01107	0,05737	0,13869
2071,17334	0,01107	0,05734	0,13854

2069,24487	0,01105	0,05726	0,13847
2067,31641	0,01114	0,05733	0,13856
2065,38794	0,01120	0,05744	0,13854
2063,45947	0,01118	0,05729	0,13837
2061,53101	0,01125	0,05720	0,13831
2059,60254	0,01130	0,05721	0,13827
2057,67407	0,01132	0,05714	0,13817
2055,74561	0,01145	0,05717	0,13817
2053,81714	0,01155	0,05720	0,13816
2051,88867	0,01159	0,05715	0,13805
2049,96021	0,01170	0,05714	0,13797
2048,03174	0,01183	0,05714	0,13803
2046,10327	0,01191	0,05710	0,13802
2044,1748	0,01195	0,05709	0,13797
2042,24634	0,01200	0,05714	0,13797
2040,31787	0,01203	0,05712	0,13786
2038,3894	0,01212	0,05704	0,13786
2036,46094	0,01224	0,05705	0,13794
2034,53247	0,01220	0,05707	0,13797
2032,604	0,01217	0,05703	0,13805
2030,67554	0,01218	0,05703	0,13804
2028,74707	0,01217	0,05707	0,13801
2026,8186	0,01215	0,05704	0,13804
2024,89014	0,01207	0,05699	0,13801
2022,96167	0,01204	0,05694	0,13799
2021,0332	0,01203	0,05687	0,13798
2019,10474	0,01211	0,05698	0,13803
2017,17627	0,01223	0,05709	0,13796
2015,2478	0,01217	0,05689	0,13774
2013,31934	0,01221	0,05681	0,13779
2011,39087	0,01231	0,05684	0,13782
2009,4624	0,01234	0,05683	0,13775
2007,53394	0,01239	0,05684	0,13776
2005,60547	0,01237	0,05677	0,13773
2003,677	0,01234	0,05675	0,13760
2001,74854	0,01230	0,05674	0,13744
1999,82007	0,01237	0,05675	0,13754
1997,8916	0,01244	0,05671	0,13759
1995,96313	0,01234	0,05654	0,13743
1994,03467	0,01253	0,05677	0,13772
1992,1062	0,01262	0,05684	0,13762
1990,17773	0,01238	0,05645	0,13710
1988,24927	0,01244	0,05650	0,13724
1986,3208	0,01248	0,05659	0,13722
1984,39233	0,01244	0,05652	0,13709
1982,46387	0,01248	0,05653	0,13724
1980,5354	0,01237	0,05637	0,13702
1978,60693	0,01230	0,05637	0,13686

1976,67847	0,01231	0,05643	0,13689
1974,75	0,01236	0,05637	0,13688
1972,82153	0,01238	0,05632	0,13685
1970,89307	0,01228	0,05618	0,13671
1968,9646	0,01245	0,05629	0,13680
1967,03613	0,01258	0,05636	0,13674
1965,10767	0,01234	0,05612	0,13638
1963,1792	0,01233	0,05612	0,13640
1961,25073	0,01236	0,05613	0,13639
1959,32227	0,01220	0,05601	0,13618
1957,3938	0,01217	0,05609	0,13616
1955,46533	0,01212	0,05609	0,13617
1953,53687	0,01201	0,05599	0,13612
1951,6084	0,01195	0,05594	0,13602
1949,67993	0,01198	0,05595	0,13610
1947,75146	0,01198	0,05593	0,13610
1945,823	0,01196	0,05589	0,13604
1943,89453	0,01222	0,05622	0,13634
1941,96606	0,01215	0,05610	0,13594
1940,0376	0,01179	0,05563	0,13548
1938,10913	0,01181	0,05572	0,13569
1936,18066	0,01181	0,05575	0,13557
1934,2522	0,01184	0,05582	0,13552
1932,32373	0,01181	0,05580	0,13552
1930,39526	0,01178	0,05574	0,13553
1928,4668	0,01178	0,05575	0,13539
1926,53833	0,01166	0,05555	0,13528
1924,60986	0,01201	0,05606	0,13595
1922,6814	0,01198	0,05605	0,13547
1920,75293	0,01167	0,05557	0,13512
1918,82446	0,01204	0,05622	0,13601
1916,896	0,01167	0,05589	0,13527
1914,96753	0,01122	0,05526	0,13482
1913,03906	0,01148	0,05568	0,13548
1911,1106	0,01156	0,05581	0,13553
1909,18213	0,01149	0,05569	0,13546
1907,25366	0,01135	0,05552	0,13528
1905,3252	0,01128	0,05545	0,13529
1903,39673	0,01137	0,05557	0,13560
1901,46826	0,01145	0,05561	0,13571
1899,53979	0,01131	0,05541	0,13553
1897,61133	0,01125	0,05545	0,13571
1895,68286	0,01140	0,05579	0,13599
1893,75439	0,01100	0,05537	0,13547
1891,82593	0,01104	0,05558	0,13597
1889,89746	0,01139	0,05618	0,13640
1887,96899	0,01081	0,05538	0,13538
1886,04053	0,01077	0,05530	0,13555

1884,11206	0,01103	0,05564	0,13577
1882,18359	0,01088	0,05539	0,13553
1880,25513	0,01103	0,05546	0,13570
1878,32666	0,01105	0,05538	0,13539
1876,39819	0,01108	0,05539	0,13547
1874,46973	0,01116	0,05538	0,13546
1872,54126	0,01104	0,05526	0,13530
1870,61279	0,01152	0,05609	0,13629
1868,68433	0,01167	0,05633	0,13606
1866,75586	0,01089	0,05518	0,13458
1864,82739	0,01096	0,05514	0,13480
1862,89893	0,01124	0,05532	0,13496
1860,97046	0,01126	0,05514	0,13477
1859,04199	0,01134	0,05519	0,13478
1857,11353	0,01131	0,05517	0,13455
1855,18506	0,01137	0,05521	0,13449
1853,25659	0,01133	0,05505	0,13407
1851,32813	0,01138	0,05518	0,13420
1849,39966	0,01139	0,05530	0,13408
1847,47119	0,01144	0,05527	0,13400
1845,54272	0,01206	0,05622	0,13538
1843,61426	0,01144	0,05563	0,13412
1841,68579	0,01063	0,05436	0,13260
1839,75732	0,01121	0,05494	0,13352
1837,82886	0,01135	0,05513	0,13363
1835,90039	0,01123	0,05495	0,13328
1833,97192	0,01101	0,05467	0,13297
1832,04346	0,01149	0,05544	0,13402
1830,11499	0,01182	0,05598	0,13414
1828,18652	0,01099	0,05467	0,13251
1826,25806	0,01149	0,05530	0,13355
1824,32959	0,01155	0,05551	0,13337
1822,40112	0,01082	0,05441	0,13221
1820,47266	0,01116	0,05477	0,13288
1818,54419	0,01130	0,05498	0,13295
1816,61572	0,01113	0,05477	0,13264
1814,68726	0,01108	0,05468	0,13268
1812,75879	0,01131	0,05499	0,13315
1810,83032	0,01136	0,05512	0,13308
1808,90186	0,01103	0,05465	0,13249
1806,97339	0,01101	0,05464	0,13259
1805,04492	0,01087	0,05469	0,13271
1803,11646	0,01094	0,05505	0,13327
1801,18799	0,01095	0,05544	0,13343
1799,25952	0,01036	0,05489	0,13269
1797,33105	0,01015	0,05448	0,13233
1795,40259	0,01034	0,05474	0,13277
1793,47412	0,01082	0,05560	0,13397

1791,54565	0,01077	0,05531	0,13281
1789,61719	0,01010	0,05397	0,13119
1787,68872	0,01061	0,05451	0,13244
1785,76025	0,01098	0,05500	0,13284
1783,83179	0,01044	0,05433	0,13205
1781,90332	0,01054	0,05456	0,13236
1779,97485	0,01070	0,05485	0,13250
1778,04639	0,01029	0,05426	0,13180
1776,11792	0,01045	0,05442	0,13199
1774,18945	0,01095	0,05547	0,13369
1772,26099	0,01026	0,05506	0,13258
1770,33252	0,00953	0,05398	0,13089
1768,40405	0,01029	0,05497	0,13236
1766,47559	0,00934	0,05390	0,13058
1764,54712	0,00939	0,05403	0,13105
1762,61865	0,01039	0,05564	0,13310
1760,69019	0,00900	0,05392	0,13038
1758,76172	0,00928	0,05420	0,13125
1756,83325	0,00995	0,05511	0,13210
1754,90479	0,00889	0,05364	0,13005
1752,97632	0,00952	0,05455	0,13181
1751,04785	0,01014	0,05565	0,13261
1749,11938	0,00917	0,05440	0,13023
1747,19092	0,00940	0,05463	0,13088
1745,26245	0,00943	0,05466	0,13105
1743,33398	0,00922	0,05434	0,13039
1741,40552	0,00982	0,05532	0,13211
1739,47705	0,00919	0,05464	0,13093
1737,54858	0,00860	0,05365	0,12971
1735,62012	0,01017	0,05599	0,13380
1733,69165	0,00953	0,05550	0,13209
1731,76318	0,00777	0,05266	0,12833
1729,83472	0,00977	0,05500	0,13145
1727,90625	0,00884	0,05382	0,13008
1725,97778	0,00893	0,05376	0,13022
1724,04932	0,00965	0,05468	0,13117
1722,12085	0,00876	0,05349	0,12957
1720,19238	0,00986	0,05498	0,13193
1718,26392	0,01033	0,05612	0,13358
1716,33545	0,00848	0,05382	0,13014
1714,40698	0,00897	0,05386	0,12990
1712,47852	0,00951	0,05437	0,13091
1710,55005	0,00905	0,05377	0,13006
1708,62158	0,00963	0,05438	0,13091
1706,69312	0,01045	0,05563	0,13257
1704,76465	0,00923	0,05400	0,12960
1702,83618	0,01002	0,05500	0,13206
1700,90771	0,01208	0,05821	0,13625

1698,97925	0,00830	0,05305	0,12880
1697,05078	0,00927	0,05412	0,13158
1695,12231	0,00974	0,05497	0,13188
1693,19385	0,00833	0,05263	0,12862
1691,26538	0,01037	0,05518	0,13276
1689,33691	0,01017	0,05497	0,13147
1687,40845	0,01005	0,05456	0,13136
1685,47998	0,01140	0,05682	0,13559
1683,55151	0,00991	0,05500	0,13107
1681,62305	0,00996	0,05425	0,13025
1679,69458	0,01052	0,05471	0,13138
1677,76611	0,01050	0,05480	0,13191
1675,83765	0,01141	0,05626	0,13383
1673,90918	0,01003	0,05458	0,13108
1671,98071	0,01024	0,05483	0,13186
1670,05225	0,01179	0,05721	0,13494
1668,12378	0,00982	0,05477	0,13110
1666,19531	0,00982	0,05450	0,13159
1664,26685	0,01118	0,05634	0,13456
1662,33838	0,01055	0,05554	0,13294
1660,40991	0,01030	0,05513	0,13282
1658,48145	0,01033	0,05518	0,13335
1656,55298	0,01086	0,05594	0,13438
1654,62451	0,01253	0,05898	0,13971
1652,69604	0,01050	0,05745	0,13680
1650,76758	0,00753	0,05256	0,13060
1648,83911	0,01153	0,05753	0,13708
1646,91064	0,01181	0,05863	0,13850
1644,98218	0,00867	0,05430	0,13311
1643,05371	0,01009	0,05592	0,13565
1641,12524	0,01031	0,05624	0,13639
1639,19678	0,01019	0,05604	0,13615
1637,26831	0,01126	0,05790	0,13884
1635,33984	0,01052	0,05745	0,13757
1633,41138	0,00862	0,05444	0,13380
1631,48291	0,00969	0,05542	0,13560
1629,55444	0,01036	0,05636	0,13684
1627,62598	0,00974	0,05556	0,13533
1625,69751	0,00974	0,05545	0,13565
1623,76904	0,01023	0,05629	0,13668
1621,84058	0,00890	0,05462	0,13382
1619,91211	0,00924	0,05477	0,13430
1617,98364	0,01009	0,05616	0,13672
1616,05518	0,00848	0,05436	0,13341
1614,12671	0,00854	0,05391	0,13228
1612,19824	0,00975	0,05529	0,13396
1610,26978	0,00952	0,05516	0,13339
1608,34131	0,00945	0,05509	0,13296

1606,41284	0,00941	0,05501	0,13271
1604,48438	0,00940	0,05490	0,13227
1602,55591	0,00950	0,05500	0,13218
1600,62744	0,00931	0,05470	0,13172
1598,69897	0,00941	0,05462	0,13144
1596,77051	0,00950	0,05479	0,13131
1594,84204	0,00945	0,05474	0,13096
1592,91357	0,00942	0,05454	0,13054
1590,98511	0,00938	0,05453	0,13020
1589,05664	0,00944	0,05459	0,13008
1587,12817	0,00927	0,05429	0,12968
1585,19971	0,00917	0,05424	0,12920
1583,27124	0,00926	0,05450	0,12947
1581,34277	0,00893	0,05412	0,12880
1579,41431	0,00922	0,05438	0,12875
1577,48584	0,00983	0,05552	0,13076
1575,55737	0,00859	0,05427	0,12828
1573,62891	0,00802	0,05292	0,12628
1571,70044	0,00989	0,05534	0,12983
1569,77197	0,00965	0,05565	0,12918
1567,84351	0,00820	0,05356	0,12649
1565,91504	0,00925	0,05483	0,12855
1563,98657	0,00876	0,05426	0,12701
1562,05811	0,00909	0,05466	0,12822
1560,12964	0,01180	0,05903	0,13411
1558,20117	0,00821	0,05488	0,12697
1556,27271	0,00791	0,05335	0,12594
1554,34424	0,00922	0,05484	0,12778
1552,41577	0,00855	0,05389	0,12640
1550,4873	0,00950	0,05500	0,12748
1548,55884	0,00905	0,05444	0,12669
1546,63037	0,00898	0,05433	0,12697
1544,7019	0,01004	0,05586	0,12817
1542,77344	0,00964	0,05554	0,12798
1540,84497	0,01024	0,05684	0,13062
1538,9165	0,00764	0,05379	0,12592
1536,98804	0,00744	0,05253	0,12457
1535,05957	0,00991	0,05555	0,12839
1533,1311	0,00977	0,05569	0,12762
1531,20264	0,00822	0,05335	0,12516
1529,27417	0,00939	0,05471	0,12717
1527,3457	0,01003	0,05555	0,12768
1525,41724	0,00895	0,05409	0,12603
1523,48877	0,00975	0,05541	0,12804
1521,5603	0,00959	0,05555	0,12760
1519,63184	0,00806	0,05341	0,12491
1517,70337	0,00958	0,05533	0,12691
1515,7749	0,00921	0,05480	0,12578



1513,84644	0,00863	0,05391	0,12527
1511,91797	0,00905	0,05452	0,12604
1509,9895	0,00930	0,05487	0,12592
1508,06104	0,01059	0,05701	0,12891
1506,13257	0,00884	0,05525	0,12623
1504,2041	0,00669	0,05152	0,12207
1502,27563	0,00868	0,05360	0,12466
1500,34717	0,00891	0,05401	0,12495
1498,4187	0,00894	0,05425	0,12539
1496,49023	0,00861	0,05388	0,12503
1494,56177	0,00746	0,05221	0,12283
1492,6333	0,00867	0,05372	0,12468
1490,70483	0,00968	0,05524	0,12591
1488,77637	0,00901	0,05442	0,12439
1486,8479	0,00854	0,05365	0,12377
1484,91943	0,00843	0,05327	0,12357
1482,99097	0,00875	0,05354	0,12394
1481,0625	0,00859	0,05342	0,12369
1479,13403	0,00832	0,05312	0,12356
1477,20557	0,00890	0,05384	0,12429
1475,2771	0,00900	0,05427	0,12471
1473,34863	0,00884	0,05448	0,12540
1471,42017	0,00819	0,05346	0,12402
1469,4917	0,00780	0,05253	0,12333
1467,56323	0,00853	0,05350	0,12501
1465,63477	0,00922	0,05457	0,12588
1463,7063	0,00836	0,05346	0,12434
1461,77783	0,00807	0,05284	0,12375
1459,84937	0,00959	0,05482	0,12620
1457,9209	0,01035	0,05651	0,12813
1455,99243	0,00783	0,05313	0,12380
1454,06396	0,00825	0,05309	0,12384
1452,1355	0,00893	0,05397	0,12499
1450,20703	0,00861	0,05365	0,12482
1448,27856	0,00912	0,05436	0,12545
1446,3501	0,00854	0,05364	0,12440
1444,42163	0,00849	0,05343	0,12449
1442,49316	0,00883	0,05378	0,12485
1440,5647	0,00847	0,05321	0,12406
1438,63623	0,00924	0,05434	0,12585
1436,70776	0,00974	0,05534	0,12629
1434,7793	0,00811	0,05299	0,12320
1432,85083	0,00870	0,05345	0,12444
1430,92236	0,00935	0,05446	0,12565
1428,9939	0,00859	0,05351	0,12400
1427,06543	0,00845	0,05325	0,12407
1425,13696	0,00890	0,05391	0,12461
1423,2085	0,00852	0,05329	0,12346

1421,28003	0,00871	0,05357	0,12440
1419,35156	0,00928	0,05461	0,12503
1417,4231	0,00803	0,05302	0,12249
1415,49463	0,00803	0,05290	0,12270
1413,56616	0,00807	0,05300	0,12279
1411,6377	0,00795	0,05282	0,12240
1409,70923	0,00788	0,05269	0,12210
1407,78076	0,00777	0,05259	0,12179
1405,85229	0,00830	0,05332	0,12224
1403,92383	0,00804	0,05274	0,12122
1401,99536	0,00798	0,05244	0,12124
1400,06689	0,00866	0,05334	0,12207
1398,13843	0,00825	0,05277	0,12099
1396,20996	0,00829	0,05282	0,12132
1394,28149	0,00834	0,05299	0,12141
1392,35303	0,00742	0,05166	0,11984
1390,42456	0,00766	0,05193	0,12027
1388,49609	0,00807	0,05261	0,12082
1386,56763	0,00740	0,05166	0,11944
1384,63916	0,00677	0,05080	0,11854
1382,71069	0,00696	0,05110	0,11900
1380,78223	0,00755	0,05176	0,11962
1378,85376	0,00761	0,05179	0,11961
1376,92529	0,00762	0,05180	0,11984
1374,99683	0,00805	0,05230	0,12029
1373,06836	0,00776	0,05183	0,11964
1371,13989	0,00756	0,05151	0,11957
1369,21143	0,00797	0,05210	0,12000
1367,28296	0,00762	0,05173	0,11941
1365,35449	0,00765	0,05180	0,11980
1363,42603	0,00828	0,05265	0,12042
1361,49756	0,00791	0,05216	0,11950
1359,56909	0,00760	0,05167	0,11927
1357,64063	0,00774	0,05176	0,11960
1355,71216	0,00769	0,05168	0,11959
1353,78369	0,00766	0,05158	0,11951
1351,85522	0,00770	0,05154	0,11943
1349,92676	0,00763	0,05157	0,11942
1347,99829	0,00753	0,05164	0,11944
1346,06982	0,00755	0,05175	0,11945
1344,14136	0,00754	0,05163	0,11948
1342,21289	0,00771	0,05173	0,11977
1340,28442	0,00804	0,05213	0,11987
1338,35596	0,00783	0,05185	0,11938
1336,42749	0,00753	0,05152	0,11916
1334,49902	0,00760	0,05153	0,11926
1332,57056	0,00767	0,05155	0,11933
1330,64209	0,00773	0,05166	0,11929

1328,71362	0,00770	0,05170	0,11916
1326,78516	0,00764	0,05183	0,11930
1324,85669	0,00769	0,05188	0,11936
1322,92822	0,00768	0,05165	0,11913
1320,99976	0,00780	0,05180	0,11928
1319,07129	0,00796	0,05203	0,11961
1317,14282	0,00790	0,05186	0,11969
1315,21436	0,00792	0,05197	0,11978
1313,28589	0,00804	0,05226	0,11978
1311,35742	0,00804	0,05231	0,11980
1309,42896	0,00816	0,05246	0,12020
1307,50049	0,00831	0,05263	0,12049
1305,57202	0,00836	0,05270	0,12047
1303,64355	0,00846	0,05294	0,12055
1301,71509	0,00860	0,05319	0,12074
1299,78662	0,00871	0,05335	0,12104
1297,85815	0,00876	0,05350	0,12144
1295,92969	0,00883	0,05368	0,12178
1294,00122	0,00894	0,05384	0,12204
1292,07275	0,00905	0,05401	0,12229
1290,14429	0,00909	0,05417	0,12248
1288,21582	0,00907	0,05410	0,12250
1286,28735	0,00914	0,05401	0,12263
1284,35889	0,00931	0,05413	0,12272
1282,43042	0,00944	0,05440	0,12283
1280,50195	0,00957	0,05481	0,12349
1278,57349	0,00968	0,05511	0,12414
1276,64502	0,00980	0,05539	0,12452
1274,71655	0,00998	0,05585	0,12526
1272,78809	0,01014	0,05634	0,12620
1270,85962	0,01035	0,05679	0,12695
1268,93115	0,01055	0,05705	0,12743
1267,00269	0,01075	0,05732	0,12777
1265,07422	0,01090	0,05770	0,12815
1263,14575	0,01085	0,05783	0,12862
1261,21729	0,01081	0,05789	0,12914
1259,28882	0,01089	0,05813	0,12968
1257,36035	0,01096	0,05836	0,13037
1255,43188	0,01097	0,05857	0,13125
1253,50342	0,01108	0,05884	0,13192
1251,57495	0,01129	0,05918	0,13246
1249,64648	0,01148	0,05967	0,13340
1247,71802	0,01183	0,06033	0,13468
1245,78955	0,01212	0,06093	0,13583
1243,86108	0,01226	0,06146	0,13697
1241,93262	0,01254	0,06205	0,13821
1240,00415	0,01275	0,06253	0,13930
1238,07568	0,01298	0,06301	0,14025

1236,14722	0,01326	0,06357	0,14127
1234,21875	0,01340	0,06405	0,14252
1232,29028	0,01364	0,06478	0,14390
1230,36182	0,01396	0,06557	0,14502
1228,43335	0,01421	0,06607	0,14604
1226,50488	0,01447	0,06659	0,14720
1224,57642	0,01477	0,06692	0,14804
1222,64795	0,01502	0,06715	0,14884
1220,71948	0,01524	0,06777	0,15015
1218,79102	0,01559	0,06834	0,15135
1216,86255	0,01598	0,06861	0,15223
1214,93408	0,01637	0,06909	0,15319
1213,00562	0,01676	0,06976	0,15406
1211,07715	0,01715	0,07028	0,15495
1209,14868	0,01751	0,07080	0,15620
1207,22021	0,01778	0,07144	0,15744
1205,29175	0,01810	0,07199	0,15827
1203,36328	0,01848	0,07245	0,15902
1201,43481	0,01891	0,07293	0,15998
1199,50635	0,01939	0,07338	0,16074
1197,57788	0,01968	0,07378	0,16122
1195,64941	0,01992	0,07420	0,16170
1193,72095	0,02021	0,07459	0,16219
1191,79248	0,02026	0,07487	0,16263
1189,86401	0,02034	0,07513	0,16308
1187,93555	0,02065	0,07548	0,16360
1186,00708	0,02097	0,07586	0,16414
1184,07861	0,02127	0,07622	0,16458
1182,15015	0,02166	0,07665	0,16508
1180,22168	0,02207	0,07728	0,16579
1178,29321	0,02247	0,07782	0,16647
1176,36475	0,02287	0,07828	0,16715
1174,43628	0,02324	0,07885	0,16789
1172,50781	0,02354	0,07932	0,16846
1170,57935	0,02378	0,07971	0,16894
1168,65088	0,02392	0,07997	0,16943
1166,72241	0,02397	0,08012	0,16983
1164,79395	0,02430	0,08058	0,17029
1162,86548	0,02480	0,08109	0,17092
1160,93701	0,02506	0,08141	0,17168
1159,00854	0,02521	0,08172	0,17225
1157,08008	0,02540	0,08198	0,17272
1155,15161	0,02551	0,08221	0,17318
1153,22314	0,02545	0,08236	0,17330
1151,29468	0,02532	0,08245	0,17358
1149,36621	0,02544	0,08276	0,17408
1147,43774	0,02565	0,08327	0,17445
1145,50928	0,02578	0,08376	0,17524

1143,58081	0,02598	0,08423	0,17616
1141,65234	0,02613	0,08456	0,17648
1139,72388	0,02632	0,08467	0,17684
1137,79541	0,02663	0,08486	0,17761
1135,86694	0,02683	0,08512	0,17813
1133,93848	0,02709	0,08533	0,17855
1132,01001	0,02738	0,08562	0,17893
1130,08154	0,02739	0,08567	0,17885
1128,15308	0,02758	0,08571	0,17931
1126,22461	0,02785	0,08600	0,18014
1124,29614	0,02781	0,08603	0,18037
1122,36768	0,02787	0,08609	0,18049
1120,43921	0,02803	0,08626	0,18075
1118,51074	0,02818	0,08626	0,18108
1116,58228	0,02839	0,08637	0,18121
1114,65381	0,02842	0,08664	0,18115
1112,72534	0,02850	0,08689	0,18135
1110,79688	0,02878	0,08707	0,18130
1108,86841	0,02911	0,08733	0,18138
1106,93994	0,02939	0,08759	0,18170
1105,01147	0,02941	0,08757	0,18143
1103,08301	0,02943	0,08758	0,18145
1101,15454	0,02960	0,08758	0,18169
1099,22607	0,02963	0,08753	0,18127
1097,29761	0,02965	0,08763	0,18093
1095,36914	0,02976	0,08763	0,18095
1093,44067	0,02975	0,08772	0,18097
1091,51221	0,02969	0,08789	0,18105
1089,58374	0,02994	0,08797	0,18092
1087,65527	0,03014	0,08806	0,18058
1085,72681	0,02996	0,08800	0,18031
1083,79834	0,02974	0,08765	0,17990
1081,86987	0,02951	0,08725	0,17936
1079,94141	0,02931	0,08705	0,17892
1078,01294	0,02920	0,08693	0,17849
1076,08447	0,02905	0,08680	0,17794
1074,15601	0,02893	0,08659	0,17725
1072,22754	0,02879	0,08628	0,17672
1070,29907	0,02858	0,08613	0,17638
1068,37061	0,02840	0,08602	0,17585
1066,44214	0,02830	0,08585	0,17548
1064,51367	0,02830	0,08570	0,17544
1062,58521	0,02820	0,08543	0,17516
1060,65674	0,02791	0,08515	0,17478
1058,72827	0,02757	0,08481	0,17438
1056,7998	0,02730	0,08440	0,17368
1054,87134	0,02716	0,08420	0,17315
1052,94287	0,02692	0,08406	0,17274

1051,0144	0,02661	0,08372	0,17213
1049,08594	0,02643	0,08337	0,17175
1047,15747	0,02630	0,08316	0,17134
1045,229	0,02630	0,08300	0,17091
1043,30054	0,02622	0,08282	0,17072
1041,37207	0,02594	0,08267	0,17029
1039,4436	0,02571	0,08243	0,16989
1037,51514	0,02551	0,08216	0,16971
1035,58667	0,02544	0,08206	0,16943
1033,6582	0,02535	0,08192	0,16923
1031,72974	0,02492	0,08157	0,16887
1029,80127	0,02465	0,08140	0,16841
1027,8728	0,02477	0,08135	0,16830
1025,94434	0,02484	0,08112	0,16819
1024,01587	0,02484	0,08100	0,16810
1022,0874	0,02485	0,08090	0,16835
1020,15894	0,02470	0,08060	0,16815
1018,23047	0,02458	0,08046	0,16759
1016,302	0,02442	0,08036	0,16722
1014,37354	0,02409	0,08021	0,16675
1012,44507	0,02390	0,08013	0,16648
1010,5166	0,02372	0,07978	0,16606
1008,58813	0,02353	0,07942	0,16539
1006,65967	0,02346	0,07929	0,16535
1004,7312	0,02336	0,07912	0,16540
1002,80273	0,02337	0,07910	0,16526
1000,87427	0,02339	0,07909	0,16532
998,9458	0,02341	0,07901	0,16516
997,01733	0,02342	0,07900	0,16480
995,08887	0,02321	0,07885	0,16439
993,1604	0,02297	0,07865	0,16372
991,23193	0,02278	0,07844	0,16305
989,30347	0,02271	0,07820	0,16265
987,375	0,02282	0,07801	0,16215
985,44653	0,02272	0,07776	0,16151
983,51807	0,02268	0,07777	0,16101
981,5896	0,02276	0,07787	0,16062
979,66113	0,02250	0,07748	0,16019
977,73267	0,02219	0,07725	0,15946
975,8042	0,02219	0,07716	0,15874
973,87573	0,02219	0,07673	0,15838
971,94727	0,02207	0,07666	0,15791
970,0188	0,02193	0,07684	0,15745
968,09033	0,02168	0,07667	0,15748
966,16187	0,02149	0,07652	0,15751
964,2334	0,02150	0,07642	0,15721
962,30493	0,02159	0,07627	0,15698
960,37646	0,02170	0,07621	0,15667

958,448	0,02169	0,07605	0,15622
956,51953	0,02154	0,07596	0,15603
954,59106	0,02135	0,07601	0,15583
952,6626	0,02113	0,07572	0,15555
950,73413	0,02103	0,07533	0,15578
948,80566	0,02100	0,07527	0,15593
946,8772	0,02092	0,07525	0,15524
944,94873	0,02090	0,07525	0,15470
943,02026	0,02092	0,07545	0,15464
941,0918	0,02086	0,07540	0,15429
939,16333	0,02068	0,07503	0,15399
937,23486	0,02052	0,07496	0,15407
935,3064	0,02055	0,07493	0,15398
933,37793	0,02055	0,07476	0,15386
931,44946	0,02043	0,07500	0,15401
929,521	0,02041	0,07523	0,15422
927,59253	0,02036	0,07508	0,15417
925,66406	0,02037	0,07518	0,15388
923,7356	0,02063	0,07546	0,15391
921,80713	0,02091	0,07539	0,15413
919,87866	0,02102	0,07522	0,15422
917,9502	0,02093	0,07520	0,15419
916,02173	0,02089	0,07526	0,15408
914,09326	0,02105	0,07555	0,15449
912,16479	0,02102	0,07575	0,15489
910,23633	0,02093	0,07557	0,15477
908,30786	0,02087	0,07542	0,15482
906,37939	0,02076	0,07541	0,15498
904,45093	0,02086	0,07545	0,15532
902,52246	0,02095	0,07546	0,15555
900,59399	0,02107	0,07539	0,15527
898,66553	0,02130	0,07534	0,15523
896,73706	0,02127	0,07545	0,15545
894,80859	0,02147	0,07562	0,15570
892,88013	0,02174	0,07549	0,15598
890,95166	0,02152	0,07545	0,15616
889,02319	0,02144	0,07591	0,15635
887,09473	0,02143	0,07620	0,15653
885,16626	0,02131	0,07619	0,15689
883,23779	0,02151	0,07644	0,15723
881,30933	0,02169	0,07689	0,15741
879,38086	0,02197	0,07734	0,15801
877,45239	0,02258	0,07790	0,15871
875,52393	0,02294	0,07894	0,15972
873,59546	0,02349	0,08046	0,16195
871,66699	0,02450	0,08245	0,16498
869,73853	0,02541	0,08492	0,16832
867,81006	0,02613	0,08694	0,17157

865,88159	0,02655	0,08806	0,17378
863,95313	0,02691	0,08887	0,17510
862,02466	0,02743	0,08938	0,17601
860,09619	0,02753	0,08939	0,17588
858,16772	0,02727	0,08875	0,17469
856,23926	0,02707	0,08772	0,17308
854,31079	0,02681	0,08677	0,17096
852,38232	0,02653	0,08604	0,16952
850,45386	0,02648	0,08624	0,17008
848,52539	0,02723	0,08819	0,17267
846,59692	0,02891	0,09174	0,17861
844,66846	0,03033	0,09548	0,18576
842,73999	0,03174	0,09899	0,19205
840,81152	0,03437	0,10455	0,20311
838,88306	0,03710	0,11120	0,21797
836,95459	0,03923	0,11652	0,23105
835,02612	0,04127	0,12114	0,24350
833,09766	0,04214	0,12321	0,24986
831,16919	0,04188	0,12267	0,24889
829,24072	0,04171	0,12244	0,24820
827,31226	0,04159	0,12222	0,24742
825,38379	0,04224	0,12371	0,25215
823,45532	0,04385	0,12738	0,26345
821,52686	0,04463	0,12901	0,26766
819,59839	0,04458	0,12907	0,26667
817,66992	0,04499	0,12999	0,26892
815,74146	0,04572	0,13128	0,27292
813,81299	0,04646	0,13259	0,27789
811,88452	0,04703	0,13297	0,28072
809,95605	0,04705	0,13254	0,27959
808,02759	0,04703	0,13298	0,27981
806,09912	0,04748	0,13410	0,28337
804,17065	0,04820	0,13527	0,28712
802,24219	0,04868	0,13626	0,28970
800,31372	0,04912	0,13723	0,29331
798,38525	0,04997	0,13861	0,29837
796,45679	0,05046	0,13956	0,30183
794,52832	0,05034	0,13975	0,30265
792,59985	0,05006	0,13938	0,30094
790,67139	0,04945	0,13823	0,29639
788,74292	0,04904	0,13696	0,29207
786,81445	0,04897	0,13615	0,29013
784,88599	0,04846	0,13506	0,28667
782,95752	0,04790	0,13354	0,28106
781,02905	0,04761	0,13262	0,27777
779,10059	0,04730	0,13276	0,27744
777,17212	0,04721	0,13372	0,27998
775,24365	0,04757	0,13522	0,28571



773,31519	0,04840	0,13672	0,29202
771,38672	0,04906	0,13760	0,29630
769,45825	0,04901	0,13815	0,29820
767,52979	0,04936	0,13887	0,30001
765,60132	0,05003	0,13929	0,30228
763,67285	0,04973	0,13912	0,30287
761,74438	0,04915	0,13854	0,30105
759,81592	0,04889	0,13791	0,29789
757,88745	0,04856	0,13775	0,29607
755,95898	0,04835	0,13753	0,29575
754,03052	0,04819	0,13696	0,29470
752,10205	0,04792	0,13627	0,29253
750,17358	0,04819	0,13602	0,29150
748,24512	0,04891	0,13675	0,29361
746,31665	0,04927	0,13748	0,29596
744,38818	0,04942	0,13782	0,29699
742,45972	0,04974	0,13838	0,29831
740,53125	0,05005	0,13912	0,29957
738,60278	0,05021	0,13970	0,30099
736,67432	0,05043	0,14004	0,30286
734,74585	0,05082	0,14027	0,30413
732,81738	0,05082	0,13993	0,30353
730,88892	0,05062	0,13962	0,30278
728,96045	0,05098	0,14047	0,30409
727,03198	0,05153	0,14159	0,30561
725,10352	0,05175	0,14231	0,30821
723,17505	0,05224	0,14316	0,31181
721,24658	0,05313	0,14400	0,31287
719,31812	0,05355	0,14451	0,31404
717,38965	0,05371	0,14513	0,31758
715,46118	0,05412	0,14585	0,32074
713,53271	0,05441	0,14610	0,32179
711,60425	0,05456	0,14600	0,32046
709,67578	0,05490	0,14601	0,31963
707,74731	0,05533	0,14625	0,32064
705,81885	0,05546	0,14641	0,31980
703,89038	0,05535	0,14628	0,31672
701,96191	0,05493	0,14589	0,31421
700,03345	0,05480	0,14593	0,31309
698,10498	0,05552	0,14683	0,31316
696,17651	0,05596	0,14760	0,31308
694,24805	0,05605	0,14800	0,31293
692,31958	0,05675	0,14877	0,31434
690,39111	0,05742	0,14955	0,31610
688,46265	0,05756	0,15016	0,31791
686,53418	0,05813	0,15098	0,32027
684,60571	0,05848	0,15131	0,32097
682,67725	0,05899	0,15208	0,32265

680,74878	0,05916	0,15358	0,32657
678,82031	0,05933	0,15378	0,32935
676,89185	0,05950	0,15425	0,33179
674,96338	0,05966	0,15510	0,33419
673,03491	0,05983	0,15525	0,33540
671,10645	0,06000	0,15540	0,33644
669,17798	0,06016	0,15555	0,33762
667,24951	0,06033	0,15570	0,33797
665,32104	0,06050	0,15585	0,33832
663,39258	0,06067	0,15600	0,33867
661,46411	0,06083	0,15615	0,33902
659,53564	0,06100	0,15630	0,33937
657,60718	0,06117	0,15645	0,33972
655,67871	0,06134	0,15661	0,34007
653,75024	0,06150	0,15676	0,34042
651,82178	0,06167	0,15691	0,34077
649,89331	0,06184	0,15706	0,34112
647,96484	0,06200	0,15721	0,34147
646,03638	0,06217	0,15736	0,34182
644,10791	0,06218	0,15718	0,34198
642,17944	0,06212	0,15711	0,34135
640,25098	0,06198	0,15710	0,34152
638,32251	0,06178	0,15664	0,34134
636,39404	0,06159	0,15677	0,34147
634,46558	0,06133	0,15681	0,34068
632,53711	0,06158	0,15699	0,33967
630,60864	0,06132	0,15675	0,33843
628,68018	0,06079	0,15598	0,33652
626,75171	0,06052	0,15581	0,33639
624,82324	0,06070	0,15581	0,33678
622,89478	0,06091	0,15554	0,33635
620,96631	0,06106	0,15561	0,33735
619,03784	0,06195	0,15635	0,33908
617,10938	0,06216	0,15687	0,34039
615,18091	0,06150	0,15642	0,34147
613,25244	0,06133	0,15609	0,34206
611,32397	0,06131	0,15645	0,34285
609,39551	0,06139	0,15630	0,34302
607,46704	0,06148	0,15574	0,34194
605,53857	0,06107	0,15576	0,34126
603,61011	0,06054	0,15576	0,34078
601,68164	0,06043	0,15525	0,34014
599,75317	0,06032	0,15466	0,34001
597,82471	0,06003	0,15453	0,33991
595,89624	0,06008	0,15495	0,33919
593,96777	0,06018	0,15495	0,33777
592,03931	0,05980	0,15435	0,33641
590,11084	0,05966	0,15396	0,33533

588,18237	0,05956	0,15364	0,33446
586,25391	0,05924	0,15382	0,33401
584,32544	0,05954	0,15458	0,33372
582,39697	0,05946	0,15463	0,33309
580,46851	0,05912	0,15437	0,33163
578,54004	0,05931	0,15453	0,33059
576,61157	0,05898	0,15463	0,33064
574,68311	0,05930	0,15477	0,33052
572,75464	0,06005	0,15518	0,33158
570,82617	0,05947	0,15577	0,33423
568,89771	0,05901	0,15652	0,33727
566,96924	0,05943	0,15720	0,34029
565,04077	0,05957	0,15732	0,34077
563,1123	0,05969	0,15705	0,33916
561,18384	0,06022	0,15698	0,33832
559,25537	0,06063	0,15742	0,33760
557,3269	0,06067	0,15803	0,33683
555,39844	0,06049	0,15780	0,33643
553,46997	0,06021	0,15726	0,33528
551,5415	0,05973	0,15728	0,33339
549,61304	0,05903	0,15716	0,33149
547,68457	0,05784	0,15590	0,32915
545,7561	0,05710	0,15469	0,32615
543,82764	0,05780	0,15491	0,32343
541,89917	0,05765	0,15462	0,32207
539,9707	0,05651	0,15384	0,32098
538,04224	0,05507	0,15316	0,31927
536,11377	0,05329	0,15165	0,31920
534,1853	0,05335	0,15153	0,31888
532,25684	0,05124	0,14951	0,31529
530,32837	0,04876	0,14612	0,31282
528,3999	0,04671	0,14381	0,30919
526,47144	0,03989	0,13774	0,30073
524,54297	0,03851	0,13446	0,29634
522,6145	0,03993	0,13389	0,29484
520,68604	0,03406	0,12816	0,28812
518,75757	0,02819	0,12234	0,28049
516,8291	0,02456	0,11786	0,27456
514,90063	0,02246	0,11394	0,26824
512,97217	0,01989	0,11003	0,26246
511,0437	0,01567	0,10584	0,25839
509,11523	0,01123	0,10098	0,25194
507,18677	0,00688	0,09480	0,24410
505,2583	0,00585	0,09298	0,24126
503,32983	0,00214	0,08973	0,23675
501,40137	-0,00176	0,08469	0,23113
499,4729	-0,00203	0,08274	0,22834

Figure 2.4			
n°spectre	VD95	VD236	VD292
nom	F1-0 days	F1-43 days	F1-104 days
cm-1	a	b	c
4001,5686	0,21915	0,16936	0,17716
3999,64014	0,21895	0,16913	0,17699
3997,71167	0,21895	0,16897	0,17696
3995,7832	0,21880	0,16894	0,17667
3993,85474	0,21845	0,16876	0,17647
3991,92627	0,21838	0,16864	0,17639
3989,9978	0,21837	0,16858	0,17594
3988,06934	0,21805	0,16837	0,17590
3986,14087	0,21780	0,16829	0,17614
3984,2124	0,21767	0,16823	0,17584
3982,28394	0,21757	0,16800	0,17548
3980,35547	0,21741	0,16792	0,17542
3978,427	0,21720	0,16785	0,17551
3976,49854	0,21709	0,16770	0,17509
3974,57007	0,21700	0,16756	0,17450
3972,6416	0,21674	0,16745	0,17457
3970,71313	0,21638	0,16734	0,17463
3968,78467	0,21633	0,16722	0,17430
3966,8562	0,21617	0,16709	0,17431
3964,92773	0,21596	0,16704	0,17469
3962,99927	0,21607	0,16703	0,17415
3961,0708	0,21566	0,16677	0,17340
3959,14233	0,21530	0,16664	0,17373
3957,21387	0,21528	0,16660	0,17376
3955,2854	0,21509	0,16649	0,17329
3953,35693	0,21499	0,16652	0,17336
3951,42847	0,21477	0,16610	0,17299
3949,5	0,21479	0,16581	0,17112
3947,57153	0,21420	0,16577	0,17100
3945,64307	0,21392	0,16573	0,17270
3943,7146	0,21495	0,16613	0,17183
3941,78613	0,21395	0,16564	0,17078
3939,85767	0,21306	0,16520	0,17219
3937,9292	0,21382	0,16560	0,17267
3936,00073	0,21336	0,16523	0,17217
3934,07227	0,21377	0,16538	0,17204
3932,1438	0,21431	0,16576	0,17061
3930,21533	0,21248	0,16460	0,16919
3928,28687	0,21213	0,16430	0,17085
3926,3584	0,21350	0,16518	0,17151
3924,42993	0,21289	0,16485	0,16937
3922,50146	0,21170	0,16417	0,16974
3920,573	0,21248	0,16463	0,17101

3918,64453	0,21301	0,16476	0,17046
3916,71606	0,21207	0,16417	0,16951
3914,7876	0,21087	0,16367	0,16981
3912,85913	0,21099	0,16376	0,17046
3910,93066	0,21171	0,16406	0,17109
3909,0022	0,21091	0,16366	0,17072
3907,07373	0,21157	0,16397	0,16988
3905,14526	0,21333	0,16477	0,16926
3903,2168	0,21174	0,16367	0,16827
3901,28833	0,21069	0,16290	0,16823
3899,35986	0,21092	0,16310	0,16744
3897,4314	0,20929	0,16223	0,16774
3895,50293	0,20862	0,16201	0,16792
3893,57446	0,21140	0,16351	0,16858
3891,646	0,21250	0,16390	0,16884
3889,71753	0,20697	0,16086	0,16766
3887,78906	0,20972	0,16229	0,16845
3885,8606	0,21356	0,16428	0,17074
3883,93213	0,20613	0,16022	0,16669
3882,00366	0,20962	0,16200	0,16603
3880,0752	0,21189	0,16354	0,16545
3878,14673	0,20523	0,16015	0,16567
3876,21826	0,20979	0,16212	0,16883
3874,28979	0,20985	0,16256	0,16577
3872,36133	0,20741	0,16100	0,16414
3870,43286	0,21182	0,16242	0,16964
3868,50439	0,20605	0,15977	0,16556
3866,57593	0,20645	0,16006	0,16530
3864,64746	0,21073	0,16215	0,16802
3862,71899	0,20593	0,16012	0,16250
3860,79053	0,20646	0,16026	0,16574
3858,86206	0,20677	0,16068	0,16715
3856,93359	0,20693	0,16101	0,16204
3855,00513	0,21406	0,16298	0,17464
3853,07666	0,21002	0,16108	0,17605
3851,14819	0,20002	0,15549	0,16238
3849,21973	0,20443	0,15877	0,16219
3847,29126	0,20586	0,16012	0,16664
3845,36279	0,20633	0,16061	0,16516
3843,43433	0,20697	0,16057	0,16533
3841,50586	0,20541	0,15992	0,16231
3839,57739	0,20728	0,16000	0,16256
3837,64893	0,20680	0,15879	0,16707
3835,72046	0,20203	0,15702	0,16465
3833,79199	0,20445	0,15884	0,16265
3831,86353	0,20570	0,15942	0,16508
3829,93506	0,20231	0,15794	0,16336

3828,00659	0,20529	0,15934	0,16385
3826,07813	0,20428	0,15889	0,16286
3824,14966	0,20252	0,15817	0,16108
3822,22119	0,20930	0,16100	0,16735
3820,29272	0,20282	0,15781	0,15987
3818,36426	0,20098	0,15660	0,15955
3816,43579	0,20726	0,15875	0,16809
3814,50732	0,20072	0,15603	0,16494
3812,57886	0,20066	0,15670	0,16148
3810,65039	0,20286	0,15815	0,16314
3808,72192	0,20467	0,15879	0,16482
3806,79346	0,20455	0,15799	0,16605
3804,86499	0,19896	0,15555	0,16103
3802,93652	0,20519	0,15826	0,16220
3801,00806	0,20464	0,15724	0,16405
3799,07959	0,19713	0,15413	0,16025
3797,15112	0,20297	0,15757	0,15972
3795,22266	0,20164	0,15681	0,16186
3793,29419	0,19916	0,15581	0,16132
3791,36572	0,20203	0,15738	0,16280
3789,43726	0,20050	0,15661	0,16264
3787,50879	0,20058	0,15658	0,16226
3785,58032	0,20175	0,15707	0,16110
3783,65186	0,19956	0,15583	0,15985
3781,72339	0,20045	0,15635	0,16180
3779,79492	0,20157	0,15694	0,16069
3777,86646	0,19904	0,15538	0,15932
3775,93799	0,19917	0,15551	0,16098
3774,00952	0,19945	0,15583	0,16137
3772,08105	0,20035	0,15616	0,16138
3770,15259	0,20117	0,15636	0,16080
3768,22412	0,19815	0,15463	0,15965
3766,29565	0,19938	0,15519	0,15934
3764,36719	0,19892	0,15507	0,15938
3762,43872	0,19741	0,15438	0,15952
3760,51025	0,20083	0,15593	0,16029
3758,58179	0,19895	0,15485	0,15699
3756,65332	0,19700	0,15378	0,15654
3754,72485	0,19893	0,15466	0,15886
3752,79639	0,20068	0,15477	0,16040
3750,86792	0,20225	0,15480	0,16209
3748,93945	0,19425	0,15107	0,15952
3747,01099	0,19635	0,15247	0,15511
3745,08252	0,20468	0,15599	0,16574
3743,15405	0,19516	0,15173	0,16414
3741,22559	0,19264	0,15105	0,15180
3739,29712	0,19886	0,15400	0,15516
3737,36865	0,19998	0,15430	0,15994

3735,44019	0,19770	0,15331	0,15245
3733,51172	0,19738	0,15275	0,15269
3731,58325	0,19531	0,15148	0,15742
3729,65479	0,19421	0,15151	0,15656
3727,72632	0,19700	0,15314	0,15679
3725,79785	0,19704	0,15313	0,15640
3723,86938	0,19539	0,15228	0,15404
3721,94092	0,19593	0,15238	0,15475
3720,01245	0,19518	0,15186	0,15530
3718,08398	0,19508	0,15178	0,15597
3716,15552	0,19454	0,15197	0,15616
3714,22705	0,19656	0,15268	0,15691
3712,29858	0,19800	0,15290	0,15776
3710,37012	0,19438	0,15095	0,15366
3708,44165	0,19530	0,15081	0,15328
3706,51318	0,19323	0,15032	0,15471
3704,58472	0,19302	0,15115	0,15567
3702,65625	0,19643	0,15284	0,15626
3700,72778	0,19356	0,15152	0,15444
3698,79932	0,19246	0,15088	0,15554
3696,87085	0,19401	0,15161	0,15538
3694,94238	0,19328	0,15067	0,15503
3693,01392	0,19348	0,14996	0,15507
3691,08545	0,19542	0,14997	0,15249
3689,15698	0,19461	0,14749	0,15363
3687,22852	0,19016	0,14478	0,15630
3685,30005	0,18985	0,14603	0,15165
3683,37158	0,19240	0,14775	0,15336
3681,44312	0,19345	0,14836	0,15671
3679,51465	0,19164	0,14806	0,15121
3677,58618	0,19538	0,14908	0,15431
3675,65771	0,19797	0,15030	0,15558
3673,72925	0,18819	0,14627	0,15103
3671,80078	0,19270	0,14823	0,15474
3669,87231	0,19628	0,15029	0,15737
3667,94385	0,18865	0,14755	0,15189
3666,01538	0,19068	0,14886	0,15381
3664,08691	0,19269	0,15020	0,15706
3662,15845	0,19183	0,15005	0,15588
3660,22998	0,19106	0,14982	0,15563
3658,30151	0,19300	0,15087	0,15650
3656,37305	0,19411	0,15088	0,15775
3654,44458	0,18929	0,14856	0,15609
3652,51611	0,19231	0,15044	0,15450
3650,58765	0,19725	0,15231	0,15603
3648,65918	0,19228	0,14937	0,15165
3646,73071	0,18924	0,14830	0,15061
3644,80225	0,18999	0,14913	0,15391

3642,87378	0,19102	0,14980	0,15661
3640,94531	0,19198	0,15055	0,15695
3639,01685	0,19097	0,15005	0,15720
3637,08838	0,19115	0,15021	0,15732
3635,15991	0,19276	0,15093	0,15854
3633,23145	0,19075	0,14994	0,15620
3631,30298	0,19294	0,15066	0,15764
3629,37451	0,19761	0,15264	0,16221
3627,44604	0,18923	0,14865	0,15690
3625,51758	0,18884	0,14881	0,15602
3623,58911	0,19210	0,15077	0,15973
3621,66064	0,19228	0,15083	0,16040
3619,73218	0,19449	0,15122	0,16013
3617,80371	0,19126	0,14956	0,15982
3615,87524	0,19089	0,14907	0,16278
3613,94678	0,19410	0,15035	0,16487
3612,01831	0,19213	0,14958	0,16252
3610,08984	0,19281	0,14936	0,16443
3608,16138	0,19361	0,14965	0,16290
3606,23291	0,19131	0,14872	0,16001
3604,30444	0,19201	0,14913	0,16320
3602,37598	0,19370	0,15007	0,16393
3600,44751	0,19405	0,14995	0,16149
3598,51904	0,19286	0,14956	0,16205
3596,59058	0,19320	0,15018	0,16295
3594,66211	0,19423	0,15058	0,16255
3592,73364	0,19267	0,15008	0,16321
3590,80518	0,19330	0,15064	0,16574
3588,87671	0,19629	0,15194	0,16619
3586,94824	0,19467	0,15120	0,16172
3585,01978	0,19232	0,15021	0,16406
3583,09131	0,19375	0,15103	0,16676
3581,16284	0,19442	0,15162	0,16729
3579,23438	0,19415	0,15167	0,16752
3577,30591	0,19422	0,15176	0,16787
3575,37744	0,19436	0,15200	0,16814
3573,44897	0,19438	0,15226	0,16889
3571,52051	0,19399	0,15208	0,16934
3569,59204	0,19561	0,15281	0,16961
3567,66357	0,19686	0,15360	0,16603
3565,73511	0,19406	0,15207	0,16392
3563,80664	0,19353	0,15187	0,16808
3561,87817	0,19474	0,15283	0,17050
3559,94971	0,19463	0,15278	0,17048
3558,02124	0,19456	0,15275	0,17133
3556,09277	0,19459	0,15296	0,17246
3554,16431	0,19518	0,15315	0,17215
3552,23584	0,19522	0,15327	0,17121



3550,30737	0,19426	0,15290	0,17239
3548,37891	0,19517	0,15315	0,17324
3546,45044	0,19573	0,15347	0,17141
3544,52197	0,19460	0,15292	0,17123
3542,59351	0,19446	0,15282	0,17321
3540,66504	0,19464	0,15292	0,17455
3538,73657	0,19490	0,15298	0,17488
3536,80811	0,19513	0,15309	0,17429
3534,87964	0,19463	0,15278	0,17441
3532,95117	0,19449	0,15265	0,17546
3531,02271	0,19497	0,15281	0,17545
3529,09424	0,19499	0,15253	0,17416
3527,16577	0,19451	0,15216	0,17399
3525,2373	0,19463	0,15226	0,17457
3523,30884	0,19474	0,15214	0,17440
3521,38037	0,19431	0,15178	0,17540
3519,4519	0,19427	0,15175	0,17662
3517,52344	0,19433	0,15169	0,17674
3515,59497	0,19431	0,15154	0,17690
3513,6665	0,19435	0,15138	0,17712
3511,73804	0,19449	0,15126	0,17696
3509,80957	0,19467	0,15122	0,17618
3507,8811	0,19417	0,15086	0,17660
3505,95264	0,19419	0,15079	0,17778
3504,02417	0,19469	0,15098	0,17674
3502,0957	0,19413	0,15066	0,17616
3500,16724	0,19391	0,15046	0,17796
3498,23877	0,19432	0,15058	0,17870
3496,3103	0,19426	0,15057	0,17863
3494,38184	0,19409	0,15052	0,17902
3492,45337	0,19412	0,15049	0,17942
3490,5249	0,19439	0,15054	0,17978
3488,59644	0,19452	0,15060	0,17963
3486,66797	0,19424	0,15047	0,17966
3484,7395	0,19425	0,15044	0,18056
3482,81104	0,19457	0,15058	0,18043
3480,88257	0,19430	0,15059	0,18010
3478,9541	0,19400	0,15062	0,18126
3477,02563	0,19428	0,15062	0,18189
3475,09717	0,19417	0,15058	0,18180
3473,1687	0,19398	0,15057	0,18212
3471,24023	0,19412	0,15046	0,18276
3469,31177	0,19412	0,15056	0,18310
3467,3833	0,19407	0,15061	0,18303
3465,45483	0,19400	0,15036	0,18352
3463,52637	0,19395	0,15038	0,18380
3461,5979	0,19382	0,15037	0,18372
3459,66943	0,19373	0,15023	0,18441

3457,74097	0,19372	0,15026	0,18478
3455,8125	0,19364	0,15027	0,18498
3453,88403	0,19374	0,15032	0,18532
3451,95557	0,19360	0,15025	0,18560
3450,0271	0,19358	0,15025	0,18609
3448,09863	0,19398	0,15047	0,18549
3446,17017	0,19354	0,15030	0,18518
3444,2417	0,19330	0,15020	0,18637
3442,31323	0,19372	0,15044	0,18690
3440,38477	0,19350	0,15051	0,18731
3438,4563	0,19348	0,15054	0,18786
3436,52783	0,19360	0,15067	0,18823
3434,59937	0,19340	0,15090	0,18874
3432,6709	0,19353	0,15102	0,18883
3430,74243	0,19342	0,15107	0,18900
3428,81396	0,19329	0,15133	0,18954
3426,8855	0,19346	0,15146	0,18977
3424,95703	0,19327	0,15151	0,19013
3423,02856	0,19335	0,15184	0,19038
3421,1001	0,19355	0,15206	0,19011
3419,17163	0,19318	0,15209	0,19046
3417,24316	0,19313	0,15228	0,19128
3415,3147	0,19340	0,15261	0,19163
3413,38623	0,19339	0,15288	0,19184
3411,45776	0,19341	0,15316	0,19214
3409,5293	0,19336	0,15339	0,19233
3407,60083	0,19329	0,15346	0,19257
3405,67236	0,19338	0,15371	0,19283
3403,7439	0,19327	0,15411	0,19285
3401,81543	0,19318	0,15427	0,19319
3399,88696	0,19334	0,15449	0,19359
3397,9585	0,19325	0,15474	0,19342
3396,03003	0,19305	0,15484	0,19374
3394,10156	0,19309	0,15507	0,19414
3392,1731	0,19306	0,15541	0,19406
3390,24463	0,19288	0,15558	0,19458
3388,31616	0,19282	0,15565	0,19519
3386,3877	0,19279	0,15593	0,19520
3384,45923	0,19277	0,15630	0,19521
3382,53076	0,19266	0,15653	0,19559
3380,60229	0,19262	0,15679	0,19602
3378,67383	0,19265	0,15702	0,19628
3376,74536	0,19241	0,15717	0,19651
3374,81689	0,19225	0,15749	0,19666
3372,88843	0,19227	0,15779	0,19693
3370,95996	0,19224	0,15795	0,19735
3369,03149	0,19222	0,15827	0,19744
3367,10303	0,19223	0,15861	0,19728

3365,17456	0,19213	0,15868	0,19738
3363,24609	0,19198	0,15888	0,19761
3361,31763	0,19182	0,15932	0,19776
3359,38916	0,19170	0,15946	0,19816
3357,46069	0,19172	0,15952	0,19836
3355,53223	0,19166	0,15991	0,19824
3353,60376	0,19150	0,16020	0,19852
3351,67529	0,19143	0,16033	0,19900
3349,74683	0,19135	0,16052	0,19910
3347,81836	0,19134	0,16072	0,19898
3345,88989	0,19128	0,16095	0,19915
3343,96143	0,19111	0,16110	0,19945
3342,03296	0,19104	0,16120	0,19948
3340,10449	0,19100	0,16151	0,19964
3338,17603	0,19097	0,16182	0,19973
3336,24756	0,19097	0,16187	0,19949
3334,31909	0,19087	0,16191	0,19966
3332,39063	0,19075	0,16199	0,20000
3330,46216	0,19068	0,16209	0,20007
3328,53369	0,19063	0,16227	0,20010
3326,60522	0,19062	0,16233	0,20013
3324,67676	0,19051	0,16234	0,20022
3322,74829	0,19025	0,16244	0,20027
3320,81982	0,19012	0,16256	0,20025
3318,89136	0,19015	0,16274	0,20039
3316,96289	0,19010	0,16279	0,20052
3315,03442	0,18994	0,16277	0,20044
3313,10596	0,18990	0,16289	0,20042
3311,17749	0,18994	0,16291	0,20052
3309,24902	0,18989	0,16287	0,20041
3307,32056	0,18967	0,16299	0,20054
3305,39209	0,18947	0,16301	0,20079
3303,46362	0,18942	0,16295	0,20079
3301,53516	0,18931	0,16300	0,20100
3299,60669	0,18905	0,16298	0,20094
3297,67822	0,18889	0,16292	0,20074
3295,74976	0,18888	0,16289	0,20103
3293,82129	0,18882	0,16293	0,20102
3291,89282	0,18873	0,16295	0,20082
3289,96436	0,18869	0,16277	0,20094
3288,03589	0,18849	0,16270	0,20106
3286,10742	0,18836	0,16279	0,20117
3284,17896	0,18840	0,16274	0,20112
3282,25049	0,18828	0,16261	0,20113
3280,32202	0,18812	0,16254	0,20131
3278,39355	0,18808	0,16259	0,20129
3276,46509	0,18796	0,16253	0,20135
3274,53662	0,18780	0,16241	0,20137

3272,60815	0,18775	0,16241	0,20139
3270,67969	0,18763	0,16238	0,20167
3268,75122	0,18752	0,16237	0,20186
3266,82275	0,18744	0,16234	0,20181
3264,89429	0,18725	0,16217	0,20166
3262,96582	0,18722	0,16215	0,20163
3261,03735	0,18712	0,16218	0,20164
3259,10889	0,18686	0,16203	0,20163
3257,18042	0,18690	0,16197	0,20167
3255,25195	0,18684	0,16195	0,20147
3253,32349	0,18656	0,16189	0,20144
3251,39502	0,18648	0,16193	0,20156
3249,46655	0,18638	0,16183	0,20146
3247,53809	0,18626	0,16171	0,20138
3245,60962	0,18611	0,16170	0,20112
3243,68115	0,18590	0,16161	0,20090
3241,75269	0,18585	0,16158	0,20081
3239,82422	0,18568	0,16159	0,20060
3237,89575	0,18547	0,16146	0,20049
3235,96729	0,18554	0,16142	0,20027
3234,03882	0,18544	0,16148	0,19990
3232,11035	0,18525	0,16135	0,19970
3230,18188	0,18516	0,16114	0,19942
3228,25342	0,18495	0,16110	0,19901
3226,32495	0,18489	0,16106	0,19878
3224,39648	0,18475	0,16089	0,19855
3222,46802	0,18452	0,16073	0,19817
3220,53955	0,18453	0,16067	0,19768
3218,61108	0,18434	0,16056	0,19730
3216,68262	0,18421	0,16051	0,19709
3214,75415	0,18426	0,16046	0,19661
3212,82568	0,18407	0,16026	0,19623
3210,89722	0,18400	0,16012	0,19597
3208,96875	0,18391	0,16001	0,19529
3207,04028	0,18361	0,15989	0,19499
3205,11182	0,18348	0,15986	0,19495
3203,18335	0,18343	0,15969	0,19451
3201,25488	0,18335	0,15960	0,19429
3199,32642	0,18326	0,15963	0,19393
3197,39795	0,18301	0,15947	0,19328
3195,46948	0,18282	0,15935	0,19310
3193,54102	0,18286	0,15932	0,19296
3191,61255	0,18271	0,15923	0,19267
3189,68408	0,18242	0,15913	0,19249
3187,75562	0,18244	0,15899	0,19221
3185,82715	0,18235	0,15887	0,19174
3183,89868	0,18210	0,15877	0,19138
3181,97021	0,18199	0,15864	0,19127

3180,04175	0,18187	0,15854	0,19088
3178,11328	0,18182	0,15836	0,19038
3176,18481	0,18169	0,15814	0,19027
3174,25635	0,18144	0,15807	0,19016
3172,32788	0,18136	0,15802	0,18989
3170,39941	0,18124	0,15787	0,18967
3168,47095	0,18101	0,15768	0,18942
3166,54248	0,18095	0,15753	0,18913
3164,61401	0,18083	0,15745	0,18881
3162,68555	0,18063	0,15733	0,18857
3160,75708	0,18049	0,15714	0,18832
3158,82861	0,18034	0,15704	0,18799
3156,90015	0,18022	0,15693	0,18767
3154,97168	0,18010	0,15677	0,18741
3153,04321	0,17997	0,15659	0,18721
3151,11475	0,17977	0,15651	0,18695
3149,18628	0,17955	0,15642	0,18672
3147,25781	0,17949	0,15617	0,18645
3145,32935	0,17944	0,15606	0,18607
3143,40088	0,17932	0,15599	0,18584
3141,47241	0,17914	0,15575	0,18559
3139,54395	0,17887	0,15554	0,18524
3137,61548	0,17864	0,15533	0,18513
3135,68701	0,17857	0,15525	0,18489
3133,75854	0,17851	0,15518	0,18432
3131,83008	0,17826	0,15485	0,18411
3129,90161	0,17820	0,15470	0,18409
3127,97314	0,17823	0,15467	0,18374
3126,04468	0,17795	0,15441	0,18347
3124,11621	0,17780	0,15423	0,18315
3122,18774	0,17768	0,15411	0,18264
3120,25928	0,17745	0,15402	0,18243
3118,33081	0,17740	0,15392	0,18222
3116,40234	0,17725	0,15362	0,18177
3114,47388	0,17706	0,15344	0,18157
3112,54541	0,17708	0,15335	0,18148
3110,61694	0,17696	0,15316	0,18119
3108,68848	0,17672	0,15301	0,18089
3106,76001	0,17657	0,15286	0,18067
3104,83154	0,17655	0,15272	0,18039
3102,90308	0,17653	0,15250	0,17992
3100,97461	0,17628	0,15222	0,17941
3099,04614	0,17607	0,15211	0,17927
3097,11768	0,17606	0,15200	0,17907
3095,18921	0,17585	0,15177	0,17865
3093,26074	0,17564	0,15151	0,17854
3091,33228	0,17559	0,15143	0,17844
3089,40381	0,17549	0,15139	0,17812

3087,47534	0,17537	0,15113	0,17789
3085,54688	0,17521	0,15090	0,17758
3083,61841	0,17507	0,15081	0,17723
3081,68994	0,17498	0,15062	0,17691
3079,76147	0,17487	0,15045	0,17648
3077,83301	0,17475	0,15033	0,17627
3075,90454	0,17457	0,15008	0,17617
3073,97607	0,17444	0,14989	0,17583
3072,04761	0,17425	0,14975	0,17553
3070,11914	0,17402	0,14949	0,17531
3068,19067	0,17392	0,14935	0,17499
3066,26221	0,17382	0,14922	0,17444
3064,33374	0,17366	0,14900	0,17394
3062,40527	0,17346	0,14881	0,17388
3060,47681	0,17337	0,14861	0,17388
3058,54834	0,17334	0,14847	0,17350
3056,61987	0,17309	0,14831	0,17307
3054,69141	0,17291	0,14806	0,17292
3052,76294	0,17284	0,14789	0,17280
3050,83447	0,17269	0,14771	0,17250
3048,90601	0,17259	0,14741	0,17218
3046,97754	0,17249	0,14721	0,17190
3045,04907	0,17235	0,14715	0,17169
3043,12061	0,17227	0,14698	0,17143
3041,19214	0,17214	0,14675	0,17106
3039,26367	0,17190	0,14663	0,17078
3037,33521	0,17178	0,14642	0,17044
3035,40674	0,17171	0,14622	0,17014
3033,47827	0,17160	0,14618	0,16983
3031,5498	0,17148	0,14595	0,16926
3029,62134	0,17132	0,14568	0,16910
3027,69287	0,17116	0,14553	0,16919
3025,7644	0,17100	0,14533	0,16887
3023,83594	0,17089	0,14515	0,16862
3021,90747	0,17082	0,14498	0,16842
3019,979	0,17074	0,14483	0,16818
3018,05054	0,17069	0,14472	0,16801
3016,12207	0,17052	0,14453	0,16756
3014,1936	0,17032	0,14433	0,16717
3012,26514	0,17028	0,14415	0,16690
3010,33667	0,17017	0,14394	0,16656
3008,4082	0,16998	0,14374	0,16641
3006,47974	0,16982	0,14356	0,16618
3004,55127	0,16965	0,14340	0,16571
3002,6228	0,16953	0,14324	0,16538
3000,69434	0,16949	0,14301	0,16515
2998,76587	0,16934	0,14279	0,16485
2996,8374	0,16912	0,14264	0,16464

2994,90894	0,16906	0,14248	0,16429
2992,98047	0,16895	0,14234	0,16383
2991,052	0,16877	0,14218	0,16366
2989,12354	0,16866	0,14197	0,16335
2987,19507	0,16856	0,14175	0,16288
2985,2666	0,16842	0,14151	0,16271
2983,33813	0,16828	0,14144	0,16257
2981,40967	0,16812	0,14139	0,16230
2979,4812	0,16802	0,14111	0,16196
2977,55273	0,16799	0,14095	0,16164
2975,62427	0,16792	0,14087	0,16145
2973,6958	0,16783	0,14071	0,16111
2971,76733	0,16776	0,14057	0,16073
2969,83887	0,16771	0,14051	0,16059
2967,9104	0,16770	0,14045	0,16041
2965,98193	0,16767	0,14035	0,16005
2964,05347	0,16757	0,14031	0,15975
2962,125	0,16755	0,14024	0,15954
2960,19653	0,16756	0,14011	0,15924
2958,26807	0,16746	0,13996	0,15893
2956,3396	0,16738	0,13970	0,15868
2954,41113	0,16730	0,13957	0,15842
2952,48267	0,16716	0,13951	0,15818
2950,5542	0,16705	0,13927	0,15799
2948,62573	0,16693	0,13911	0,15786
2946,69727	0,16686	0,13900	0,15762
2944,7688	0,16682	0,13891	0,15728
2942,84033	0,16674	0,13893	0,15702
2940,91187	0,16676	0,13887	0,15680
2938,9834	0,16682	0,13880	0,15657
2937,05493	0,16682	0,13888	0,15632
2935,12646	0,16678	0,13897	0,15602
2933,198	0,16678	0,13901	0,15572
2931,26953	0,16683	0,13908	0,15548
2929,34106	0,16682	0,13922	0,15532
2927,4126	0,16680	0,13925	0,15509
2925,48413	0,16676	0,13914	0,15483
2923,55566	0,16658	0,13900	0,15456
2921,6272	0,16639	0,13876	0,15420
2919,69873	0,16627	0,13838	0,15392
2917,77026	0,16603	0,13791	0,15360
2915,8418	0,16572	0,13738	0,15324
2913,91333	0,16549	0,13686	0,15311
2911,98486	0,16528	0,13647	0,15295
2910,0564	0,16509	0,13619	0,15268
2908,12793	0,16495	0,13585	0,15246
2906,19946	0,16479	0,13553	0,15219
2904,271	0,16457	0,13532	0,15194

2902,34253	0,16438	0,13510	0,15175
2900,41406	0,16433	0,13482	0,15148
2898,4856	0,16428	0,13460	0,15118
2896,55713	0,16412	0,13437	0,15093
2894,62866	0,16397	0,13411	0,15070
2892,7002	0,16385	0,13398	0,15050
2890,77173	0,16369	0,13378	0,15029
2888,84326	0,16359	0,13353	0,14998
2886,91479	0,16347	0,13339	0,14974
2884,98633	0,16329	0,13318	0,14957
2883,05786	0,16323	0,13298	0,14934
2881,12939	0,16316	0,13294	0,14911
2879,20093	0,16304	0,13284	0,14891
2877,27246	0,16298	0,13266	0,14872
2875,34399	0,16287	0,13252	0,14851
2873,41553	0,16281	0,13241	0,14829
2871,48706	0,16267	0,13230	0,14809
2869,55859	0,16251	0,13226	0,14791
2867,63013	0,16254	0,13218	0,14771
2865,70166	0,16248	0,13201	0,14751
2863,77319	0,16242	0,13199	0,14727
2861,84473	0,16248	0,13207	0,14696
2859,91626	0,16242	0,13214	0,14672
2857,98779	0,16233	0,13225	0,14654
2856,05933	0,16235	0,13227	0,14633
2854,13086	0,16232	0,13214	0,14607
2852,20239	0,16215	0,13192	0,14576
2850,27393	0,16200	0,13162	0,14558
2848,34546	0,16179	0,13122	0,14537
2846,41699	0,16149	0,13071	0,14506
2844,48853	0,16127	0,13031	0,14490
2842,56006	0,16113	0,13007	0,14473
2840,63159	0,16106	0,12983	0,14456
2838,70313	0,16093	0,12964	0,14445
2836,77466	0,16077	0,12943	0,14433
2834,84619	0,16066	0,12917	0,14417
2832,91772	0,16044	0,12897	0,14394
2830,98926	0,16029	0,12886	0,14377
2829,06079	0,16026	0,12873	0,14357
2827,13232	0,16019	0,12854	0,14329
2825,20386	0,16011	0,12841	0,14312
2823,27539	0,16005	0,12830	0,14297
2821,34692	0,15990	0,12809	0,14280
2819,41846	0,15971	0,12793	0,14261
2817,48999	0,15965	0,12785	0,14242
2815,56152	0,15967	0,12776	0,14231
2813,63306	0,15954	0,12763	0,14210
2811,70459	0,15937	0,12747	0,14189



2809,77612	0,15932	0,12737	0,14177
2807,84766	0,15928	0,12723	0,14155
2805,91919	0,15920	0,12713	0,14141
2803,99072	0,15912	0,12711	0,14133
2802,06226	0,15898	0,12695	0,14105
2800,13379	0,15889	0,12684	0,14082
2798,20532	0,15888	0,12680	0,14066
2796,27686	0,15882	0,12668	0,14046
2794,34839	0,15874	0,12654	0,14039
2792,41992	0,15866	0,12637	0,14031
2790,49146	0,15857	0,12635	0,14014
2788,56299	0,15859	0,12636	0,14002
2786,63452	0,15859	0,12615	0,13983
2784,70605	0,15842	0,12603	0,13966
2782,77759	0,15833	0,12591	0,13952
2780,84912	0,15835	0,12574	0,13937
2778,92065	0,15824	0,12571	0,13920
2776,99219	0,15816	0,12566	0,13903
2775,06372	0,15813	0,12558	0,13891
2773,13525	0,15803	0,12549	0,13882
2771,20679	0,15799	0,12536	0,13873
2769,27832	0,15797	0,12529	0,13862
2767,34985	0,15789	0,12523	0,13842
2765,42139	0,15788	0,12512	0,13818
2763,49292	0,15787	0,12499	0,13809
2761,56445	0,15781	0,12491	0,13803
2759,63599	0,15777	0,12481	0,13784
2757,70752	0,15770	0,12476	0,13770
2755,77905	0,15761	0,12473	0,13761
2753,85059	0,15759	0,12457	0,13743
2751,92212	0,15753	0,12447	0,13736
2749,99365	0,15748	0,12440	0,13732
2748,06519	0,15744	0,12430	0,13713
2746,13672	0,15730	0,12418	0,13692
2744,20825	0,15726	0,12406	0,13676
2742,27979	0,15728	0,12400	0,13667
2740,35132	0,15716	0,12394	0,13654
2738,42285	0,15702	0,12381	0,13638
2736,49438	0,15691	0,12374	0,13632
2734,56592	0,15677	0,12372	0,13624
2732,63745	0,15669	0,12363	0,13605
2730,70898	0,15673	0,12353	0,13590
2728,78052	0,15674	0,12347	0,13582
2726,85205	0,15662	0,12340	0,13571
2724,92358	0,15655	0,12333	0,13559
2722,99512	0,15655	0,12323	0,13551
2721,06665	0,15647	0,12310	0,13534
2719,13818	0,15638	0,12300	0,13518

2717,20972	0,15635	0,12295	0,13505
2715,28125	0,15630	0,12286	0,13492
2713,35278	0,15627	0,12276	0,13480
2711,42432	0,15627	0,12279	0,13463
2709,49585	0,15619	0,12272	0,13451
2707,56738	0,15615	0,12257	0,13442
2705,63892	0,15614	0,12254	0,13430
2703,71045	0,15603	0,12247	0,13423
2701,78198	0,15599	0,12237	0,13416
2699,85352	0,15605	0,12239	0,13418
2697,92505	0,15601	0,12236	0,13414
2695,99658	0,15591	0,12227	0,13397
2694,06812	0,15585	0,12228	0,13388
2692,13965	0,15583	0,12229	0,13374
2690,21118	0,15577	0,12219	0,13366
2688,28271	0,15568	0,12214	0,13374
2686,35425	0,15571	0,12215	0,13367
2684,42578	0,15573	0,12208	0,13350
2682,49731	0,15568	0,12206	0,13348
2680,56885	0,15571	0,12203	0,13350
2678,64038	0,15568	0,12190	0,13340
2676,71191	0,15561	0,12188	0,13334
2674,78345	0,15558	0,12194	0,13335
2672,85498	0,15554	0,12194	0,13321
2670,92651	0,15558	0,12189	0,13310
2668,99805	0,15563	0,12182	0,13312
2667,06958	0,15559	0,12181	0,13304
2665,14111	0,15551	0,12181	0,13294
2663,21265	0,15551	0,12182	0,13295
2661,28418	0,15556	0,12178	0,13293
2659,35571	0,15551	0,12176	0,13291
2657,42725	0,15556	0,12180	0,13292
2655,49878	0,15563	0,12180	0,13282
2653,57031	0,15559	0,12181	0,13284
2651,64185	0,15563	0,12179	0,13297
2649,71338	0,15569	0,12177	0,13287
2647,78491	0,15561	0,12187	0,13276
2645,85645	0,15555	0,12194	0,13279
2643,92798	0,15556	0,12188	0,13280
2641,99951	0,15562	0,12183	0,13280
2640,07104	0,15559	0,12180	0,13279
2638,14258	0,15548	0,12177	0,13280
2636,21411	0,15546	0,12177	0,13274
2634,28564	0,15550	0,12177	0,13257
2632,35718	0,15544	0,12170	0,13246
2630,42871	0,15535	0,12168	0,13243
2628,50024	0,15528	0,12169	0,13239
2626,57178	0,15519	0,12159	0,13227

2624,64331	0,15517	0,12149	0,13216
2622,71484	0,15512	0,12141	0,13219
2620,78638	0,15493	0,12136	0,13216
2618,85791	0,15488	0,12138	0,13201
2616,92944	0,15484	0,12131	0,13195
2615,00098	0,15468	0,12113	0,13188
2613,07251	0,15470	0,12103	0,13177
2611,14404	0,15472	0,12095	0,13167
2609,21558	0,15457	0,12081	0,13150
2607,28711	0,15446	0,12063	0,13141
2605,35864	0,15434	0,12048	0,13133
2603,43018	0,15420	0,12033	0,13112
2601,50171	0,15406	0,12018	0,13096
2599,57324	0,15390	0,12003	0,13087
2597,64478	0,15379	0,11991	0,13070
2595,71631	0,15366	0,11984	0,13052
2593,78784	0,15348	0,11969	0,13037
2591,85938	0,15337	0,11951	0,13019
2589,93091	0,15332	0,11938	0,13003
2588,00244	0,15317	0,11924	0,12993
2586,07397	0,15295	0,11907	0,12984
2584,14551	0,15285	0,11884	0,12972
2582,21704	0,15277	0,11869	0,12960
2580,28857	0,15264	0,11867	0,12946
2578,36011	0,15254	0,11854	0,12933
2576,43164	0,15243	0,11835	0,12917
2574,50317	0,15225	0,11823	0,12901
2572,57471	0,15207	0,11814	0,12893
2570,64624	0,15194	0,11802	0,12889
2568,71777	0,15186	0,11791	0,12871
2566,78931	0,15177	0,11777	0,12851
2564,86084	0,15162	0,11759	0,12842
2562,93237	0,15150	0,11747	0,12826
2561,00391	0,15141	0,11736	0,12815
2559,07544	0,15134	0,11726	0,12806
2557,14697	0,15131	0,11715	0,12781
2555,21851	0,15127	0,11704	0,12776
2553,29004	0,15111	0,11697	0,12774
2551,36157	0,15095	0,11689	0,12757
2549,43311	0,15087	0,11679	0,12750
2547,50464	0,15077	0,11668	0,12742
2545,57617	0,15063	0,11655	0,12733
2543,64771	0,15055	0,11644	0,12731
2541,71924	0,15046	0,11636	0,12717
2539,79077	0,15035	0,11630	0,12699
2537,8623	0,15029	0,11618	0,12703
2535,93384	0,15022	0,11604	0,12699
2534,00537	0,15014	0,11599	0,12685

2532,0769	0,15010	0,11603	0,12685
2530,14844	0,15004	0,11597	0,12680
2528,21997	0,14992	0,11583	0,12669
2526,2915	0,14979	0,11580	0,12661
2524,36304	0,14977	0,11579	0,12648
2522,43457	0,14970	0,11567	0,12644
2520,5061	0,14962	0,11557	0,12645
2518,57764	0,14962	0,11546	0,12632
2516,64917	0,14953	0,11530	0,12621
2514,7207	0,14943	0,11530	0,12620
2512,79224	0,14935	0,11531	0,12613
2510,86377	0,14924	0,11521	0,12599
2508,9353	0,14923	0,11521	0,12594
2507,00684	0,14922	0,11520	0,12603
2505,07837	0,14912	0,11510	0,12597
2503,1499	0,14903	0,11510	0,12591
2501,22144	0,14896	0,11509	0,12595
2499,29297	0,14891	0,11499	0,12591
2497,3645	0,14883	0,11494	0,12590
2495,43604	0,14874	0,11495	0,12586
2493,50757	0,14873	0,11494	0,12580
2491,5791	0,14868	0,11492	0,12579
2489,65063	0,14854	0,11490	0,12572
2487,72217	0,14845	0,11488	0,12567
2485,7937	0,14844	0,11478	0,12561
2483,86523	0,14838	0,11470	0,12553
2481,93677	0,14831	0,11473	0,12556
2480,0083	0,14822	0,11476	0,12557
2478,07983	0,14818	0,11469	0,12560
2476,15137	0,14823	0,11465	0,12564
2474,2229	0,14818	0,11460	0,12562
2472,29443	0,14807	0,11447	0,12568
2470,36597	0,14804	0,11440	0,12571
2468,4375	0,14802	0,11437	0,12559
2466,50903	0,14799	0,11432	0,12556
2464,58057	0,14793	0,11430	0,12558
2462,6521	0,14783	0,11428	0,12550
2460,72363	0,14778	0,11428	0,12547
2458,79517	0,14777	0,11424	0,12549
2456,8667	0,14773	0,11421	0,12540
2454,93823	0,14766	0,11422	0,12533
2453,00977	0,14759	0,11414	0,12535
2451,0813	0,14754	0,11412	0,12531
2449,15283	0,14751	0,11415	0,12525
2447,22437	0,14748	0,11413	0,12525
2445,2959	0,14741	0,11408	0,12519
2443,36743	0,14733	0,11396	0,12516
2441,43896	0,14730	0,11391	0,12525

2439,5105	0,14728	0,11398	0,12523
2437,58203	0,14724	0,11391	0,12509
2435,65356	0,14722	0,11384	0,12508
2433,7251	0,14719	0,11389	0,12504
2431,79663	0,14714	0,11390	0,12499
2429,86816	0,14704	0,11386	0,12502
2427,9397	0,14693	0,11387	0,12496
2426,01123	0,14690	0,11386	0,12490
2424,08276	0,14684	0,11381	0,12479
2422,1543	0,14676	0,11376	0,12473
2420,22583	0,14670	0,11371	0,12491
2418,29736	0,14664	0,11374	0,12501
2416,3689	0,14657	0,11372	0,12501
2414,44043	0,14656	0,11370	0,12502
2412,51196	0,14659	0,11380	0,12498
2410,5835	0,14660	0,11378	0,12499
2408,65503	0,14653	0,11367	0,12495
2406,72656	0,14643	0,11362	0,12489
2404,7981	0,14640	0,11353	0,12487
2402,86963	0,14633	0,11346	0,12482
2400,94116	0,14631	0,11348	0,12480
2399,0127	0,14634	0,11352	0,12477
2397,08423	0,14629	0,11352	0,12475
2395,15576	0,14623	0,11351	0,12474
2393,22729	0,14621	0,11349	0,12463
2391,29883	0,14616	0,11350	0,12461
2389,37036	0,14611	0,11347	0,12458
2387,44189	0,14606	0,11343	0,12455
2385,51343	0,14602	0,11340	0,12453
2383,58496	0,14597	0,11337	0,12450
2381,65649	0,14592	0,11334	0,12448
2379,72803	0,14588	0,11331	0,12445
2377,79956	0,14583	0,11328	0,12442
2375,87109	0,14578	0,11325	0,12440
2373,94263	0,14574	0,11322	0,12437
2372,01416	0,14569	0,11318	0,12434
2370,08569	0,14564	0,11315	0,12432
2368,15723	0,14559	0,11312	0,12429
2366,22876	0,14555	0,11309	0,12426
2364,30029	0,14550	0,11306	0,12424
2362,37183	0,14545	0,11303	0,12421
2360,44336	0,14541	0,11300	0,12419
2358,51489	0,14536	0,11296	0,12416
2356,58643	0,14531	0,11293	0,12413
2354,65796	0,14527	0,11290	0,12411
2352,72949	0,14522	0,11287	0,12408
2350,80103	0,14517	0,11284	0,12405
2348,87256	0,14512	0,11281	0,12403

2346,94409	0,14508	0,11278	0,12400
2345,01563	0,14503	0,11275	0,12398
2343,08716	0,14498	0,11271	0,12395
2341,15869	0,14494	0,11268	0,12392
2339,23022	0,14489	0,11265	0,12390
2337,30176	0,14484	0,11262	0,12387
2335,37329	0,14480	0,11259	0,12384
2333,44482	0,14475	0,11256	0,12382
2331,51636	0,14470	0,11253	0,12379
2329,58789	0,14466	0,11249	0,12377
2327,65942	0,14461	0,11246	0,12374
2325,73096	0,14456	0,11243	0,12371
2323,80249	0,14451	0,11240	0,12369
2321,87402	0,14447	0,11237	0,12366
2319,94556	0,14442	0,11234	0,12363
2318,01709	0,14437	0,11231	0,12361
2316,08862	0,14433	0,11228	0,12358
2314,16016	0,14428	0,11224	0,12355
2312,23169	0,14423	0,11221	0,12353
2310,30322	0,14419	0,11218	0,12350
2308,37476	0,14414	0,11215	0,12348
2306,44629	0,14409	0,11212	0,12345
2304,51782	0,14404	0,11209	0,12342
2302,58936	0,14400	0,11206	0,12340
2300,66089	0,14395	0,11202	0,12337
2298,73242	0,14390	0,11199	0,12334
2296,80396	0,14386	0,11196	0,12332
2294,87549	0,14381	0,11193	0,12329
2292,94702	0,14376	0,11190	0,12327
2291,01855	0,14372	0,11187	0,12324
2289,09009	0,14367	0,11184	0,12321
2287,16162	0,14362	0,11181	0,12319
2285,23315	0,14357	0,11177	0,12316
2283,30469	0,14353	0,11174	0,12313
2281,37622	0,14348	0,11171	0,12311
2279,44775	0,14343	0,11168	0,12308
2277,51929	0,14339	0,11165	0,12306
2275,59082	0,14334	0,11162	0,12303
2273,66235	0,14329	0,11159	0,12300
2271,73389	0,14325	0,11155	0,12298
2269,80542	0,14320	0,11152	0,12295
2267,87695	0,14317	0,11149	0,12292
2265,94849	0,14313	0,11146	0,12290
2264,02002	0,14307	0,11146	0,12287
2262,09155	0,14298	0,11138	0,12284
2260,16309	0,14297	0,11134	0,12276
2258,23462	0,14295	0,11135	0,12273
2256,30615	0,14287	0,11127	0,12272

2254,37769	0,14289	0,11122	0,12272
2252,44922	0,14284	0,11125	0,12278
2250,52075	0,14279	0,11132	0,12278
2248,59229	0,14274	0,11133	0,12277
2246,66382	0,14269	0,11122	0,12285
2244,73535	0,14282	0,11116	0,12282
2242,80688	0,14284	0,11113	0,12283
2240,87842	0,14272	0,11107	0,12286
2238,94995	0,14270	0,11107	0,12277
2237,02148	0,14263	0,11103	0,12279
2235,09302	0,14246	0,11093	0,12277
2233,16455	0,14239	0,11093	0,12261
2231,23608	0,14238	0,11089	0,12264
2229,30762	0,14235	0,11076	0,12271
2227,37915	0,14229	0,11065	0,12269
2225,45068	0,14222	0,11061	0,12270
2223,52222	0,14220	0,11060	0,12270
2221,59375	0,14225	0,11052	0,12268
2219,66528	0,14225	0,11042	0,12266
2217,73682	0,14221	0,11043	0,12274
2215,80835	0,14223	0,11044	0,12285
2213,87988	0,14211	0,11026	0,12277
2211,95142	0,14191	0,11009	0,12258
2210,02295	0,14182	0,11005	0,12248
2208,09448	0,14167	0,10989	0,12239
2206,16602	0,14159	0,10977	0,12227
2204,23755	0,14157	0,10980	0,12222
2202,30908	0,14147	0,10973	0,12217
2200,38062	0,14140	0,10963	0,12211
2198,45215	0,14133	0,10964	0,12218
2196,52368	0,14122	0,10955	0,12220
2194,59521	0,14118	0,10938	0,12214
2192,66675	0,14113	0,10939	0,12213
2190,73828	0,14101	0,10941	0,12209
2188,80981	0,14095	0,10928	0,12207
2186,88135	0,14092	0,10923	0,12205
2184,95288	0,14087	0,10928	0,12205
2183,02441	0,14085	0,10923	0,12196
2181,09595	0,14075	0,10915	0,12185
2179,16748	0,14070	0,10910	0,12188
2177,23901	0,14071	0,10902	0,12182
2175,31055	0,14065	0,10899	0,12168
2173,38208	0,14068	0,10906	0,12168
2171,45361	0,14063	0,10896	0,12154
2169,52515	0,14049	0,10879	0,12137
2167,59668	0,14057	0,10891	0,12139
2165,66821	0,14064	0,10893	0,12138
2163,73975	0,14060	0,10883	0,12132

2161,81128	0,14055	0,10886	0,12122
2159,88281	0,14051	0,10882	0,12116
2157,95435	0,14057	0,10872	0,12121
2156,02588	0,14058	0,10867	0,12119
2154,09741	0,14056	0,10866	0,12110
2152,16895	0,14063	0,10863	0,12094
2150,24048	0,14058	0,10862	0,12083
2148,31201	0,14055	0,10867	0,12083
2146,38354	0,14066	0,10864	0,12080
2144,45508	0,14067	0,10858	0,12075
2142,52661	0,14063	0,10857	0,12072
2140,59814	0,14064	0,10845	0,12067
2138,66968	0,14061	0,10837	0,12062
2136,74121	0,14060	0,10835	0,12055
2134,81274	0,14062	0,10826	0,12045
2132,88428	0,14053	0,10818	0,12050
2130,95581	0,14050	0,10813	0,12053
2129,02734	0,14047	0,10798	0,12040
2127,09888	0,14026	0,10786	0,12036
2125,17041	0,14007	0,10776	0,12031
2123,24194	0,14001	0,10760	0,12018
2121,31348	0,13995	0,10740	0,12004
2119,38501	0,13986	0,10719	0,11991
2117,45654	0,13978	0,10704	0,11985
2115,52808	0,13964	0,10696	0,11974
2113,59961	0,13949	0,10680	0,11959
2111,67114	0,13942	0,10665	0,11956
2109,74268	0,13937	0,10653	0,11953
2107,81421	0,13936	0,10638	0,11940
2105,88574	0,13932	0,10630	0,11935
2103,95728	0,13921	0,10617	0,11936
2102,02881	0,13919	0,10598	0,11922
2100,10034	0,13921	0,10592	0,11907
2098,17188	0,13916	0,10580	0,11904
2096,24341	0,13916	0,10561	0,11892
2094,31494	0,13916	0,10553	0,11884
2092,38647	0,13913	0,10548	0,11877
2090,45801	0,13917	0,10545	0,11857
2088,52954	0,13911	0,10536	0,11855
2086,60107	0,13896	0,10524	0,11858
2084,67261	0,13891	0,10523	0,11854
2082,74414	0,13884	0,10517	0,11860
2080,81567	0,13881	0,10502	0,11852
2078,88721	0,13884	0,10498	0,11839
2076,95874	0,13878	0,10493	0,11835
2075,03027	0,13874	0,10483	0,11828
2073,10181	0,13869	0,10481	0,11833
2071,17334	0,13854	0,10482	0,11824



2069,24487	0,13847	0,10480	0,11822
2067,31641	0,13856	0,10474	0,11824
2065,38794	0,13854	0,10471	0,11786
2063,45947	0,13837	0,10465	0,11791
2061,53101	0,13831	0,10458	0,11824
2059,60254	0,13827	0,10463	0,11817
2057,67407	0,13817	0,10474	0,11817
2055,74561	0,13817	0,10482	0,11824
2053,81714	0,13816	0,10481	0,11828
2051,88867	0,13805	0,10478	0,11832
2049,96021	0,13797	0,10488	0,11832
2048,03174	0,13803	0,10500	0,11832
2046,10327	0,13802	0,10503	0,11833
2044,1748	0,13797	0,10517	0,11834
2042,24634	0,13797	0,10534	0,11812
2040,31787	0,13786	0,10532	0,11805
2038,3894	0,13786	0,10533	0,11831
2036,46094	0,13794	0,10547	0,11830
2034,53247	0,13797	0,10559	0,11826
2032,604	0,13805	0,10567	0,11843
2030,67554	0,13804	0,10572	0,11850
2028,74707	0,13801	0,10579	0,11841
2026,8186	0,13804	0,10580	0,11840
2024,89014	0,13801	0,10573	0,11839
2022,96167	0,13799	0,10576	0,11814
2021,0332	0,13798	0,10577	0,11824
2019,10474	0,13803	0,10583	0,11805
2017,17627	0,13796	0,10596	0,11744
2015,2478	0,13774	0,10599	0,11791
2013,31934	0,13779	0,10616	0,11847
2011,39087	0,13782	0,10638	0,11840
2009,4624	0,13775	0,10644	0,11839
2007,53394	0,13776	0,10650	0,11834
2005,60547	0,13773	0,10656	0,11849
2003,677	0,13760	0,10663	0,11864
2001,74854	0,13744	0,10663	0,11862
1999,82007	0,13754	0,10657	0,11862
1997,8916	0,13759	0,10658	0,11846
1995,96313	0,13743	0,10650	0,11867
1994,03467	0,13772	0,10659	0,11831
1992,1062	0,13762	0,10660	0,11730
1990,17773	0,13710	0,10630	0,11762
1988,24927	0,13724	0,10620	0,11802
1986,3208	0,13722	0,10610	0,11808
1984,39233	0,13709	0,10604	0,11832
1982,46387	0,13724	0,10607	0,11810
1980,5354	0,13702	0,10591	0,11806
1978,60693	0,13686	0,10581	0,11808

1976,67847	0,13689	0,10581	0,11792
1974,75	0,13688	0,10581	0,11794
1972,82153	0,13685	0,10572	0,11774
1970,89307	0,13671	0,10553	0,11780
1968,9646	0,13680	0,10555	0,11734
1967,03613	0,13674	0,10550	0,11627
1965,10767	0,13638	0,10519	0,11692
1963,1792	0,13640	0,10515	0,11752
1961,25073	0,13639	0,10512	0,11695
1959,32227	0,13618	0,10487	0,11707
1957,3938	0,13616	0,10471	0,11719
1955,46533	0,13617	0,10463	0,11679
1953,53687	0,13612	0,10458	0,11674
1951,6084	0,13602	0,10445	0,11694
1949,67993	0,13610	0,10438	0,11690
1947,75146	0,13610	0,10430	0,11640
1945,823	0,13604	0,10424	0,11618
1943,89453	0,13634	0,10454	0,11542
1941,96606	0,13594	0,10431	0,11450
1940,0376	0,13548	0,10377	0,11586
1938,10913	0,13569	0,10389	0,11671
1936,18066	0,13557	0,10398	0,11654
1934,2522	0,13552	0,10386	0,11649
1932,32373	0,13552	0,10377	0,11643
1930,39526	0,13553	0,10383	0,11647
1928,4668	0,13539	0,10375	0,11616
1926,53833	0,13528	0,10361	0,11632
1924,60986	0,13595	0,10396	0,11569
1922,6814	0,13547	0,10368	0,11380
1920,75293	0,13512	0,10346	0,11499
1918,82446	0,13601	0,10404	0,11610
1916,896	0,13527	0,10371	0,11500
1914,96753	0,13482	0,10339	0,11552
1913,03906	0,13548	0,10382	0,11628
1911,1106	0,13553	0,10406	0,11553
1909,18213	0,13546	0,10410	0,11479
1907,25366	0,13528	0,10414	0,11537
1905,3252	0,13529	0,10435	0,11594
1903,39673	0,13560	0,10450	0,11616
1901,46826	0,13571	0,10459	0,11623
1899,53979	0,13553	0,10467	0,11630
1897,61133	0,13571	0,10480	0,11637
1895,68286	0,13599	0,10503	0,11530
1893,75439	0,13547	0,10474	0,11547
1891,82593	0,13597	0,10499	0,11635
1889,89746	0,13640	0,10543	0,11475
1887,96899	0,13538	0,10489	0,11496
1886,04053	0,13555	0,10498	0,11630

1884,11206	0,13577	0,10528	0,11602
1882,18359	0,13553	0,10521	0,11636
1880,25513	0,13570	0,10542	0,11658
1878,32666	0,13539	0,10543	0,11623
1876,39819	0,13547	0,10547	0,11665
1874,46973	0,13546	0,10549	0,11655
1872,54126	0,13530	0,10545	0,11644
1870,61279	0,13629	0,10610	0,11657
1868,68433	0,13606	0,10611	0,11344
1866,75586	0,13458	0,10516	0,11360
1864,82739	0,13480	0,10529	0,11627
1862,89893	0,13496	0,10542	0,11684
1860,97046	0,13477	0,10523	0,11633
1859,04199	0,13478	0,10516	0,11642
1857,11353	0,13455	0,10492	0,11638
1855,18506	0,13449	0,10473	0,11670
1853,25659	0,13407	0,10433	0,11618
1851,32813	0,13420	0,10422	0,11675
1849,39966	0,13408	0,10391	0,11615
1847,47119	0,13400	0,10363	0,11413
1845,54272	0,13538	0,10428	0,11636
1843,61426	0,13412	0,10347	0,11583
1841,68579	0,13260	0,10240	0,11450
1839,75732	0,13352	0,10289	0,11553
1837,82886	0,13363	0,10293	0,11561
1835,90039	0,13328	0,10272	0,11454
1833,97192	0,13297	0,10243	0,11556
1832,04346	0,13402	0,10303	0,11604
1830,11499	0,13414	0,10317	0,11312
1828,18652	0,13251	0,10211	0,11359
1826,25806	0,13355	0,10273	0,11532
1824,32959	0,13337	0,10281	0,11429
1822,40112	0,13221	0,10215	0,11492
1820,47266	0,13288	0,10257	0,11648
1818,54419	0,13295	0,10272	0,11591
1816,61572	0,13264	0,10266	0,11571
1814,68726	0,13268	0,10280	0,11661
1812,75879	0,13315	0,10305	0,11574
1810,83032	0,13308	0,10306	0,11449
1808,90186	0,13249	0,10283	0,11527
1806,97339	0,13259	0,10288	0,11581
1805,04492	0,13271	0,10289	0,11622
1803,11646	0,13327	0,10311	0,11595
1801,18799	0,13343	0,10324	0,11379
1799,25952	0,13269	0,10279	0,11461
1797,33105	0,13233	0,10252	0,11484
1795,40259	0,13277	0,10275	0,11436
1793,47412	0,13397	0,10330	0,11710

1791,54565	0,13281	0,10277	0,11419
1789,61719	0,13119	0,10199	0,11443
1787,68872	0,13244	0,10278	0,11715
1785,76025	0,13284	0,10302	0,11732
1783,83179	0,13205	0,10245	0,11715
1781,90332	0,13236	0,10274	0,11608
1779,97485	0,13250	0,10282	0,11492
1778,04639	0,13180	0,10225	0,11663
1776,11792	0,13199	0,10242	0,11531
1774,18945	0,13369	0,10293	0,11722
1772,26099	0,13258	0,10203	0,11687
1770,33252	0,13089	0,10117	0,11509
1768,40405	0,13236	0,10203	0,11671
1766,47559	0,13058	0,10100	0,11771
1764,54712	0,13105	0,10135	0,11640
1762,61865	0,13310	0,10228	0,11789
1760,69019	0,13038	0,10075	0,11660
1758,76172	0,13125	0,10125	0,11644
1756,83325	0,13210	0,10169	0,11720
1754,90479	0,13005	0,10061	0,11633
1752,97632	0,13181	0,10143	0,11831
1751,04785	0,13261	0,10204	0,11807
1749,11938	0,13023	0,10102	0,11257
1747,19092	0,13088	0,10158	0,11355
1745,26245	0,13105	0,10164	0,11612
1743,33398	0,13039	0,10157	0,11414
1741,40552	0,13211	0,10254	0,11763
1739,47705	0,13093	0,10184	0,11901
1737,54858	0,12971	0,10154	0,11520
1735,62012	0,13380	0,10351	0,12219
1733,69165	0,13209	0,10263	0,12104
1731,76318	0,12833	0,10064	0,11643
1729,83472	0,13145	0,10315	0,11533
1727,90625	0,13008	0,10222	0,11979
1725,97778	0,13022	0,10256	0,11914
1724,04932	0,13117	0,10321	0,11977
1722,12085	0,12957	0,10242	0,11900
1720,19238	0,13193	0,10406	0,11966
1718,26392	0,13358	0,10456	0,12034
1716,33545	0,13014	0,10239	0,11787
1714,40698	0,12990	0,10346	0,11676
1712,47852	0,13091	0,10452	0,11929
1710,55005	0,13006	0,10419	0,12077
1708,62158	0,13091	0,10526	0,11938
1706,69312	0,13257	0,10634	0,12187
1704,76465	0,12960	0,10504	0,11765
1702,83618	0,13206	0,10640	0,12072
1700,90771	0,13625	0,10938	0,13065

1698,97925	0,12880	0,10469	0,12312
1697,05078	0,13158	0,10547	0,12166
1695,12231	0,13188	0,10674	0,12740
1693,19385	0,12862	0,10642	0,12405
1691,26538	0,13276	0,10883	0,12427
1689,33691	0,13147	0,10910	0,12458
1687,40845	0,13136	0,10950	0,12262
1685,47998	0,13559	0,11071	0,13239
1683,55151	0,13107	0,10980	0,12370
1681,62305	0,13025	0,11036	0,12347
1679,69458	0,13138	0,11130	0,12621
1677,76611	0,13191	0,11202	0,12997
1675,83765	0,13383	0,11333	0,13328
1673,90918	0,13108	0,11214	0,13138
1671,98071	0,13186	0,11310	0,12935
1670,05225	0,13494	0,11506	0,13048
1668,12378	0,13110	0,11326	0,13071
1666,19531	0,13159	0,11389	0,13161
1664,26685	0,13456	0,11551	0,13646
1662,33838	0,13294	0,11532	0,13359
1660,40991	0,13282	0,11553	0,13461
1658,48145	0,13335	0,11578	0,13790
1656,55298	0,13438	0,11712	0,13397
1654,62451	0,13971	0,11901	0,14110
1652,69604	0,13680	0,11666	0,13300
1650,76758	0,13060	0,11379	0,13976
1648,83911	0,13708	0,11872	0,13398
1646,91064	0,13850	0,11870	0,13442
1644,98218	0,13311	0,11565	0,13989
1643,05371	0,13565	0,11757	0,13914
1641,12524	0,13639	0,11783	0,14222
1639,19678	0,13615	0,11786	0,13908
1637,26831	0,13884	0,11890	0,14068
1635,33984	0,13757	0,11816	0,13973
1633,41138	0,13380	0,11594	0,14068
1631,48291	0,13560	0,11693	0,13958
1629,55444	0,13684	0,11720	0,14190
1627,62598	0,13533	0,11577	0,13851
1625,69751	0,13565	0,11534	0,13917
1623,76904	0,13668	0,11567	0,13949
1621,84058	0,13382	0,11365	0,13651
1619,91211	0,13430	0,11378	0,13595
1617,98364	0,13672	0,11427	0,14084
1616,05518	0,13341	0,11242	0,13837
1614,12671	0,13228	0,11282	0,13532
1612,19824	0,13396	0,11416	0,13555
1610,26978	0,13339	0,11376	0,13524
1608,34131	0,13296	0,11345	0,13233

1606,41284	0,13271	0,11314	0,13309
1604,48438	0,13227	0,11293	0,13262
1602,55591	0,13218	0,11258	0,13072
1600,62744	0,13172	0,11194	0,13036
1598,69897	0,13144	0,11164	0,13020
1596,77051	0,13131	0,11129	0,12893
1594,84204	0,13096	0,11080	0,12723
1592,91357	0,13054	0,11037	0,12718
1590,98511	0,13020	0,10986	0,12650
1589,05664	0,13008	0,10945	0,12553
1587,12817	0,12968	0,10899	0,12605
1585,19971	0,12920	0,10859	0,12441
1583,27124	0,12947	0,10825	0,12421
1581,34277	0,12880	0,10740	0,12418
1579,41431	0,12875	0,10739	0,12106
1577,48584	0,13076	0,10735	0,12472
1575,55737	0,12828	0,10512	0,12292
1573,62891	0,12628	0,10473	0,11971
1571,70044	0,12983	0,10696	0,12092
1569,77197	0,12918	0,10635	0,11897
1567,84351	0,12649	0,10466	0,11774
1565,91504	0,12855	0,10567	0,12018
1563,98657	0,12701	0,10476	0,11815
1562,05811	0,12822	0,10503	0,11854
1560,12964	0,13411	0,10813	0,12488
1558,20117	0,12697	0,10341	0,10907
1556,27271	0,12594	0,10291	0,11702
1554,34424	0,12778	0,10407	0,11881
1552,41577	0,12640	0,10365	0,12007
1550,4873	0,12748	0,10471	0,11521
1548,55884	0,12669	0,10411	0,11701
1546,63037	0,12697	0,10443	0,12005
1544,7019	0,12817	0,10535	0,11518
1542,77344	0,12798	0,10495	0,11529
1540,84497	0,13062	0,10590	0,12079
1538,9165	0,12592	0,10209	0,11292
1536,98804	0,12457	0,10245	0,11716
1535,05957	0,12839	0,10572	0,11906
1533,1311	0,12762	0,10532	0,11526
1531,20264	0,12516	0,10363	0,11790
1529,27417	0,12717	0,10521	0,11931
1527,3457	0,12768	0,10556	0,11782
1525,41724	0,12603	0,10444	0,11855
1523,48877	0,12804	0,10567	0,12049
1521,5603	0,12760	0,10504	0,11903
1519,63184	0,12491	0,10348	0,12227
1517,70337	0,12691	0,10530	0,11859
1515,7749	0,12578	0,10452	0,11760

1513,84644	0,12527	0,10404	0,12268
1511,91797	0,12604	0,10435	0,12464
1509,9895	0,12592	0,10463	0,11933
1508,06104	0,12891	0,10612	0,12029
1506,13257	0,12623	0,10382	0,11780
1504,2041	0,12207	0,10159	0,12744
1502,27563	0,12466	0,10407	0,12599
1500,34717	0,12495	0,10441	0,12870
1498,4187	0,12539	0,10456	0,12808
1496,49023	0,12503	0,10374	0,12948
1494,56177	0,12283	0,10272	0,13007
1492,6333	0,12468	0,10437	0,12884
1490,70483	0,12591	0,10478	0,12654
1488,77637	0,12439	0,10374	0,12189
1486,8479	0,12377	0,10339	0,12461
1484,91943	0,12357	0,10309	0,12719
1482,99097	0,12394	0,10322	0,12625
1481,0625	0,12369	0,10281	0,12417
1479,13403	0,12356	0,10246	0,12495
1477,20557	0,12429	0,10283	0,12275
1475,2771	0,12471	0,10268	0,11971
1473,34863	0,12540	0,10248	0,12116
1471,42017	0,12402	0,10140	0,11798
1469,4917	0,12333	0,10110	0,11768
1467,56323	0,12501	0,10201	0,11946
1465,63477	0,12588	0,10252	0,11705
1463,7063	0,12434	0,10136	0,11704
1461,77783	0,12375	0,10105	0,11627
1459,84937	0,12620	0,10259	0,11304
1457,9209	0,12813	0,10304	0,11205
1455,99243	0,12380	0,09996	0,11598
1454,06396	0,12384	0,10031	0,11108
1452,1355	0,12499	0,10088	0,11224
1450,20703	0,12482	0,10033	0,11414
1448,27856	0,12545	0,10074	0,11167
1446,3501	0,12440	0,09996	0,11191
1444,42163	0,12449	0,09996	0,11256
1442,49316	0,12485	0,10028	0,11306
1440,5647	0,12406	0,09984	0,11107
1438,63623	0,12585	0,10050	0,11315
1436,70776	0,12629	0,10083	0,11333
1434,7793	0,12320	0,09885	0,11067
1432,85083	0,12444	0,09959	0,10978
1430,92236	0,12565	0,10033	0,11065
1428,9939	0,12400	0,09940	0,10878
1427,06543	0,12407	0,09939	0,11071
1425,13696	0,12461	0,09977	0,11015
1423,2085	0,12346	0,09904	0,10670

1421,28003	0,12440	0,09931	0,11140
1419,35156	0,12503	0,09972	0,11132
1417,4231	0,12249	0,09802	0,10571
1415,49463	0,12270	0,09803	0,10759
1413,56616	0,12279	0,09781	0,11013
1411,6377	0,12240	0,09754	0,10830
1409,70923	0,12210	0,09715	0,10848
1407,78076	0,12179	0,09688	0,10924
1405,85229	0,12224	0,09721	0,10737
1403,92383	0,12122	0,09632	0,10687
1401,99536	0,12124	0,09611	0,10855
1400,06689	0,12207	0,09677	0,10802
1398,13843	0,12099	0,09634	0,10559
1396,20996	0,12132	0,09648	0,10637
1394,28149	0,12141	0,09656	0,10711
1392,35303	0,11984	0,09577	0,10814
1390,42456	0,12027	0,09622	0,10859
1388,49609	0,12082	0,09653	0,10888
1386,56763	0,11944	0,09538	0,10707
1384,63916	0,11854	0,09464	0,10713
1382,71069	0,11900	0,09518	0,10852
1380,78223	0,11962	0,09602	0,10845
1378,85376	0,11961	0,09604	0,10836
1376,92529	0,11984	0,09610	0,10887
1374,99683	0,12029	0,09642	0,10668
1373,06836	0,11964	0,09592	0,10701
1371,13989	0,11957	0,09592	0,10982
1369,21143	0,12000	0,09638	0,10900
1367,28296	0,11941	0,09607	0,10925
1365,35449	0,11980	0,09624	0,11035
1363,42603	0,12042	0,09673	0,10754
1361,49756	0,11950	0,09621	0,10711
1359,56909	0,11927	0,09589	0,11011
1357,64063	0,11960	0,09613	0,11056
1355,71216	0,11959	0,09625	0,10980
1353,78369	0,11951	0,09625	0,11005
1351,85522	0,11943	0,09629	0,11061
1349,92676	0,11942	0,09617	0,11066
1347,99829	0,11944	0,09611	0,11115
1346,06982	0,11945	0,09640	0,11148
1344,14136	0,11948	0,09650	0,11204
1342,21289	0,11977	0,09673	0,11192
1340,28442	0,11987	0,09707	0,10913
1338,35596	0,11938	0,09669	0,10892
1336,42749	0,11916	0,09654	0,11176
1334,49902	0,11926	0,09694	0,11284
1332,57056	0,11933	0,09724	0,11328
1330,64209	0,11929	0,09755	0,11350



1328,71362	0,11916	0,09784	0,11376
1326,78516	0,11930	0,09806	0,11435
1324,85669	0,11936	0,09831	0,11463
1322,92822	0,11913	0,09851	0,11533
1320,99976	0,11928	0,09884	0,11555
1319,07129	0,11961	0,09905	0,11466
1317,14282	0,11969	0,09904	0,11513
1315,21436	0,11978	0,09934	0,11596
1313,28589	0,11978	0,09964	0,11599
1311,35742	0,11980	0,09974	0,11706
1309,42896	0,12020	0,10002	0,11794
1307,50049	0,12049	0,10035	0,11815
1305,57202	0,12047	0,10088	0,11904
1303,64355	0,12055	0,10153	0,11966
1301,71509	0,12074	0,10197	0,11997
1299,78662	0,12104	0,10238	0,12056
1297,85815	0,12144	0,10275	0,12123
1295,92969	0,12178	0,10306	0,12214
1294,00122	0,12204	0,10360	0,12300
1292,07275	0,12229	0,10397	0,12369
1290,14429	0,12248	0,10420	0,12429
1288,21582	0,12250	0,10485	0,12501
1286,28735	0,12263	0,10554	0,12621
1284,35889	0,12272	0,10608	0,12761
1282,43042	0,12283	0,10681	0,12901
1280,50195	0,12349	0,10775	0,13060
1278,57349	0,12414	0,10868	0,13231
1276,64502	0,12452	0,10948	0,13413
1274,71655	0,12526	0,11055	0,13601
1272,78809	0,12620	0,11182	0,13784
1270,85962	0,12695	0,11294	0,14017
1268,93115	0,12743	0,11424	0,14311
1267,00269	0,12777	0,11562	0,14592
1265,07422	0,12815	0,11689	0,14909
1263,14575	0,12862	0,11847	0,15256
1261,21729	0,12914	0,12022	0,15539
1259,28882	0,12968	0,12191	0,15857
1257,36035	0,13037	0,12376	0,16226
1255,43188	0,13125	0,12571	0,16575
1253,50342	0,13192	0,12767	0,16936
1251,57495	0,13246	0,12970	0,17257
1249,64648	0,13340	0,13189	0,17576
1247,71802	0,13468	0,13434	0,17944
1245,78955	0,13583	0,13665	0,18267
1243,86108	0,13697	0,13870	0,18575
1241,93262	0,13821	0,14082	0,18904
1240,00415	0,13930	0,14313	0,19201
1238,07568	0,14025	0,14561	0,19466

1236,14722	0,14127	0,14786	0,19749
1234,21875	0,14252	0,14984	0,20073
1232,29028	0,14390	0,15201	0,20384
1230,36182	0,14502	0,15411	0,20651
1228,43335	0,14604	0,15602	0,20893
1226,50488	0,14720	0,15791	0,21124
1224,57642	0,14804	0,15966	0,21379
1222,64795	0,14884	0,16149	0,21648
1220,71948	0,15015	0,16330	0,21899
1218,79102	0,15135	0,16476	0,22146
1216,86255	0,15223	0,16617	0,22394
1214,93408	0,15319	0,16770	0,22649
1213,00562	0,15406	0,16917	0,22904
1211,07715	0,15495	0,17061	0,23155
1209,14868	0,15620	0,17196	0,23401
1207,22021	0,15744	0,17311	0,23625
1205,29175	0,15827	0,17419	0,23854
1203,36328	0,15902	0,17526	0,24081
1201,43481	0,15998	0,17630	0,24276
1199,50635	0,16074	0,17744	0,24470
1197,57788	0,16122	0,17830	0,24660
1195,64941	0,16170	0,17864	0,24837
1193,72095	0,16219	0,17896	0,24996
1191,79248	0,16263	0,17943	0,25119
1189,86401	0,16308	0,17991	0,25216
1187,93555	0,16360	0,18040	0,25308
1186,00708	0,16414	0,18071	0,25419
1184,07861	0,16458	0,18087	0,25530
1182,15015	0,16508	0,18108	0,25628
1180,22168	0,16579	0,18118	0,25710
1178,29321	0,16647	0,18131	0,25767
1176,36475	0,16715	0,18165	0,25824
1174,43628	0,16789	0,18179	0,25884
1172,50781	0,16846	0,18185	0,25926
1170,57935	0,16894	0,18218	0,25950
1168,65088	0,16943	0,18240	0,25974
1166,72241	0,16983	0,18267	0,26011
1164,79395	0,17029	0,18331	0,26045
1162,86548	0,17092	0,18398	0,26086
1160,93701	0,17168	0,18463	0,26162
1159,00854	0,17225	0,18509	0,26217
1157,08008	0,17272	0,18495	0,26234
1155,15161	0,17318	0,18467	0,26282
1153,22314	0,17330	0,18479	0,26323
1151,29468	0,17358	0,18504	0,26294
1149,36621	0,17408	0,18526	0,26266
1147,43774	0,17445	0,18575	0,26286
1145,50928	0,17524	0,18629	0,26318

1143,58081	0,17616	0,18668	0,26379
1141,65234	0,17648	0,18712	0,26431
1139,72388	0,17684	0,18742	0,26407
1137,79541	0,17761	0,18769	0,26379
1135,86694	0,17813	0,18805	0,26381
1133,93848	0,17855	0,18835	0,26365
1132,01001	0,17893	0,18858	0,26312
1130,08154	0,17885	0,18855	0,26287
1128,15308	0,17931	0,18854	0,26323
1126,22461	0,18014	0,18878	0,26265
1124,29614	0,18037	0,18890	0,26126
1122,36768	0,18049	0,18887	0,26032
1120,43921	0,18075	0,18890	0,25931
1118,51074	0,18108	0,18904	0,25817
1116,58228	0,18121	0,18897	0,25682
1114,65381	0,18115	0,18868	0,25493
1112,72534	0,18135	0,18852	0,25301
1110,79688	0,18130	0,18839	0,25149
1108,86841	0,18138	0,18801	0,25045
1106,93994	0,18170	0,18753	0,24969
1105,01147	0,18143	0,18699	0,24910
1103,08301	0,18145	0,18629	0,24885
1101,15454	0,18169	0,18576	0,24894
1099,22607	0,18127	0,18534	0,24916
1097,29761	0,18093	0,18482	0,24943
1095,36914	0,18095	0,18428	0,24985
1093,44067	0,18097	0,18361	0,25030
1091,51221	0,18105	0,18306	0,25067
1089,58374	0,18092	0,18255	0,25112
1087,65527	0,18058	0,18181	0,25123
1085,72681	0,18031	0,18121	0,25097
1083,79834	0,17990	0,18076	0,25084
1081,86987	0,17936	0,18032	0,25027
1079,94141	0,17892	0,17987	0,24885
1078,01294	0,17849	0,17924	0,24689
1076,08447	0,17794	0,17846	0,24391
1074,15601	0,17725	0,17769	0,23981
1072,22754	0,17672	0,17718	0,23592
1070,29907	0,17638	0,17697	0,23262
1068,37061	0,17585	0,17694	0,22944
1066,44214	0,17548	0,17707	0,22727
1064,51367	0,17544	0,17726	0,22606
1062,58521	0,17516	0,17749	0,22477
1060,65674	0,17478	0,17776	0,22387
1058,72827	0,17438	0,17799	0,22349
1056,7998	0,17368	0,17825	0,22307
1054,87134	0,17315	0,17858	0,22255
1052,94287	0,17274	0,17886	0,22211

1051,0144	0,17213	0,17905	0,22192
1049,08594	0,17175	0,17914	0,22176
1047,15747	0,17134	0,17927	0,22139
1045,229	0,17091	0,17947	0,22109
1043,30054	0,17072	0,17933	0,22095
1041,37207	0,17029	0,17891	0,22054
1039,4436	0,16989	0,17867	0,22011
1037,51514	0,16971	0,17831	0,22000
1035,58667	0,16943	0,17787	0,21937
1033,6582	0,16923	0,17733	0,21829
1031,72974	0,16887	0,17607	0,21774
1029,80127	0,16841	0,17469	0,21727
1027,8728	0,16830	0,17370	0,21690
1025,94434	0,16819	0,17265	0,21742
1024,01587	0,16810	0,17178	0,21853
1022,0874	0,16835	0,17173	0,22114
1020,15894	0,16815	0,17210	0,22599
1018,23047	0,16759	0,17199	0,22941
1016,302	0,16722	0,17143	0,22816
1014,37354	0,16675	0,17087	0,22439
1012,44507	0,16648	0,17035	0,22125
1010,5166	0,16606	0,16986	0,21946
1008,58813	0,16539	0,16948	0,21885
1006,65967	0,16535	0,16904	0,21888
1004,7312	0,16540	0,16841	0,21862
1002,80273	0,16526	0,16745	0,21771
1000,87427	0,16532	0,16617	0,21629
998,9458	0,16516	0,16496	0,21497
997,01733	0,16480	0,16368	0,21376
995,08887	0,16439	0,16225	0,21211
993,1604	0,16372	0,16106	0,21052
991,23193	0,16305	0,15995	0,20901
989,30347	0,16265	0,15844	0,20710
987,375	0,16215	0,15645	0,20520
985,44653	0,16151	0,15451	0,20340
983,51807	0,16101	0,15293	0,20114
981,5896	0,16062	0,15116	0,19859
979,66113	0,16019	0,14925	0,19668
977,73267	0,15946	0,14761	0,19499
975,8042	0,15874	0,14603	0,19241
973,87573	0,15838	0,14428	0,18974
971,94727	0,15791	0,14253	0,18793
970,0188	0,15745	0,14096	0,18608
968,09033	0,15748	0,13969	0,18341
966,16187	0,15751	0,13866	0,18071
964,2334	0,15721	0,13758	0,17841
962,30493	0,15698	0,13617	0,17603
960,37646	0,15667	0,13453	0,17382

958,448	0,15622	0,13316	0,17181
956,51953	0,15603	0,13227	0,16974
954,59106	0,15583	0,13155	0,16814
952,6626	0,15555	0,13076	0,16675
950,73413	0,15578	0,13001	0,16507
948,80566	0,15593	0,12939	0,16357
946,8772	0,15524	0,12877	0,16232
944,94873	0,15470	0,12806	0,16102
943,02026	0,15464	0,12751	0,16006
941,0918	0,15429	0,12707	0,15949
939,16333	0,15399	0,12657	0,15849
937,23486	0,15407	0,12623	0,15723
935,3064	0,15398	0,12594	0,15636
933,37793	0,15386	0,12555	0,15556
931,44946	0,15401	0,12523	0,15498
929,521	0,15422	0,12488	0,15462
927,59253	0,15417	0,12458	0,15425
925,66406	0,15388	0,12453	0,15429
923,7356	0,15391	0,12451	0,15432
921,80713	0,15413	0,12435	0,15407
919,87866	0,15422	0,12427	0,15399
917,9502	0,15419	0,12436	0,15384
916,02173	0,15408	0,12460	0,15387
914,09326	0,15449	0,12479	0,15431
912,16479	0,15489	0,12481	0,15437
910,23633	0,15477	0,12496	0,15425
908,30786	0,15482	0,12476	0,15449
906,37939	0,15498	0,12409	0,15476
904,45093	0,15532	0,12362	0,15494
902,52246	0,15555	0,12297	0,15518
900,59399	0,15527	0,12250	0,15551
898,66553	0,15523	0,12278	0,15583
896,73706	0,15545	0,12272	0,15614
894,80859	0,15570	0,12219	0,15661
892,88013	0,15598	0,12195	0,15685
890,95166	0,15616	0,12186	0,15677
889,02319	0,15635	0,12177	0,15689
887,09473	0,15653	0,12196	0,15710
885,16626	0,15689	0,12230	0,15723
883,23779	0,15723	0,12232	0,15793
881,30933	0,15741	0,12228	0,15891
879,38086	0,15801	0,12269	0,15978
877,45239	0,15871	0,12344	0,16161
875,52393	0,15972	0,12461	0,16367
873,59546	0,16195	0,12637	0,16535
871,66699	0,16498	0,12870	0,16864
869,73853	0,16832	0,13124	0,17259
867,81006	0,17157	0,13330	0,17541

865,88159	0,17378	0,13507	0,17804
863,95313	0,17510	0,13638	0,18044
862,02466	0,17601	0,13672	0,18240
860,09619	0,17588	0,13665	0,18405
858,16772	0,17469	0,13648	0,18518
856,23926	0,17308	0,13578	0,18592
854,31079	0,17096	0,13428	0,18634
852,38232	0,16952	0,13343	0,18748
850,45386	0,17008	0,13438	0,19023
848,52539	0,17267	0,13699	0,19511
846,59692	0,17861	0,14163	0,20183
844,66846	0,18576	0,14637	0,20741
842,73999	0,19205	0,15111	0,21236
840,81152	0,20311	0,15995	0,22121
838,88306	0,21797	0,17071	0,23281
836,95459	0,23105	0,18022	0,24367
835,02612	0,24350	0,18937	0,25356
833,09766	0,24986	0,19327	0,25835
831,16919	0,24889	0,19254	0,25806
829,24072	0,24820	0,19268	0,25799
827,31226	0,24742	0,19205	0,25755
825,38379	0,25215	0,19586	0,26139
823,45532	0,26345	0,20462	0,27029
821,52686	0,26766	0,20743	0,27325
819,59839	0,26667	0,20723	0,27192
817,66992	0,26892	0,20955	0,27284
815,74146	0,27292	0,21231	0,27525
813,81299	0,27789	0,21592	0,27887
811,88452	0,28072	0,21781	0,28050
809,95605	0,27959	0,21695	0,27873
808,02759	0,27981	0,21726	0,27790
806,09912	0,28337	0,21940	0,27985
804,17065	0,28712	0,22167	0,28213
802,24219	0,28970	0,22332	0,28298
800,31372	0,29331	0,22596	0,28506
798,38525	0,29837	0,22978	0,28920
796,45679	0,30183	0,23236	0,29193
794,52832	0,30265	0,23351	0,29259
792,59985	0,30094	0,23271	0,29121
790,67139	0,29639	0,22929	0,28720
788,74292	0,29207	0,22601	0,28312
786,81445	0,29013	0,22404	0,28061
784,88599	0,28667	0,22065	0,27657
782,95752	0,28106	0,21628	0,27099
781,02905	0,27777	0,21430	0,26855
779,10059	0,27744	0,21418	0,26885
777,17212	0,27998	0,21582	0,27064
775,24365	0,28571	0,22077	0,27561

773,31519	0,29202	0,22593	0,28149
771,38672	0,29630	0,22838	0,28515
769,45825	0,29820	0,22964	0,28690
767,52979	0,30001	0,23127	0,28847
765,60132	0,30228	0,23290	0,29045
763,67285	0,30287	0,23363	0,29136
761,74438	0,30105	0,23246	0,28931
759,81592	0,29789	0,22977	0,28566
757,88745	0,29607	0,22821	0,28400
755,95898	0,29575	0,22777	0,28376
754,03052	0,29470	0,22679	0,28296
752,10205	0,29253	0,22530	0,28138
750,17358	0,29150	0,22454	0,28048
748,24512	0,29361	0,22601	0,28263
746,31665	0,29596	0,22780	0,28481
744,38818	0,29699	0,22846	0,28495
742,45972	0,29831	0,22948	0,28585
740,53125	0,29957	0,23041	0,28706
738,60278	0,30099	0,23098	0,28793
736,67432	0,30286	0,23232	0,28955
734,74585	0,30413	0,23365	0,29069
732,81738	0,30353	0,23312	0,29002
730,88892	0,30278	0,23239	0,28976
728,96045	0,30409	0,23359	0,29169
727,03198	0,30561	0,23516	0,29403
725,10352	0,30821	0,23731	0,29743
723,17505	0,31181	0,23999	0,30102
721,24658	0,31287	0,24088	0,30129
719,31812	0,31404	0,24177	0,30252
717,38965	0,31758	0,24413	0,30694
715,46118	0,32074	0,24603	0,30972
713,53271	0,32179	0,24669	0,31034
711,60425	0,32046	0,24620	0,30977
709,67578	0,31963	0,24600	0,30915
707,74731	0,32064	0,24665	0,31012
705,81885	0,31980	0,24654	0,31023
703,89038	0,31672	0,24538	0,30825
701,96191	0,31421	0,24419	0,30681
700,03345	0,31309	0,24459	0,30650
698,10498	0,31316	0,24569	0,30644
696,17651	0,31308	0,24562	0,30652
694,24805	0,31293	0,24610	0,30705
692,31958	0,31434	0,24729	0,30847
690,39111	0,31610	0,24797	0,30930
688,46265	0,31791	0,24955	0,31041
686,53418	0,32027	0,25152	0,31324
684,60571	0,32097	0,25194	0,31451
682,67725	0,32265	0,25267	0,31611

680,74878	0,32657	0,25455	0,31899
678,82031	0,32935	0,25615	0,32166
676,89185	0,33179	0,25829	0,32502
674,96338	0,33419	0,25995	0,32544
673,03491	0,33540	0,26056	0,32585
671,10645	0,33644	0,26200	0,32627
669,17798	0,33762	0,26355	0,32669
667,24951	0,33797	0,26380	0,32710
665,32104	0,33832	0,26404	0,32752
663,39258	0,33867	0,26429	0,32794
661,46411	0,33902	0,26394	0,32836
659,53564	0,33937	0,26359	0,32877
657,60718	0,33972	0,26324	0,32919
655,67871	0,34007	0,26289	0,32961
653,75024	0,34042	0,26275	0,33003
651,82178	0,34077	0,26261	0,33044
649,89331	0,34112	0,26246	0,33147
647,96484	0,34147	0,26300	0,33251
646,03638	0,34182	0,26492	0,33535
644,10791	0,34198	0,26490	0,33551
642,17944	0,34135	0,26452	0,33534
640,25098	0,34152	0,26490	0,33597
638,32251	0,34134	0,26500	0,33617
636,39404	0,34147	0,26529	0,33611
634,46558	0,34068	0,26490	0,33576
632,53711	0,33967	0,26450	0,33606
630,60864	0,33843	0,26349	0,33652
628,68018	0,33652	0,26202	0,33682
626,75171	0,33639	0,26167	0,33739
624,82324	0,33678	0,26165	0,33711
622,89478	0,33635	0,26113	0,33582
620,96631	0,33735	0,26107	0,33472
619,03784	0,33908	0,26215	0,33443
617,10938	0,34039	0,26341	0,33522
615,18091	0,34147	0,26394	0,33634
613,25244	0,34206	0,26404	0,33741
611,32397	0,34285	0,26385	0,33930
609,39551	0,34302	0,26382	0,34148
607,46704	0,34194	0,26418	0,34310
605,53857	0,34126	0,26401	0,34404
603,61011	0,34078	0,26325	0,34326
601,68164	0,34014	0,26244	0,34039
599,75317	0,34001	0,26129	0,33778
597,82471	0,33991	0,26020	0,33687
595,89624	0,33919	0,25961	0,33635
593,96777	0,33777	0,25967	0,33485
592,03931	0,33641	0,25989	0,33270
590,11084	0,33533	0,25900	0,33283



588,18237	0,33446	0,25803	0,33300
586,25391	0,33401	0,25805	0,33093
584,32544	0,33372	0,25777	0,33055
582,39697	0,33309	0,25692	0,33026
580,46851	0,33163	0,25609	0,32861
578,54004	0,33059	0,25493	0,32811
576,61157	0,33064	0,25448	0,32723
574,68311	0,33052	0,25526	0,32777
572,75464	0,33158	0,25645	0,33059
570,82617	0,33423	0,25838	0,33211
568,89771	0,33727	0,26011	0,33409
566,96924	0,34029	0,26135	0,33809
565,04077	0,34077	0,26212	0,34003
563,1123	0,33916	0,26165	0,33966
561,18384	0,33832	0,26176	0,33982
559,25537	0,33760	0,26213	0,34017
557,3269	0,33683	0,26165	0,34020
555,39844	0,33643	0,26134	0,34033
553,46997	0,33528	0,26117	0,34046
551,5415	0,33339	0,26108	0,33963
549,61304	0,33149	0,26099	0,33789
547,68457	0,32915	0,25949	0,33668
545,7561	0,32615	0,25737	0,33403
543,82764	0,32343	0,25721	0,33062
541,89917	0,32207	0,25745	0,33046
539,9707	0,32098	0,25693	0,33183
538,04224	0,31927	0,25742	0,33141
536,11377	0,31920	0,25805	0,33154
534,1853	0,31888	0,25770	0,33123
532,25684	0,31529	0,25438	0,32856
530,32837	0,31282	0,25217	0,32478
528,3999	0,30919	0,25015	0,32191
526,47144	0,30073	0,24297	0,31979
524,54297	0,29634	0,24142	0,31608
522,6145	0,29484	0,24265	0,31138
520,68604	0,28812	0,23522	0,30729
518,75757	0,28049	0,22817	0,30279
516,8291	0,27456	0,22661	0,29657
514,90063	0,26824	0,22542	0,29122
512,97217	0,26246	0,22178	0,28736
511,0437	0,25839	0,21747	0,28187
509,11523	0,25194	0,21348	0,27411
507,18677	0,24410	0,20852	0,26763
505,2583	0,24126	0,20554	0,26632
503,32983	0,23675	0,20071	0,26256
501,40137	0,23113	0,19661	0,25668
499,4729	0,22834	0,19834	0,25317

<b>Figure 2.4-B)</b>			
n°spectre	VD96	VD237	VD293
nom	F2-0 days	F2-43 days	F2-104 days
cm-1	a	b	c
4001,5686	0,10892	0,13768	0,14348
3999,64014	0,10883	0,13741	0,14337
3997,71167	0,10879	0,13727	0,14328
3995,7832	0,10874	0,13733	0,14304
3993,85474	0,10863	0,13719	0,14302
3991,92627	0,10851	0,13714	0,14292
3989,9978	0,10841	0,13716	0,14262
3988,06934	0,10822	0,13691	0,14271
3986,14087	0,10815	0,13686	0,14267
3984,2124	0,10820	0,13694	0,14230
3982,28394	0,10804	0,13678	0,14224
3980,35547	0,10789	0,13656	0,14222
3978,427	0,10785	0,13653	0,14215
3976,49854	0,10783	0,13673	0,14207
3974,57007	0,10778	0,13669	0,14175
3972,6416	0,10763	0,13643	0,14160
3970,71313	0,10749	0,13628	0,14163
3968,78467	0,10739	0,13624	0,14156
3966,8562	0,10719	0,13612	0,14150
3964,92773	0,10718	0,13605	0,14133
3962,99927	0,10731	0,13621	0,14114
3961,0708	0,10704	0,13598	0,14097
3959,14233	0,10687	0,13587	0,14082
3957,21387	0,10695	0,13588	0,14082
3955,2854	0,10684	0,13573	0,14066
3953,35693	0,10672	0,13579	0,14065
3951,42847	0,10662	0,13563	0,14034
3949,5	0,10682	0,13616	0,13938
3947,57153	0,10643	0,13566	0,13971
3945,64307	0,10598	0,13503	0,14014
3943,7146	0,10679	0,13651	0,13959
3941,78613	0,10640	0,13575	0,13972
3939,85767	0,10556	0,13456	0,13981
3937,9292	0,10599	0,13533	0,13966
3936,00073	0,10586	0,13498	0,13967
3934,07227	0,10609	0,13557	0,13931
3932,1438	0,10650	0,13665	0,13898
3930,21533	0,10538	0,13498	0,13885
3928,28687	0,10496	0,13412	0,13883
3926,3584	0,10577	0,13565	0,13870
3924,42993	0,10575	0,13572	0,13855
3922,50146	0,10494	0,13427	0,13857
3920,573	0,10516	0,13487	0,13845

3918,64453	0,10577	0,13572	0,13830
3916,71606	0,10530	0,13494	0,13807
3914,7876	0,10433	0,13372	0,13809
3912,85913	0,10444	0,13386	0,13822
3910,93066	0,10494	0,13443	0,13836
3909,0022	0,10438	0,13373	0,13841
3907,07373	0,10482	0,13491	0,13775
3905,14526	0,10600	0,13685	0,13722
3903,2168	0,10485	0,13506	0,13717
3901,28833	0,10393	0,13404	0,13670
3899,35986	0,10415	0,13471	0,13647
3897,4314	0,10329	0,13287	0,13694
3895,50293	0,10300	0,13245	0,13695
3893,57446	0,10466	0,13545	0,13638
3891,646	0,10538	0,13606	0,13673
3889,71753	0,10195	0,13053	0,13715
3887,78906	0,10336	0,13378	0,13596
3885,8606	0,10596	0,13678	0,13652
3883,93213	0,10130	0,12985	0,13661
3882,00366	0,10316	0,13468	0,13482
3880,0752	0,10539	0,13700	0,13583
3878,14673	0,10101	0,13002	0,13623
3876,21826	0,10340	0,13408	0,13529
3874,28979	0,10425	0,13524	0,13588
3872,36133	0,10213	0,13295	0,13485
3870,43286	0,10441	0,13507	0,13476
3868,50439	0,10140	0,13037	0,13563
3866,57593	0,10116	0,13166	0,13434
3864,64746	0,10406	0,13504	0,13472
3862,71899	0,10165	0,13196	0,13484
3860,79053	0,10149	0,13179	0,13445
3858,86206	0,10205	0,13199	0,13517
3856,93359	0,10233	0,13421	0,13393
3855,00513	0,10521	0,13538	0,13454
3853,07666	0,10276	0,12969	0,13764
3851,14819	0,09669	0,12470	0,13365
3849,21973	0,09993	0,13090	0,13296
3847,29126	0,10123	0,13152	0,13447
3845,36279	0,10180	0,13300	0,13414
3843,43433	0,10215	0,13303	0,13391
3841,50586	0,10138	0,13288	0,13328
3839,57739	0,10205	0,13388	0,13245
3837,64893	0,10096	0,13033	0,13343
3835,72046	0,09833	0,12752	0,13332
3833,79199	0,10026	0,13200	0,13231
3831,86353	0,10122	0,13204	0,13340
3829,93506	0,09931	0,12928	0,13337

3828,00659	0,10096	0,13254	0,13234
3826,07813	0,10083	0,13148	0,13317
3824,14966	0,09959	0,13072	0,13231
3822,22119	0,10315	0,13565	0,13198
3820,29272	0,09980	0,13028	0,13303
3818,36426	0,09792	0,12901	0,13109
3816,43579	0,10124	0,13150	0,13183
3814,50732	0,09779	0,12632	0,13304
3812,57886	0,09797	0,12869	0,13174
3810,65039	0,09975	0,13077	0,13222
3808,72192	0,10057	0,13219	0,13194
3806,79346	0,10030	0,13038	0,13249
3804,86499	0,09698	0,12698	0,13166
3802,93652	0,10029	0,13312	0,12999
3801,00806	0,10009	0,12978	0,13206
3799,07959	0,09553	0,12504	0,13109
3797,15112	0,09931	0,13252	0,12975
3795,22266	0,09884	0,12967	0,13156
3793,29419	0,09715	0,12769	0,13115
3791,36572	0,09906	0,13058	0,13095
3789,43726	0,09837	0,12904	0,13161
3787,50879	0,09811	0,12931	0,13097
3785,58032	0,09896	0,13087	0,13054
3783,65186	0,09771	0,12872	0,13061
3781,72339	0,09804	0,12937	0,13027
3779,79492	0,09898	0,13119	0,13005
3777,86646	0,09725	0,12846	0,13007
3775,93799	0,09712	0,12816	0,13010
3774,00952	0,09754	0,12878	0,13043
3772,08105	0,09800	0,12993	0,12990
3770,15259	0,09850	0,13064	0,12964
3768,22412	0,09651	0,12755	0,12979
3766,29565	0,09716	0,12932	0,12893
3764,36719	0,09716	0,12875	0,12935
3762,43872	0,09605	0,12730	0,12929
3760,51025	0,09813	0,13082	0,12873
3758,58179	0,09727	0,12935	0,12876
3756,65332	0,09571	0,12766	0,12829
3754,72485	0,09679	0,12912	0,12840
3752,79639	0,09746	0,12950	0,12793
3750,86792	0,09781	0,12878	0,12816
3748,93945	0,09309	0,12197	0,12871
3747,01099	0,09444	0,12715	0,12633
3745,08252	0,09907	0,13101	0,12791
3743,15405	0,09381	0,12164	0,13006
3741,22559	0,09280	0,12517	0,12623
3739,29712	0,09667	0,13021	0,12599
3737,36865	0,09723	0,12930	0,12712

3735,44019	0,09613	0,12947	0,12604
3733,51172	0,09565	0,12865	0,12550
3731,58325	0,09401	0,12485	0,12633
3729,65479	0,09381	0,12524	0,12629
3727,72632	0,09585	0,12868	0,12595
3725,79785	0,09589	0,12844	0,12617
3723,86938	0,09475	0,12747	0,12558
3721,94092	0,09504	0,12780	0,12555
3720,01245	0,09450	0,12671	0,12592
3718,08398	0,09429	0,12626	0,12593
3716,15552	0,09403	0,12597	0,12633
3714,22705	0,09494	0,12774	0,12587
3712,29858	0,09582	0,12829	0,12560
3710,37012	0,09349	0,12538	0,12499
3708,44165	0,09347	0,12635	0,12394
3706,51318	0,09265	0,12434	0,12474
3704,58472	0,09281	0,12496	0,12506
3702,65625	0,09491	0,12822	0,12482
3700,72778	0,09332	0,12562	0,12498
3698,79932	0,09230	0,12417	0,12482
3696,87085	0,09333	0,12586	0,12462
3694,94238	0,09288	0,12453	0,12457
3693,01392	0,09280	0,12436	0,12399
3691,08545	0,09382	0,12656	0,12274
3689,15698	0,09242	0,12227	0,12282
3687,22852	0,08934	0,11685	0,12346
3685,30005	0,09002	0,12025	0,12277
3683,37158	0,09172	0,12247	0,12315
3681,44312	0,09231	0,12241	0,12409
3679,51465	0,09163	0,12312	0,12365
3677,58618	0,09295	0,12517	0,12286
3675,65771	0,09444	0,12640	0,12385
3673,72925	0,08889	0,11895	0,12419
3671,80078	0,09084	0,12263	0,12287
3669,87231	0,09324	0,12486	0,12389
3667,94385	0,08914	0,12022	0,12414
3666,01538	0,09022	0,12232	0,12370
3664,08691	0,09163	0,12342	0,12459
3662,15845	0,09137	0,12336	0,12477
3660,22998	0,09085	0,12258	0,12466
3658,30151	0,09173	0,12464	0,12414
3656,37305	0,09223	0,12453	0,12448
3654,44458	0,08931	0,11988	0,12480
3652,51611	0,09112	0,12457	0,12347
3650,58765	0,09381	0,12808	0,12341
3648,65918	0,09042	0,12267	0,12352
3646,73071	0,08877	0,12137	0,12290
3644,80225	0,08935	0,12171	0,12379

3642,87378	0,08996	0,12184	0,12433
3640,94531	0,09078	0,12306	0,12437
3639,01685	0,09014	0,12187	0,12470
3637,08838	0,08998	0,12199	0,12445
3635,15991	0,09086	0,12301	0,12448
3633,23145	0,08986	0,12164	0,12466
3631,30298	0,09059	0,12322	0,12381
3629,37451	0,09312	0,12582	0,12417
3627,44604	0,08823	0,11856	0,12504
3625,51758	0,08771	0,11954	0,12400
3623,58911	0,08990	0,12188	0,12468
3621,66064	0,08997	0,12187	0,12484
3619,73218	0,09089	0,12342	0,12421
3617,80371	0,08896	0,12028	0,12513
3615,87524	0,08833	0,11984	0,12472
3613,94678	0,09027	0,12225	0,12465
3612,01831	0,08907	0,11995	0,12545
3610,08984	0,08882	0,11921	0,12543
3608,16138	0,08953	0,12035	0,12537
3606,23291	0,08830	0,11881	0,12553
3604,30444	0,08837	0,11853	0,12609
3602,37598	0,08941	0,11993	0,12627
3600,44751	0,08954	0,12037	0,12583
3598,51904	0,08859	0,11905	0,12613
3596,59058	0,08882	0,11951	0,12638
3594,66211	0,08947	0,12040	0,12648
3592,73364	0,08841	0,11880	0,12729
3590,80518	0,08845	0,11874	0,12760
3588,87671	0,09018	0,12118	0,12713
3586,94824	0,08940	0,12052	0,12705
3585,01978	0,08757	0,11779	0,12785
3583,09131	0,08822	0,11836	0,12829
3581,16284	0,08871	0,11900	0,12869
3579,23438	0,08849	0,11876	0,12893
3577,30591	0,08857	0,11847	0,12910
3575,37744	0,08858	0,11852	0,12937
3573,44897	0,08849	0,11851	0,12969
3571,52051	0,08820	0,11786	0,12989
3569,59204	0,08896	0,11930	0,12952
3567,66357	0,08995	0,12152	0,12880
3565,73511	0,08821	0,11894	0,12910
3563,80664	0,08736	0,11748	0,12975
3561,87817	0,08815	0,11827	0,13019
3559,94971	0,08819	0,11801	0,13063
3558,02124	0,08792	0,11750	0,13093
3556,09277	0,08786	0,11736	0,13121
3554,16431	0,08811	0,11795	0,13101
3552,23584	0,08811	0,11821	0,13094

3550,30737	0,08750	0,11705	0,13145
3548,37891	0,08792	0,11756	0,13133
3546,45044	0,08836	0,11847	0,13107
3544,52197	0,08756	0,11736	0,13136
3542,59351	0,08717	0,11674	0,13156
3540,66504	0,08725	0,11647	0,13187
3538,73657	0,08739	0,11652	0,13211
3536,80811	0,08747	0,11686	0,13202
3534,87964	0,08718	0,11620	0,13204
3532,95117	0,08693	0,11574	0,13230
3531,02271	0,08709	0,11608	0,13217
3529,09424	0,08719	0,11620	0,13170
3527,16577	0,08690	0,11567	0,13178
3525,2373	0,08684	0,11551	0,13193
3523,30884	0,08679	0,11557	0,13193
3521,38037	0,08636	0,11481	0,13229
3519,4519	0,08628	0,11433	0,13242
3517,52344	0,08626	0,11432	0,13242
3515,59497	0,08611	0,11412	0,13262
3513,6665	0,08612	0,11386	0,13269
3511,73804	0,08616	0,11397	0,13253
3509,80957	0,08619	0,11410	0,13239
3507,8811	0,08578	0,11317	0,13267
3505,95264	0,08570	0,11297	0,13271
3504,02417	0,08620	0,11394	0,13237
3502,0957	0,08585	0,11333	0,13257
3500,16724	0,08542	0,11235	0,13294
3498,23877	0,08563	0,11266	0,13308
3496,3103	0,08559	0,11274	0,13321
3494,38184	0,08541	0,11237	0,13334
3492,45337	0,08534	0,11221	0,13349
3490,5249	0,08537	0,11223	0,13353
3488,59644	0,08547	0,11237	0,13346
3486,66797	0,08534	0,11211	0,13362
3484,7395	0,08520	0,11189	0,13379
3482,81104	0,08529	0,11233	0,13364
3480,88257	0,08515	0,11226	0,13372
3478,9541	0,08492	0,11178	0,13408
3477,02563	0,08504	0,11185	0,13410
3475,09717	0,08503	0,11185	0,13412
3473,1687	0,08484	0,11165	0,13431
3471,24023	0,08491	0,11147	0,13458
3469,31177	0,08499	0,11154	0,13478
3467,3833	0,08492	0,11156	0,13471
3465,45483	0,08473	0,11125	0,13485
3463,52637	0,08467	0,11135	0,13502
3461,5979	0,08466	0,11129	0,13496
3459,66943	0,08455	0,11096	0,13514

3457,74097	0,08451	0,11098	0,13532
3455,8125	0,08451	0,11093	0,13532
3453,88403	0,08446	0,11100	0,13541
3451,95557	0,08433	0,11077	0,13571
3450,0271	0,08440	0,11070	0,13586
3448,09863	0,08459	0,11133	0,13555
3446,17017	0,08429	0,11103	0,13556
3444,2417	0,08417	0,11064	0,13600
3442,31323	0,08434	0,11092	0,13628
3440,38477	0,08421	0,11076	0,13651
3438,4563	0,08422	0,11076	0,13663
3436,52783	0,08414	0,11091	0,13681
3434,59937	0,08410	0,11101	0,13700
3432,6709	0,08426	0,11122	0,13706
3430,74243	0,08402	0,11110	0,13728
3428,81396	0,08394	0,11118	0,13750
3426,8855	0,08405	0,11136	0,13757
3424,95703	0,08401	0,11132	0,13776
3423,02856	0,08410	0,11164	0,13792
3421,1001	0,08415	0,11196	0,13799
3419,17163	0,08399	0,11191	0,13825
3417,24316	0,08394	0,11193	0,13845
3415,3147	0,08404	0,11213	0,13855
3413,38623	0,08410	0,11238	0,13882
3411,45776	0,08411	0,11252	0,13895
3409,5293	0,08408	0,11264	0,13909
3407,60083	0,08402	0,11289	0,13935
3405,67236	0,08406	0,11309	0,13936
3403,7439	0,08407	0,11317	0,13940
3401,81543	0,08399	0,11329	0,13965
3399,88696	0,08403	0,11357	0,13982
3397,9585	0,08407	0,11376	0,14000
3396,03003	0,08392	0,11373	0,14019
3394,10156	0,08390	0,11393	0,14012
3392,1731	0,08395	0,11430	0,14022
3390,24463	0,08378	0,11433	0,14048
3388,31616	0,08379	0,11435	0,14055
3386,3877	0,08389	0,11463	0,14063
3384,45923	0,08376	0,11488	0,14072
3382,53076	0,08365	0,11504	0,14093
3380,60229	0,08368	0,11520	0,14112
3378,67383	0,08365	0,11533	0,14117
3376,74536	0,08350	0,11560	0,14137
3374,81689	0,08349	0,11584	0,14143
3372,88843	0,08356	0,11592	0,14143
3370,95996	0,08352	0,11622	0,14166
3369,03149	0,08348	0,11663	0,14175
3367,10303	0,08349	0,11689	0,14175



3365,17456	0,08346	0,11703	0,14190
3363,24609	0,08339	0,11722	0,14197
3361,31763	0,08339	0,11753	0,14203
3359,38916	0,08337	0,11771	0,14228
3357,46069	0,08333	0,11791	0,14241
3355,53223	0,08334	0,11824	0,14243
3353,60376	0,08322	0,11839	0,14256
3351,67529	0,08304	0,11852	0,14272
3349,74683	0,08305	0,11878	0,14291
3347,81836	0,08309	0,11895	0,14295
3345,88989	0,08301	0,11906	0,14292
3343,96143	0,08301	0,11928	0,14303
3342,03296	0,08302	0,11947	0,14306
3340,10449	0,08294	0,11957	0,14308
3338,17603	0,08288	0,11990	0,14310
3336,24756	0,08284	0,12013	0,14307
3334,31909	0,08278	0,12007	0,14312
3332,39063	0,08276	0,12019	0,14324
3330,46216	0,08272	0,12042	0,14331
3328,53369	0,08265	0,12056	0,14325
3326,60522	0,08261	0,12067	0,14326
3324,67676	0,08262	0,12074	0,14332
3322,74829	0,08259	0,12081	0,14329
3320,81982	0,08250	0,12088	0,14339
3318,89136	0,08238	0,12095	0,14345
3316,96289	0,08234	0,12107	0,14332
3315,03442	0,08235	0,12117	0,14320
3313,10596	0,08226	0,12122	0,14313
3311,17749	0,08219	0,12136	0,14313
3309,24902	0,08224	0,12147	0,14319
3307,32056	0,08213	0,12145	0,14330
3305,39209	0,08199	0,12152	0,14331
3303,46362	0,08206	0,12155	0,14313
3301,53516	0,08201	0,12155	0,14313
3299,60669	0,08181	0,12173	0,14325
3297,67822	0,08174	0,12177	0,14321
3295,74976	0,08170	0,12170	0,14322
3293,82129	0,08164	0,12179	0,14322
3291,89282	0,08163	0,12181	0,14314
3289,96436	0,08159	0,12167	0,14309
3288,03589	0,08146	0,12158	0,14301
3286,10742	0,08140	0,12161	0,14298
3284,17896	0,08140	0,12176	0,14303
3282,25049	0,08131	0,12173	0,14311
3280,32202	0,08122	0,12158	0,14311
3278,39355	0,08116	0,12160	0,14306
3276,46509	0,08107	0,12163	0,14307
3274,53662	0,08106	0,12170	0,14306

3272,60815	0,08108	0,12168	0,14311
3270,67969	0,08099	0,12156	0,14320
3268,75122	0,08086	0,12163	0,14317
3266,82275	0,08078	0,12168	0,14319
3264,89429	0,08071	0,12155	0,14313
3262,96582	0,08068	0,12151	0,14290
3261,03735	0,08058	0,12162	0,14278
3259,10889	0,08043	0,12167	0,14289
3257,18042	0,08048	0,12170	0,14286
3255,25195	0,08046	0,12169	0,14269
3253,32349	0,08027	0,12161	0,14275
3251,39502	0,08015	0,12157	0,14270
3249,46655	0,08015	0,12153	0,14255
3247,53809	0,08021	0,12154	0,14265
3245,60962	0,08012	0,12158	0,14253
3243,68115	0,07999	0,12156	0,14234
3241,75269	0,07999	0,12159	0,14236
3239,82422	0,07989	0,12163	0,14232
3237,89575	0,07975	0,12153	0,14217
3235,96729	0,07972	0,12150	0,14201
3234,03882	0,07966	0,12166	0,14196
3232,11035	0,07967	0,12167	0,14185
3230,18188	0,07964	0,12155	0,14171
3228,25342	0,07948	0,12160	0,14159
3226,32495	0,07939	0,12159	0,14133
3224,39648	0,07933	0,12146	0,14115
3222,46802	0,07922	0,12151	0,14097
3220,53955	0,07915	0,12155	0,14071
3218,61108	0,07904	0,12137	0,14063
3216,68262	0,07902	0,12142	0,14047
3214,75415	0,07900	0,12154	0,14021
3212,82568	0,07879	0,12136	0,14014
3210,89722	0,07873	0,12140	0,13995
3208,96875	0,07875	0,12146	0,13968
3207,04028	0,07861	0,12125	0,13952
3205,11182	0,07848	0,12125	0,13928
3203,18335	0,07840	0,12130	0,13913
3201,25488	0,07843	0,12121	0,13903
3199,32642	0,07843	0,12124	0,13879
3197,39795	0,07834	0,12125	0,13864
3195,46948	0,07825	0,12117	0,13846
3193,54102	0,07819	0,12118	0,13828
3191,61255	0,07818	0,12120	0,13822
3189,68408	0,07812	0,12119	0,13805
3187,75562	0,07808	0,12121	0,13789
3185,82715	0,07801	0,12120	0,13770
3183,89868	0,07786	0,12110	0,13747
3181,97021	0,07781	0,12101	0,13743

3180,04175	0,07779	0,12111	0,13722
3178,11328	0,07773	0,12111	0,13691
3176,18481	0,07763	0,12093	0,13682
3174,25635	0,07753	0,12094	0,13668
3172,32788	0,07748	0,12103	0,13645
3170,39941	0,07738	0,12097	0,13633
3168,47095	0,07730	0,12091	0,13622
3166,54248	0,07726	0,12088	0,13605
3164,61401	0,07715	0,12084	0,13585
3162,68555	0,07709	0,12071	0,13564
3160,75708	0,07705	0,12062	0,13546
3158,82861	0,07697	0,12066	0,13532
3156,90015	0,07688	0,12060	0,13511
3154,97168	0,07675	0,12051	0,13500
3153,04321	0,07672	0,12059	0,13488
3151,11475	0,07671	0,12062	0,13458
3149,18628	0,07663	0,12050	0,13439
3147,25781	0,07657	0,12041	0,13430
3145,32935	0,07651	0,12045	0,13410
3143,40088	0,07643	0,12036	0,13389
3141,47241	0,07631	0,12018	0,13369
3139,54395	0,07621	0,12019	0,13345
3137,61548	0,07612	0,12009	0,13336
3135,68701	0,07606	0,12006	0,13325
3133,75854	0,07607	0,12018	0,13297
3131,83008	0,07591	0,11995	0,13284
3129,90161	0,07587	0,11979	0,13275
3127,97314	0,07593	0,11984	0,13251
3126,04468	0,07573	0,11972	0,13229
3124,11621	0,07562	0,11968	0,13207
3122,18774	0,07564	0,11965	0,13189
3120,25928	0,07551	0,11965	0,13177
3118,33081	0,07541	0,11970	0,13158
3116,40234	0,07541	0,11960	0,13134
3114,47388	0,07532	0,11944	0,13107
3112,54541	0,07523	0,11922	0,13088
3110,61694	0,07525	0,11909	0,13080
3108,68848	0,07515	0,11920	0,13068
3106,76001	0,07499	0,11914	0,13050
3104,83154	0,07500	0,11892	0,13031
3102,90308	0,07497	0,11891	0,13002
3100,97461	0,07485	0,11888	0,12977
3099,04614	0,07473	0,11880	0,12971
3097,11768	0,07470	0,11882	0,12956
3095,18921	0,07468	0,11865	0,12933
3093,26074	0,07456	0,11840	0,12924
3091,33228	0,07451	0,11844	0,12910
3089,40381	0,07452	0,11855	0,12887

3087,47534	0,07440	0,11841	0,12870
3085,54688	0,07427	0,11825	0,12851
3083,61841	0,07431	0,11829	0,12838
3081,68994	0,07425	0,11825	0,12826
3079,76147	0,07408	0,11817	0,12798
3077,83301	0,07406	0,11809	0,12779
3075,90454	0,07400	0,11790	0,12769
3073,97607	0,07396	0,11786	0,12749
3072,04761	0,07396	0,11778	0,12726
3070,11914	0,07383	0,11762	0,12706
3068,19067	0,07379	0,11765	0,12689
3066,26221	0,07378	0,11767	0,12669
3064,33374	0,07366	0,11751	0,12647
3062,40527	0,07359	0,11736	0,12634
3060,47681	0,07358	0,11725	0,12625
3058,54834	0,07351	0,11719	0,12607
3056,61987	0,07341	0,11718	0,12581
3054,69141	0,07336	0,11705	0,12568
3052,76294	0,07334	0,11694	0,12557
3050,83447	0,07329	0,11699	0,12535
3048,90601	0,07324	0,11687	0,12515
3046,97754	0,07317	0,11671	0,12497
3045,04907	0,07309	0,11673	0,12487
3043,12061	0,07307	0,11671	0,12474
3041,19214	0,07303	0,11662	0,12458
3039,26367	0,07290	0,11653	0,12444
3037,33521	0,07280	0,11646	0,12419
3035,40674	0,07278	0,11639	0,12402
3033,47827	0,07273	0,11643	0,12386
3031,5498	0,07268	0,11634	0,12360
3029,62134	0,07261	0,11608	0,12344
3027,69287	0,07242	0,11604	0,12339
3025,7644	0,07238	0,11608	0,12329
3023,83594	0,07245	0,11599	0,12306
3021,90747	0,07235	0,11594	0,12287
3019,979	0,07229	0,11583	0,12274
3018,05054	0,07232	0,11564	0,12249
3016,12207	0,07218	0,11556	0,12234
3014,1936	0,07202	0,11567	0,12230
3012,26514	0,07202	0,11568	0,12201
3010,33667	0,07199	0,11544	0,12175
3008,4082	0,07187	0,11528	0,12170
3006,47974	0,07184	0,11529	0,12153
3004,55127	0,07179	0,11523	0,12131
3002,6228	0,07166	0,11511	0,12114
3000,69434	0,07163	0,11498	0,12094
2998,76587	0,07156	0,11486	0,12084
2996,8374	0,07147	0,11483	0,12071

2994,90894	0,07144	0,11481	0,12044
2992,98047	0,07135	0,11475	0,12023
2991,052	0,07125	0,11460	0,12013
2989,12354	0,07120	0,11446	0,12001
2987,19507	0,07110	0,11441	0,11980
2985,2666	0,07101	0,11428	0,11963
2983,33813	0,07093	0,11420	0,11953
2981,40967	0,07088	0,11431	0,11932
2979,4812	0,07089	0,11420	0,11907
2977,55273	0,07080	0,11397	0,11892
2975,62427	0,07070	0,11399	0,11879
2973,6958	0,07069	0,11401	0,11863
2971,76733	0,07060	0,11387	0,11846
2969,83887	0,07060	0,11377	0,11829
2967,9104	0,07068	0,11380	0,11814
2965,98193	0,07056	0,11376	0,11804
2964,05347	0,07047	0,11365	0,11787
2962,125	0,07051	0,11360	0,11765
2960,19653	0,07048	0,11355	0,11758
2958,26807	0,07042	0,11345	0,11750
2956,3396	0,07037	0,11338	0,11721
2954,41113	0,07034	0,11333	0,11701
2952,48267	0,07026	0,11331	0,11697
2950,5542	0,07017	0,11321	0,11682
2948,62573	0,07018	0,11310	0,11658
2946,69727	0,07016	0,11306	0,11641
2944,7688	0,07014	0,11300	0,11622
2942,84033	0,07018	0,11298	0,11603
2940,91187	0,07015	0,11297	0,11591
2938,9834	0,07015	0,11287	0,11573
2937,05493	0,07022	0,11286	0,11558
2935,12646	0,07025	0,11295	0,11549
2933,198	0,07021	0,11295	0,11525
2931,26953	0,07019	0,11294	0,11518
2929,34106	0,07023	0,11298	0,11520
2927,4126	0,07023	0,11294	0,11501
2925,48413	0,07021	0,11289	0,11488
2923,55566	0,07020	0,11282	0,11471
2921,6272	0,07009	0,11271	0,11443
2919,69873	0,06995	0,11256	0,11425
2917,77026	0,06982	0,11241	0,11404
2915,8418	0,06970	0,11230	0,11387
2913,91333	0,06961	0,11218	0,11385
2911,98486	0,06949	0,11204	0,11372
2910,0564	0,06938	0,11194	0,11354
2908,12793	0,06931	0,11183	0,11343
2906,19946	0,06921	0,11170	0,11329
2904,271	0,06914	0,11163	0,11317

2902,34253	0,06910	0,11156	0,11301
2900,41406	0,06904	0,11142	0,11276
2898,4856	0,06896	0,11136	0,11258
2896,55713	0,06890	0,11131	0,11249
2894,62866	0,06890	0,11116	0,11236
2892,7002	0,06886	0,11112	0,11219
2890,77173	0,06871	0,11105	0,11204
2888,84326	0,06866	0,11090	0,11189
2886,91479	0,06865	0,11091	0,11174
2884,98633	0,06856	0,11088	0,11166
2883,05786	0,06852	0,11070	0,11154
2881,12939	0,06847	0,11067	0,11138
2879,20093	0,06841	0,11072	0,11126
2877,27246	0,06841	0,11065	0,11121
2875,34399	0,06838	0,11060	0,11112
2873,41553	0,06834	0,11062	0,11099
2871,48706	0,06829	0,11059	0,11094
2869,55859	0,06829	0,11053	0,11080
2867,63013	0,06824	0,11048	0,11059
2865,70166	0,06819	0,11041	0,11050
2863,77319	0,06820	0,11044	0,11039
2861,84473	0,06819	0,11050	0,11018
2859,91626	0,06824	0,11051	0,11004
2857,98779	0,06827	0,11054	0,10996
2856,05933	0,06824	0,11053	0,10979
2854,13086	0,06827	0,11048	0,10967
2852,20239	0,06820	0,11041	0,10955
2850,27393	0,06805	0,11032	0,10938
2848,34546	0,06791	0,11022	0,10933
2846,41699	0,06771	0,11003	0,10922
2844,48853	0,06760	0,10988	0,10905
2842,56006	0,06763	0,10985	0,10894
2840,63159	0,06759	0,10979	0,10879
2838,70313	0,06748	0,10973	0,10877
2836,77466	0,06747	0,10967	0,10880
2834,84619	0,06747	0,10957	0,10864
2832,91772	0,06738	0,10950	0,10847
2830,98926	0,06733	0,10951	0,10842
2829,06079	0,06729	0,10952	0,10832
2827,13232	0,06724	0,10944	0,10818
2825,20386	0,06725	0,10939	0,10812
2823,27539	0,06725	0,10940	0,10805
2821,34692	0,06722	0,10934	0,10789
2819,41846	0,06716	0,10924	0,10773
2817,48999	0,06708	0,10920	0,10770
2815,56152	0,06708	0,10922	0,10769
2813,63306	0,06708	0,10918	0,10760
2811,70459	0,06706	0,10912	0,10751

2809,77612	0,06703	0,10913	0,10739
2807,84766	0,06698	0,10907	0,10725
2805,91919	0,06700	0,10906	0,10719
2803,99072	0,06698	0,10911	0,10710
2802,06226	0,06691	0,10903	0,10698
2800,13379	0,06690	0,10899	0,10693
2798,20532	0,06691	0,10903	0,10685
2796,27686	0,06696	0,10899	0,10671
2794,34839	0,06695	0,10890	0,10655
2792,41992	0,06690	0,10889	0,10651
2790,49146	0,06693	0,10895	0,10653
2788,56299	0,06691	0,10889	0,10644
2786,63452	0,06687	0,10878	0,10636
2784,70605	0,06686	0,10879	0,10635
2782,77759	0,06684	0,10880	0,10625
2780,84912	0,06684	0,10875	0,10612
2778,92065	0,06682	0,10874	0,10604
2776,99219	0,06677	0,10873	0,10594
2775,06372	0,06679	0,10876	0,10585
2773,13525	0,06677	0,10878	0,10580
2771,20679	0,06670	0,10870	0,10572
2769,27832	0,06675	0,10867	0,10562
2767,34985	0,06679	0,10869	0,10556
2765,42139	0,06678	0,10865	0,10553
2763,49292	0,06684	0,10867	0,10547
2761,56445	0,06682	0,10867	0,10538
2759,63599	0,06677	0,10856	0,10530
2757,70752	0,06678	0,10857	0,10527
2755,77905	0,06673	0,10862	0,10522
2753,85059	0,06674	0,10855	0,10512
2751,92212	0,06677	0,10846	0,10505
2749,99365	0,06670	0,10845	0,10501
2748,06519	0,06665	0,10841	0,10493
2746,13672	0,06665	0,10836	0,10483
2744,20825	0,06667	0,10836	0,10473
2742,27979	0,06668	0,10835	0,10466
2740,35132	0,06665	0,10834	0,10462
2738,42285	0,06665	0,10837	0,10456
2736,49438	0,06666	0,10835	0,10451
2734,56592	0,06661	0,10831	0,10447
2732,63745	0,06656	0,10832	0,10440
2730,70898	0,06659	0,10829	0,10432
2728,78052	0,06661	0,10822	0,10420
2726,85205	0,06654	0,10818	0,10416
2724,92358	0,06652	0,10817	0,10411
2722,99512	0,06658	0,10823	0,10397
2721,06665	0,06657	0,10820	0,10393
2719,13818	0,06657	0,10811	0,10395

2717,20972	0,06658	0,10817	0,10382
2715,28125	0,06651	0,10817	0,10370
2713,35278	0,06652	0,10805	0,10373
2711,42432	0,06662	0,10806	0,10368
2709,49585	0,06661	0,10810	0,10359
2707,56738	0,06656	0,10805	0,10356
2705,63892	0,06659	0,10806	0,10352
2703,71045	0,06661	0,10811	0,10348
2701,78198	0,06664	0,10803	0,10352
2699,85352	0,06666	0,10798	0,10353
2697,92505	0,06663	0,10804	0,10343
2695,99658	0,06665	0,10804	0,10335
2694,06812	0,06666	0,10802	0,10331
2692,13965	0,06666	0,10803	0,10329
2690,21118	0,06672	0,10802	0,10328
2688,28271	0,06676	0,10803	0,10327
2686,35425	0,06680	0,10802	0,10326
2684,42578	0,06687	0,10800	0,10323
2682,49731	0,06686	0,10805	0,10330
2680,56885	0,06691	0,10806	0,10336
2678,64038	0,06700	0,10807	0,10329
2676,71191	0,06700	0,10814	0,10328
2674,78345	0,06702	0,10822	0,10330
2672,85498	0,06709	0,10824	0,10324
2670,92651	0,06715	0,10820	0,10322
2668,99805	0,06719	0,10821	0,10326
2667,06958	0,06722	0,10829	0,10328
2665,14111	0,06728	0,10834	0,10325
2663,21265	0,06735	0,10837	0,10321
2661,28418	0,06747	0,10836	0,10325
2659,35571	0,06758	0,10833	0,10327
2657,42725	0,06766	0,10838	0,10325
2655,49878	0,06776	0,10843	0,10324
2653,57031	0,06780	0,10846	0,10324
2651,64185	0,06786	0,10849	0,10327
2649,71338	0,06790	0,10855	0,10328
2647,78491	0,06792	0,10867	0,10322
2645,85645	0,06800	0,10872	0,10321
2643,92798	0,06803	0,10877	0,10326
2641,99951	0,06808	0,10883	0,10335
2640,07104	0,06817	0,10878	0,10335
2638,14258	0,06821	0,10878	0,10326
2636,21411	0,06821	0,10879	0,10327
2634,28564	0,06825	0,10870	0,10331
2632,35718	0,06827	0,10871	0,10329
2630,42871	0,06826	0,10872	0,10327
2628,50024	0,06822	0,10869	0,10324
2626,57178	0,06815	0,10872	0,10322



2624,64331	0,06814	0,10871	0,10318
2622,71484	0,06814	0,10868	0,10307
2620,78638	0,06804	0,10864	0,10303
2618,85791	0,06796	0,10860	0,10303
2616,92944	0,06794	0,10856	0,10297
2615,00098	0,06782	0,10848	0,10287
2613,07251	0,06777	0,10843	0,10279
2611,14404	0,06777	0,10836	0,10270
2609,21558	0,06762	0,10826	0,10260
2607,28711	0,06754	0,10821	0,10252
2605,35864	0,06747	0,10816	0,10243
2603,43018	0,06728	0,10806	0,10229
2601,50171	0,06714	0,10795	0,10215
2599,57324	0,06703	0,10783	0,10203
2597,64478	0,06691	0,10774	0,10191
2595,71631	0,06682	0,10768	0,10182
2593,78784	0,06663	0,10756	0,10169
2591,85938	0,06651	0,10745	0,10151
2589,93091	0,06646	0,10739	0,10141
2588,00244	0,06633	0,10733	0,10135
2586,07397	0,06615	0,10723	0,10123
2584,14551	0,06600	0,10710	0,10107
2582,21704	0,06589	0,10697	0,10093
2580,28857	0,06579	0,10689	0,10086
2578,36011	0,06566	0,10684	0,10078
2576,43164	0,06554	0,10676	0,10068
2574,50317	0,06539	0,10664	0,10059
2572,57471	0,06525	0,10655	0,10046
2570,64624	0,06514	0,10648	0,10032
2568,71777	0,06502	0,10638	0,10016
2566,78931	0,06490	0,10631	0,10002
2564,86084	0,06478	0,10629	0,09995
2562,93237	0,06467	0,10615	0,09991
2561,00391	0,06457	0,10605	0,09985
2559,07544	0,06449	0,10607	0,09971
2557,14697	0,06442	0,10598	0,09954
2555,21851	0,06433	0,10585	0,09948
2553,29004	0,06423	0,10579	0,09941
2551,36157	0,06415	0,10572	0,09932
2549,43311	0,06408	0,10570	0,09933
2547,50464	0,06400	0,10568	0,09923
2545,57617	0,06388	0,10558	0,09913
2543,64771	0,06384	0,10548	0,09917
2541,71924	0,06380	0,10544	0,09904
2539,79077	0,06370	0,10539	0,09890
2537,8623	0,06361	0,10534	0,09892
2535,93384	0,06350	0,10531	0,09886
2534,00537	0,06347	0,10523	0,09879

2532,0769	0,06351	0,10524	0,09875
2530,14844	0,06341	0,10522	0,09869
2528,21997	0,06330	0,10512	0,09867
2526,2915	0,06328	0,10519	0,09859
2524,36304	0,06324	0,10521	0,09849
2522,43457	0,06317	0,10506	0,09848
2520,5061	0,06315	0,10505	0,09839
2518,57764	0,06314	0,10502	0,09829
2516,64917	0,06305	0,10492	0,09830
2514,7207	0,06300	0,10500	0,09824
2512,79224	0,06297	0,10502	0,09813
2510,86377	0,06286	0,10494	0,09811
2508,9353	0,06279	0,10494	0,09808
2507,00684	0,06277	0,10486	0,09807
2505,07837	0,06274	0,10479	0,09807
2503,1499	0,06270	0,10486	0,09798
2501,22144	0,06268	0,10479	0,09793
2499,29297	0,06265	0,10471	0,09798
2497,3645	0,06263	0,10475	0,09801
2495,43604	0,06263	0,10469	0,09797
2493,50757	0,06253	0,10464	0,09792
2491,5791	0,06246	0,10471	0,09788
2489,65063	0,06250	0,10475	0,09784
2487,72217	0,06245	0,10470	0,09779
2485,7937	0,06237	0,10465	0,09776
2483,86523	0,06234	0,10472	0,09775
2481,93677	0,06230	0,10473	0,09775
2480,0083	0,06229	0,10465	0,09770
2478,07983	0,06228	0,10465	0,09766
2476,15137	0,06229	0,10465	0,09772
2474,2229	0,06229	0,10462	0,09772
2472,29443	0,06222	0,10456	0,09761
2470,36597	0,06220	0,10452	0,09754
2468,4375	0,06219	0,10456	0,09750
2466,50903	0,06218	0,10457	0,09746
2464,58057	0,06217	0,10449	0,09750
2462,6521	0,06213	0,10440	0,09752
2460,72363	0,06210	0,10439	0,09747
2458,79517	0,06209	0,10441	0,09740
2456,8667	0,06203	0,10437	0,09742
2454,93823	0,06195	0,10432	0,09747
2453,00977	0,06192	0,10433	0,09739
2451,0813	0,06193	0,10433	0,09731
2449,15283	0,06192	0,10430	0,09732
2447,22437	0,06185	0,10428	0,09732
2445,2959	0,06180	0,10421	0,09729
2443,36743	0,06183	0,10417	0,09727
2441,43896	0,06181	0,10421	0,09728

2439,5105	0,06176	0,10423	0,09726
2437,58203	0,06174	0,10420	0,09725
2435,65356	0,06173	0,10422	0,09728
2433,7251	0,06172	0,10421	0,09722
2431,79663	0,06170	0,10418	0,09718
2429,86816	0,06168	0,10417	0,09718
2427,9397	0,06167	0,10415	0,09709
2426,01123	0,06166	0,10414	0,09703
2424,08276	0,06163	0,10413	0,09699
2422,1543	0,06159	0,10411	0,09700
2420,22583	0,06156	0,10411	0,09706
2418,29736	0,06153	0,10410	0,09709
2416,3689	0,06150	0,10407	0,09710
2414,44043	0,06149	0,10411	0,09705
2412,51196	0,06143	0,10413	0,09704
2410,5835	0,06139	0,10401	0,09706
2408,65503	0,06140	0,10398	0,09702
2406,72656	0,06137	0,10401	0,09704
2404,7981	0,06135	0,10402	0,09703
2402,86963	0,06135	0,10400	0,09695
2400,94116	0,06134	0,10390	0,09695
2399,0127	0,06133	0,10390	0,09705
2397,08423	0,06131	0,10401	0,09705
2395,15576	0,06130	0,10397	0,09702
2393,22729	0,06134	0,10394	0,09700
2391,29883	0,06136	0,10393	0,09698
2389,37036	0,06134	0,10391	0,09695
2387,44189	0,06133	0,10390	0,09693
2385,51343	0,06131	0,10388	0,09690
2383,58496	0,06129	0,10386	0,09688
2381,65649	0,06127	0,10385	0,09686
2379,72803	0,06125	0,10383	0,09683
2377,79956	0,06124	0,10382	0,09681
2375,87109	0,06122	0,10380	0,09678
2373,94263	0,06120	0,10379	0,09676
2372,01416	0,06118	0,10377	0,09674
2370,08569	0,06116	0,10375	0,09671
2368,15723	0,06115	0,10374	0,09669
2366,22876	0,06113	0,10372	0,09666
2364,30029	0,06111	0,10371	0,09664
2362,37183	0,06109	0,10369	0,09662
2360,44336	0,06107	0,10368	0,09659
2358,51489	0,06106	0,10366	0,09657
2356,58643	0,06104	0,10364	0,09654
2354,65796	0,06102	0,10363	0,09652
2352,72949	0,06100	0,10361	0,09650
2350,80103	0,06098	0,10360	0,09647
2348,87256	0,06097	0,10358	0,09645

2346,94409	0,06095	0,10357	0,09642
2345,01563	0,06093	0,10355	0,09640
2343,08716	0,06091	0,10353	0,09638
2341,15869	0,06089	0,10352	0,09635
2339,23022	0,06088	0,10350	0,09633
2337,30176	0,06086	0,10349	0,09630
2335,37329	0,06084	0,10347	0,09628
2333,44482	0,06082	0,10346	0,09626
2331,51636	0,06080	0,10344	0,09623
2329,58789	0,06078	0,10342	0,09621
2327,65942	0,06077	0,10341	0,09618
2325,73096	0,06075	0,10339	0,09616
2323,80249	0,06073	0,10338	0,09614
2321,87402	0,06071	0,10336	0,09611
2319,94556	0,06069	0,10335	0,09609
2318,01709	0,06068	0,10333	0,09606
2316,08862	0,06066	0,10331	0,09604
2314,16016	0,06064	0,10330	0,09602
2312,23169	0,06062	0,10328	0,09599
2310,30322	0,06060	0,10327	0,09597
2308,37476	0,06059	0,10325	0,09594
2306,44629	0,06057	0,10323	0,09592
2304,51782	0,06055	0,10322	0,09590
2302,58936	0,06053	0,10320	0,09587
2300,66089	0,06051	0,10319	0,09585
2298,73242	0,06050	0,10317	0,09582
2296,80396	0,06048	0,10316	0,09580
2294,87549	0,06046	0,10314	0,09578
2292,94702	0,06044	0,10312	0,09575
2291,01855	0,06042	0,10311	0,09573
2289,09009	0,06041	0,10309	0,09570
2287,16162	0,06039	0,10308	0,09568
2285,23315	0,06037	0,10306	0,09566
2283,30469	0,06035	0,10305	0,09563
2281,37622	0,06033	0,10303	0,09561
2279,44775	0,06032	0,10301	0,09583
2277,51929	0,06030	0,10300	0,09586
2275,59082	0,06028	0,10298	0,09583
2273,66235	0,06028	0,10297	0,09583
2271,73389	0,06033	0,10295	0,09582
2269,80542	0,06022	0,10294	0,09581
2267,87695	0,06025	0,10292	0,09576
2265,94849	0,06022	0,10290	0,09573
2264,02002	0,06013	0,10289	0,09572
2262,09155	0,06011	0,10287	0,09569
2260,16309	0,06008	0,10286	0,09574
2258,23462	0,05999	0,10284	0,09584
2256,30615	0,05994	0,10283	0,09590

2254,37769	0,05997	0,10281	0,09589
2252,44922	0,05993	0,10279	0,09583
2250,52075	0,05985	0,10267	0,09582
2248,59229	0,05981	0,10264	0,09585
2246,66382	0,05975	0,10262	0,09580
2244,73535	0,05970	0,10258	0,09576
2242,80688	0,05970	0,10255	0,09577
2240,87842	0,05973	0,10245	0,09569
2238,94995	0,05973	0,10244	0,09562
2237,02148	0,05971	0,10247	0,09569
2235,09302	0,05963	0,10237	0,09570
2233,16455	0,05957	0,10231	0,09565
2231,23608	0,05958	0,10237	0,09567
2229,30762	0,05958	0,10242	0,09566
2227,37915	0,05954	0,10234	0,09563
2225,45068	0,05950	0,10231	0,09563
2223,52222	0,05947	0,10233	0,09559
2221,59375	0,05950	0,10227	0,09549
2219,66528	0,05948	0,10222	0,09543
2217,73682	0,05941	0,10222	0,09544
2215,80835	0,05940	0,10226	0,09543
2213,87988	0,05936	0,10222	0,09543
2211,95142	0,05931	0,10210	0,09541
2210,02295	0,05930	0,10207	0,09533
2208,09448	0,05920	0,10204	0,09531
2206,16602	0,05912	0,10201	0,09529
2204,23755	0,05913	0,10203	0,09523
2202,30908	0,05913	0,10196	0,09517
2200,38062	0,05912	0,10193	0,09507
2198,45215	0,05911	0,10193	0,09502
2196,52368	0,05908	0,10184	0,09506
2194,59521	0,05904	0,10179	0,09504
2192,66675	0,05899	0,10182	0,09498
2190,73828	0,05898	0,10180	0,09495
2188,80981	0,05896	0,10174	0,09495
2186,88135	0,05892	0,10173	0,09494
2184,95288	0,05891	0,10172	0,09488
2183,02441	0,05889	0,10171	0,09480
2181,09595	0,05886	0,10164	0,09477
2179,16748	0,05887	0,10158	0,09476
2177,23901	0,05882	0,10156	0,09468
2175,31055	0,05879	0,10150	0,09464
2173,38208	0,05880	0,10152	0,09464
2171,45361	0,05869	0,10150	0,09452
2169,52515	0,05857	0,10141	0,09440
2167,59668	0,05860	0,10147	0,09446
2165,66821	0,05866	0,10147	0,09456
2163,73975	0,05865	0,10141	0,09448

2161,81128	0,05860	0,10146	0,09440
2159,88281	0,05858	0,10139	0,09439
2157,95435	0,05859	0,10132	0,09438
2156,02588	0,05850	0,10129	0,09436
2154,09741	0,05839	0,10124	0,09431
2152,16895	0,05840	0,10127	0,09428
2150,24048	0,05838	0,10125	0,09427
2148,31201	0,05835	0,10124	0,09429
2146,38354	0,05838	0,10121	0,09431
2144,45508	0,05838	0,10113	0,09430
2142,52661	0,05835	0,10114	0,09425
2140,59814	0,05835	0,10109	0,09420
2138,66968	0,05834	0,10105	0,09420
2136,74121	0,05832	0,10108	0,09415
2134,81274	0,05829	0,10097	0,09411
2132,88428	0,05826	0,10096	0,09415
2130,95581	0,05824	0,10098	0,09409
2129,02734	0,05819	0,10082	0,09401
2127,09888	0,05815	0,10081	0,09405
2125,17041	0,05814	0,10083	0,09400
2123,24194	0,05808	0,10071	0,09384
2121,31348	0,05803	0,10075	0,09375
2119,38501	0,05802	0,10076	0,09370
2117,45654	0,05797	0,10067	0,09361
2115,52808	0,05798	0,10068	0,09353
2113,59961	0,05798	0,10064	0,09351
2111,67114	0,05789	0,10060	0,09339
2109,74268	0,05784	0,10062	0,09325
2107,81421	0,05782	0,10053	0,09322
2105,88574	0,05779	0,10049	0,09322
2103,95728	0,05777	0,10050	0,09318
2102,02881	0,05778	0,10047	0,09308
2100,10034	0,05776	0,10049	0,09303
2098,17188	0,05771	0,10043	0,09297
2096,24341	0,05772	0,10035	0,09289
2094,31494	0,05772	0,10031	0,09286
2092,38647	0,05767	0,10030	0,09280
2090,45801	0,05766	0,10039	0,09280
2088,52954	0,05760	0,10037	0,09285
2086,60107	0,05754	0,10019	0,09285
2084,67261	0,05754	0,10010	0,09282
2082,74414	0,05748	0,10009	0,09279
2080,81567	0,05747	0,10010	0,09280
2078,88721	0,05752	0,10011	0,09275
2076,95874	0,05750	0,10008	0,09262
2075,03027	0,05741	0,10000	0,09262
2073,10181	0,05737	0,09993	0,09267
2071,17334	0,05734	0,09994	0,09262

2069,24487	0,05726	0,09989	0,09263
2067,31641	0,05733	0,09994	0,09263
2065,38794	0,05744	0,10010	0,09251
2063,45947	0,05729	0,10000	0,09248
2061,53101	0,05720	0,09991	0,09247
2059,60254	0,05721	0,09998	0,09240
2057,67407	0,05714	0,09993	0,09245
2055,74561	0,05717	0,09987	0,09247
2053,81714	0,05720	0,09985	0,09244
2051,88867	0,05715	0,09979	0,09251
2049,96021	0,05714	0,09977	0,09259
2048,03174	0,05714	0,09985	0,09257
2046,10327	0,05710	0,09985	0,09253
2044,1748	0,05709	0,09989	0,09258
2042,24634	0,05714	0,10005	0,09255
2040,31787	0,05712	0,09992	0,09250
2038,3894	0,05704	0,09978	0,09261
2036,46094	0,05705	0,09991	0,09265
2034,53247	0,05707	0,09990	0,09255
2032,604	0,05703	0,09982	0,09257
2030,67554	0,05703	0,09981	0,09263
2028,74707	0,05707	0,09985	0,09256
2026,8186	0,05704	0,09985	0,09253
2024,89014	0,05699	0,09981	0,09254
2022,96167	0,05694	0,09980	0,09248
2021,0332	0,05687	0,09972	0,09252
2019,10474	0,05698	0,09988	0,09254
2017,17627	0,05709	0,10010	0,09242
2015,2478	0,05689	0,09979	0,09248
2013,31934	0,05681	0,09964	0,09259
2011,39087	0,05684	0,09975	0,09260
2009,4624	0,05683	0,09969	0,09258
2007,53394	0,05684	0,09964	0,09258
2005,60547	0,05677	0,09963	0,09260
2003,677	0,05675	0,09970	0,09262
2001,74854	0,05674	0,09964	0,09267
1999,82007	0,05675	0,09963	0,09263
1997,8916	0,05671	0,09968	0,09254
1995,96313	0,05654	0,09946	0,09260
1994,03467	0,05677	0,09986	0,09252
1992,1062	0,05684	0,10015	0,09230
1990,17773	0,05645	0,09960	0,09233
1988,24927	0,05650	0,09958	0,09241
1986,3208	0,05659	0,09956	0,09243
1984,39233	0,05652	0,09935	0,09247
1982,46387	0,05653	0,09944	0,09243
1980,5354	0,05637	0,09935	0,09237
1978,60693	0,05637	0,09933	0,09233

1976,67847	0,05643	0,09936	0,09234
1974,75	0,05637	0,09934	0,09233
1972,82153	0,05632	0,09935	0,09228
1970,89307	0,05618	0,09916	0,09227
1968,9646	0,05629	0,09943	0,09206
1967,03613	0,05636	0,09969	0,09180
1965,10767	0,05612	0,09910	0,09196
1963,1792	0,05612	0,09907	0,09200
1961,25073	0,05613	0,09933	0,09190
1959,32227	0,05601	0,09906	0,09193
1957,3938	0,05609	0,09903	0,09179
1955,46533	0,05609	0,09911	0,09165
1953,53687	0,05599	0,09905	0,09171
1951,6084	0,05594	0,09893	0,09172
1949,67993	0,05595	0,09905	0,09167
1947,75146	0,05593	0,09913	0,09162
1945,823	0,05589	0,09906	0,09145
1943,89453	0,05622	0,09975	0,09113
1941,96606	0,05610	0,09969	0,09108
1940,0376	0,05563	0,09879	0,09137
1938,10913	0,05572	0,09890	0,09143
1936,18066	0,05575	0,09897	0,09139
1934,2522	0,05582	0,09888	0,09140
1932,32373	0,05580	0,09884	0,09139
1930,39526	0,05574	0,09890	0,09131
1928,4668	0,05575	0,09885	0,09125
1926,53833	0,05555	0,09857	0,09128
1924,60986	0,05606	0,09939	0,09106
1922,6814	0,05605	0,09944	0,09078
1920,75293	0,05557	0,09888	0,09087
1918,82446	0,05622	0,09958	0,09100
1916,896	0,05589	0,09902	0,09105
1914,96753	0,05526	0,09832	0,09104
1913,03906	0,05568	0,09883	0,09113
1911,1106	0,05581	0,09911	0,09107
1909,18213	0,05569	0,09919	0,09088
1907,25366	0,05552	0,09897	0,09103
1905,3252	0,05545	0,09882	0,09121
1903,39673	0,05557	0,09884	0,09122
1901,46826	0,05561	0,09887	0,09121
1899,53979	0,05541	0,09872	0,09132
1897,61133	0,05545	0,09891	0,09133
1895,68286	0,05579	0,09949	0,09117
1893,75439	0,05537	0,09872	0,09139
1891,82593	0,05558	0,09897	0,09139
1889,89746	0,05618	0,09998	0,09098
1887,96899	0,05538	0,09881	0,09112
1886,04053	0,05530	0,09864	0,09130



1884,11206	0,05564	0,09903	0,09124
1882,18359	0,05539	0,09863	0,09130
1880,25513	0,05546	0,09879	0,09127
1878,32666	0,05538	0,09871	0,09117
1876,39819	0,05539	0,09865	0,09125
1874,46973	0,05538	0,09862	0,09137
1872,54126	0,05526	0,09856	0,09129
1870,61279	0,05609	0,09972	0,09108
1868,68433	0,05633	0,10034	0,09051
1866,75586	0,05518	0,09885	0,09058
1864,82739	0,05514	0,09859	0,09113
1862,89893	0,05532	0,09877	0,09133
1860,97046	0,05514	0,09869	0,09118
1859,04199	0,05519	0,09872	0,09122
1857,11353	0,05517	0,09867	0,09123
1855,18506	0,05521	0,09864	0,09126
1853,25659	0,05505	0,09857	0,09123
1851,32813	0,05518	0,09872	0,09130
1849,39966	0,05530	0,09869	0,09124
1847,47119	0,05527	0,09921	0,09067
1845,54272	0,05622	0,09996	0,09079
1843,61426	0,05563	0,09864	0,09112
1841,68579	0,05436	0,09773	0,09087
1839,75732	0,05494	0,09856	0,09094
1837,82886	0,05513	0,09866	0,09093
1835,90039	0,05495	0,09865	0,09076
1833,97192	0,05467	0,09799	0,09105
1832,04346	0,05544	0,09916	0,09088
1830,11499	0,05598	0,10016	0,09040
1828,18652	0,05467	0,09830	0,09065
1826,25806	0,05530	0,09911	0,09078
1824,32959	0,05551	0,09925	0,09081
1822,40112	0,05441	0,09777	0,09102
1820,47266	0,05477	0,09822	0,09119
1818,54419	0,05498	0,09857	0,09106
1816,61572	0,05477	0,09829	0,09102
1814,68726	0,05468	0,09811	0,09125
1812,75879	0,05499	0,09869	0,09103
1810,83032	0,05512	0,09907	0,09087
1808,90186	0,05465	0,09840	0,09110
1806,97339	0,05464	0,09821	0,09108
1805,04492	0,05469	0,09825	0,09120
1803,11646	0,05505	0,09887	0,09110
1801,18799	0,05544	0,09954	0,09058
1799,25952	0,05489	0,09850	0,09085
1797,33105	0,05448	0,09817	0,09100
1795,40259	0,05474	0,09877	0,09076
1793,47412	0,05560	0,09897	0,09115

1791,54565	0,05531	0,09871	0,09103
1789,61719	0,05397	0,09743	0,09114
1787,68872	0,05451	0,09808	0,09155
1785,76025	0,05500	0,09861	0,09172
1783,83179	0,05433	0,09771	0,09184
1781,90332	0,05456	0,09855	0,09164
1779,97485	0,05485	0,09902	0,09132
1778,04639	0,05426	0,09764	0,09178
1776,11792	0,05442	0,09863	0,09158
1774,18945	0,05547	0,09921	0,09143
1772,26099	0,05506	0,09765	0,09171
1770,33252	0,05398	0,09759	0,09156
1768,40405	0,05497	0,09877	0,09164
1766,47559	0,05390	0,09669	0,09228
1764,54712	0,05403	0,09802	0,09188
1762,61865	0,05564	0,09934	0,09207
1760,69019	0,05392	0,09703	0,09236
1758,76172	0,05420	0,09820	0,09186
1756,83325	0,05511	0,09872	0,09213
1754,90479	0,05364	0,09717	0,09233
1752,97632	0,05455	0,09801	0,09215
1751,04785	0,05565	0,09867	0,09218
1749,11938	0,05440	0,09839	0,09162
1747,19092	0,05463	0,09912	0,09161
1745,26245	0,05466	0,09828	0,09221
1743,33398	0,05434	0,09863	0,09202
1741,40552	0,05532	0,09919	0,09234
1739,47705	0,05464	0,09714	0,09316
1737,54858	0,05365	0,09771	0,09250
1735,62012	0,05599	0,09895	0,09295
1733,69165	0,05550	0,09629	0,09387
1731,76318	0,05266	0,09548	0,09279
1729,83472	0,05500	0,09979	0,09241
1727,90625	0,05382	0,09665	0,09381
1725,97778	0,05376	0,09763	0,09355
1724,04932	0,05468	0,09837	0,09367
1722,12085	0,05349	0,09709	0,09371
1720,19238	0,05498	0,09969	0,09344
1718,26392	0,05612	0,09958	0,09357
1716,33545	0,05382	0,09594	0,09350
1714,40698	0,05386	0,09811	0,09346
1712,47852	0,05437	0,09874	0,09417
1710,55005	0,05377	0,09739	0,09479
1708,62158	0,05438	0,09944	0,09445
1706,69312	0,05563	0,10016	0,09494
1704,76465	0,05400	0,09861	0,09476
1702,83618	0,05500	0,10013	0,09470
1700,90771	0,05821	0,10105	0,09719

1698,97925	0,05305	0,09531	0,09630
1697,05078	0,05412	0,09785	0,09469
1695,12231	0,05497	0,09632	0,09754
1693,19385	0,05263	0,09656	0,09766
1691,26538	0,05518	0,10035	0,09719
1689,33691	0,05497	0,09917	0,09853
1687,40845	0,05456	0,10020	0,09789
1685,47998	0,05682	0,09908	0,09917
1683,55151	0,05500	0,09732	0,10011
1681,62305	0,05425	0,09935	0,09935
1679,69458	0,05471	0,09952	0,10027
1677,76611	0,05480	0,09918	0,10142
1675,83765	0,05626	0,10009	0,10209
1673,90918	0,05458	0,09768	0,10279
1671,98071	0,05483	0,09963	0,10232
1670,05225	0,05721	0,10197	0,10245
1668,12378	0,05477	0,09799	0,10366
1666,19531	0,05450	0,09892	0,10387
1664,26685	0,05634	0,10014	0,10480
1662,33838	0,05554	0,09943	0,10515
1660,40991	0,05513	0,09905	0,10544
1658,48145	0,05518	0,09801	0,10647
1656,55298	0,05594	0,10087	0,10588
1654,62451	0,05898	0,10182	0,10615
1652,69604	0,05745	0,09536	0,10758
1650,76758	0,05256	0,09286	0,10761
1648,83911	0,05753	0,10275	0,10589
1646,91064	0,05863	0,10089	0,10671
1644,98218	0,05430	0,09500	0,10813
1643,05371	0,05592	0,09858	0,10776
1641,12524	0,05624	0,09773	0,10872
1639,19678	0,05604	0,09850	0,10801
1637,26831	0,05790	0,09975	0,10749
1635,33984	0,05745	0,09768	0,10809
1633,41138	0,05444	0,09474	0,10829
1631,48291	0,05542	0,09688	0,10755
1629,55444	0,05636	0,09698	0,10771
1627,62598	0,05556	0,09607	0,10710
1625,69751	0,05545	0,09572	0,10657
1623,76904	0,05629	0,09630	0,10615
1621,84058	0,05462	0,09409	0,10562
1619,91211	0,05477	0,09515	0,10498
1617,98364	0,05616	0,09493	0,10503
1616,05518	0,05436	0,09210	0,10501
1614,12671	0,05391	0,09423	0,10449
1612,19824	0,05529	0,09656	0,10417
1610,26978	0,05516	0,09611	0,10399
1608,34131	0,05509	0,09693	0,10324

1606,41284	0,05501	0,09665	0,10306
1604,48438	0,05490	0,09662	0,10272
1602,55591	0,05500	0,09720	0,10194
1600,62744	0,05470	0,09685	0,10170
1598,69897	0,05462	0,09680	0,10157
1596,77051	0,05479	0,09719	0,10097
1594,84204	0,05474	0,09742	0,10035
1592,91357	0,05454	0,09709	0,10019
1590,98511	0,05453	0,09698	0,09986
1589,05664	0,05459	0,09719	0,09940
1587,12817	0,05429	0,09663	0,09934
1585,19971	0,05424	0,09691	0,09891
1583,27124	0,05450	0,09697	0,09857
1581,34277	0,05412	0,09608	0,09845
1579,41431	0,05438	0,09768	0,09762
1577,48584	0,05552	0,09714	0,09756
1575,55737	0,05427	0,09374	0,09763
1573,62891	0,05292	0,09508	0,09709
1571,70044	0,05534	0,09866	0,09679
1569,77197	0,05565	0,09797	0,09669
1567,84351	0,05356	0,09628	0,09642
1565,91504	0,05483	0,09741	0,09667
1563,98657	0,05426	0,09674	0,09674
1562,05811	0,05466	0,09762	0,09618
1560,12964	0,05903	0,09977	0,09713
1558,20117	0,05488	0,09441	0,09618
1556,27271	0,05335	0,09541	0,09565
1554,34424	0,05484	0,09646	0,09611
1552,41577	0,05389	0,09525	0,09674
1550,4873	0,05500	0,09838	0,09571
1548,55884	0,05444	0,09686	0,09639
1546,63037	0,05433	0,09652	0,09683
1544,7019	0,05586	0,09892	0,09576
1542,77344	0,05554	0,09816	0,09565
1540,84497	0,05684	0,09770	0,09627
1538,9165	0,05379	0,09311	0,09564
1536,98804	0,05253	0,09453	0,09637
1535,05957	0,05555	0,09890	0,09667
1533,1311	0,05569	0,09874	0,09657
1531,20264	0,05335	0,09590	0,09699
1529,27417	0,05471	0,09784	0,09708
1527,3457	0,05555	0,09848	0,09703
1525,41724	0,05409	0,09679	0,09728
1523,48877	0,05541	0,09820	0,09726
1521,5603	0,05555	0,09671	0,09739
1519,63184	0,05341	0,09467	0,09822
1517,70337	0,05533	0,09888	0,09762
1515,7749	0,05480	0,09775	0,09791

1513,84644	0,05391	0,09615	0,09885
1511,91797	0,05452	0,09629	0,09940
1509,9895	0,05487	0,09822	0,09851
1508,06104	0,05701	0,09977	0,09825
1506,13257	0,05525	0,09493	0,09910
1504,2041	0,05152	0,09183	0,10050
1502,27563	0,05360	0,09634	0,10047
1500,34717	0,05401	0,09605	0,10141
1498,4187	0,05425	0,09649	0,10125
1496,49023	0,05388	0,09454	0,10160
1494,56177	0,05221	0,09271	0,10185
1492,6333	0,05372	0,09590	0,10144
1490,70483	0,05524	0,09739	0,10072
1488,77637	0,05442	0,09665	0,09976
1486,8479	0,05365	0,09531	0,10020
1484,91943	0,05327	0,09412	0,10057
1482,99097	0,05354	0,09467	0,10028
1481,0625	0,05342	0,09463	0,09960
1479,13403	0,05312	0,09397	0,09941
1477,20557	0,05384	0,09532	0,09871
1475,2771	0,05427	0,09584	0,09754
1473,34863	0,05448	0,09479	0,09722
1471,42017	0,05346	0,09395	0,09680
1469,4917	0,05253	0,09383	0,09672
1467,56323	0,05350	0,09443	0,09659
1465,63477	0,05457	0,09563	0,09579
1463,7063	0,05346	0,09363	0,09575
1461,77783	0,05284	0,09327	0,09551
1459,84937	0,05482	0,09678	0,09440
1457,9209	0,05651	0,09685	0,09370
1455,99243	0,05313	0,09117	0,09472
1454,06396	0,05309	0,09390	0,09384
1452,1355	0,05397	0,09465	0,09407
1450,20703	0,05365	0,09367	0,09433
1448,27856	0,05436	0,09508	0,09365
1446,3501	0,05364	0,09360	0,09366
1444,42163	0,05343	0,09358	0,09357
1442,49316	0,05378	0,09371	0,09360
1440,5647	0,05321	0,09331	0,09338
1438,63623	0,05434	0,09422	0,09335
1436,70776	0,05534	0,09460	0,09337
1434,7793	0,05299	0,09239	0,09317
1432,85083	0,05345	0,09400	0,09288
1430,92236	0,05446	0,09477	0,09288
1428,9939	0,05351	0,09372	0,09279
1427,06543	0,05325	0,09339	0,09303
1425,13696	0,05391	0,09414	0,09268
1423,2085	0,05329	0,09402	0,09215

1421,28003	0,05357	0,09345	0,09270
1419,35156	0,05461	0,09390	0,09245
1417,4231	0,05302	0,09292	0,09165
1415,49463	0,05290	0,09305	0,09195
1413,56616	0,05300	0,09235	0,09226
1411,6377	0,05282	0,09257	0,09191
1409,70923	0,05269	0,09214	0,09197
1407,78076	0,05259	0,09182	0,09196
1405,85229	0,05332	0,09304	0,09143
1403,92383	0,05274	0,09208	0,09144
1401,99536	0,05244	0,09164	0,09162
1400,06689	0,05334	0,09281	0,09130
1398,13843	0,05277	0,09257	0,09092
1396,20996	0,05282	0,09272	0,09090
1394,28149	0,05299	0,09260	0,09112
1392,35303	0,05166	0,09120	0,09150
1390,42456	0,05193	0,09194	0,09134
1388,49609	0,05261	0,09221	0,09111
1386,56763	0,05166	0,09099	0,09043
1384,63916	0,05080	0,09028	0,09004
1382,71069	0,05110	0,09051	0,09059
1380,78223	0,05176	0,09138	0,09121
1378,85376	0,05179	0,09140	0,09129
1376,92529	0,05180	0,09147	0,09121
1374,99683	0,05230	0,09269	0,09058
1373,06836	0,05183	0,09183	0,09072
1371,13989	0,05151	0,09092	0,09135
1369,21143	0,05210	0,09176	0,09114
1367,28296	0,05173	0,09115	0,09136
1365,35449	0,05180	0,09121	0,09154
1363,42603	0,05265	0,09286	0,09092
1361,49756	0,05216	0,09218	0,09094
1359,56909	0,05167	0,09099	0,09145
1357,64063	0,05176	0,09122	0,09159
1355,71216	0,05168	0,09139	0,09157
1353,78369	0,05158	0,09115	0,09169
1351,85522	0,05154	0,09110	0,09186
1349,92676	0,05157	0,09117	0,09186
1347,99829	0,05164	0,09100	0,09200
1346,06982	0,05175	0,09100	0,09216
1344,14136	0,05163	0,09085	0,09230
1342,21289	0,05173	0,09117	0,09223
1340,28442	0,05213	0,09217	0,09153
1338,35596	0,05185	0,09169	0,09133
1336,42749	0,05152	0,09085	0,09204
1334,49902	0,05153	0,09104	0,09242
1332,57056	0,05155	0,09119	0,09252
1330,64209	0,05166	0,09139	0,09274

1328,71362	0,05170	0,09149	0,09304
1326,78516	0,05183	0,09140	0,09320
1324,85669	0,05188	0,09159	0,09317
1322,92822	0,05165	0,09165	0,09333
1320,99976	0,05180	0,09183	0,09349
1319,07129	0,05203	0,09213	0,09339
1317,14282	0,05186	0,09192	0,09369
1315,21436	0,05197	0,09186	0,09407
1313,28589	0,05226	0,09210	0,09411
1311,35742	0,05231	0,09211	0,09452
1309,42896	0,05246	0,09224	0,09490
1307,50049	0,05263	0,09252	0,09511
1305,57202	0,05270	0,09271	0,09562
1303,64355	0,05294	0,09293	0,09604
1301,71509	0,05319	0,09305	0,09637
1299,78662	0,05335	0,09321	0,09673
1297,85815	0,05350	0,09354	0,09702
1295,92969	0,05368	0,09374	0,09741
1294,00122	0,05384	0,09385	0,09768
1292,07275	0,05401	0,09402	0,09798
1290,14429	0,05417	0,09409	0,09835
1288,21582	0,05410	0,09418	0,09853
1286,28735	0,05401	0,09423	0,09887
1284,35889	0,05413	0,09422	0,09934
1282,43042	0,05440	0,09447	0,09990
1280,50195	0,05481	0,09498	0,10077
1278,57349	0,05511	0,09546	0,10164
1276,64502	0,05539	0,09571	0,10255
1274,71655	0,05585	0,09601	0,10357
1272,78809	0,05634	0,09654	0,10446
1270,85962	0,05679	0,09695	0,10548
1268,93115	0,05705	0,09730	0,10672
1267,00269	0,05732	0,09762	0,10786
1265,07422	0,05770	0,09784	0,10901
1263,14575	0,05783	0,09820	0,11031
1261,21729	0,05789	0,09866	0,11157
1259,28882	0,05813	0,09896	0,11294
1257,36035	0,05836	0,09922	0,11451
1255,43188	0,05857	0,09959	0,11601
1253,50342	0,05884	0,10002	0,11759
1251,57495	0,05918	0,10058	0,11924
1249,64648	0,05967	0,10134	0,12089
1247,71802	0,06033	0,10204	0,12259
1245,78955	0,06093	0,10268	0,12422
1243,86108	0,06146	0,10351	0,12597
1241,93262	0,06205	0,10443	0,12777
1240,00415	0,06253	0,10534	0,12935
1238,07568	0,06301	0,10638	0,13093

1236,14722	0,06357	0,10733	0,13271
1234,21875	0,06405	0,10803	0,13449
1232,29028	0,06478	0,10877	0,13611
1230,36182	0,06557	0,10963	0,13764
1228,43335	0,06607	0,11047	0,13905
1226,50488	0,06659	0,11127	0,14043
1224,57642	0,06692	0,11201	0,14206
1222,64795	0,06715	0,11279	0,14360
1220,71948	0,06777	0,11358	0,14475
1218,79102	0,06834	0,11429	0,14599
1216,86255	0,06861	0,11491	0,14736
1214,93408	0,06909	0,11543	0,14852
1213,00562	0,06976	0,11611	0,14969
1211,07715	0,07028	0,11690	0,15090
1209,14868	0,07080	0,11742	0,15210
1207,22021	0,07144	0,11790	0,15310
1205,29175	0,07199	0,11857	0,15387
1203,36328	0,07245	0,11911	0,15477
1201,43481	0,07293	0,11942	0,15564
1199,50635	0,07338	0,11973	0,15633
1197,57788	0,07378	0,12010	0,15709
1195,64941	0,07420	0,12024	0,15784
1193,72095	0,07459	0,12036	0,15844
1191,79248	0,07487	0,12068	0,15893
1189,86401	0,07513	0,12089	0,15944
1187,93555	0,07548	0,12109	0,15992
1186,00708	0,07586	0,12129	0,16023
1184,07861	0,07622	0,12135	0,16050
1182,15015	0,07665	0,12156	0,16089
1180,22168	0,07728	0,12171	0,16147
1178,29321	0,07782	0,12173	0,16202
1176,36475	0,07828	0,12202	0,16229
1174,43628	0,07885	0,12214	0,16246
1172,50781	0,07932	0,12203	0,16270
1170,57935	0,07971	0,12219	0,16295
1168,65088	0,07997	0,12236	0,16315
1166,72241	0,08012	0,12242	0,16331
1164,79395	0,08058	0,12265	0,16345
1162,86548	0,08109	0,12287	0,16353
1160,93701	0,08141	0,12298	0,16375
1159,00854	0,08172	0,12323	0,16401
1157,08008	0,08198	0,12356	0,16411
1155,15161	0,08221	0,12369	0,16438
1153,22314	0,08236	0,12371	0,16468
1151,29468	0,08245	0,12383	0,16478
1149,36621	0,08276	0,12403	0,16502
1147,43774	0,08327	0,12437	0,16538
1145,50928	0,08376	0,12474	0,16565



1143,58081	0,08423	0,12517	0,16598
1141,65234	0,08456	0,12550	0,16623
1139,72388	0,08467	0,12545	0,16624
1137,79541	0,08486	0,12545	0,16634
1135,86694	0,08512	0,12567	0,16652
1133,93848	0,08533	0,12590	0,16652
1132,01001	0,08562	0,12603	0,16629
1130,08154	0,08567	0,12591	0,16574
1128,15308	0,08571	0,12610	0,16549
1126,22461	0,08600	0,12665	0,16565
1124,29614	0,08603	0,12706	0,16550
1122,36768	0,08609	0,12735	0,16504
1120,43921	0,08626	0,12757	0,16462
1118,51074	0,08626	0,12764	0,16425
1116,58228	0,08637	0,12756	0,16377
1114,65381	0,08664	0,12774	0,16319
1112,72534	0,08689	0,12805	0,16276
1110,79688	0,08707	0,12810	0,16234
1108,86841	0,08733	0,12831	0,16197
1106,93994	0,08759	0,12855	0,16179
1105,01147	0,08757	0,12834	0,16172
1103,08301	0,08758	0,12819	0,16168
1101,15454	0,08758	0,12830	0,16159
1099,22607	0,08753	0,12831	0,16152
1097,29761	0,08763	0,12820	0,16151
1095,36914	0,08763	0,12810	0,16147
1093,44067	0,08772	0,12797	0,16139
1091,51221	0,08789	0,12790	0,16133
1089,58374	0,08797	0,12794	0,16145
1087,65527	0,08806	0,12778	0,16142
1085,72681	0,08800	0,12751	0,16103
1083,79834	0,08765	0,12736	0,16072
1081,86987	0,08725	0,12704	0,16046
1079,94141	0,08705	0,12664	0,16001
1078,01294	0,08693	0,12649	0,15937
1076,08447	0,08680	0,12634	0,15833
1074,15601	0,08659	0,12603	0,15696
1072,22754	0,08628	0,12565	0,15570
1070,29907	0,08613	0,12533	0,15465
1068,37061	0,08602	0,12508	0,15362
1066,44214	0,08585	0,12494	0,15275
1064,51367	0,08570	0,12484	0,15218
1062,58521	0,08543	0,12464	0,15163
1060,65674	0,08515	0,12460	0,15108
1058,72827	0,08481	0,12469	0,15079
1056,7998	0,08440	0,12452	0,15053
1054,87134	0,08420	0,12429	0,15013
1052,94287	0,08406	0,12433	0,14994

1051,0144	0,08372	0,12434	0,14994
1049,08594	0,08337	0,12417	0,14973
1047,15747	0,08316	0,12418	0,14924
1045,229	0,08300	0,12435	0,14885
1043,30054	0,08282	0,12438	0,14871
1041,37207	0,08267	0,12416	0,14835
1039,4436	0,08243	0,12398	0,14778
1037,51514	0,08216	0,12395	0,14744
1035,58667	0,08206	0,12392	0,14716
1033,6582	0,08192	0,12391	0,14672
1031,72974	0,08157	0,12372	0,14628
1029,80127	0,08140	0,12351	0,14578
1027,8728	0,08135	0,12327	0,14554
1025,94434	0,08112	0,12276	0,14579
1024,01587	0,08100	0,12246	0,14597
1022,0874	0,08090	0,12253	0,14671
1020,15894	0,08060	0,12262	0,14838
1018,23047	0,08046	0,12257	0,14929
1016,302	0,08036	0,12260	0,14858
1014,37354	0,08021	0,12282	0,14704
1012,44507	0,08013	0,12282	0,14570
1010,5166	0,07978	0,12280	0,14511
1008,58813	0,07942	0,12291	0,14490
1006,65967	0,07929	0,12288	0,14466
1004,7312	0,07912	0,12290	0,14454
1002,80273	0,07910	0,12265	0,14462
1000,87427	0,07909	0,12203	0,14451
998,9458	0,07901	0,12159	0,14402
997,01733	0,07900	0,12115	0,14349
995,08887	0,07885	0,12058	0,14307
993,1604	0,07865	0,12009	0,14249
991,23193	0,07844	0,11957	0,14165
989,30347	0,07820	0,11903	0,14058
987,375	0,07801	0,11839	0,13965
985,44653	0,07776	0,11785	0,13904
983,51807	0,07777	0,11746	0,13802
981,5896	0,07787	0,11679	0,13677
979,66113	0,07748	0,11621	0,13581
977,73267	0,07725	0,11601	0,13467
975,8042	0,07716	0,11569	0,13354
973,87573	0,07673	0,11530	0,13262
971,94727	0,07666	0,11495	0,13166
970,0188	0,07684	0,11456	0,13084
968,09033	0,07667	0,11426	0,12997
966,16187	0,07652	0,11398	0,12891
964,2334	0,07642	0,11375	0,12795
962,30493	0,07627	0,11349	0,12711
960,37646	0,07621	0,11306	0,12643

958,448	0,07605	0,11275	0,12574
956,51953	0,07596	0,11261	0,12494
954,59106	0,07601	0,11257	0,12432
952,6626	0,07572	0,11253	0,12384
950,73413	0,07533	0,11266	0,12324
948,80566	0,07527	0,11276	0,12262
946,8772	0,07525	0,11231	0,12214
944,94873	0,07525	0,11211	0,12192
943,02026	0,07545	0,11234	0,12178
941,0918	0,07540	0,11215	0,12149
939,16333	0,07503	0,11209	0,12140
937,23486	0,07496	0,11240	0,12118
935,3064	0,07493	0,11244	0,12049
933,37793	0,07476	0,11217	0,12028
931,44946	0,07500	0,11194	0,12058
929,521	0,07523	0,11195	0,12050
927,59253	0,07508	0,11209	0,12027
925,66406	0,07518	0,11206	0,12035
923,7356	0,07546	0,11198	0,12055
921,80713	0,07539	0,11201	0,12055
919,87866	0,07522	0,11197	0,12051
917,9502	0,07520	0,11220	0,12069
916,02173	0,07526	0,11260	0,12088
914,09326	0,07555	0,11254	0,12083
912,16479	0,07575	0,11255	0,12076
910,23633	0,07557	0,11266	0,12087
908,30786	0,07542	0,11240	0,12092
906,37939	0,07541	0,11232	0,12098
904,45093	0,07545	0,11220	0,12122
902,52246	0,07546	0,11182	0,12136
900,59399	0,07539	0,11198	0,12138
898,66553	0,07534	0,11230	0,12141
896,73706	0,07545	0,11214	0,12154
894,80859	0,07562	0,11182	0,12174
892,88013	0,07549	0,11173	0,12179
890,95166	0,07545	0,11181	0,12166
889,02319	0,07591	0,11172	0,12152
887,09473	0,07620	0,11182	0,12191
885,16626	0,07619	0,11223	0,12253
883,23779	0,07644	0,11223	0,12261
881,30933	0,07689	0,11208	0,12268
879,38086	0,07734	0,11230	0,12318
877,45239	0,07790	0,11283	0,12403
875,52393	0,07894	0,11372	0,12530
873,59546	0,08046	0,11474	0,12671
871,66699	0,08245	0,11606	0,12888
869,73853	0,08492	0,11792	0,13183
867,81006	0,08694	0,11933	0,13418

865,88159	0,08806	0,12021	0,13597
863,95313	0,08887	0,12099	0,13734
862,02466	0,08938	0,12127	0,13818
860,09619	0,08939	0,12116	0,13872
858,16772	0,08875	0,12078	0,13871
856,23926	0,08772	0,11995	0,13834
854,31079	0,08677	0,11894	0,13805
852,38232	0,08604	0,11847	0,13829
850,45386	0,08624	0,11880	0,13907
848,52539	0,08819	0,12011	0,14092
846,59692	0,09174	0,12268	0,14454
844,66846	0,09548	0,12519	0,14801
842,73999	0,09899	0,12759	0,15121
840,81152	0,10455	0,13176	0,15716
838,88306	0,11120	0,13636	0,16457
836,95459	0,11652	0,14030	0,17058
835,02612	0,12114	0,14397	0,17538
833,09766	0,12321	0,14535	0,17752
831,16919	0,12267	0,14505	0,17733
829,24072	0,12244	0,14495	0,17714
827,31226	0,12222	0,14455	0,17658
825,38379	0,12371	0,14593	0,17858
823,45532	0,12738	0,14866	0,18292
821,52686	0,12901	0,14931	0,18404
819,59839	0,12907	0,14935	0,18382
817,66992	0,12999	0,15019	0,18498
815,74146	0,13128	0,15107	0,18621
813,81299	0,13259	0,15201	0,18763
811,88452	0,13297	0,15231	0,18852
809,95605	0,13254	0,15218	0,18834
808,02759	0,13298	0,15252	0,18853
806,09912	0,13410	0,15328	0,18950
804,17065	0,13527	0,15400	0,19025
802,24219	0,13626	0,15451	0,19091
800,31372	0,13723	0,15547	0,19229
798,38525	0,13861	0,15658	0,19371
796,45679	0,13956	0,15713	0,19460
794,52832	0,13975	0,15724	0,19498
792,59985	0,13938	0,15673	0,19452
790,67139	0,13823	0,15569	0,19335
788,74292	0,13696	0,15484	0,19215
786,81445	0,13615	0,15456	0,19135
784,88599	0,13506	0,15388	0,18991
782,95752	0,13354	0,15268	0,18791
781,02905	0,13262	0,15231	0,18733
779,10059	0,13276	0,15220	0,18760
777,17212	0,13372	0,15233	0,18838
775,24365	0,13522	0,15378	0,19047

773,31519	0,13672	0,15515	0,19258
771,38672	0,13760	0,15569	0,19368
769,45825	0,13815	0,15613	0,19413
767,52979	0,13887	0,15651	0,19483
765,60132	0,13929	0,15690	0,19571
763,67285	0,13912	0,15701	0,19610
761,74438	0,13854	0,15667	0,19566
759,81592	0,13791	0,15638	0,19431
757,88745	0,13775	0,15620	0,19380
755,95898	0,13753	0,15578	0,19426
754,03052	0,13696	0,15552	0,19408
752,10205	0,13627	0,15547	0,19356
750,17358	0,13602	0,15544	0,19335
748,24512	0,13675	0,15606	0,19393
746,31665	0,13748	0,15655	0,19471
744,38818	0,13782	0,15629	0,19500
742,45972	0,13838	0,15641	0,19557
740,53125	0,13912	0,15676	0,19620
738,60278	0,13970	0,15679	0,19675
736,67432	0,14004	0,15697	0,19765
734,74585	0,14027	0,15690	0,19815
732,81738	0,13993	0,15646	0,19812
730,88892	0,13962	0,15657	0,19824
728,96045	0,14047	0,15679	0,19877
727,03198	0,14159	0,15687	0,19933
725,10352	0,14231	0,15745	0,20009
723,17505	0,14316	0,15831	0,20115
721,24658	0,14400	0,15915	0,20110
719,31812	0,14451	0,15940	0,20111
717,38965	0,14513	0,15939	0,20282
715,46118	0,14585	0,15983	0,20441
713,53271	0,14610	0,16006	0,20493
711,60425	0,14600	0,15972	0,20474
709,67578	0,14601	0,15930	0,20431
707,74731	0,14625	0,15946	0,20443
705,81885	0,14641	0,15972	0,20467
703,89038	0,14628	0,15942	0,20433
701,96191	0,14589	0,15911	0,20391
700,03345	0,14593	0,15928	0,20405
698,10498	0,14683	0,15928	0,20437
696,17651	0,14760	0,15895	0,20450
694,24805	0,14800	0,15931	0,20453
692,31958	0,14877	0,15994	0,20505
690,39111	0,14955	0,16029	0,20609
688,46265	0,15016	0,16068	0,20701
686,53418	0,15098	0,16110	0,20796
684,60571	0,15131	0,16109	0,20859
682,67725	0,15208	0,16134	0,20921

680,74878	0,15358	0,16241	0,21034
678,82031	0,15378	0,16290	0,21155
676,89185	0,15425	0,16339	0,21211
674,96338	0,15510	0,16388	0,21291
673,03491	0,15525	0,16389	0,21315
671,10645	0,15540	0,16390	0,21339
669,17798	0,15555	0,16392	0,21362
667,24951	0,15570	0,16393	0,21386
665,32104	0,15585	0,16395	0,21410
663,39258	0,15600	0,16396	0,21433
661,46411	0,15615	0,16397	0,21457
659,53564	0,15630	0,16399	0,21481
657,60718	0,15645	0,16400	0,21505
655,67871	0,15661	0,16402	0,21528
653,75024	0,15676	0,16391	0,21552
651,82178	0,15691	0,16380	0,21576
649,89331	0,15706	0,16370	0,21600
647,96484	0,15721	0,16359	0,21600
646,03638	0,15736	0,16348	0,21680
644,10791	0,15718	0,16338	0,21667
642,17944	0,15711	0,16275	0,21643
640,25098	0,15710	0,16180	0,21636
638,32251	0,15664	0,16150	0,21660
636,39404	0,15677	0,16209	0,21704
634,46558	0,15681	0,16226	0,21702
632,53711	0,15699	0,16228	0,21707
630,60864	0,15675	0,16206	0,21714
628,68018	0,15598	0,16155	0,21691
626,75171	0,15581	0,16131	0,21669
624,82324	0,15581	0,16160	0,21652
622,89478	0,15554	0,16119	0,21646
620,96631	0,15561	0,16061	0,21652
619,03784	0,15635	0,16167	0,21688
617,10938	0,15687	0,16310	0,21702
615,18091	0,15642	0,16368	0,21650
613,25244	0,15609	0,16363	0,21657
611,32397	0,15645	0,16360	0,21689
609,39551	0,15630	0,16349	0,21709
607,46704	0,15574	0,16321	0,21776
605,53857	0,15576	0,16350	0,21773
603,61011	0,15576	0,16370	0,21706
601,68164	0,15525	0,16363	0,21652
599,75317	0,15466	0,16338	0,21594
597,82471	0,15453	0,16280	0,21569
595,89624	0,15495	0,16250	0,21543
593,96777	0,15495	0,16287	0,21507
592,03931	0,15435	0,16336	0,21519
590,11084	0,15396	0,16262	0,21569

588,18237	0,15364	0,16215	0,21554
586,25391	0,15382	0,16261	0,21529
584,32544	0,15458	0,16208	0,21598
582,39697	0,15463	0,16186	0,21571
580,46851	0,15437	0,16246	0,21478
578,54004	0,15453	0,16229	0,21516
576,61157	0,15463	0,16234	0,21521
574,68311	0,15477	0,16301	0,21497
572,75464	0,15518	0,16316	0,21572
570,82617	0,15577	0,16322	0,21637
568,89771	0,15652	0,16415	0,21687
566,96924	0,15720	0,16524	0,21782
565,04077	0,15732	0,16548	0,21852
563,1123	0,15705	0,16557	0,21844
561,18384	0,15698	0,16559	0,21842
559,25537	0,15742	0,16516	0,21906
557,3269	0,15803	0,16570	0,21965
555,39844	0,15780	0,16623	0,21997
553,46997	0,15726	0,16560	0,22031
551,5415	0,15728	0,16611	0,22087
549,61304	0,15716	0,16723	0,22134
547,68457	0,15590	0,16580	0,22125
545,7561	0,15469	0,16542	0,22093
543,82764	0,15491	0,16829	0,22020
541,89917	0,15462	0,16847	0,21969
539,9707	0,15384	0,16760	0,22060
538,04224	0,15316	0,16882	0,22141
536,11377	0,15165	0,16880	0,22176
534,1853	0,15153	0,17057	0,22260
532,25684	0,14951	0,17065	0,22297
530,32837	0,14612	0,17078	0,22244
528,3999	0,14381	0,17096	0,22269
526,47144	0,13774	0,16449	0,22306
524,54297	0,13446	0,16545	0,22139
522,6145	0,13389	0,17080	0,21967
520,68604	0,12816	0,16718	0,21899
518,75757	0,12234	0,16397	0,21779
516,8291	0,11786	0,16621	0,21517
514,90063	0,11394	0,16962	0,21312
512,97217	0,11003	0,16892	0,21272
511,0437	0,10584	0,16766	0,21084
509,11523	0,10098	0,16856	0,20703
507,18677	0,09480	0,16722	0,20470
505,2583	0,09298	0,16687	0,20480
503,32983	0,08973	0,16499	0,20278
501,40137	0,08469	0,16392	0,20008
499,4729	0,08274	0,16859	0,19967

<b>Figure 2.4-C)</b>			
n°spectre	VD97	VD238	VD294
nom	F3-0 days	F3-43 days	F3-104 days
cm-1	a	b	c
4001,5686	0,04243	0,21953	0,00573
3999,64014	0,04239	0,21935	0,00569
3997,71167	0,04242	0,21932	0,00564
3995,7832	0,04242	0,21933	0,00567
3993,85474	0,04231	0,21923	0,00568
3991,92627	0,04225	0,21918	0,00562
3989,9978	0,04225	0,21925	0,00557
3988,06934	0,04213	0,21918	0,00549
3986,14087	0,04208	0,21906	0,00547
3984,2124	0,04209	0,21895	0,00558
3982,28394	0,04205	0,21885	0,00557
3980,35547	0,04204	0,21872	0,00538
3978,427	0,04197	0,21864	0,00544
3976,49854	0,04195	0,21881	0,00561
3974,57007	0,04197	0,21878	0,00554
3972,6416	0,04189	0,21856	0,00548
3970,71313	0,04186	0,21841	0,00546
3968,78467	0,04183	0,21827	0,00544
3966,8562	0,04169	0,21805	0,00541
3964,92773	0,04170	0,21795	0,00537
3962,99927	0,04193	0,21813	0,00554
3961,0708	0,04181	0,21785	0,00541
3959,14233	0,04166	0,21766	0,00525
3957,21387	0,04182	0,21760	0,00545
3955,2854	0,04176	0,21732	0,00540
3953,35693	0,04164	0,21742	0,00526
3951,42847	0,04170	0,21721	0,00551
3949,5	0,04206	0,21736	0,00578
3947,57153	0,04180	0,21715	0,00517
3945,64307	0,04137	0,21678	0,00506
3943,7146	0,04212	0,21775	0,00586
3941,78613	0,04192	0,21702	0,00539
3939,85767	0,04118	0,21601	0,00500
3937,9292	0,04161	0,21664	0,00545
3936,00073	0,04144	0,21638	0,00527
3934,07227	0,04161	0,21679	0,00554
3932,1438	0,04228	0,21777	0,00583
3930,21533	0,04139	0,21652	0,00497
3928,28687	0,04090	0,21576	0,00483
3926,3584	0,04170	0,21691	0,00559
3924,42993	0,04174	0,21693	0,00559
3922,50146	0,04098	0,21579	0,00491
3920,573	0,04128	0,21628	0,00520



3918,64453	0,04195	0,21692	0,00552
3916,71606	0,04163	0,21631	0,00497
3914,7876	0,04077	0,21519	0,00447
3912,85913	0,04072	0,21514	0,00487
3910,93066	0,04120	0,21564	0,00539
3909,0022	0,04080	0,21508	0,00510
3907,07373	0,04116	0,21605	0,00559
3905,14526	0,04258	0,21777	0,00649
3903,2168	0,04201	0,21633	0,00523
3901,28833	0,04119	0,21552	0,00428
3899,35986	0,04141	0,21602	0,00473
3897,4314	0,04048	0,21409	0,00415
3895,50293	0,03987	0,21372	0,00421
3893,57446	0,04130	0,21624	0,00574
3891,646	0,04248	0,21674	0,00635
3889,71753	0,03963	0,21224	0,00340
3887,78906	0,04034	0,21485	0,00469
3885,8606	0,04304	0,21732	0,00663
3883,93213	0,03938	0,21163	0,00316
3882,00366	0,04045	0,21558	0,00493
3880,0752	0,04275	0,21774	0,00667
3878,14673	0,03887	0,21180	0,00304
3876,21826	0,04048	0,21477	0,00505
3874,28979	0,04186	0,21597	0,00605
3872,36133	0,04014	0,21414	0,00444
3870,43286	0,04216	0,21555	0,00594
3868,50439	0,04001	0,21190	0,00360
3866,57593	0,03930	0,21276	0,00364
3864,64746	0,04187	0,21517	0,00597
3862,71899	0,04020	0,21302	0,00424
3860,79053	0,03973	0,21268	0,00390
3858,86206	0,04016	0,21252	0,00475
3856,93359	0,04049	0,21452	0,00545
3855,00513	0,04339	0,21467	0,00675
3853,07666	0,04270	0,21061	0,00515
3851,14819	0,03693	0,20647	0,00106
3849,21973	0,03868	0,21161	0,00354
3847,29126	0,03975	0,21170	0,00459
3845,36279	0,04044	0,21305	0,00525
3843,43433	0,04092	0,21308	0,00537
3841,50586	0,04048	0,21305	0,00498
3839,57739	0,04116	0,21350	0,00553
3837,64893	0,04061	0,21018	0,00460
3835,72046	0,03840	0,20831	0,00257
3833,79199	0,03963	0,21214	0,00416
3831,86353	0,04051	0,21188	0,00483
3829,93506	0,03886	0,20971	0,00352

3828,00659	0,04003	0,21233	0,00503
3826,07813	0,04026	0,21140	0,00516
3824,14966	0,03899	0,21074	0,00424
3822,22119	0,04223	0,21442	0,00677
3820,29272	0,04049	0,21071	0,00458
3818,36426	0,03812	0,20950	0,00290
3816,43579	0,04090	0,21065	0,00535
3814,50732	0,03848	0,20672	0,00282
3812,57886	0,03792	0,20904	0,00315
3810,65039	0,03928	0,21044	0,00465
3808,72192	0,04024	0,21142	0,00537
3806,79346	0,04064	0,20987	0,00500
3804,86499	0,03770	0,20743	0,00268
3802,93652	0,04020	0,21237	0,00538
3801,00806	0,04098	0,20926	0,00563
3799,07959	0,03675	0,20565	0,00186
3797,15112	0,03950	0,21190	0,00489
3795,22266	0,03955	0,20922	0,00440
3793,29419	0,03777	0,20764	0,00315
3791,36572	0,03916	0,20986	0,00468
3789,43726	0,03875	0,20854	0,00431
3787,50879	0,03854	0,20873	0,00426
3785,58032	0,03948	0,21001	0,00510
3783,65186	0,03849	0,20828	0,00402
3781,72339	0,03862	0,20872	0,00415
3779,79492	0,03973	0,21030	0,00519
3777,86646	0,03845	0,20803	0,00376
3775,93799	0,03806	0,20762	0,00353
3774,00952	0,03835	0,20800	0,00415
3772,08105	0,03891	0,20886	0,00475
3770,15259	0,03978	0,20953	0,00510
3768,22412	0,03818	0,20712	0,00335
3766,29565	0,03851	0,20864	0,00410
3764,36719	0,03873	0,20809	0,00429
3762,43872	0,03756	0,20672	0,00342
3760,51025	0,03923	0,20947	0,00502
3758,58179	0,03904	0,20851	0,00476
3756,65332	0,03763	0,20720	0,00346
3754,72485	0,03837	0,20810	0,00425
3752,79639	0,03922	0,20813	0,00505
3750,86792	0,04026	0,20757	0,00540
3748,93945	0,03657	0,20198	0,00101
3747,01099	0,03697	0,20651	0,00277
3745,08252	0,04130	0,20929	0,00567
3743,15405	0,03778	0,20174	0,00094
3741,22559	0,03589	0,20515	0,00129
3739,29712	0,03888	0,20885	0,00377
3737,36865	0,04015	0,20750	0,00395

3735,44019	0,03993	0,20835	0,00330
3733,51172	0,03955	0,20780	0,00254
3731,58325	0,03802	0,20410	0,00093
3729,65479	0,03766	0,20428	0,00077
3727,72632	0,03931	0,20698	0,00227
3725,79785	0,03968	0,20677	0,00253
3723,86938	0,03868	0,20625	0,00186
3721,94092	0,03865	0,20635	0,00232
3720,01245	0,03803	0,20539	0,00208
3718,08398	0,03751	0,20510	0,00217
3716,15552	0,03702	0,20470	0,00285
3714,22705	0,03762	0,20627	0,00367
3712,29858	0,03907	0,20660	0,00409
3710,37012	0,03773	0,20426	0,00196
3708,44165	0,03679	0,20660	0,00060
3706,51318	0,03599	0,20472	0,00028
3704,58472	0,03665	0,20360	0,00153
3702,65625	0,03871	0,20595	0,00306
3700,72778	0,03759	0,20390	0,00171
3698,79932	0,03649	0,20241	0,00106
3696,87085	0,03722	0,20379	0,00190
3694,94238	0,03684	0,20251	0,00176
3693,01392	0,03675	0,20233	0,00190
3691,08545	0,03791	0,20437	0,00306
3689,15698	0,03713	0,20051	0,00226
3687,22852	0,03443	0,19575	-0,00044
3685,30005	0,03444	0,19909	0,00034
3683,37158	0,03544	0,20090	0,00174
3681,44312	0,03610	0,20069	0,00239
3679,51465	0,03568	0,20182	0,00242
3677,58618	0,03685	0,20318	0,00339
3675,65771	0,03914	0,20449	0,00504
3673,72925	0,03421	0,19870	-0,00009
3671,80078	0,03495	0,20131	0,00169
3669,87231	0,03766	0,20293	0,00382
3667,94385	0,03429	0,19946	0,00026
3666,01538	0,03439	0,20108	0,00134
3664,08691	0,03557	0,20166	0,00263
3662,15845	0,03555	0,20171	0,00242
3660,22998	0,03515	0,20086	0,00214
3658,30151	0,03596	0,20239	0,00305
3656,37305	0,03688	0,20224	0,00322
3654,44458	0,03439	0,19830	0,00086
3652,51611	0,03546	0,20250	0,00257
3650,58765	0,03845	0,20541	0,00510
3648,65918	0,03650	0,20097	0,00274
3646,73071	0,03453	0,20007	0,00098
3644,80225	0,03448	0,19997	0,00120

3642,87378	0,03477	0,19959	0,00173
3640,94531	0,03550	0,20065	0,00233
3639,01685	0,03510	0,19963	0,00181
3637,08838	0,03496	0,19977	0,00178
3635,15991	0,03590	0,20056	0,00210
3633,23145	0,03525	0,19945	0,00124
3631,30298	0,03582	0,20065	0,00166
3629,37451	0,03878	0,20274	0,00315
3627,44604	0,03513	0,19689	-0,00067
3625,51758	0,03367	0,19754	-0,00049
3623,58911	0,03523	0,19908	0,00103
3621,66064	0,03524	0,19907	0,00134
3619,73218	0,03614	0,20049	0,00252
3617,80371	0,03475	0,19810	0,00099
3615,87524	0,03351	0,19780	0,00062
3613,94678	0,03488	0,19991	0,00253
3612,01831	0,03394	0,19825	0,00140
3610,08984	0,03356	0,19750	0,00070
3608,16138	0,03455	0,19853	0,00131
3606,23291	0,03341	0,19752	0,00016
3604,30444	0,03298	0,19717	0,00022
3602,37598	0,03393	0,19827	0,00104
3600,44751	0,03402	0,19931	0,00074
3598,51904	0,03312	0,19837	0,00009
3596,59058	0,03335	0,19815	0,00059
3594,66211	0,03403	0,19896	0,00105
3592,73364	0,03312	0,19768	0,00045
3590,80518	0,03277	0,19732	0,00055
3588,87671	0,03430	0,19968	0,00157
3586,94824	0,03404	0,19954	0,00139
3585,01978	0,03212	0,19695	0,00007
3583,09131	0,03225	0,19726	0,00067
3581,16284	0,03258	0,19767	0,00118
3579,23438	0,03233	0,19742	0,00125
3577,30591	0,03232	0,19716	0,00126
3575,37744	0,03233	0,19703	0,00127
3573,44897	0,03227	0,19704	0,00139
3571,52051	0,03190	0,19663	0,00122
3569,59204	0,03258	0,19765	0,00174
3567,66357	0,03386	0,19964	0,00276
3565,73511	0,03246	0,19766	0,00145
3563,80664	0,03133	0,19601	0,00075
3561,87817	0,03189	0,19640	0,00141
3559,94971	0,03192	0,19615	0,00155
3558,02124	0,03161	0,19562	0,00139
3556,09277	0,03152	0,19549	0,00134
3554,16431	0,03174	0,19598	0,00168
3552,23584	0,03189	0,19608	0,00190

3550,30737	0,03127	0,19492	0,00142
3548,37891	0,03150	0,19534	0,00166
3546,45044	0,03213	0,19621	0,00208
3544,52197	0,03150	0,19520	0,00166
3542,59351	0,03104	0,19460	0,00141
3540,66504	0,03101	0,19424	0,00139
3538,73657	0,03103	0,19416	0,00157
3536,80811	0,03125	0,19448	0,00172
3534,87964	0,03099	0,19382	0,00145
3532,95117	0,03061	0,19331	0,00135
3531,02271	0,03083	0,19358	0,00160
3529,09424	0,03104	0,19359	0,00180
3527,16577	0,03076	0,19313	0,00155
3525,2373	0,03067	0,19299	0,00150
3523,30884	0,03072	0,19287	0,00164
3521,38037	0,03030	0,19209	0,00143
3519,4519	0,03012	0,19162	0,00142
3517,52344	0,03022	0,19151	0,00150
3515,59497	0,03007	0,19125	0,00149
3513,6665	0,02998	0,19093	0,00146
3511,73804	0,03009	0,19092	0,00149
3509,80957	0,03022	0,19113	0,00174
3507,8811	0,02991	0,19039	0,00148
3505,95264	0,02974	0,19009	0,00131
3504,02417	0,03015	0,19087	0,00181
3502,0957	0,02997	0,19039	0,00171
3500,16724	0,02953	0,18958	0,00138
3498,23877	0,02966	0,18972	0,00163
3496,3103	0,02976	0,18959	0,00165
3494,38184	0,02955	0,18931	0,00152
3492,45337	0,02942	0,18922	0,00152
3490,5249	0,02956	0,18916	0,00157
3488,59644	0,02968	0,18917	0,00174
3486,66797	0,02952	0,18891	0,00171
3484,7395	0,02934	0,18866	0,00167
3482,81104	0,02951	0,18890	0,00190
3480,88257	0,02952	0,18894	0,00190
3478,9541	0,02928	0,18861	0,00171
3477,02563	0,02942	0,18853	0,00175
3475,09717	0,02941	0,18851	0,00180
3473,1687	0,02922	0,18825	0,00172
3471,24023	0,02928	0,18801	0,00184
3469,31177	0,02928	0,18813	0,00201
3467,3833	0,02935	0,18812	0,00196
3465,45483	0,02928	0,18784	0,00196
3463,52637	0,02912	0,18791	0,00206
3461,5979	0,02916	0,18782	0,00203
3459,66943	0,02907	0,18755	0,00208

3457,74097	0,02895	0,18755	0,00212
3455,8125	0,02895	0,18732	0,00206
3453,88403	0,02895	0,18730	0,00211
3451,95557	0,02887	0,18720	0,00209
3450,0271	0,02893	0,18703	0,00219
3448,09863	0,02919	0,18749	0,00245
3446,17017	0,02896	0,18730	0,00222
3444,2417	0,02872	0,18687	0,00206
3442,31323	0,02894	0,18709	0,00239
3440,38477	0,02888	0,18702	0,00233
3438,4563	0,02881	0,18691	0,00225
3436,52783	0,02882	0,18697	0,00247
3434,59937	0,02880	0,18716	0,00248
3432,6709	0,02886	0,18741	0,00252
3430,74243	0,02870	0,18723	0,00259
3428,81396	0,02872	0,18722	0,00254
3426,8855	0,02883	0,18741	0,00257
3424,95703	0,02868	0,18738	0,00254
3423,02856	0,02882	0,18755	0,00260
3421,1001	0,02904	0,18785	0,00280
3419,17163	0,02883	0,18783	0,00272
3417,24316	0,02869	0,18777	0,00261
3415,3147	0,02881	0,18793	0,00275
3413,38623	0,02885	0,18812	0,00280
3411,45776	0,02884	0,18830	0,00273
3409,5293	0,02877	0,18853	0,00284
3407,60083	0,02872	0,18857	0,00291
3405,67236	0,02877	0,18858	0,00277
3403,7439	0,02874	0,18882	0,00276
3401,81543	0,02880	0,18897	0,00278
3399,88696	0,02887	0,18911	0,00268
3397,9585	0,02880	0,18940	0,00271
3396,03003	0,02876	0,18941	0,00266
3394,10156	0,02872	0,18944	0,00258
3392,1731	0,02871	0,18972	0,00258
3390,24463	0,02868	0,18979	0,00241
3388,31616	0,02860	0,18985	0,00242
3386,3877	0,02865	0,19002	0,00251
3384,45923	0,02869	0,19017	0,00231
3382,53076	0,02851	0,19048	0,00228
3380,60229	0,02846	0,19067	0,00237
3378,67383	0,02850	0,19071	0,00229
3376,74536	0,02837	0,19092	0,00218
3374,81689	0,02836	0,19118	0,00204
3372,88843	0,02839	0,19137	0,00198
3370,95996	0,02833	0,19161	0,00210
3369,03149	0,02839	0,19199	0,00204
3367,10303	0,02843	0,19238	0,00190

3365,17456	0,02839	0,19251	0,00186
3363,24609	0,02827	0,19269	0,00179
3361,31763	0,02819	0,19301	0,00177
3359,38916	0,02818	0,19318	0,00180
3357,46069	0,02813	0,19345	0,00177
3355,53223	0,02814	0,19366	0,00169
3353,60376	0,02810	0,19375	0,00164
3351,67529	0,02797	0,19401	0,00163
3349,74683	0,02803	0,19419	0,00159
3347,81836	0,02806	0,19435	0,00156
3345,88989	0,02793	0,19456	0,00151
3343,96143	0,02793	0,19472	0,00146
3342,03296	0,02792	0,19488	0,00139
3340,10449	0,02785	0,19504	0,00124
3338,17603	0,02788	0,19534	0,00121
3336,24756	0,02795	0,19561	0,00124
3334,31909	0,02788	0,19570	0,00122
3332,39063	0,02774	0,19571	0,00122
3330,46216	0,02774	0,19581	0,00124
3328,53369	0,02769	0,19615	0,00116
3326,60522	0,02764	0,19624	0,00102
3324,67676	0,02775	0,19622	0,00100
3322,74829	0,02763	0,19640	0,00100
3320,81982	0,02746	0,19646	0,00097
3318,89136	0,02753	0,19651	0,00095
3316,96289	0,02749	0,19660	0,00087
3315,03442	0,02741	0,19669	0,00079
3313,10596	0,02744	0,19685	0,00069
3311,17749	0,02741	0,19700	0,00063
3309,24902	0,02737	0,19710	0,00066
3307,32056	0,02728	0,19712	0,00063
3305,39209	0,02716	0,19718	0,00055
3303,46362	0,02723	0,19728	0,00049
3301,53516	0,02727	0,19728	0,00047
3299,60669	0,02713	0,19734	0,00049
3297,67822	0,02703	0,19736	0,00039
3295,74976	0,02700	0,19741	0,00030
3293,82129	0,02696	0,19755	0,00035
3291,89282	0,02696	0,19759	0,00031
3289,96436	0,02697	0,19751	0,00021
3288,03589	0,02690	0,19737	0,00017
3286,10742	0,02683	0,19740	0,00016
3284,17896	0,02684	0,19751	0,00014
3282,25049	0,02677	0,19739	0,00006
3280,32202	0,02670	0,19738	0,00007
3278,39355	0,02671	0,19752	0,00009
3276,46509	0,02660	0,19752	0,00003
3274,53662	0,02658	0,19751	0,00004

3272,60815	0,02664	0,19747	0,00003
3270,67969	0,02652	0,19746	0,00000
3268,75122	0,02642	0,19752	0,00005
3266,82275	0,02643	0,19750	0,00004
3264,89429	0,02637	0,19739	-0,00006
3262,96582	0,02632	0,19738	-0,00014
3261,03735	0,02628	0,19750	-0,00018
3259,10889	0,02618	0,19740	-0,00020
3257,18042	0,02617	0,19736	-0,00019
3255,25195	0,02615	0,19747	-0,00017
3253,32349	0,02605	0,19738	-0,00026
3251,39502	0,02604	0,19745	-0,00036
3249,46655	0,02595	0,19756	-0,00036
3247,53809	0,02588	0,19744	-0,00028
3245,60962	0,02593	0,19741	-0,00028
3243,68115	0,02582	0,19743	-0,00043
3241,75269	0,02573	0,19743	-0,00049
3239,82422	0,02577	0,19744	-0,00046
3237,89575	0,02566	0,19741	-0,00055
3235,96729	0,02558	0,19742	-0,00063
3234,03882	0,02561	0,19753	-0,00059
3232,11035	0,02556	0,19757	-0,00058
3230,18188	0,02550	0,19749	-0,00065
3228,25342	0,02547	0,19743	-0,00072
3226,32495	0,02544	0,19745	-0,00082
3224,39648	0,02536	0,19746	-0,00086
3222,46802	0,02523	0,19750	-0,00087
3220,53955	0,02524	0,19750	-0,00093
3218,61108	0,02519	0,19740	-0,00105
3216,68262	0,02510	0,19745	-0,00113
3214,75415	0,02516	0,19743	-0,00113
3212,82568	0,02502	0,19722	-0,00120
3210,89722	0,02489	0,19737	-0,00124
3208,96875	0,02496	0,19741	-0,00125
3207,04028	0,02486	0,19716	-0,00137
3205,11182	0,02474	0,19725	-0,00142
3203,18335	0,02471	0,19727	-0,00144
3201,25488	0,02470	0,19720	-0,00145
3199,32642	0,02471	0,19737	-0,00142
3197,39795	0,02464	0,19733	-0,00150
3195,46948	0,02454	0,19722	-0,00159
3193,54102	0,02454	0,19730	-0,00163
3191,61255	0,02459	0,19733	-0,00166
3189,68408	0,02452	0,19735	-0,00170
3187,75562	0,02450	0,19735	-0,00171
3185,82715	0,02450	0,19740	-0,00173
3183,89868	0,02435	0,19747	-0,00187
3181,97021	0,02423	0,19733	-0,00188



3180,04175	0,02418	0,19733	-0,00185
3178,11328	0,02414	0,19747	-0,00197
3176,18481	0,02411	0,19738	-0,00204
3174,25635	0,02399	0,19734	-0,00211
3172,32788	0,02392	0,19740	-0,00222
3170,39941	0,02397	0,19730	-0,00224
3168,47095	0,02393	0,19726	-0,00223
3166,54248	0,02384	0,19726	-0,00230
3164,61401	0,02378	0,19723	-0,00239
3162,68555	0,02372	0,19719	-0,00237
3160,75708	0,02365	0,19713	-0,00239
3158,82861	0,02357	0,19722	-0,00249
3156,90015	0,02351	0,19725	-0,00258
3154,97168	0,02349	0,19710	-0,00264
3153,04321	0,02349	0,19711	-0,00267
3151,11475	0,02342	0,19720	-0,00270
3149,18628	0,02332	0,19714	-0,00269
3147,25781	0,02331	0,19702	-0,00277
3145,32935	0,02330	0,19702	-0,00293
3143,40088	0,02330	0,19701	-0,00292
3141,47241	0,02323	0,19691	-0,00297
3139,54395	0,02310	0,19684	-0,00316
3137,61548	0,02302	0,19675	-0,00325
3135,68701	0,02293	0,19683	-0,00330
3133,75854	0,02296	0,19690	-0,00333
3131,83008	0,02294	0,19665	-0,00340
3129,90161	0,02286	0,19667	-0,00346
3127,97314	0,02286	0,19677	-0,00343
3126,04468	0,02274	0,19660	-0,00352
3124,11621	0,02268	0,19662	-0,00359
3122,18774	0,02267	0,19661	-0,00366
3120,25928	0,02258	0,19653	-0,00379
3118,33081	0,02260	0,19662	-0,00371
3116,40234	0,02258	0,19661	-0,00376
3114,47388	0,02251	0,19655	-0,00403
3112,54541	0,02248	0,19640	-0,00405
3110,61694	0,02241	0,19629	-0,00400
3108,68848	0,02235	0,19643	-0,00405
3106,76001	0,02235	0,19641	-0,00413
3104,83154	0,02233	0,19627	-0,00426
3102,90308	0,02225	0,19629	-0,00433
3100,97461	0,02215	0,19623	-0,00443
3099,04614	0,02205	0,19619	-0,00449
3097,11768	0,02204	0,19626	-0,00449
3095,18921	0,02206	0,19611	-0,00457
3093,26074	0,02198	0,19594	-0,00468
3091,33228	0,02191	0,19598	-0,00472
3089,40381	0,02188	0,19607	-0,00475

3087,47534	0,02185	0,19612	-0,00486
3085,54688	0,02184	0,19606	-0,00501
3083,61841	0,02178	0,19603	-0,00500
3081,68994	0,02167	0,19605	-0,00496
3079,76147	0,02163	0,19600	-0,00503
3077,83301	0,02166	0,19599	-0,00510
3075,90454	0,02156	0,19604	-0,00520
3073,97607	0,02149	0,19597	-0,00527
3072,04761	0,02146	0,19585	-0,00528
3070,11914	0,02136	0,19584	-0,00534
3068,19067	0,02138	0,19587	-0,00536
3066,26221	0,02135	0,19588	-0,00541
3064,33374	0,02121	0,19582	-0,00558
3062,40527	0,02119	0,19571	-0,00559
3060,47681	0,02118	0,19569	-0,00554
3058,54834	0,02116	0,19565	-0,00571
3056,61987	0,02108	0,19560	-0,00576
3054,69141	0,02096	0,19562	-0,00576
3052,76294	0,02100	0,19558	-0,00590
3050,83447	0,02105	0,19560	-0,00582
3048,90601	0,02098	0,19553	-0,00581
3046,97754	0,02087	0,19541	-0,00600
3045,04907	0,02082	0,19545	-0,00597
3043,12061	0,02084	0,19542	-0,00598
3041,19214	0,02082	0,19536	-0,00610
3039,26367	0,02073	0,19535	-0,00613
3037,33521	0,02064	0,19526	-0,00613
3035,40674	0,02064	0,19523	-0,00614
3033,47827	0,02065	0,19526	-0,00617
3031,5498	0,02060	0,19519	-0,00624
3029,62134	0,02055	0,19499	-0,00634
3027,69287	0,02045	0,19486	-0,00633
3025,7644	0,02039	0,19484	-0,00626
3023,83594	0,02046	0,19475	-0,00634
3021,90747	0,02044	0,19464	-0,00640
3019,979	0,02044	0,19462	-0,00639
3018,05054	0,02052	0,19462	-0,00653
3016,12207	0,02043	0,19463	-0,00658
3014,1936	0,02030	0,19462	-0,00646
3012,26514	0,02028	0,19456	-0,00651
3010,33667	0,02020	0,19449	-0,00664
3008,4082	0,02010	0,19439	-0,00665
3006,47974	0,02005	0,19430	-0,00664
3004,55127	0,01999	0,19433	-0,00665
3002,6228	0,01994	0,19432	-0,00676
3000,69434	0,01994	0,19418	-0,00686
2998,76587	0,01988	0,19415	-0,00680
2996,8374	0,01977	0,19422	-0,00678

2994,90894	0,01974	0,19423	-0,00690
2992,98047	0,01968	0,19418	-0,00705
2991,052	0,01957	0,19417	-0,00708
2989,12354	0,01952	0,19418	-0,00712
2987,19507	0,01944	0,19418	-0,00715
2985,2666	0,01937	0,19407	-0,00718
2983,33813	0,01936	0,19397	-0,00724
2981,40967	0,01932	0,19409	-0,00726
2979,4812	0,01930	0,19415	-0,00734
2977,55273	0,01922	0,19404	-0,00742
2975,62427	0,01909	0,19409	-0,00736
2973,6958	0,01904	0,19418	-0,00739
2971,76733	0,01898	0,19402	-0,00744
2969,83887	0,01897	0,19397	-0,00736
2967,9104	0,01891	0,19410	-0,00736
2965,98193	0,01880	0,19400	-0,00738
2964,05347	0,01884	0,19391	-0,00736
2962,125	0,01883	0,19400	-0,00736
2960,19653	0,01885	0,19397	-0,00732
2958,26807	0,01889	0,19386	-0,00734
2956,3396	0,01882	0,19378	-0,00740
2954,41113	0,01884	0,19371	-0,00743
2952,48267	0,01884	0,19367	-0,00753
2950,5542	0,01872	0,19362	-0,00759
2948,62573	0,01871	0,19361	-0,00759
2946,69727	0,01872	0,19354	-0,00757
2944,7688	0,01867	0,19350	-0,00752
2942,84033	0,01865	0,19359	-0,00750
2940,91187	0,01870	0,19354	-0,00745
2938,9834	0,01879	0,19342	-0,00740
2937,05493	0,01882	0,19353	-0,00735
2935,12646	0,01877	0,19362	-0,00717
2933,198	0,01880	0,19362	-0,00705
2931,26953	0,01878	0,19373	-0,00696
2929,34106	0,01872	0,19387	-0,00679
2927,4126	0,01878	0,19387	-0,00670
2925,48413	0,01877	0,19381	-0,00663
2923,55566	0,01863	0,19379	-0,00662
2921,6272	0,01854	0,19372	-0,00674
2919,69873	0,01852	0,19356	-0,00685
2917,77026	0,01845	0,19345	-0,00704
2915,8418	0,01834	0,19336	-0,00732
2913,91333	0,01829	0,19324	-0,00752
2911,98486	0,01826	0,19315	-0,00767
2910,0564	0,01818	0,19307	-0,00783
2908,12793	0,01810	0,19299	-0,00796
2906,19946	0,01808	0,19289	-0,00806
2904,271	0,01806	0,19280	-0,00814

2902,34253	0,01800	0,19277	-0,00819
2900,41406	0,01797	0,19269	-0,00823
2898,4856	0,01796	0,19259	-0,00831
2896,55713	0,01791	0,19254	-0,00837
2894,62866	0,01794	0,19250	-0,00836
2892,7002	0,01795	0,19246	-0,00842
2890,77173	0,01783	0,19243	-0,00852
2888,84326	0,01777	0,19238	-0,00857
2886,91479	0,01772	0,19235	-0,00863
2884,98633	0,01768	0,19228	-0,00867
2883,05786	0,01768	0,19225	-0,00866
2881,12939	0,01762	0,19229	-0,00869
2879,20093	0,01763	0,19225	-0,00872
2877,27246	0,01763	0,19225	-0,00872
2875,34399	0,01752	0,19228	-0,00871
2873,41553	0,01751	0,19226	-0,00869
2871,48706	0,01752	0,19224	-0,00871
2869,55859	0,01746	0,19224	-0,00874
2867,63013	0,01746	0,19223	-0,00873
2865,70166	0,01741	0,19220	-0,00868
2863,77319	0,01737	0,19225	-0,00866
2861,84473	0,01740	0,19231	-0,00870
2859,91626	0,01739	0,19228	-0,00864
2857,98779	0,01736	0,19224	-0,00844
2856,05933	0,01739	0,19226	-0,00833
2854,13086	0,01745	0,19231	-0,00842
2852,20239	0,01738	0,19229	-0,00853
2850,27393	0,01727	0,19223	-0,00859
2848,34546	0,01719	0,19215	-0,00874
2846,41699	0,01705	0,19197	-0,00895
2844,48853	0,01693	0,19183	-0,00907
2842,56006	0,01695	0,19176	-0,00916
2840,63159	0,01692	0,19165	-0,00922
2838,70313	0,01688	0,19159	-0,00920
2836,77466	0,01693	0,19153	-0,00917
2834,84619	0,01690	0,19145	-0,00921
2832,91772	0,01685	0,19143	-0,00928
2830,98926	0,01685	0,19137	-0,00931
2829,06079	0,01682	0,19133	-0,00934
2827,13232	0,01684	0,19136	-0,00941
2825,20386	0,01686	0,19131	-0,00942
2823,27539	0,01680	0,19126	-0,00941
2821,34692	0,01678	0,19123	-0,00945
2819,41846	0,01678	0,19115	-0,00951
2817,48999	0,01677	0,19114	-0,00948
2815,56152	0,01674	0,19118	-0,00940
2813,63306	0,01668	0,19112	-0,00944
2811,70459	0,01668	0,19107	-0,00949

2809,77612	0,01673	0,19110	-0,00949
2807,84766	0,01669	0,19109	-0,00951
2805,91919	0,01666	0,19107	-0,00949
2803,99072	0,01665	0,19106	-0,00950
2802,06226	0,01660	0,19097	-0,00952
2800,13379	0,01661	0,19095	-0,00955
2798,20532	0,01662	0,19100	-0,00960
2796,27686	0,01659	0,19101	-0,00959
2794,34839	0,01662	0,19094	-0,00957
2792,41992	0,01661	0,19089	-0,00956
2790,49146	0,01659	0,19098	-0,00951
2788,56299	0,01667	0,19097	-0,00951
2786,63452	0,01665	0,19090	-0,00954
2784,70605	0,01661	0,19093	-0,00952
2782,77759	0,01660	0,19086	-0,00951
2780,84912	0,01658	0,19084	-0,00950
2778,92065	0,01663	0,19094	-0,00955
2776,99219	0,01666	0,19096	-0,00956
2775,06372	0,01660	0,19095	-0,00951
2773,13525	0,01658	0,19094	-0,00953
2771,20679	0,01663	0,19092	-0,00953
2769,27832	0,01665	0,19095	-0,00950
2767,34985	0,01665	0,19094	-0,00953
2765,42139	0,01666	0,19097	-0,00955
2763,49292	0,01668	0,19097	-0,00956
2761,56445	0,01666	0,19090	-0,00956
2759,63599	0,01665	0,19092	-0,00954
2757,70752	0,01667	0,19102	-0,00957
2755,77905	0,01664	0,19106	-0,00958
2753,85059	0,01664	0,19099	-0,00961
2751,92212	0,01667	0,19091	-0,00960
2749,99365	0,01661	0,19090	-0,00956
2748,06519	0,01662	0,19095	-0,00959
2746,13672	0,01667	0,19094	-0,00959
2744,20825	0,01665	0,19093	-0,00961
2742,27979	0,01665	0,19098	-0,00965
2740,35132	0,01671	0,19100	-0,00962
2738,42285	0,01673	0,19098	-0,00965
2736,49438	0,01670	0,19097	-0,00966
2734,56592	0,01667	0,19094	-0,00966
2732,63745	0,01661	0,19097	-0,00970
2730,70898	0,01663	0,19103	-0,00971
2728,78052	0,01668	0,19099	-0,00972
2726,85205	0,01661	0,19095	-0,00975
2724,92358	0,01662	0,19096	-0,00976
2722,99512	0,01671	0,19100	-0,00976
2721,06665	0,01668	0,19105	-0,00974
2719,13818	0,01665	0,19104	-0,00972

2717,20972	0,01664	0,19102	-0,00975
2715,28125	0,01662	0,19095	-0,00973
2713,35278	0,01665	0,19091	-0,00968
2711,42432	0,01668	0,19096	-0,00975
2709,49585	0,01668	0,19096	-0,00976
2707,56738	0,01670	0,19099	-0,00970
2705,63892	0,01671	0,19104	-0,00972
2703,71045	0,01673	0,19103	-0,00974
2701,78198	0,01682	0,19106	-0,00968
2699,85352	0,01686	0,19114	-0,00967
2697,92505	0,01681	0,19122	-0,00975
2695,99658	0,01681	0,19124	-0,00979
2694,06812	0,01682	0,19130	-0,00979
2692,13965	0,01682	0,19137	-0,00979
2690,21118	0,01689	0,19140	-0,00976
2688,28271	0,01694	0,19149	-0,00969
2686,35425	0,01698	0,19153	-0,00968
2684,42578	0,01707	0,19160	-0,00972
2682,49731	0,01709	0,19177	-0,00974
2680,56885	0,01710	0,19180	-0,00973
2678,64038	0,01719	0,19181	-0,00976
2676,71191	0,01720	0,19188	-0,00976
2674,78345	0,01721	0,19194	-0,00973
2672,85498	0,01730	0,19211	-0,00970
2670,92651	0,01737	0,19221	-0,00970
2668,99805	0,01742	0,19223	-0,00967
2667,06958	0,01743	0,19234	-0,00963
2665,14111	0,01746	0,19243	-0,00965
2663,21265	0,01756	0,19249	-0,00969
2661,28418	0,01765	0,19258	-0,00969
2659,35571	0,01775	0,19271	-0,00964
2657,42725	0,01785	0,19280	-0,00963
2655,49878	0,01791	0,19284	-0,00968
2653,57031	0,01790	0,19299	-0,00962
2651,64185	0,01794	0,19311	-0,00951
2649,71338	0,01805	0,19320	-0,00954
2647,78491	0,01811	0,19336	-0,00961
2645,85645	0,01815	0,19350	-0,00955
2643,92798	0,01824	0,19356	-0,00950
2641,99951	0,01831	0,19355	-0,00951
2640,07104	0,01833	0,19359	-0,00949
2638,14258	0,01839	0,19368	-0,00948
2636,21411	0,01844	0,19373	-0,00949
2634,28564	0,01844	0,19372	-0,00950
2632,35718	0,01847	0,19372	-0,00956
2630,42871	0,01847	0,19372	-0,00955
2628,50024	0,01842	0,19371	-0,00953
2626,57178	0,01840	0,19366	-0,00954

2624,64331	0,01843	0,19357	-0,00956
2622,71484	0,01845	0,19356	-0,00960
2620,78638	0,01835	0,19355	-0,00960
2618,85791	0,01829	0,19348	-0,00956
2616,92944	0,01829	0,19342	-0,00957
2615,00098	0,01817	0,19335	-0,00959
2613,07251	0,01813	0,19325	-0,00962
2611,14404	0,01811	0,19311	-0,00970
2609,21558	0,01799	0,19296	-0,00975
2607,28711	0,01793	0,19281	-0,00973
2605,35864	0,01786	0,19264	-0,00976
2603,43018	0,01771	0,19246	-0,00984
2601,50171	0,01762	0,19232	-0,00989
2599,57324	0,01756	0,19222	-0,00995
2597,64478	0,01749	0,19208	-0,01002
2595,71631	0,01738	0,19188	-0,01006
2593,78784	0,01726	0,19175	-0,01011
2591,85938	0,01717	0,19161	-0,01016
2589,93091	0,01711	0,19140	-0,01016
2588,00244	0,01703	0,19124	-0,01013
2586,07397	0,01691	0,19108	-0,01014
2584,14551	0,01678	0,19081	-0,01018
2582,21704	0,01667	0,19057	-0,01021
2580,28857	0,01658	0,19045	-0,01025
2578,36011	0,01648	0,19035	-0,01025
2576,43164	0,01638	0,19014	-0,01024
2574,50317	0,01628	0,18992	-0,01027
2572,57471	0,01616	0,18979	-0,01030
2570,64624	0,01607	0,18968	-0,01031
2568,71777	0,01599	0,18952	-0,01037
2566,78931	0,01589	0,18937	-0,01046
2564,86084	0,01579	0,18927	-0,01048
2562,93237	0,01566	0,18914	-0,01046
2561,00391	0,01560	0,18899	-0,01049
2559,07544	0,01557	0,18890	-0,01061
2557,14697	0,01547	0,18877	-0,01070
2555,21851	0,01540	0,18862	-0,01071
2553,29004	0,01531	0,18852	-0,01074
2551,36157	0,01522	0,18848	-0,01076
2549,43311	0,01521	0,18843	-0,01073
2547,50464	0,01512	0,18832	-0,01077
2545,57617	0,01503	0,18820	-0,01085
2543,64771	0,01502	0,18805	-0,01083
2541,71924	0,01496	0,18793	-0,01087
2539,79077	0,01488	0,18781	-0,01095
2537,8623	0,01481	0,18774	-0,01090
2535,93384	0,01475	0,18767	-0,01090
2534,00537	0,01472	0,18747	-0,01102

2532,0769	0,01470	0,18741	-0,01100
2530,14844	0,01463	0,18737	-0,01097
2528,21997	0,01453	0,18723	-0,01104
2526,2915	0,01454	0,18721	-0,01106
2524,36304	0,01454	0,18718	-0,01105
2522,43457	0,01444	0,18709	-0,01110
2520,5061	0,01443	0,18709	-0,01114
2518,57764	0,01447	0,18702	-0,01115
2516,64917	0,01442	0,18690	-0,01119
2514,7207	0,01437	0,18685	-0,01122
2512,79224	0,01432	0,18676	-0,01121
2510,86377	0,01426	0,18668	-0,01127
2508,9353	0,01424	0,18668	-0,01129
2507,00684	0,01420	0,18659	-0,01125
2505,07837	0,01418	0,18655	-0,01128
2503,1499	0,01421	0,18659	-0,01129
2501,22144	0,01422	0,18644	-0,01125
2499,29297	0,01420	0,18633	-0,01127
2497,3645	0,01417	0,18634	-0,01128
2495,43604	0,01413	0,18626	-0,01132
2493,50757	0,01415	0,18620	-0,01132
2491,5791	0,01413	0,18620	-0,01128
2489,65063	0,01410	0,18617	-0,01129
2487,72217	0,01415	0,18611	-0,01126
2485,7937	0,01418	0,18605	-0,01125
2483,86523	0,01414	0,18601	-0,01128
2481,93677	0,01409	0,18596	-0,01127
2480,0083	0,01406	0,18591	-0,01127
2478,07983	0,01404	0,18587	-0,01128
2476,15137	0,01405	0,18582	-0,01122
2474,2229	0,01407	0,18577	-0,01115
2472,29443	0,01405	0,18568	-0,01117
2470,36597	0,01407	0,18563	-0,01120
2468,4375	0,01406	0,18559	-0,01120
2466,50903	0,01404	0,18553	-0,01121
2464,58057	0,01408	0,18550	-0,01116
2462,6521	0,01405	0,18542	-0,01113
2460,72363	0,01400	0,18534	-0,01116
2458,79517	0,01401	0,18531	-0,01121
2456,8667	0,01398	0,18526	-0,01121
2454,93823	0,01391	0,18519	-0,01121
2453,00977	0,01386	0,18512	-0,01128
2451,0813	0,01386	0,18507	-0,01130
2449,15283	0,01388	0,18503	-0,01128
2447,22437	0,01384	0,18504	-0,01128
2445,2959	0,01382	0,18499	-0,01130
2443,36743	0,01381	0,18490	-0,01135
2441,43896	0,01377	0,18497	-0,01136



2439,5105	0,01377	0,18501	-0,01136
2437,58203	0,01378	0,18493	-0,01142
2435,65356	0,01374	0,18493	-0,01139
2433,7251	0,01373	0,18493	-0,01139
2431,79663	0,01375	0,18493	-0,01143
2429,86816	0,01373	0,18494	-0,01140
2427,9397	0,01369	0,18487	-0,01143
2426,01123	0,01369	0,18477	-0,01146
2424,08276	0,01370	0,18467	-0,01148
2422,1543	0,01375	0,18457	-0,01152
2420,22583	0,01379	0,18449	-0,01146
2418,29736	0,01376	0,18441	-0,01143
2416,3689	0,01379	0,18435	-0,01143
2414,44043	0,01383	0,18433	-0,01141
2412,51196	0,01379	0,18427	-0,01140
2410,5835	0,01377	0,18417	-0,01142
2408,65503	0,01381	0,18410	-0,01138
2406,72656	0,01383	0,18408	-0,01130
2404,7981	0,01384	0,18406	-0,01133
2402,86963	0,01381	0,18400	-0,01137
2400,94116	0,01382	0,18394	-0,01135
2399,0127	0,01382	0,18393	-0,01135
2397,08423	0,01382	0,18390	-0,01135
2395,15576	0,01382	0,18386	-0,01136
2393,22729	0,01382	0,18383	-0,01136
2391,29883	0,01382	0,18380	-0,01136
2389,37036	0,01382	0,18377	-0,01136
2387,44189	0,01382	0,18374	-0,01137
2385,51343	0,01383	0,18371	-0,01137
2383,58496	0,01383	0,18368	-0,01137
2381,65649	0,01383	0,18365	-0,01137
2379,72803	0,01383	0,18362	-0,01138
2377,79956	0,01383	0,18359	-0,01138
2375,87109	0,01383	0,18356	-0,01138
2373,94263	0,01383	0,18352	-0,01138
2372,01416	0,01383	0,18349	-0,01139
2370,08569	0,01383	0,18346	-0,01139
2368,15723	0,01383	0,18343	-0,01139
2366,22876	0,01384	0,18340	-0,01139
2364,30029	0,01384	0,18337	-0,01139
2362,37183	0,01384	0,18334	-0,01140
2360,44336	0,01384	0,18331	-0,01140
2358,51489	0,01384	0,18328	-0,01140
2356,58643	0,01384	0,18325	-0,01140
2354,65796	0,01384	0,18321	-0,01141
2352,72949	0,01384	0,18318	-0,01141
2350,80103	0,01384	0,18315	-0,01141
2348,87256	0,01384	0,18312	-0,01141

2346,94409	0,01385	0,18309	-0,01142
2345,01563	0,01385	0,18306	-0,01142
2343,08716	0,01385	0,18303	-0,01142
2341,15869	0,01385	0,18300	-0,01142
2339,23022	0,01385	0,18297	-0,01143
2337,30176	0,01385	0,18294	-0,01143
2335,37329	0,01385	0,18291	-0,01143
2333,44482	0,01385	0,18287	-0,01143
2331,51636	0,01385	0,18284	-0,01144
2329,58789	0,01386	0,18281	-0,01144
2327,65942	0,01386	0,18278	-0,01144
2325,73096	0,01386	0,18275	-0,01144
2323,80249	0,01386	0,18272	-0,01145
2321,87402	0,01386	0,18269	-0,01145
2319,94556	0,01386	0,18266	-0,01145
2318,01709	0,01386	0,18263	-0,01145
2316,08862	0,01386	0,18260	-0,01146
2314,16016	0,01386	0,18257	-0,01146
2312,23169	0,01386	0,18253	-0,01146
2310,30322	0,01387	0,18250	-0,01146
2308,37476	0,01387	0,18247	-0,01147
2306,44629	0,01387	0,18244	-0,01147
2304,51782	0,01387	0,18241	-0,01147
2302,58936	0,01387	0,18238	-0,01147
2300,66089	0,01387	0,18235	-0,01148
2298,73242	0,01387	0,18232	-0,01148
2296,80396	0,01387	0,18229	-0,01148
2294,87549	0,01387	0,18226	-0,01148
2292,94702	0,01387	0,18223	-0,01149
2291,01855	0,01388	0,18219	-0,01149
2289,09009	0,01388	0,18216	-0,01149
2287,16162	0,01388	0,18213	-0,01149
2285,23315	0,01388	0,18210	-0,01150
2283,30469	0,01388	0,18207	-0,01150
2281,37622	0,01388	0,18204	-0,01150
2279,44775	0,01388	0,18201	-0,01150
2277,51929	0,01388	0,18198	-0,01150
2275,59082	0,01388	0,18195	-0,01151
2273,66235	0,01389	0,18192	-0,01151
2271,73389	0,01389	0,18188	-0,01151
2269,80542	0,01389	0,18185	-0,01151
2267,87695	0,01389	0,18182	-0,01152
2265,94849	0,01389	0,18179	-0,01152
2264,02002	0,01389	0,18170	-0,01152
2262,09155	0,01389	0,18153	-0,01152
2260,16309	0,01389	0,18137	-0,01152
2258,23462	0,01389	0,18133	-0,01146
2256,30615	0,01389	0,18125	-0,01141

2254,37769	0,01390	0,18117	-0,01141
2252,44922	0,01390	0,18108	-0,01140
2250,52075	0,01390	0,18097	-0,01138
2248,59229	0,01390	0,18094	-0,01140
2246,66382	0,01389	0,18092	-0,01141
2244,73535	0,01390	0,18086	-0,01138
2242,80688	0,01387	0,18081	-0,01138
2240,87842	0,01383	0,18075	-0,01139
2238,94995	0,01382	0,18073	-0,01133
2237,02148	0,01381	0,18071	-0,01125
2235,09302	0,01376	0,18062	-0,01126
2233,16455	0,01369	0,18059	-0,01131
2231,23608	0,01367	0,18061	-0,01135
2229,30762	0,01367	0,18054	-0,01134
2227,37915	0,01365	0,18047	-0,01131
2225,45068	0,01361	0,18049	-0,01133
2223,52222	0,01358	0,18048	-0,01137
2221,59375	0,01358	0,18038	-0,01136
2219,66528	0,01353	0,18032	-0,01133
2217,73682	0,01346	0,18031	-0,01133
2215,80835	0,01346	0,18028	-0,01135
2213,87988	0,01346	0,18014	-0,01133
2211,95142	0,01345	0,18002	-0,01131
2210,02295	0,01342	0,17999	-0,01132
2208,09448	0,01334	0,17992	-0,01131
2206,16602	0,01330	0,17988	-0,01129
2204,23755	0,01330	0,17985	-0,01131
2202,30908	0,01329	0,17973	-0,01136
2200,38062	0,01325	0,17969	-0,01138
2198,45215	0,01322	0,17968	-0,01140
2196,52368	0,01323	0,17957	-0,01143
2194,59521	0,01315	0,17955	-0,01141
2192,66675	0,01304	0,17957	-0,01141
2190,73828	0,01305	0,17955	-0,01142
2188,80981	0,01306	0,17953	-0,01137
2186,88135	0,01305	0,17945	-0,01136
2184,95288	0,01308	0,17943	-0,01144
2183,02441	0,01311	0,17948	-0,01146
2181,09595	0,01312	0,17944	-0,01144
2179,16748	0,01308	0,17938	-0,01141
2177,23901	0,01301	0,17936	-0,01143
2175,31055	0,01300	0,17932	-0,01151
2173,38208	0,01301	0,17933	-0,01155
2171,45361	0,01290	0,17927	-0,01160
2169,52515	0,01282	0,17911	-0,01170
2167,59668	0,01291	0,17915	-0,01166
2165,66821	0,01293	0,17923	-0,01159
2163,73975	0,01285	0,17922	-0,01160

2161,81128	0,01285	0,17922	-0,01163
2159,88281	0,01284	0,17922	-0,01167
2157,95435	0,01280	0,17924	-0,01164
2156,02588	0,01281	0,17921	-0,01164
2154,09741	0,01275	0,17921	-0,01172
2152,16895	0,01270	0,17928	-0,01179
2150,24048	0,01271	0,17926	-0,01182
2148,31201	0,01268	0,17928	-0,01183
2146,38354	0,01267	0,17934	-0,01188
2144,45508	0,01265	0,17930	-0,01190
2142,52661	0,01263	0,17929	-0,01187
2140,59814	0,01262	0,17931	-0,01189
2138,66968	0,01253	0,17929	-0,01192
2136,74121	0,01249	0,17932	-0,01196
2134,81274	0,01256	0,17929	-0,01204
2132,88428	0,01254	0,17923	-0,01210
2130,95581	0,01247	0,17929	-0,01212
2129,02734	0,01240	0,17929	-0,01211
2127,09888	0,01231	0,17921	-0,01208
2125,17041	0,01228	0,17920	-0,01208
2123,24194	0,01229	0,17919	-0,01210
2121,31348	0,01226	0,17919	-0,01215
2119,38501	0,01224	0,17920	-0,01219
2117,45654	0,01223	0,17919	-0,01221
2115,52808	0,01217	0,17917	-0,01227
2113,59961	0,01211	0,17910	-0,01231
2111,67114	0,01206	0,17905	-0,01231
2109,74268	0,01203	0,17904	-0,01234
2107,81421	0,01198	0,17902	-0,01244
2105,88574	0,01190	0,17912	-0,01248
2103,95728	0,01184	0,17921	-0,01256
2102,02881	0,01177	0,17922	-0,01269
2100,10034	0,01168	0,17928	-0,01265
2098,17188	0,01161	0,17935	-0,01261
2096,24341	0,01159	0,17941	-0,01273
2094,31494	0,01152	0,17950	-0,01286
2092,38647	0,01146	0,17963	-0,01285
2090,45801	0,01146	0,17979	-0,01280
2088,52954	0,01140	0,17984	-0,01288
2086,60107	0,01129	0,17975	-0,01297
2084,67261	0,01125	0,17969	-0,01301
2082,74414	0,01124	0,17971	-0,01307
2080,81567	0,01118	0,17969	-0,01307
2078,88721	0,01112	0,17967	-0,01309
2076,95874	0,01111	0,17965	-0,01315
2075,03027	0,01107	0,17961	-0,01313
2073,10181	0,01107	0,17957	-0,01308
2071,17334	0,01107	0,17960	-0,01310

2069,24487	0,01105	0,17957	-0,01311
2067,31641	0,01114	0,17949	-0,01303
2065,38794	0,01120	0,17950	-0,01299
2063,45947	0,01118	0,17941	-0,01303
2061,53101	0,01125	0,17924	-0,01302
2059,60254	0,01130	0,17913	-0,01298
2057,67407	0,01132	0,17900	-0,01298
2055,74561	0,01145	0,17891	-0,01293
2053,81714	0,01155	0,17882	-0,01290
2051,88867	0,01159	0,17865	-0,01286
2049,96021	0,01170	0,17850	-0,01277
2048,03174	0,01183	0,17841	-0,01276
2046,10327	0,01191	0,17829	-0,01278
2044,1748	0,01195	0,17825	-0,01272
2042,24634	0,01200	0,17835	-0,01270
2040,31787	0,01203	0,17821	-0,01281
2038,3894	0,01212	0,17801	-0,01279
2036,46094	0,01224	0,17805	-0,01273
2034,53247	0,01220	0,17811	-0,01282
2032,604	0,01217	0,17819	-0,01285
2030,67554	0,01218	0,17818	-0,01283
2028,74707	0,01217	0,17817	-0,01290
2026,8186	0,01215	0,17829	-0,01291
2024,89014	0,01207	0,17835	-0,01292
2022,96167	0,01204	0,17836	-0,01296
2021,0332	0,01203	0,17824	-0,01294
2019,10474	0,01211	0,17831	-0,01285
2017,17627	0,01223	0,17850	-0,01283
2015,2478	0,01217	0,17821	-0,01291
2013,31934	0,01221	0,17789	-0,01284
2011,39087	0,01231	0,17787	-0,01279
2009,4624	0,01234	0,17782	-0,01281
2007,53394	0,01239	0,17780	-0,01280
2005,60547	0,01237	0,17776	-0,01279
2003,677	0,01234	0,17769	-0,01272
2001,74854	0,01230	0,17754	-0,01268
1999,82007	0,01237	0,17750	-0,01267
1997,8916	0,01244	0,17750	-0,01272
1995,96313	0,01234	0,17727	-0,01280
1994,03467	0,01253	0,17758	-0,01255
1992,1062	0,01262	0,17787	-0,01250
1990,17773	0,01238	0,17734	-0,01278
1988,24927	0,01244	0,17717	-0,01268
1986,3208	0,01248	0,17709	-0,01264
1984,39233	0,01244	0,17689	-0,01274
1982,46387	0,01248	0,17702	-0,01269
1980,5354	0,01237	0,17694	-0,01267
1978,60693	0,01230	0,17688	-0,01263

1976,67847	0,01231	0,17685	-0,01259
1974,75	0,01236	0,17679	-0,01264
1972,82153	0,01238	0,17679	-0,01270
1970,89307	0,01228	0,17658	-0,01271
1968,9646	0,01245	0,17684	-0,01258
1967,03613	0,01258	0,17717	-0,01253
1965,10767	0,01234	0,17661	-0,01266
1963,1792	0,01233	0,17644	-0,01262
1961,25073	0,01236	0,17666	-0,01264
1959,32227	0,01220	0,17645	-0,01273
1957,3938	0,01217	0,17639	-0,01268
1955,46533	0,01212	0,17652	-0,01266
1953,53687	0,01201	0,17660	-0,01274
1951,6084	0,01195	0,17648	-0,01282
1949,67993	0,01198	0,17656	-0,01272
1947,75146	0,01198	0,17669	-0,01274
1945,823	0,01196	0,17663	-0,01288
1943,89453	0,01222	0,17734	-0,01264
1941,96606	0,01215	0,17741	-0,01280
1940,0376	0,01179	0,17644	-0,01311
1938,10913	0,01181	0,17641	-0,01283
1936,18066	0,01181	0,17654	-0,01277
1934,2522	0,01184	0,17657	-0,01283
1932,32373	0,01181	0,17654	-0,01283
1930,39526	0,01178	0,17654	-0,01283
1928,4668	0,01178	0,17662	-0,01285
1926,53833	0,01166	0,17643	-0,01293
1924,60986	0,01201	0,17714	-0,01274
1922,6814	0,01198	0,17740	-0,01281
1920,75293	0,01167	0,17690	-0,01292
1918,82446	0,01204	0,17761	-0,01284
1916,896	0,01167	0,17737	-0,01326
1914,96753	0,01122	0,17663	-0,01320
1913,03906	0,01148	0,17703	-0,01291
1911,1106	0,01156	0,17748	-0,01302
1909,18213	0,01149	0,17769	-0,01312
1907,25366	0,01135	0,17749	-0,01327
1905,3252	0,01128	0,17740	-0,01333
1903,39673	0,01137	0,17745	-0,01333
1901,46826	0,01145	0,17755	-0,01334
1899,53979	0,01131	0,17758	-0,01343
1897,61133	0,01125	0,17781	-0,01345
1895,68286	0,01140	0,17853	-0,01340
1893,75439	0,01100	0,17797	-0,01369
1891,82593	0,01104	0,17809	-0,01360
1889,89746	0,01139	0,17931	-0,01356
1887,96899	0,01081	0,17837	-0,01401
1886,04053	0,01077	0,17793	-0,01370

1884,11206	0,01103	0,17833	-0,01358
1882,18359	0,01088	0,17796	-0,01383
1880,25513	0,01103	0,17805	-0,01373
1878,32666	0,01105	0,17802	-0,01363
1876,39819	0,01108	0,17781	-0,01357
1874,46973	0,01116	0,17775	-0,01359
1872,54126	0,01104	0,17767	-0,01350
1870,61279	0,01152	0,17866	-0,01326
1868,68433	0,01167	0,17960	-0,01345
1866,75586	0,01089	0,17810	-0,01390
1864,82739	0,01096	0,17725	-0,01350
1862,89893	0,01124	0,17718	-0,01330
1860,97046	0,01126	0,17705	-0,01329
1859,04199	0,01134	0,17692	-0,01320
1857,11353	0,01131	0,17671	-0,01320
1855,18506	0,01137	0,17661	-0,01331
1853,25659	0,01133	0,17651	-0,01329
1851,32813	0,01138	0,17655	-0,01318
1849,39966	0,01139	0,17661	-0,01324
1847,47119	0,01144	0,17702	-0,01301
1845,54272	0,01206	0,17775	-0,01311
1843,61426	0,01144	0,17704	-0,01402
1841,68579	0,01063	0,17581	-0,01379
1839,75732	0,01121	0,17615	-0,01304
1837,82886	0,01135	0,17632	-0,01315
1835,90039	0,01123	0,17639	-0,01329
1833,97192	0,01101	0,17565	-0,01336
1832,04346	0,01149	0,17659	-0,01307
1830,11499	0,01182	0,17784	-0,01314
1828,18652	0,01099	0,17611	-0,01380
1826,25806	0,01149	0,17667	-0,01328
1824,32959	0,01155	0,17714	-0,01341
1822,40112	0,01082	0,17566	-0,01364
1820,47266	0,01116	0,17579	-0,01320
1818,54419	0,01130	0,17616	-0,01323
1816,61572	0,01113	0,17588	-0,01333
1814,68726	0,01108	0,17569	-0,01334
1812,75879	0,01131	0,17631	-0,01325
1810,83032	0,01136	0,17685	-0,01332
1808,90186	0,01103	0,17625	-0,01363
1806,97339	0,01101	0,17606	-0,01365
1805,04492	0,01087	0,17627	-0,01370
1803,11646	0,01094	0,17715	-0,01372
1801,18799	0,01095	0,17850	-0,01397
1799,25952	0,01036	0,17793	-0,01452
1797,33105	0,01015	0,17734	-0,01436
1795,40259	0,01034	0,17772	-0,01408
1793,47412	0,01082	0,17818	-0,01436

1791,54565	0,01077	0,17837	-0,01469
1789,61719	0,01010	0,17640	-0,01462
1787,68872	0,01061	0,17633	-0,01382
1785,76025	0,01098	0,17699	-0,01393
1783,83179	0,01044	0,17629	-0,01428
1781,90332	0,01054	0,17700	-0,01387
1779,97485	0,01070	0,17753	-0,01403
1778,04639	0,01029	0,17636	-0,01449
1776,11792	0,01045	0,17725	-0,01401
1774,18945	0,01095	0,17779	-0,01408
1772,26099	0,01026	0,17727	-0,01506
1770,33252	0,00953	0,17723	-0,01530
1768,40405	0,01029	0,17800	-0,01473
1766,47559	0,00934	0,17633	-0,01521
1764,54712	0,00939	0,17727	-0,01440
1762,61865	0,01039	0,17874	-0,01441
1760,69019	0,00900	0,17721	-0,01549
1758,76172	0,00928	0,17774	-0,01463
1756,83325	0,00995	0,17846	-0,01482
1754,90479	0,00889	0,17714	-0,01531
1752,97632	0,00952	0,17746	-0,01470
1751,04785	0,01014	0,17870	-0,01504
1749,11938	0,00917	0,17886	-0,01530
1747,19092	0,00940	0,17910	-0,01481
1745,26245	0,00943	0,17818	-0,01510
1743,33398	0,00922	0,17849	-0,01494
1741,40552	0,00982	0,17903	-0,01489
1739,47705	0,00919	0,17782	-0,01575
1737,54858	0,00860	0,17805	-0,01512
1735,62012	0,01017	0,17887	-0,01491
1733,69165	0,00953	0,17810	-0,01647
1731,76318	0,00777	0,17643	-0,01642
1729,83472	0,00977	0,17979	-0,01460
1727,90625	0,00884	0,17690	-0,01569
1725,97778	0,00893	0,17750	-0,01506
1724,04932	0,00965	0,17829	-0,01487
1722,12085	0,00876	0,17718	-0,01531
1720,19238	0,00986	0,17929	-0,01473
1718,26392	0,01033	0,17980	-0,01503
1716,33545	0,00848	0,17708	-0,01661
1714,40698	0,00897	0,17847	-0,01579
1712,47852	0,00951	0,17854	-0,01521
1710,55005	0,00905	0,17717	-0,01536
1708,62158	0,00963	0,17892	-0,01460
1706,69312	0,01045	0,18003	-0,01473
1704,76465	0,00923	0,17912	-0,01547
1702,83618	0,01002	0,17974	-0,01464
1700,90771	0,01208	0,18186	-0,01517



1698,97925	0,00830	0,17691	-0,01752
1697,05078	0,00927	0,17775	-0,01534
1695,12231	0,00974	0,17735	-0,01590
1693,19385	0,00833	0,17708	-0,01559
1691,26538	0,01037	0,17988	-0,01383
1689,33691	0,01017	0,17970	-0,01466
1687,40845	0,01005	0,18044	-0,01411
1685,47998	0,01140	0,17966	-0,01423
1683,55151	0,00991	0,18037	-0,01543
1681,62305	0,00996	0,18074	-0,01508
1679,69458	0,01052	0,18009	-0,01421
1677,76611	0,01050	0,17977	-0,01439
1675,83765	0,01141	0,18108	-0,01471
1673,90918	0,01003	0,17902	-0,01540
1671,98071	0,01024	0,18018	-0,01420
1670,05225	0,01179	0,18277	-0,01388
1668,12378	0,00982	0,17939	-0,01561
1666,19531	0,00982	0,17906	-0,01423
1664,26685	0,01118	0,17997	-0,01399
1662,33838	0,01055	0,17985	-0,01465
1660,40991	0,01030	0,17890	-0,01438
1658,48145	0,01033	0,17746	-0,01420
1656,55298	0,01086	0,17991	-0,01335
1654,62451	0,01253	0,18102	-0,01355
1652,69604	0,01050	0,17824	-0,01386
1650,76758	0,00753	0,17270	-0,01613
1648,83911	0,01153	0,18098	-0,01263
1646,91064	0,01181	0,18021	-0,01281
1644,98218	0,00867	0,17413	-0,01541
1643,05371	0,01009	0,17632	-0,01335
1641,12524	0,01031	0,17539	-0,01347
1639,19678	0,01019	0,17622	-0,01315
1637,26831	0,01126	0,17749	-0,01295
1635,33984	0,01052	0,17691	-0,01399
1633,41138	0,00862	0,17332	-0,01495
1631,48291	0,00969	0,17438	-0,01332
1629,55444	0,01036	0,17461	-0,01345
1627,62598	0,00974	0,17420	-0,01384
1625,69751	0,00974	0,17368	-0,01393
1623,76904	0,01023	0,17480	-0,01429
1621,84058	0,00890	0,17332	-0,01520
1619,91211	0,00924	0,17371	-0,01436
1617,98364	0,01009	0,17353	-0,01474
1616,05518	0,00848	0,17204	-0,01611
1614,12671	0,00854	0,17350	-0,01520
1612,19824	0,00975	0,17529	-0,01432
1610,26978	0,00952	0,17504	-0,01464
1608,34131	0,00945	0,17590	-0,01452

1606,41284	0,00941	0,17556	-0,01471
1604,48438	0,00940	0,17561	-0,01479
1602,55591	0,00950	0,17642	-0,01466
1600,62744	0,00931	0,17633	-0,01483
1598,69897	0,00941	0,17634	-0,01484
1596,77051	0,00950	0,17678	-0,01466
1594,84204	0,00945	0,17713	-0,01467
1592,91357	0,00942	0,17694	-0,01493
1590,98511	0,00938	0,17694	-0,01490
1589,05664	0,00944	0,17721	-0,01483
1587,12817	0,00927	0,17672	-0,01513
1585,19971	0,00917	0,17695	-0,01502
1583,27124	0,00926	0,17699	-0,01501
1581,34277	0,00893	0,17642	-0,01541
1579,41431	0,00922	0,17787	-0,01478
1577,48584	0,00983	0,17726	-0,01489
1575,55737	0,00859	0,17544	-0,01636
1573,62891	0,00802	0,17607	-0,01571
1571,70044	0,00989	0,17864	-0,01431
1569,77197	0,00965	0,17903	-0,01518
1567,84351	0,00820	0,17738	-0,01564
1565,91504	0,00925	0,17788	-0,01467
1563,98657	0,00876	0,17765	-0,01510
1562,05811	0,00909	0,17789	-0,01456
1560,12964	0,01180	0,18078	-0,01381
1558,20117	0,00821	0,17901	-0,01586
1556,27271	0,00791	0,17706	-0,01638
1554,34424	0,00922	0,17725	-0,01541
1552,41577	0,00855	0,17609	-0,01575
1550,4873	0,00950	0,17894	-0,01446
1548,55884	0,00905	0,17752	-0,01488
1546,63037	0,00898	0,17680	-0,01485
1544,7019	0,01004	0,17949	-0,01435
1542,77344	0,00964	0,17935	-0,01519
1540,84497	0,01024	0,17936	-0,01513
1538,9165	0,00764	0,17605	-0,01619
1536,98804	0,00744	0,17548	-0,01584
1535,05957	0,00991	0,17886	-0,01419
1533,1311	0,00977	0,17971	-0,01455
1531,20264	0,00822	0,17654	-0,01555
1529,27417	0,00939	0,17765	-0,01448
1527,3457	0,01003	0,17890	-0,01469
1525,41724	0,00895	0,17740	-0,01557
1523,48877	0,00975	0,17834	-0,01506
1521,5603	0,00959	0,17789	-0,01560
1519,63184	0,00806	0,17572	-0,01675
1517,70337	0,00958	0,17929	-0,01504
1515,7749	0,00921	0,17839	-0,01552

1513,84644	0,00863	0,17625	-0,01597
1511,91797	0,00905	0,17629	-0,01592
1509,9895	0,00930	0,17854	-0,01538
1508,06104	0,01059	0,18027	-0,01463
1506,13257	0,00884	0,17765	-0,01570
1504,2041	0,00669	0,17306	-0,01761
1502,27563	0,00868	0,17617	-0,01526
1500,34717	0,00891	0,17587	-0,01577
1498,4187	0,00894	0,17646	-0,01597
1496,49023	0,00861	0,17491	-0,01656
1494,56177	0,00746	0,17314	-0,01697
1492,6333	0,00867	0,17573	-0,01563
1490,70483	0,00968	0,17751	-0,01555
1488,77637	0,00901	0,17743	-0,01616
1486,8479	0,00854	0,17593	-0,01635
1484,91943	0,00843	0,17449	-0,01641
1482,99097	0,00875	0,17491	-0,01623
1481,0625	0,00859	0,17505	-0,01632
1479,13403	0,00832	0,17440	-0,01659
1477,20557	0,00890	0,17592	-0,01657
1475,2771	0,00900	0,17680	-0,01680
1473,34863	0,00884	0,17618	-0,01750
1471,42017	0,00819	0,17589	-0,01795
1469,4917	0,00780	0,17512	-0,01716
1467,56323	0,00853	0,17528	-0,01652
1465,63477	0,00922	0,17711	-0,01677
1463,7063	0,00836	0,17562	-0,01762
1461,77783	0,00807	0,17493	-0,01707
1459,84937	0,00959	0,17815	-0,01605
1457,9209	0,01035	0,17917	-0,01628
1455,99243	0,00783	0,17428	-0,01907
1454,06396	0,00825	0,17591	-0,01723
1452,1355	0,00893	0,17618	-0,01670
1450,20703	0,00861	0,17523	-0,01691
1448,27856	0,00912	0,17689	-0,01678
1446,3501	0,00854	0,17561	-0,01733
1444,42163	0,00849	0,17526	-0,01692
1442,49316	0,00883	0,17548	-0,01706
1440,5647	0,00847	0,17518	-0,01694
1438,63623	0,00924	0,17593	-0,01673
1436,70776	0,00974	0,17704	-0,01747
1434,7793	0,00811	0,17462	-0,01769
1432,85083	0,00870	0,17533	-0,01631
1430,92236	0,00935	0,17619	-0,01641
1428,9939	0,00859	0,17554	-0,01683
1427,06543	0,00845	0,17492	-0,01651
1425,13696	0,00890	0,17590	-0,01643
1423,2085	0,00852	0,17598	-0,01655

1421,28003	0,00871	0,17505	-0,01684
1419,35156	0,00928	0,17619	-0,01738
1417,4231	0,00803	0,17556	-0,01770
1415,49463	0,00803	0,17495	-0,01715
1413,56616	0,00807	0,17420	-0,01739
1411,6377	0,00795	0,17454	-0,01743
1409,70923	0,00788	0,17404	-0,01758
1407,78076	0,00777	0,17371	-0,01759
1405,85229	0,00830	0,17510	-0,01746
1403,92383	0,00804	0,17426	-0,01803
1401,99536	0,00798	0,17348	-0,01781
1400,06689	0,00866	0,17479	-0,01772
1398,13843	0,00825	0,17491	-0,01811
1396,20996	0,00829	0,17483	-0,01791
1394,28149	0,00834	0,17475	-0,01822
1392,35303	0,00742	0,17308	-0,01843
1390,42456	0,00766	0,17338	-0,01775
1388,49609	0,00807	0,17398	-0,01810
1386,56763	0,00740	0,17308	-0,01892
1384,63916	0,00677	0,17197	-0,01919
1382,71069	0,00696	0,17207	-0,01910
1380,78223	0,00755	0,17304	-0,01876
1378,85376	0,00761	0,17304	-0,01872
1376,92529	0,00762	0,17316	-0,01871
1374,99683	0,00805	0,17458	-0,01860
1373,06836	0,00776	0,17396	-0,01905
1371,13989	0,00756	0,17294	-0,01896
1369,21143	0,00797	0,17369	-0,01874
1367,28296	0,00762	0,17318	-0,01914
1365,35449	0,00765	0,17318	-0,01908
1363,42603	0,00828	0,17507	-0,01880
1361,49756	0,00791	0,17473	-0,01907
1359,56909	0,00760	0,17336	-0,01913
1357,64063	0,00774	0,17345	-0,01894
1355,71216	0,00769	0,17363	-0,01896
1353,78369	0,00766	0,17327	-0,01903
1351,85522	0,00770	0,17304	-0,01898
1349,92676	0,00763	0,17306	-0,01891
1347,99829	0,00753	0,17279	-0,01895
1346,06982	0,00755	0,17270	-0,01893
1344,14136	0,00754	0,17264	-0,01890
1342,21289	0,00771	0,17281	-0,01876
1340,28442	0,00804	0,17367	-0,01857
1338,35596	0,00783	0,17347	-0,01888
1336,42749	0,00753	0,17259	-0,01904
1334,49902	0,00760	0,17250	-0,01887
1332,57056	0,00767	0,17261	-0,01886
1330,64209	0,00773	0,17259	-0,01880

1328,71362	0,00770	0,17255	-0,01873
1326,78516	0,00764	0,17265	-0,01873
1324,85669	0,00769	0,17277	-0,01873
1322,92822	0,00768	0,17279	-0,01878
1320,99976	0,00780	0,17312	-0,01872
1319,07129	0,00796	0,17341	-0,01869
1317,14282	0,00790	0,17323	-0,01879
1315,21436	0,00792	0,17324	-0,01871
1313,28589	0,00804	0,17352	-0,01865
1311,35742	0,00804	0,17350	-0,01876
1309,42896	0,00816	0,17359	-0,01877
1307,50049	0,00831	0,17395	-0,01873
1305,57202	0,00836	0,17427	-0,01860
1303,64355	0,00846	0,17461	-0,01841
1301,71509	0,00860	0,17481	-0,01840
1299,78662	0,00871	0,17493	-0,01842
1297,85815	0,00876	0,17519	-0,01833
1295,92969	0,00883	0,17537	-0,01827
1294,00122	0,00894	0,17541	-0,01825
1292,07275	0,00905	0,17538	-0,01825
1290,14429	0,00909	0,17552	-0,01833
1288,21582	0,00907	0,17571	-0,01841
1286,28735	0,00914	0,17556	-0,01840
1284,35889	0,00931	0,17548	-0,01833
1282,43042	0,00944	0,17575	-0,01816
1280,50195	0,00957	0,17614	-0,01796
1278,57349	0,00968	0,17662	-0,01789
1276,64502	0,00980	0,17698	-0,01780
1274,71655	0,00998	0,17737	-0,01767
1272,78809	0,01014	0,17798	-0,01760
1270,85962	0,01035	0,17841	-0,01747
1268,93115	0,01055	0,17857	-0,01727
1267,00269	0,01075	0,17869	-0,01719
1265,07422	0,01090	0,17888	-0,01705
1263,14575	0,01085	0,17917	-0,01681
1261,21729	0,01081	0,17943	-0,01681
1259,28882	0,01089	0,17953	-0,01685
1257,36035	0,01096	0,17953	-0,01674
1255,43188	0,01097	0,17959	-0,01673
1253,50342	0,01108	0,17967	-0,01660
1251,57495	0,01129	0,17982	-0,01639
1249,64648	0,01148	0,18022	-0,01635
1247,71802	0,01183	0,18075	-0,01619
1245,78955	0,01212	0,18131	-0,01590
1243,86108	0,01226	0,18188	-0,01569
1241,93262	0,01254	0,18240	-0,01542
1240,00415	0,01275	0,18299	-0,01515
1238,07568	0,01298	0,18377	-0,01499

1236,14722	0,01326	0,18438	-0,01476
1234,21875	0,01340	0,18461	-0,01445
1232,29028	0,01364	0,18495	-0,01424
1230,36182	0,01396	0,18559	-0,01416
1228,43335	0,01421	0,18613	-0,01392
1226,50488	0,01447	0,18654	-0,01351
1224,57642	0,01477	0,18686	-0,01314
1222,64795	0,01502	0,18713	-0,01276
1220,71948	0,01524	0,18750	-0,01242
1218,79102	0,01559	0,18786	-0,01210
1216,86255	0,01598	0,18819	-0,01171
1214,93408	0,01637	0,18853	-0,01143
1213,00562	0,01676	0,18887	-0,01107
1211,07715	0,01715	0,18938	-0,01065
1209,14868	0,01751	0,19003	-0,01023
1207,22021	0,01778	0,19054	-0,00992
1205,29175	0,01810	0,19105	-0,00991
1203,36328	0,01848	0,19162	-0,00979
1201,43481	0,01891	0,19185	-0,00945
1199,50635	0,01939	0,19225	-0,00917
1197,57788	0,01968	0,19302	-0,00891
1195,64941	0,01992	0,19349	-0,00875
1193,72095	0,02021	0,19385	-0,00864
1191,79248	0,02026	0,19423	-0,00840
1189,86401	0,02034	0,19452	-0,00824
1187,93555	0,02065	0,19498	-0,00813
1186,00708	0,02097	0,19549	-0,00800
1184,07861	0,02127	0,19587	-0,00812
1182,15015	0,02166	0,19635	-0,00806
1180,22168	0,02207	0,19685	-0,00769
1178,29321	0,02247	0,19721	-0,00749
1176,36475	0,02287	0,19776	-0,00741
1174,43628	0,02324	0,19826	-0,00724
1172,50781	0,02354	0,19845	-0,00711
1170,57935	0,02378	0,19879	-0,00715
1168,65088	0,02392	0,19914	-0,00712
1166,72241	0,02397	0,19937	-0,00688
1164,79395	0,02430	0,19972	-0,00687
1162,86548	0,02480	0,19992	-0,00699
1160,93701	0,02506	0,20015	-0,00682
1159,00854	0,02521	0,20072	-0,00664
1157,08008	0,02540	0,20116	-0,00661
1155,15161	0,02551	0,20132	-0,00647
1153,22314	0,02545	0,20155	-0,00636
1151,29468	0,02532	0,20184	-0,00632
1149,36621	0,02544	0,20206	-0,00612
1147,43774	0,02565	0,20251	-0,00590
1145,50928	0,02578	0,20308	-0,00574

1143,58081	0,02598	0,20356	-0,00554
1141,65234	0,02613	0,20402	-0,00537
1139,72388	0,02632	0,20421	-0,00520
1137,79541	0,02663	0,20424	-0,00510
1135,86694	0,02683	0,20450	-0,00502
1133,93848	0,02709	0,20489	-0,00481
1132,01001	0,02738	0,20524	-0,00467
1130,08154	0,02739	0,20538	-0,00472
1128,15308	0,02758	0,20565	-0,00458
1126,22461	0,02785	0,20620	-0,00422
1124,29614	0,02781	0,20664	-0,00393
1122,36768	0,02787	0,20693	-0,00377
1120,43921	0,02803	0,20719	-0,00362
1118,51074	0,02818	0,20749	-0,00334
1116,58228	0,02839	0,20773	-0,00289
1114,65381	0,02842	0,20800	-0,00252
1112,72534	0,02850	0,20833	-0,00229
1110,79688	0,02878	0,20844	-0,00206
1108,86841	0,02911	0,20850	-0,00182
1106,93994	0,02939	0,20875	-0,00171
1105,01147	0,02941	0,20878	-0,00162
1103,08301	0,02943	0,20877	-0,00145
1101,15454	0,02960	0,20903	-0,00129
1099,22607	0,02963	0,20907	-0,00114
1097,29761	0,02965	0,20911	-0,00113
1095,36914	0,02976	0,20923	-0,00131
1093,44067	0,02975	0,20889	-0,00143
1091,51221	0,02969	0,20860	-0,00150
1089,58374	0,02994	0,20856	-0,00158
1087,65527	0,03014	0,20831	-0,00158
1085,72681	0,02996	0,20800	-0,00157
1083,79834	0,02974	0,20792	-0,00179
1081,86987	0,02951	0,20797	-0,00219
1079,94141	0,02931	0,20790	-0,00253
1078,01294	0,02920	0,20776	-0,00276
1076,08447	0,02905	0,20768	-0,00310
1074,15601	0,02893	0,20749	-0,00366
1072,22754	0,02879	0,20715	-0,00425
1070,29907	0,02858	0,20691	-0,00470
1068,37061	0,02840	0,20676	-0,00498
1066,44214	0,02830	0,20651	-0,00519
1064,51367	0,02830	0,20626	-0,00548
1062,58521	0,02820	0,20603	-0,00577
1060,65674	0,02791	0,20587	-0,00615
1058,72827	0,02757	0,20593	-0,00663
1056,7998	0,02730	0,20581	-0,00698
1054,87134	0,02716	0,20552	-0,00731
1052,94287	0,02692	0,20554	-0,00765

1051,0144	0,02661	0,20554	-0,00788
1049,08594	0,02643	0,20516	-0,00805
1047,15747	0,02630	0,20510	-0,00830
1045,229	0,02630	0,20539	-0,00852
1043,30054	0,02622	0,20541	-0,00854
1041,37207	0,02594	0,20530	-0,00877
1039,4436	0,02571	0,20544	-0,00925
1037,51514	0,02551	0,20563	-0,00943
1035,58667	0,02544	0,20557	-0,00947
1033,6582	0,02535	0,20540	-0,00963
1031,72974	0,02492	0,20519	-0,00976
1029,80127	0,02465	0,20500	-0,01006
1027,8728	0,02477	0,20479	-0,01031
1025,94434	0,02484	0,20433	-0,01031
1024,01587	0,02484	0,20396	-0,01037
1022,0874	0,02485	0,20384	-0,01047
1020,15894	0,02470	0,20370	-0,01052
1018,23047	0,02458	0,20364	-0,01068
1016,302	0,02442	0,20367	-0,01078
1014,37354	0,02409	0,20367	-0,01091
1012,44507	0,02390	0,20382	-0,01125
1010,5166	0,02372	0,20394	-0,01146
1008,58813	0,02353	0,20389	-0,01149
1006,65967	0,02346	0,20383	-0,01153
1004,7312	0,02336	0,20370	-0,01153
1002,80273	0,02337	0,20329	-0,01138
1000,87427	0,02339	0,20303	-0,01135
998,9458	0,02341	0,20289	-0,01148
997,01733	0,02342	0,20249	-0,01138
995,08887	0,02321	0,20229	-0,01135
993,1604	0,02297	0,20229	-0,01178
991,23193	0,02278	0,20212	-0,01221
989,30347	0,02271	0,20196	-0,01246
987,375	0,02282	0,20160	-0,01261
985,44653	0,02272	0,20116	-0,01257
983,51807	0,02268	0,20088	-0,01268
981,5896	0,02276	0,20058	-0,01299
979,66113	0,02250	0,20033	-0,01312
977,73267	0,02219	0,20033	-0,01313
975,8042	0,02219	0,20036	-0,01327
973,87573	0,02219	0,20025	-0,01345
971,94727	0,02207	0,20007	-0,01362
970,0188	0,02193	0,19990	-0,01367
968,09033	0,02168	0,19982	-0,01368
966,16187	0,02149	0,19976	-0,01394
964,2334	0,02150	0,19991	-0,01413
962,30493	0,02159	0,20005	-0,01417
960,37646	0,02170	0,19970	-0,01432



958,448	0,02169	0,19942	-0,01427
956,51953	0,02154	0,19947	-0,01413
954,59106	0,02135	0,19949	-0,01412
952,6626	0,02113	0,19954	-0,01421
950,73413	0,02103	0,19946	-0,01433
948,80566	0,02100	0,19921	-0,01429
946,8772	0,02092	0,19896	-0,01423
944,94873	0,02090	0,19879	-0,01430
943,02026	0,02092	0,19872	-0,01432
941,0918	0,02086	0,19881	-0,01426
939,16333	0,02068	0,19904	-0,01422
937,23486	0,02052	0,19910	-0,01426
935,3064	0,02055	0,19908	-0,01440
933,37793	0,02055	0,19899	-0,01459
931,44946	0,02043	0,19855	-0,01464
929,521	0,02041	0,19822	-0,01444
927,59253	0,02036	0,19828	-0,01424
925,66406	0,02037	0,19843	-0,01414
923,7356	0,02063	0,19842	-0,01404
921,80713	0,02091	0,19827	-0,01413
919,87866	0,02102	0,19844	-0,01421
917,9502	0,02093	0,19887	-0,01387
916,02173	0,02089	0,19898	-0,01362
914,09326	0,02105	0,19889	-0,01355
912,16479	0,02102	0,19884	-0,01339
910,23633	0,02093	0,19890	-0,01347
908,30786	0,02087	0,19926	-0,01355
906,37939	0,02076	0,19951	-0,01344
904,45093	0,02086	0,19915	-0,01349
902,52246	0,02095	0,19866	-0,01352
900,59399	0,02107	0,19849	-0,01344
898,66553	0,02130	0,19860	-0,01346
896,73706	0,02127	0,19877	-0,01351
894,80859	0,02147	0,19862	-0,01354
892,88013	0,02174	0,19835	-0,01356
890,95166	0,02152	0,19837	-0,01350
889,02319	0,02144	0,19837	-0,01343
887,09473	0,02143	0,19836	-0,01317
885,16626	0,02131	0,19862	-0,01287
883,23779	0,02151	0,19874	-0,01288
881,30933	0,02169	0,19850	-0,01276
879,38086	0,02197	0,19851	-0,01250
877,45239	0,02258	0,19907	-0,01253
875,52393	0,02294	0,19987	-0,01239
873,59546	0,02349	0,20091	-0,01215
871,66699	0,02450	0,20253	-0,01186
869,73853	0,02541	0,20439	-0,01126
867,81006	0,02613	0,20567	-0,01088

865,88159	0,02655	0,20624	-0,01088
863,95313	0,02691	0,20668	-0,01077
862,02466	0,02743	0,20720	-0,01049
860,09619	0,02753	0,20732	-0,01046
858,16772	0,02727	0,20699	-0,01066
856,23926	0,02707	0,20638	-0,01076
854,31079	0,02681	0,20546	-0,01082
852,38232	0,02653	0,20481	-0,01067
850,45386	0,02648	0,20501	-0,01050
848,52539	0,02723	0,20632	-0,01034
846,59692	0,02891	0,20865	-0,00973
844,66846	0,03033	0,21076	-0,00912
842,73999	0,03174	0,21304	-0,00857
840,81152	0,03437	0,21661	-0,00754
838,88306	0,03710	0,22021	-0,00629
836,95459	0,03923	0,22315	-0,00509
835,02612	0,04127	0,22568	-0,00401
833,09766	0,04214	0,22644	-0,00359
831,16919	0,04188	0,22597	-0,00365
829,24072	0,04171	0,22575	-0,00352
827,31226	0,04159	0,22543	-0,00349
825,38379	0,04224	0,22650	-0,00302
823,45532	0,04385	0,22861	-0,00188
821,52686	0,04463	0,22901	-0,00154
819,59839	0,04458	0,22930	-0,00178
817,66992	0,04499	0,23026	-0,00159
815,74146	0,04572	0,23090	-0,00113
813,81299	0,04646	0,23170	-0,00055
811,88452	0,04703	0,23196	-0,00001
809,95605	0,04705	0,23189	0,00038
808,02759	0,04703	0,23221	0,00069
806,09912	0,04748	0,23270	0,00133
804,17065	0,04820	0,23345	0,00217
802,24219	0,04868	0,23395	0,00256
800,31372	0,04912	0,23454	0,00298
798,38525	0,04997	0,23528	0,00346
796,45679	0,05046	0,23578	0,00347
794,52832	0,05034	0,23616	0,00342
792,59985	0,05006	0,23578	0,00333
790,67139	0,04945	0,23493	0,00277
788,74292	0,04904	0,23415	0,00216
786,81445	0,04897	0,23351	0,00211
784,88599	0,04846	0,23290	0,00193
782,95752	0,04790	0,23199	0,00127
781,02905	0,04761	0,23140	0,00116
779,10059	0,04730	0,23100	0,00117
777,17212	0,04721	0,23100	0,00110
775,24365	0,04757	0,23216	0,00166

773,31519	0,04840	0,23312	0,00212
771,38672	0,04906	0,23343	0,00211
769,45825	0,04901	0,23366	0,00201
767,52979	0,04936	0,23369	0,00193
765,60132	0,05003	0,23390	0,00206
763,67285	0,04973	0,23418	0,00215
761,74438	0,04915	0,23375	0,00171
759,81592	0,04889	0,23297	0,00101
757,88745	0,04856	0,23244	0,00081
755,95898	0,04835	0,23174	0,00096
754,03052	0,04819	0,23113	0,00094
752,10205	0,04792	0,23084	0,00059
750,17358	0,04819	0,23056	0,00022
748,24512	0,04891	0,23102	0,00045
746,31665	0,04927	0,23165	0,00089
744,38818	0,04942	0,23188	0,00092
742,45972	0,04974	0,23219	0,00110
740,53125	0,05005	0,23228	0,00157
738,60278	0,05021	0,23237	0,00187
736,67432	0,05043	0,23257	0,00213
734,74585	0,05082	0,23248	0,00243
732,81738	0,05082	0,23248	0,00238
730,88892	0,05062	0,23264	0,00231
728,96045	0,05098	0,23266	0,00271
727,03198	0,05153	0,23272	0,00287
725,10352	0,05175	0,23298	0,00324
723,17505	0,05224	0,23350	0,00410
721,24658	0,05313	0,23407	0,00394
719,31812	0,05355	0,23407	0,00372
717,38965	0,05371	0,23405	0,00456
715,46118	0,05412	0,23449	0,00494
713,53271	0,05441	0,23452	0,00480
711,60425	0,05456	0,23413	0,00465
709,67578	0,05490	0,23420	0,00450
707,74731	0,05533	0,23463	0,00476
705,81885	0,05546	0,23476	0,00492
703,89038	0,05535	0,23465	0,00454
701,96191	0,05493	0,23453	0,00436
700,03345	0,05480	0,23466	0,00455
698,10498	0,05552	0,23473	0,00469
696,17651	0,05596	0,23462	0,00503
694,24805	0,05605	0,23490	0,00533
692,31958	0,05675	0,23511	0,00522
690,39111	0,05742	0,23541	0,00526
688,46265	0,05756	0,23584	0,00532
686,53418	0,05813	0,23618	0,00498
684,60571	0,05848	0,23637	0,00501
682,67725	0,05899	0,23657	0,00547

680,74878	0,05916	0,23756	0,00575
678,82031	0,05933	0,23808	0,00592
676,89185	0,05950	0,23921	0,00610
674,96338	0,05966	0,23962	0,00627
673,03491	0,05983	0,24003	0,00645
671,10645	0,06000	0,24044	0,00662
669,17798	0,06016	0,24085	0,00680
667,24951	0,06033	0,24026	0,00697
665,32104	0,06050	0,23968	0,00715
663,39258	0,06067	0,23910	0,00732
661,46411	0,06083	0,23852	0,00749
659,53564	0,06100	0,23793	0,00767
657,60718	0,06117	0,23735	0,00784
655,67871	0,06134	0,23677	0,00802
653,75024	0,06150	0,23531	0,00819
651,82178	0,06167	0,23498	0,00837
649,89331	0,06184	0,23581	0,00854
647,96484	0,06200	0,23590	0,00864
646,03638	0,06217	0,23608	0,00975
644,10791	0,06218	0,23592	0,00943
642,17944	0,06212	0,23559	0,00948
640,25098	0,06198	0,23555	0,00975
638,32251	0,06178	0,23562	0,00937
636,39404	0,06159	0,23585	0,00976
634,46558	0,06133	0,23564	0,00984
632,53711	0,06158	0,23518	0,00924
630,60864	0,06132	0,23465	0,00913
628,68018	0,06079	0,23435	0,00904
626,75171	0,06052	0,23386	0,00926
624,82324	0,06070	0,23308	0,00909
622,89478	0,06091	0,23282	0,00859
620,96631	0,06106	0,23271	0,00876
619,03784	0,06195	0,23238	0,00891
617,10938	0,06216	0,23215	0,00951
615,18091	0,06150	0,23214	0,00975
613,25244	0,06133	0,23229	0,00935
611,32397	0,06131	0,23277	0,00949
609,39551	0,06139	0,23287	0,00908
607,46704	0,06148	0,23258	0,00909
605,53857	0,06107	0,23228	0,00972
603,61011	0,06054	0,23185	0,00915
601,68164	0,06043	0,23192	0,00873
599,75317	0,06032	0,23197	0,00894
597,82471	0,06003	0,23166	0,00889
595,89624	0,06008	0,23132	0,00858
593,96777	0,06018	0,23150	0,00847
592,03931	0,05980	0,23239	0,00901
590,11084	0,05966	0,23167	0,00887

588,18237	0,05956	0,23059	0,00837
586,25391	0,05924	0,23073	0,00862
584,32544	0,05954	0,23030	0,00846
582,39697	0,05946	0,23072	0,00827
580,46851	0,05912	0,23126	0,00783
578,54004	0,05931	0,23048	0,00743
576,61157	0,05898	0,23150	0,00856
574,68311	0,05930	0,23278	0,00852
572,75464	0,06005	0,23238	0,00726
570,82617	0,05947	0,23266	0,00780
568,89771	0,05901	0,23361	0,00881
566,96924	0,05943	0,23500	0,00913
565,04077	0,05957	0,23608	0,00931
563,1123	0,05969	0,23597	0,00895
561,18384	0,06022	0,23633	0,00848
559,25537	0,06063	0,23708	0,00842
557,3269	0,06067	0,23758	0,00836
555,39844	0,06049	0,23820	0,00859
553,46997	0,06021	0,23880	0,00907
551,5415	0,05973	0,24029	0,00895
549,61304	0,05903	0,24279	0,00871
547,68457	0,05784	0,24394	0,00847
545,7561	0,05710	0,24532	0,00724
543,82764	0,05780	0,24860	0,00561
541,89917	0,05765	0,25027	0,00508
539,9707	0,05651	0,25146	0,00512
538,04224	0,05507	0,25383	0,00454
536,11377	0,05329	0,25597	0,00369
534,1853	0,05335	0,26030	0,00275
532,25684	0,05124	0,26217	0,00172
530,32837	0,04876	0,26588	0,00027
528,3999	0,04671	0,27085	-0,00205
526,47144	0,03989	0,26889	-0,00448
524,54297	0,03851	0,27462	-0,00610
522,6145	0,03993	0,28416	-0,00761
520,68604	0,03406	0,28562	-0,00975
518,75757	0,02819	0,28906	-0,01222
516,8291	0,02456	0,29574	-0,01601
514,90063	0,02246	0,30175	-0,01913
512,97217	0,01989	0,30754	-0,02103
511,0437	0,01567	0,31326	-0,02489
509,11523	0,01123	0,31775	-0,02904
507,18677	0,00688	0,32306	-0,03206
505,2583	0,00585	0,32965	-0,03384
503,32983	0,00214	0,33338	-0,03569
501,40137	-0,00176	0,33525	-0,03888
499,4729	-0,00203	0,33960	-0,04148

Figure 2.6 A				
n°spectre	VD395	VD385	VD202	VD142
nom	F1_grinded	F1_pHNAT	F1_pH=6,5	F1_pH=9,5
cm-1	a	b	c	d
4001,5686	0,16295	0,15675	0,18076	0,18725
3999,64014	0,16291	0,15657	0,18068	0,18713
3997,71167	0,16290	0,15654	0,18067	0,18703
3995,7832	0,16276	0,15641	0,18053	0,18683
3993,85474	0,16249	0,15617	0,18039	0,18676
3991,92627	0,16242	0,15622	0,18023	0,18662
3989,9978	0,16237	0,15622	0,18011	0,18646
3988,06934	0,16218	0,15598	0,18005	0,18644
3986,14087	0,16217	0,15589	0,17990	0,18626
3984,2124	0,16212	0,15584	0,17978	0,18601
3982,28394	0,16189	0,15564	0,17964	0,18599
3980,35547	0,16182	0,15545	0,17944	0,18589
3978,427	0,16187	0,15548	0,17936	0,18572
3976,49854	0,16166	0,15551	0,17938	0,18563
3974,57007	0,16139	0,15525	0,17943	0,18544
3972,6416	0,16133	0,15509	0,17927	0,18535
3970,71313	0,16123	0,15510	0,17896	0,18533
3968,78467	0,16112	0,15499	0,17897	0,18525
3966,8562	0,16103	0,15485	0,17883	0,18517
3964,92773	0,16106	0,15485	0,17849	0,18499
3962,99927	0,16096	0,15484	0,17874	0,18480
3961,0708	0,16059	0,15465	0,17880	0,18467
3959,14233	0,16055	0,15459	0,17842	0,18463
3957,21387	0,16054	0,15449	0,17831	0,18465
3955,2854	0,16049	0,15434	0,17835	0,18447
3953,35693	0,16052	0,15442	0,17831	0,18442
3951,42847	0,16012	0,15412	0,17817	0,18419
3949,5	0,15979	0,15380	0,17862	0,18361
3947,57153	0,15958	0,15368	0,17826	0,18368
3945,64307	0,15971	0,15368	0,17747	0,18381
3943,7146	0,16001	0,15405	0,17828	0,18358
3941,78613	0,15932	0,15369	0,17813	0,18355
3939,85767	0,15918	0,15332	0,17710	0,18347
3937,9292	0,15964	0,15359	0,17725	0,18345
3936,00073	0,15938	0,15341	0,17721	0,18343
3934,07227	0,15950	0,15347	0,17746	0,18323
3932,1438	0,15936	0,15352	0,17808	0,18301
3930,21533	0,15837	0,15263	0,17720	0,18276
3928,28687	0,15855	0,15255	0,17643	0,18266
3926,3584	0,15921	0,15321	0,17720	0,18270
3924,42993	0,15868	0,15293	0,17748	0,18261
3922,50146	0,15807	0,15227	0,17651	0,18240
3920,573	0,15841	0,15251	0,17659	0,18226

3918,64453	0,15860	0,15266	0,17701	0,18221
3916,71606	0,15801	0,15207	0,17659	0,18203
3914,7876	0,15750	0,15170	0,17580	0,18193
3912,85913	0,15784	0,15209	0,17566	0,18197
3910,93066	0,15831	0,15238	0,17592	0,18207
3909,0022	0,15788	0,15206	0,17563	0,18194
3907,07373	0,15804	0,15227	0,17610	0,18156
3905,14526	0,15847	0,15250	0,17719	0,18153
3903,2168	0,15729	0,15127	0,17629	0,18139
3901,28833	0,15668	0,15045	0,17536	0,18081
3899,35986	0,15670	0,15063	0,17581	0,18063
3897,4314	0,15631	0,15039	0,17469	0,18075
3895,50293	0,15622	0,15059	0,17438	0,18056
3893,57446	0,15758	0,15185	0,17574	0,18058
3891,646	0,15806	0,15187	0,17639	0,18116
3889,71753	0,15539	0,14950	0,17354	0,18060
3887,78906	0,15673	0,15091	0,17432	0,17990
3885,8606	0,15867	0,15202	0,17618	0,18095
3883,93213	0,15486	0,14900	0,17293	0,18031
3882,00366	0,15606	0,15044	0,17471	0,17912
3880,0752	0,15666	0,15092	0,17716	0,17993
3878,14673	0,15421	0,14880	0,17289	0,17954
3876,21826	0,15688	0,15074	0,17388	0,17937
3874,28979	0,15621	0,15054	0,17611	0,17985
3872,36133	0,15476	0,14948	0,17418	0,17898
3870,43286	0,15772	0,15066	0,17407	0,17967
3868,50439	0,15445	0,14827	0,17276	0,17960
3866,57593	0,15450	0,14877	0,17250	0,17851
3864,64746	0,15696	0,15032	0,17435	0,17935
3862,71899	0,15382	0,14854	0,17394	0,17878
3860,79053	0,15460	0,14899	0,17255	0,17845
3858,86206	0,15530	0,14955	0,17296	0,17910
3856,93359	0,15428	0,14959	0,17476	0,17822
3855,00513	0,15962	0,15128	0,17232	0,18016
3853,07666	0,15803	0,14914	0,17094	0,18193
3851,14819	0,15105	0,14519	0,16861	0,17768
3849,21973	0,15300	0,14774	0,17191	0,17728
3847,29126	0,15483	0,14922	0,17218	0,17844
3845,36279	0,15476	0,14953	0,17325	0,17803
3843,43433	0,15500	0,14925	0,17316	0,17816
3841,50586	0,15352	0,14839	0,17365	0,17762
3839,57739	0,15429	0,14866	0,17316	0,17748
3837,64893	0,15519	0,14818	0,17025	0,17852
3835,72046	0,15241	0,14660	0,16951	0,17754
3833,79199	0,15291	0,14762	0,17212	0,17678
3831,86353	0,15415	0,14802	0,17211	0,17762
3829,93506	0,15252	0,14730	0,17078	0,17720

3828,00659	0,15373	0,14850	0,17202	0,17689
3826,07813	0,15321	0,14793	0,17220	0,17739
3824,14966	0,15230	0,14759	0,17146	0,17657
3822,22119	0,15609	0,14950	0,17284	0,17731
3820,29272	0,15163	0,14621	0,17210	0,17739
3818,36426	0,15084	0,14594	0,16995	0,17571
3816,43579	0,15539	0,14821	0,16979	0,17720
3814,50732	0,15217	0,14573	0,16829	0,17722
3812,57886	0,15126	0,14623	0,16966	0,17580
3810,65039	0,15279	0,14771	0,17084	0,17635
3808,72192	0,15398	0,14817	0,17103	0,17647
3806,79346	0,15384	0,14727	0,16996	0,17701
3804,86499	0,15059	0,14542	0,16879	0,17582
3802,93652	0,15319	0,14736	0,17098	0,17531
3801,00806	0,15348	0,14678	0,16959	0,17704
3799,07959	0,14971	0,14442	0,16728	0,17535
3797,15112	0,15173	0,14657	0,17116	0,17471
3795,22266	0,15171	0,14627	0,17004	0,17586
3793,29419	0,15082	0,14588	0,16874	0,17530
3791,36572	0,15226	0,14705	0,16999	0,17545
3789,43726	0,15165	0,14665	0,16940	0,17571
3787,50879	0,15164	0,14660	0,16924	0,17525
3785,58032	0,15182	0,14671	0,17036	0,17512
3783,65186	0,15058	0,14587	0,16934	0,17496
3781,72339	0,15133	0,14627	0,16902	0,17477
3779,79492	0,15151	0,14648	0,17040	0,17474
3777,86646	0,15009	0,14537	0,16896	0,17469
3775,93799	0,15061	0,14557	0,16822	0,17451
3774,00952	0,15099	0,14602	0,16857	0,17451
3772,08105	0,15125	0,14623	0,16903	0,17442
3770,15259	0,15131	0,14591	0,16968	0,17441
3768,22412	0,14980	0,14467	0,16803	0,17405
3766,29565	0,15008	0,14510	0,16863	0,17365
3764,36719	0,14997	0,14502	0,16860	0,17397
3762,43872	0,14958	0,14477	0,16752	0,17365
3760,51025	0,15084	0,14565	0,16917	0,17364
3758,58179	0,14937	0,14470	0,16930	0,17369
3756,65332	0,14849	0,14399	0,16793	0,17296
3754,72485	0,14975	0,14476	0,16802	0,17319
3752,79639	0,15089	0,14506	0,16756	0,17355
3750,86792	0,15153	0,14447	0,16689	0,17425
3748,93945	0,14766	0,14153	0,16348	0,17353
3747,01099	0,14790	0,14303	0,16621	0,17178
3745,08252	0,15315	0,14536	0,16704	0,17393
3743,15405	0,14937	0,14200	0,16335	0,17451
3741,22559	0,14660	0,14243	0,16598	0,17130
3739,29712	0,15018	0,14529	0,16793	0,17201
3737,36865	0,15222	0,14588	0,16701	0,17349



3735,44019	0,14992	0,14477	0,16799	0,17227
3733,51172	0,14970	0,14425	0,16712	0,17199
3731,58325	0,15020	0,14384	0,16425	0,17263
3729,65479	0,15059	0,14492	0,16434	0,17243
3727,72632	0,15211	0,14643	0,16609	0,17246
3725,79785	0,15181	0,14597	0,16637	0,17265
3723,86938	0,15028	0,14502	0,16605	0,17203
3721,94092	0,15016	0,14483	0,16614	0,17185
3720,01245	0,14929	0,14406	0,16576	0,17179
3718,08398	0,14873	0,14366	0,16553	0,17162
3716,15552	0,14783	0,14301	0,16560	0,17141
3714,22705	0,14819	0,14316	0,16604	0,17112
3712,29858	0,14947	0,14361	0,16615	0,17160
3710,37012	0,14759	0,14202	0,16502	0,17111
3708,44165	0,14748	0,14187	0,16418	0,17031
3706,51318	0,14803	0,14261	0,16389	0,17069
3704,58472	0,14880	0,14341	0,16397	0,17088
3702,65625	0,14974	0,14392	0,16545	0,17100
3700,72778	0,14798	0,14254	0,16435	0,17090
3698,79932	0,14771	0,14225	0,16311	0,17068
3696,87085	0,14810	0,14262	0,16418	0,17051
3694,94238	0,14732	0,14201	0,16379	0,17040
3693,01392	0,14689	0,14146	0,16370	0,16991
3691,08545	0,14630	0,14088	0,16522	0,16895
3689,15698	0,14520	0,13900	0,16256	0,16914
3687,22852	0,14395	0,13727	0,15922	0,16907
3685,30005	0,14297	0,13797	0,16210	0,16802
3683,37158	0,14417	0,13926	0,16316	0,16835
3681,44312	0,14536	0,13960	0,16309	0,16913
3679,51465	0,14351	0,13905	0,16451	0,16845
3677,58618	0,14547	0,13995	0,16391	0,16841
3675,65771	0,14641	0,13983	0,16512	0,16974
3673,72925	0,14133	0,13634	0,16160	0,16866
3671,80078	0,14431	0,13856	0,16180	0,16810
3669,87231	0,14631	0,13961	0,16350	0,16951
3667,94385	0,14192	0,13707	0,16207	0,16861
3666,01538	0,14335	0,13843	0,16239	0,16830
3664,08691	0,14489	0,13961	0,16289	0,16916
3662,15845	0,14428	0,13926	0,16335	0,16906
3660,22998	0,14408	0,13898	0,16277	0,16909
3658,30151	0,14474	0,13953	0,16343	0,16896
3656,37305	0,14501	0,13894	0,16343	0,16920
3654,44458	0,14299	0,13734	0,16125	0,16893
3652,51611	0,14364	0,13851	0,16369	0,16806
3650,58765	0,14544	0,13901	0,16550	0,16858
3648,65918	0,14247	0,13645	0,16326	0,16850
3646,73071	0,14098	0,13565	0,16245	0,16753
3644,80225	0,14227	0,13670	0,16233	0,16783

3642,87378	0,14354	0,13777	0,16210	0,16831
3640,94531	0,14379	0,13809	0,16286	0,16845
3639,01685	0,14367	0,13775	0,16204	0,16863
3637,08838	0,14405	0,13796	0,16187	0,16850
3635,15991	0,14476	0,13828	0,16229	0,16865
3633,23145	0,14375	0,13767	0,16188	0,16850
3631,30298	0,14481	0,13811	0,16177	0,16821
3629,37451	0,14720	0,13879	0,16265	0,16911
3627,44604	0,14305	0,13558	0,15977	0,16858
3625,51758	0,14278	0,13608	0,15987	0,16745
3623,58911	0,14471	0,13743	0,16086	0,16810
3621,66064	0,14441	0,13697	0,16110	0,16814
3619,73218	0,14402	0,13618	0,16210	0,16771
3617,80371	0,14198	0,13446	0,16136	0,16765
3615,87524	0,14187	0,13463	0,16108	0,16715
3613,94678	0,14251	0,13495	0,16258	0,16716
3612,01831	0,14118	0,13347	0,16144	0,16718
3610,08984	0,14236	0,13359	0,15990	0,16721
3608,16138	0,14294	0,13399	0,16072	0,16728
3606,23291	0,14179	0,13332	0,16018	0,16685
3604,30444	0,14275	0,13377	0,15956	0,16702
3602,37598	0,14357	0,13433	0,16021	0,16720
3600,44751	0,14304	0,13391	0,16065	0,16689
3598,51904	0,14285	0,13326	0,15996	0,16701
3596,59058	0,14324	0,13335	0,16007	0,16704
3594,66211	0,14312	0,13336	0,16075	0,16699
3592,73364	0,14240	0,13261	0,15993	0,16722
3590,80518	0,14307	0,13276	0,15948	0,16730
3588,87671	0,14381	0,13314	0,16088	0,16729
3586,94824	0,14181	0,13170	0,16148	0,16699
3585,01978	0,14126	0,13095	0,15955	0,16693
3583,09131	0,14223	0,13174	0,15949	0,16725
3581,16284	0,14243	0,13184	0,16001	0,16743
3579,23438	0,14228	0,13158	0,15999	0,16753
3577,30591	0,14217	0,13148	0,15989	0,16767
3575,37744	0,14216	0,13133	0,15984	0,16763
3573,44897	0,14210	0,13117	0,15971	0,16770
3571,52051	0,14187	0,13104	0,15940	0,16770
3569,59204	0,14243	0,13130	0,16009	0,16760
3567,66357	0,14184	0,13106	0,16197	0,16742
3565,73511	0,14011	0,12967	0,16091	0,16716
3563,80664	0,14084	0,12972	0,15936	0,16734
3561,87817	0,14171	0,13033	0,15961	0,16771
3559,94971	0,14153	0,13028	0,15974	0,16779
3558,02124	0,14155	0,13018	0,15938	0,16790
3556,09277	0,14170	0,13011	0,15917	0,16813
3554,16431	0,14175	0,13009	0,15950	0,16811
3552,23584	0,14139	0,12986	0,15986	0,16807

3550,30737	0,14113	0,12942	0,15912	0,16818
3548,37891	0,14148	0,12958	0,15926	0,16813
3546,45044	0,14123	0,12961	0,16025	0,16798
3544,52197	0,14070	0,12910	0,15974	0,16796
3542,59351	0,14083	0,12891	0,15913	0,16814
3540,66504	0,14116	0,12900	0,15904	0,16842
3538,73657	0,14124	0,12891	0,15899	0,16835
3536,80811	0,14096	0,12869	0,15929	0,16824
3534,87964	0,14084	0,12852	0,15921	0,16836
3532,95117	0,14087	0,12838	0,15873	0,16825
3531,02271	0,14079	0,12827	0,15884	0,16814
3529,09424	0,14051	0,12795	0,15929	0,16811
3527,16577	0,14011	0,12760	0,15903	0,16793
3525,2373	0,14007	0,12768	0,15890	0,16784
3523,30884	0,14001	0,12757	0,15909	0,16784
3521,38037	0,13987	0,12729	0,15851	0,16783
3519,4519	0,13996	0,12730	0,15823	0,16783
3517,52344	0,13992	0,12720	0,15838	0,16784
3515,59497	0,13975	0,12698	0,15828	0,16782
3513,6665	0,13965	0,12683	0,15812	0,16784
3511,73804	0,13964	0,12672	0,15809	0,16766
3509,80957	0,13936	0,12655	0,15835	0,16741
3507,8811	0,13903	0,12617	0,15798	0,16751
3505,95264	0,13914	0,12603	0,15771	0,16749
3504,02417	0,13905	0,12610	0,15845	0,16728
3502,0957	0,13872	0,12592	0,15833	0,16736
3500,16724	0,13883	0,12574	0,15765	0,16746
3498,23877	0,13905	0,12582	0,15774	0,16750
3496,3103	0,13900	0,12576	0,15775	0,16753
3494,38184	0,13888	0,12559	0,15762	0,16749
3492,45337	0,13888	0,12558	0,15759	0,16753
3490,5249	0,13884	0,12555	0,15748	0,16751
3488,59644	0,13877	0,12545	0,15759	0,16747
3486,66797	0,13873	0,12542	0,15766	0,16751
3484,7395	0,13875	0,12542	0,15750	0,16752
3482,81104	0,13872	0,12529	0,15767	0,16753
3480,88257	0,13853	0,12514	0,15771	0,16757
3478,9541	0,13863	0,12517	0,15729	0,16760
3477,02563	0,13877	0,12515	0,15725	0,16767
3475,09717	0,13864	0,12509	0,15747	0,16772
3473,1687	0,13855	0,12501	0,15734	0,16764
3471,24023	0,13849	0,12492	0,15714	0,16758
3469,31177	0,13858	0,12502	0,15726	0,16755
3467,3833	0,13859	0,12495	0,15730	0,16751
3465,45483	0,13833	0,12474	0,15705	0,16753
3463,52637	0,13835	0,12475	0,15701	0,16746
3461,5979	0,13837	0,12463	0,15692	0,16731
3459,66943	0,13824	0,12453	0,15677	0,16728

3457,74097	0,13814	0,12452	0,15684	0,16733
3455,8125	0,13801	0,12437	0,15670	0,16729
3453,88403	0,13809	0,12437	0,15670	0,16721
3451,95557	0,13818	0,12439	0,15674	0,16719
3450,0271	0,13814	0,12436	0,15655	0,16707
3448,09863	0,13802	0,12433	0,15678	0,16697
3446,17017	0,13782	0,12412	0,15678	0,16704
3444,2417	0,13788	0,12410	0,15641	0,16703
3442,31323	0,13797	0,12418	0,15648	0,16704
3440,38477	0,13794	0,12412	0,15644	0,16715
3438,4563	0,13808	0,12418	0,15638	0,16708
3436,52783	0,13821	0,12425	0,15652	0,16705
3434,59937	0,13826	0,12430	0,15647	0,16720
3432,6709	0,13823	0,12422	0,15644	0,16730
3430,74243	0,13816	0,12415	0,15653	0,16731
3428,81396	0,13829	0,12434	0,15659	0,16724
3426,8855	0,13846	0,12445	0,15657	0,16724
3424,95703	0,13851	0,12440	0,15646	0,16742
3423,02856	0,13852	0,12442	0,15656	0,16744
3421,1001	0,13850	0,12450	0,15683	0,16734
3419,17163	0,13847	0,12449	0,15681	0,16745
3417,24316	0,13854	0,12444	0,15671	0,16751
3415,3147	0,13876	0,12464	0,15681	0,16745
3413,38623	0,13889	0,12486	0,15685	0,16753
3411,45776	0,13891	0,12493	0,15690	0,16770
3409,5293	0,13900	0,12501	0,15696	0,16773
3407,60083	0,13907	0,12499	0,15693	0,16780
3405,67236	0,13912	0,12493	0,15696	0,16791
3403,7439	0,13918	0,12505	0,15711	0,16792
3401,81543	0,13929	0,12523	0,15717	0,16797
3399,88696	0,13943	0,12524	0,15727	0,16800
3397,9585	0,13944	0,12522	0,15744	0,16794
3396,03003	0,13938	0,12527	0,15734	0,16788
3394,10156	0,13944	0,12535	0,15733	0,16793
3392,1731	0,13957	0,12547	0,15760	0,16801
3390,24463	0,13967	0,12553	0,15751	0,16796
3388,31616	0,13978	0,12554	0,15737	0,16811
3386,3877	0,13989	0,12557	0,15758	0,16824
3384,45923	0,13981	0,12551	0,15778	0,16805
3382,53076	0,13987	0,12549	0,15779	0,16813
3380,60229	0,14012	0,12573	0,15781	0,16822
3378,67383	0,14012	0,12591	0,15791	0,16818
3376,74536	0,14007	0,12586	0,15800	0,16837
3374,81689	0,14014	0,12593	0,15806	0,16837
3372,88843	0,14027	0,12606	0,15800	0,16828
3370,95996	0,14046	0,12615	0,15799	0,16843
3369,03149	0,14056	0,12637	0,15824	0,16851
3367,10303	0,14063	0,12650	0,15837	0,16849

3365,17456	0,14069	0,12643	0,15834	0,16841
3363,24609	0,14084	0,12644	0,15846	0,16836
3361,31763	0,14098	0,12657	0,15849	0,16850
3359,38916	0,14098	0,12671	0,15842	0,16857
3357,46069	0,14106	0,12682	0,15862	0,16854
3355,53223	0,14115	0,12684	0,15874	0,16857
3353,60376	0,14127	0,12691	0,15863	0,16852
3351,67529	0,14142	0,12703	0,15875	0,16859
3349,74683	0,14140	0,12709	0,15885	0,16868
3347,81836	0,14148	0,12716	0,15875	0,16851
3345,88989	0,14160	0,12718	0,15876	0,16850
3343,96143	0,14155	0,12727	0,15880	0,16863
3342,03296	0,14154	0,12738	0,15873	0,16858
3340,10449	0,14166	0,12744	0,15882	0,16853
3338,17603	0,14181	0,12753	0,15901	0,16850
3336,24756	0,14179	0,12746	0,15901	0,16848
3334,31909	0,14178	0,12745	0,15897	0,16852
3332,39063	0,14187	0,12759	0,15891	0,16844
3330,46216	0,14190	0,12757	0,15887	0,16832
3328,53369	0,14190	0,12758	0,15902	0,16838
3326,60522	0,14198	0,12771	0,15902	0,16840
3324,67676	0,14203	0,12770	0,15892	0,16830
3322,74829	0,14186	0,12762	0,15897	0,16831
3320,81982	0,14184	0,12756	0,15900	0,16829
3318,89136	0,14203	0,12760	0,15902	0,16821
3316,96289	0,14197	0,12766	0,15898	0,16815
3315,03442	0,14193	0,12762	0,15896	0,16802
3313,10596	0,14207	0,12767	0,15899	0,16795
3311,17749	0,14198	0,12778	0,15902	0,16793
3309,24902	0,14189	0,12775	0,15910	0,16791
3307,32056	0,14200	0,12777	0,15907	0,16793
3305,39209	0,14197	0,12788	0,15900	0,16783
3303,46362	0,14192	0,12783	0,15895	0,16765
3301,53516	0,14185	0,12772	0,15886	0,16753
3299,60669	0,14162	0,12763	0,15880	0,16746
3297,67822	0,14159	0,12759	0,15875	0,16739
3295,74976	0,14162	0,12767	0,15874	0,16726
3293,82129	0,14154	0,12768	0,15881	0,16720
3291,89282	0,14154	0,12763	0,15875	0,16712
3289,96436	0,14151	0,12760	0,15861	0,16694
3288,03589	0,14147	0,12749	0,15854	0,16685
3286,10742	0,14143	0,12748	0,15844	0,16680
3284,17896	0,14137	0,12753	0,15837	0,16664
3282,25049	0,14127	0,12741	0,15838	0,16651
3280,32202	0,14111	0,12733	0,15828	0,16644
3278,39355	0,14101	0,12729	0,15827	0,16634
3276,46509	0,14099	0,12728	0,15832	0,16626
3274,53662	0,14098	0,12727	0,15826	0,16612

3272,60815	0,14093	0,12725	0,15829	0,16598
3270,67969	0,14080	0,12720	0,15825	0,16594
3268,75122	0,14074	0,12705	0,15808	0,16585
3266,82275	0,14074	0,12702	0,15799	0,16569
3264,89429	0,14068	0,12695	0,15799	0,16563
3262,96582	0,14061	0,12680	0,15798	0,16553
3261,03735	0,14053	0,12678	0,15791	0,16534
3259,10889	0,14039	0,12668	0,15778	0,16532
3257,18042	0,14034	0,12664	0,15772	0,16537
3255,25195	0,14029	0,12674	0,15775	0,16519
3253,32349	0,14018	0,12664	0,15767	0,16500
3251,39502	0,14011	0,12649	0,15756	0,16498
3249,46655	0,14007	0,12653	0,15756	0,16496
3247,53809	0,14007	0,12656	0,15754	0,16484
3245,60962	0,13995	0,12646	0,15748	0,16466
3243,68115	0,13978	0,12633	0,15740	0,16462
3241,75269	0,13971	0,12623	0,15726	0,16458
3239,82422	0,13966	0,12620	0,15727	0,16445
3237,89575	0,13964	0,12625	0,15730	0,16442
3235,96729	0,13962	0,12626	0,15721	0,16432
3234,03882	0,13958	0,12635	0,15714	0,16418
3232,11035	0,13949	0,12630	0,15705	0,16409
3230,18188	0,13941	0,12610	0,15693	0,16398
3228,25342	0,13940	0,12614	0,15689	0,16388
3226,32495	0,13922	0,12605	0,15684	0,16377
3224,39648	0,13913	0,12587	0,15675	0,16369
3222,46802	0,13917	0,12594	0,15675	0,16351
3220,53955	0,13895	0,12595	0,15671	0,16332
3218,61108	0,13882	0,12591	0,15657	0,16330
3216,68262	0,13889	0,12585	0,15653	0,16317
3214,75415	0,13879	0,12569	0,15649	0,16306
3212,82568	0,13865	0,12562	0,15637	0,16295
3210,89722	0,13860	0,12563	0,15630	0,16278
3208,96875	0,13848	0,12566	0,15623	0,16273
3207,04028	0,13845	0,12566	0,15611	0,16262
3205,11182	0,13846	0,12559	0,15607	0,16253
3203,18335	0,13830	0,12549	0,15609	0,16256
3201,25488	0,13819	0,12545	0,15602	0,16250
3199,32642	0,13817	0,12551	0,15594	0,16235
3197,39795	0,13806	0,12541	0,15594	0,16217
3195,46948	0,13795	0,12529	0,15581	0,16208
3193,54102	0,13790	0,12541	0,15571	0,16209
3191,61255	0,13786	0,12545	0,15578	0,16201
3189,68408	0,13771	0,12535	0,15574	0,16185
3187,75562	0,13761	0,12538	0,15563	0,16179
3185,82715	0,13761	0,12538	0,15563	0,16167
3183,89868	0,13750	0,12529	0,15559	0,16154
3181,97021	0,13741	0,12526	0,15544	0,16157

3180,04175	0,13741	0,12525	0,15541	0,16142
3178,11328	0,13728	0,12526	0,15545	0,16121
3176,18481	0,13714	0,12519	0,15537	0,16114
3174,25635	0,13717	0,12510	0,15526	0,16104
3172,32788	0,13713	0,12517	0,15519	0,16103
3170,39941	0,13698	0,12510	0,15515	0,16094
3168,47095	0,13693	0,12498	0,15513	0,16075
3166,54248	0,13682	0,12504	0,15493	0,16070
3164,61401	0,13667	0,12505	0,15475	0,16053
3162,68555	0,13663	0,12495	0,15475	0,16035
3160,75708	0,13655	0,12485	0,15471	0,16033
3158,82861	0,13650	0,12485	0,15469	0,16022
3156,90015	0,13639	0,12492	0,15456	0,16007
3154,97168	0,13626	0,12491	0,15439	0,15999
3153,04321	0,13626	0,12488	0,15442	0,15992
3151,11475	0,13612	0,12486	0,15435	0,15984
3149,18628	0,13591	0,12476	0,15412	0,15968
3147,25781	0,13584	0,12463	0,15411	0,15945
3145,32935	0,13581	0,12465	0,15407	0,15938
3143,40088	0,13576	0,12474	0,15388	0,15933
3141,47241	0,13561	0,12468	0,15392	0,15919
3139,54395	0,13550	0,12467	0,15398	0,15912
3137,61548	0,13539	0,12463	0,15369	0,15904
3135,68701	0,13523	0,12448	0,15350	0,15892
3133,75854	0,13521	0,12450	0,15348	0,15880
3131,83008	0,13514	0,12450	0,15336	0,15864
3129,90161	0,13496	0,12446	0,15331	0,15852
3127,97314	0,13486	0,12447	0,15325	0,15841
3126,04468	0,13473	0,12443	0,15308	0,15830
3124,11621	0,13460	0,12439	0,15304	0,15823
3122,18774	0,13456	0,12427	0,15305	0,15815
3120,25928	0,13450	0,12421	0,15291	0,15803
3118,33081	0,13439	0,12425	0,15276	0,15788
3116,40234	0,13435	0,12428	0,15269	0,15776
3114,47388	0,13418	0,12418	0,15259	0,15765
3112,54541	0,13401	0,12404	0,15242	0,15753
3110,61694	0,13404	0,12411	0,15228	0,15740
3108,68848	0,13397	0,12413	0,15219	0,15720
3106,76001	0,13380	0,12410	0,15206	0,15700
3104,83154	0,13373	0,12410	0,15194	0,15690
3102,90308	0,13370	0,12393	0,15187	0,15679
3100,97461	0,13355	0,12386	0,15179	0,15672
3099,04614	0,13337	0,12388	0,15167	0,15659
3097,11768	0,13332	0,12383	0,15160	0,15641
3095,18921	0,13320	0,12379	0,15149	0,15640
3093,26074	0,13304	0,12375	0,15132	0,15638
3091,33228	0,13302	0,12382	0,15126	0,15623
3089,40381	0,13296	0,12383	0,15117	0,15614

3087,47534	0,13289	0,12379	0,15114	0,15611
3085,54688	0,13285	0,12387	0,15121	0,15605
3083,61841	0,13276	0,12386	0,15103	0,15594
3081,68994	0,13264	0,12371	0,15084	0,15580
3079,76147	0,13256	0,12374	0,15082	0,15565
3077,83301	0,13244	0,12371	0,15071	0,15558
3075,90454	0,13218	0,12343	0,15055	0,15545
3073,97607	0,13205	0,12337	0,15046	0,15522
3072,04761	0,13203	0,12346	0,15033	0,15515
3070,11914	0,13194	0,12341	0,15023	0,15509
3068,19067	0,13178	0,12347	0,15030	0,15495
3066,26221	0,13157	0,12341	0,15025	0,15484
3064,33374	0,13155	0,12321	0,15002	0,15465
3062,40527	0,13159	0,12323	0,14990	0,15450
3060,47681	0,13144	0,12321	0,14981	0,15442
3058,54834	0,13130	0,12315	0,14976	0,15436
3056,61987	0,13120	0,12317	0,14968	0,15430
3054,69141	0,13107	0,12306	0,14952	0,15408
3052,76294	0,13106	0,12307	0,14956	0,15397
3050,83447	0,13105	0,12316	0,14959	0,15396
3048,90601	0,13087	0,12306	0,14942	0,15378
3046,97754	0,13075	0,12299	0,14927	0,15372
3045,04907	0,13069	0,12300	0,14923	0,15373
3043,12061	0,13060	0,12302	0,14918	0,15361
3041,19214	0,13051	0,12300	0,14909	0,15344
3039,26367	0,13038	0,12282	0,14896	0,15329
3037,33521	0,13026	0,12271	0,14884	0,15314
3035,40674	0,13018	0,12275	0,14881	0,15305
3033,47827	0,13011	0,12273	0,14880	0,15298
3031,5498	0,12998	0,12260	0,14863	0,15285
3029,62134	0,12975	0,12244	0,14845	0,15275
3027,69287	0,12962	0,12242	0,14835	0,15268
3025,7644	0,12969	0,12254	0,14830	0,15260
3023,83594	0,12968	0,12254	0,14832	0,15260
3021,90747	0,12950	0,12249	0,14820	0,15246
3019,979	0,12941	0,12251	0,14811	0,15233
3018,05054	0,12920	0,12251	0,14819	0,15238
3016,12207	0,12899	0,12242	0,14818	0,15225
3014,1936	0,12905	0,12239	0,14810	0,15205
3012,26514	0,12902	0,12234	0,14804	0,15197
3010,33667	0,12881	0,12220	0,14787	0,15183
3008,4082	0,12870	0,12212	0,14765	0,15169
3006,47974	0,12865	0,12204	0,14759	0,15162
3004,55127	0,12859	0,12194	0,14756	0,15156
3002,6228	0,12849	0,12195	0,14740	0,15145
3000,69434	0,12839	0,12187	0,14731	0,15132
2998,76587	0,12834	0,12178	0,14727	0,15124
2996,8374	0,12831	0,12180	0,14719	0,15117



2994,90894	0,12818	0,12171	0,14715	0,15102
2992,98047	0,12806	0,12165	0,14712	0,15092
2991,052	0,12805	0,12163	0,14700	0,15087
2989,12354	0,12796	0,12146	0,14690	0,15076
2987,19507	0,12786	0,12136	0,14684	0,15063
2985,2666	0,12773	0,12135	0,14673	0,15050
2983,33813	0,12758	0,12128	0,14672	0,15041
2981,40967	0,12760	0,12125	0,14673	0,15040
2979,4812	0,12758	0,12122	0,14664	0,15033
2977,55273	0,12744	0,12111	0,14664	0,15019
2975,62427	0,12742	0,12108	0,14662	0,15012
2973,6958	0,12738	0,12102	0,14647	0,15010
2971,76733	0,12721	0,12082	0,14641	0,14995
2969,83887	0,12716	0,12071	0,14645	0,14981
2967,9104	0,12721	0,12067	0,14639	0,14978
2965,98193	0,12716	0,12066	0,14632	0,14976
2964,05347	0,12710	0,12068	0,14639	0,14978
2962,125	0,12709	0,12067	0,14641	0,14975
2960,19653	0,12700	0,12062	0,14634	0,14963
2958,26807	0,12688	0,12058	0,14638	0,14958
2956,3396	0,12685	0,12057	0,14635	0,14954
2954,41113	0,12686	0,12059	0,14624	0,14947
2952,48267	0,12683	0,12059	0,14615	0,14946
2950,5542	0,12673	0,12055	0,14604	0,14938
2948,62573	0,12670	0,12055	0,14604	0,14919
2946,69727	0,12675	0,12062	0,14608	0,14911
2944,7688	0,12673	0,12067	0,14600	0,14914
2942,84033	0,12670	0,12056	0,14590	0,14908
2940,91187	0,12670	0,12045	0,14585	0,14900
2938,9834	0,12666	0,12044	0,14588	0,14899
2937,05493	0,12668	0,12038	0,14597	0,14899
2935,12646	0,12668	0,12032	0,14599	0,14895
2933,198	0,12666	0,12033	0,14594	0,14889
2931,26953	0,12670	0,12031	0,14597	0,14887
2929,34106	0,12664	0,12025	0,14605	0,14883
2927,4126	0,12654	0,12015	0,14598	0,14872
2925,48413	0,12645	0,12006	0,14588	0,14867
2923,55566	0,12631	0,12001	0,14578	0,14852
2921,6272	0,12627	0,11993	0,14558	0,14831
2919,69873	0,12626	0,11985	0,14544	0,14824
2917,77026	0,12607	0,11981	0,14534	0,14808
2915,8418	0,12586	0,11982	0,14520	0,14788
2913,91333	0,12577	0,11983	0,14509	0,14778
2911,98486	0,12567	0,11973	0,14500	0,14768
2910,0564	0,12551	0,11964	0,14494	0,14758
2908,12793	0,12544	0,11966	0,14482	0,14749
2906,19946	0,12536	0,11958	0,14463	0,14733
2904,271	0,12526	0,11949	0,14453	0,14715

2902,34253	0,12517	0,11949	0,14447	0,14710
2900,41406	0,12501	0,11937	0,14432	0,14703
2898,4856	0,12494	0,11940	0,14419	0,14690
2896,55713	0,12488	0,11952	0,14417	0,14686
2894,62866	0,12467	0,11940	0,14413	0,14676
2892,7002	0,12464	0,11933	0,14403	0,14657
2890,77173	0,12466	0,11930	0,14403	0,14648
2888,84326	0,12454	0,11916	0,14391	0,14642
2886,91479	0,12447	0,11912	0,14371	0,14634
2884,98633	0,12439	0,11912	0,14367	0,14627
2883,05786	0,12425	0,11909	0,14363	0,14616
2881,12939	0,12418	0,11906	0,14363	0,14607
2879,20093	0,12414	0,11899	0,14366	0,14603
2877,27246	0,12412	0,11889	0,14355	0,14603
2875,34399	0,12414	0,11890	0,14351	0,14601
2873,41553	0,12404	0,11890	0,14351	0,14598
2871,48706	0,12391	0,11879	0,14340	0,14589
2869,55859	0,12388	0,11875	0,14330	0,14579
2867,63013	0,12380	0,11875	0,14331	0,14573
2865,70166	0,12367	0,11866	0,14330	0,14560
2863,77319	0,12363	0,11861	0,14328	0,14554
2861,84473	0,12361	0,11857	0,14324	0,14558
2859,91626	0,12362	0,11860	0,14317	0,14553
2857,98779	0,12357	0,11863	0,14311	0,14550
2856,05933	0,12340	0,11855	0,14310	0,14545
2854,13086	0,12330	0,11857	0,14310	0,14531
2852,20239	0,12327	0,11857	0,14301	0,14521
2850,27393	0,12314	0,11844	0,14280	0,14506
2848,34546	0,12290	0,11838	0,14263	0,14490
2846,41699	0,12266	0,11830	0,14251	0,14479
2844,48853	0,12250	0,11816	0,14234	0,14465
2842,56006	0,12240	0,11808	0,14226	0,14454
2840,63159	0,12230	0,11811	0,14228	0,14446
2838,70313	0,12223	0,11815	0,14221	0,14436
2836,77466	0,12212	0,11808	0,14205	0,14422
2834,84619	0,12194	0,11803	0,14194	0,14415
2832,91772	0,12185	0,11798	0,14183	0,14409
2830,98926	0,12179	0,11790	0,14170	0,14395
2829,06079	0,12169	0,11788	0,14166	0,14388
2827,13232	0,12163	0,11781	0,14167	0,14379
2825,20386	0,12160	0,11776	0,14162	0,14369
2823,27539	0,12159	0,11785	0,14153	0,14366
2821,34692	0,12153	0,11788	0,14145	0,14357
2819,41846	0,12142	0,11776	0,14139	0,14344
2817,48999	0,12134	0,11768	0,14137	0,14332
2815,56152	0,12128	0,11769	0,14133	0,14322
2813,63306	0,12121	0,11769	0,14124	0,14317
2811,70459	0,12120	0,11774	0,14119	0,14316

2809,77612	0,12113	0,11775	0,14121	0,14314
2807,84766	0,12097	0,11765	0,14115	0,14303
2805,91919	0,12092	0,11771	0,14107	0,14296
2803,99072	0,12093	0,11777	0,14107	0,14292
2802,06226	0,12081	0,11762	0,14100	0,14283
2800,13379	0,12079	0,11763	0,14097	0,14275
2798,20532	0,12083	0,11775	0,14098	0,14263
2796,27686	0,12070	0,11763	0,14091	0,14258
2794,34839	0,12063	0,11753	0,14086	0,14258
2792,41992	0,12067	0,11757	0,14082	0,14246
2790,49146	0,12065	0,11754	0,14079	0,14243
2788,56299	0,12058	0,11750	0,14079	0,14242
2786,63452	0,12047	0,11751	0,14070	0,14232
2784,70605	0,12041	0,11750	0,14064	0,14227
2782,77759	0,12042	0,11747	0,14066	0,14216
2780,84912	0,12034	0,11747	0,14059	0,14205
2778,92065	0,12026	0,11746	0,14050	0,14206
2776,99219	0,12023	0,11748	0,14046	0,14205
2775,06372	0,12019	0,11753	0,14048	0,14192
2773,13525	0,12019	0,11751	0,14044	0,14181
2771,20679	0,12014	0,11743	0,14036	0,14182
2769,27832	0,12001	0,11741	0,14035	0,14177
2767,34985	0,11996	0,11744	0,14034	0,14170
2765,42139	0,11994	0,11737	0,14029	0,14174
2763,49292	0,11989	0,11733	0,14027	0,14165
2761,56445	0,11983	0,11739	0,14018	0,14151
2759,63599	0,11977	0,11737	0,14008	0,14150
2757,70752	0,11980	0,11733	0,14012	0,14140
2755,77905	0,11982	0,11733	0,14006	0,14134
2753,85059	0,11969	0,11730	0,13996	0,14137
2751,92212	0,11964	0,11727	0,13997	0,14128
2749,99365	0,11965	0,11724	0,13991	0,14119
2748,06519	0,11958	0,11721	0,13986	0,14122
2746,13672	0,11951	0,11716	0,13984	0,14119
2744,20825	0,11945	0,11711	0,13973	0,14107
2742,27979	0,11940	0,11707	0,13971	0,14097
2740,35132	0,11930	0,11705	0,13967	0,14092
2738,42285	0,11921	0,11705	0,13958	0,14086
2736,49438	0,11927	0,11704	0,13960	0,14078
2734,56592	0,11924	0,11700	0,13958	0,14077
2732,63745	0,11911	0,11698	0,13953	0,14074
2730,70898	0,11911	0,11697	0,13951	0,14064
2728,78052	0,11913	0,11700	0,13947	0,14061
2726,85205	0,11905	0,11700	0,13943	0,14060
2724,92358	0,11902	0,11698	0,13935	0,14050
2722,99512	0,11906	0,11704	0,13928	0,14047
2721,06665	0,11899	0,11703	0,13928	0,14042
2719,13818	0,11892	0,11696	0,13921	0,14032

2717,20972	0,11892	0,11693	0,13920	0,14027
2715,28125	0,11888	0,11689	0,13920	0,14022
2713,35278	0,11883	0,11688	0,13913	0,14015
2711,42432	0,11880	0,11688	0,13913	0,14003
2709,49585	0,11875	0,11682	0,13909	0,13995
2707,56738	0,11873	0,11679	0,13900	0,14001
2705,63892	0,11868	0,11686	0,13900	0,14002
2703,71045	0,11858	0,11689	0,13909	0,14000
2701,78198	0,11854	0,11690	0,13909	0,13996
2699,85352	0,11853	0,11692	0,13899	0,13986
2697,92505	0,11852	0,11685	0,13895	0,13987
2695,99658	0,11852	0,11675	0,13887	0,13988
2694,06812	0,11851	0,11671	0,13877	0,13982
2692,13965	0,11853	0,11675	0,13877	0,13978
2690,21118	0,11850	0,11674	0,13872	0,13972
2688,28271	0,11845	0,11673	0,13870	0,13969
2686,35425	0,11849	0,11684	0,13870	0,13962
2684,42578	0,11847	0,11687	0,13861	0,13958
2682,49731	0,11838	0,11677	0,13856	0,13958
2680,56885	0,11843	0,11677	0,13859	0,13953
2678,64038	0,11844	0,11678	0,13864	0,13955
2676,71191	0,11840	0,11674	0,13864	0,13952
2674,78345	0,11844	0,11683	0,13859	0,13946
2672,85498	0,11840	0,11690	0,13855	0,13955
2670,92651	0,11834	0,11690	0,13854	0,13953
2668,99805	0,11830	0,11693	0,13852	0,13945
2667,06958	0,11822	0,11691	0,13848	0,13949
2665,14111	0,11826	0,11685	0,13843	0,13946
2663,21265	0,11832	0,11691	0,13848	0,13943
2661,28418	0,11829	0,11694	0,13850	0,13944
2659,35571	0,11837	0,11693	0,13845	0,13938
2657,42725	0,11844	0,11698	0,13847	0,13929
2655,49878	0,11839	0,11697	0,13845	0,13930
2653,57031	0,11837	0,11696	0,13836	0,13936
2651,64185	0,11842	0,11705	0,13836	0,13931
2649,71338	0,11848	0,11713	0,13831	0,13925
2647,78491	0,11850	0,11716	0,13824	0,13928
2645,85645	0,11848	0,11722	0,13830	0,13930
2643,92798	0,11850	0,11728	0,13836	0,13929
2641,99951	0,11851	0,11724	0,13841	0,13923
2640,07104	0,11851	0,11726	0,13838	0,13917
2638,14258	0,11854	0,11735	0,13822	0,13921
2636,21411	0,11853	0,11733	0,13816	0,13919
2634,28564	0,11849	0,11727	0,13817	0,13913
2632,35718	0,11843	0,11729	0,13813	0,13909
2630,42871	0,11837	0,11729	0,13808	0,13902
2628,50024	0,11830	0,11727	0,13806	0,13898
2626,57178	0,11823	0,11728	0,13802	0,13896

2624,64331	0,11821	0,11723	0,13794	0,13889
2622,71484	0,11811	0,11718	0,13793	0,13885
2620,78638	0,11801	0,11716	0,13788	0,13883
2618,85791	0,11802	0,11711	0,13775	0,13874
2616,92944	0,11792	0,11709	0,13773	0,13869
2615,00098	0,11781	0,11711	0,13774	0,13864
2613,07251	0,11778	0,11698	0,13761	0,13850
2611,14404	0,11766	0,11687	0,13751	0,13838
2609,21558	0,11751	0,11684	0,13746	0,13830
2607,28711	0,11743	0,11677	0,13740	0,13825
2605,35864	0,11735	0,11676	0,13735	0,13823
2603,43018	0,11727	0,11675	0,13727	0,13814
2601,50171	0,11717	0,11659	0,13720	0,13802
2599,57324	0,11704	0,11652	0,13711	0,13798
2597,64478	0,11692	0,11644	0,13698	0,13794
2595,71631	0,11680	0,11628	0,13694	0,13783
2593,78784	0,11665	0,11629	0,13689	0,13771
2591,85938	0,11657	0,11625	0,13678	0,13766
2589,93091	0,11652	0,11612	0,13670	0,13764
2588,00244	0,11637	0,11608	0,13657	0,13754
2586,07397	0,11623	0,11596	0,13652	0,13739
2584,14551	0,11614	0,11586	0,13653	0,13730
2582,21704	0,11597	0,11578	0,13641	0,13722
2580,28857	0,11586	0,11564	0,13627	0,13712
2578,36011	0,11583	0,11556	0,13615	0,13703
2576,43164	0,11566	0,11547	0,13604	0,13693
2574,50317	0,11551	0,11539	0,13597	0,13687
2572,57471	0,11547	0,11534	0,13589	0,13683
2570,64624	0,11537	0,11525	0,13582	0,13674
2568,71777	0,11527	0,11510	0,13575	0,13667
2566,78931	0,11521	0,11496	0,13568	0,13654
2564,86084	0,11511	0,11489	0,13567	0,13639
2562,93237	0,11500	0,11479	0,13562	0,13632
2561,00391	0,11492	0,11470	0,13552	0,13625
2559,07544	0,11483	0,11459	0,13543	0,13615
2557,14697	0,11469	0,11444	0,13533	0,13604
2555,21851	0,11456	0,11440	0,13530	0,13594
2553,29004	0,11447	0,11440	0,13529	0,13591
2551,36157	0,11440	0,11435	0,13517	0,13584
2549,43311	0,11432	0,11431	0,13503	0,13571
2547,50464	0,11422	0,11427	0,13504	0,13560
2545,57617	0,11413	0,11419	0,13503	0,13555
2543,64771	0,11412	0,11415	0,13494	0,13550
2541,71924	0,11412	0,11411	0,13492	0,13545
2539,79077	0,11394	0,11395	0,13487	0,13546
2537,8623	0,11384	0,11389	0,13477	0,13543
2535,93384	0,11390	0,11395	0,13470	0,13535
2534,00537	0,11376	0,11389	0,13456	0,13531

2532,0769	0,11364	0,11384	0,13451	0,13529
2530,14844	0,11364	0,11379	0,13459	0,13524
2528,21997	0,11350	0,11368	0,13455	0,13515
2526,2915	0,11341	0,11369	0,13448	0,13508
2524,36304	0,11345	0,11368	0,13448	0,13510
2522,43457	0,11340	0,11363	0,13445	0,13506
2520,5061	0,11331	0,11359	0,13442	0,13496
2518,57764	0,11326	0,11350	0,13438	0,13492
2516,64917	0,11321	0,11344	0,13430	0,13491
2514,7207	0,11315	0,11344	0,13429	0,13486
2512,79224	0,11312	0,11341	0,13431	0,13475
2510,86377	0,11308	0,11346	0,13423	0,13466
2508,9353	0,11298	0,11351	0,13416	0,13459
2507,00684	0,11287	0,11341	0,13415	0,13447
2505,07837	0,11282	0,11332	0,13412	0,13439
2503,1499	0,11274	0,11335	0,13405	0,13442
2501,22144	0,11266	0,11336	0,13399	0,13440
2499,29297	0,11265	0,11328	0,13399	0,13431
2497,3645	0,11258	0,11319	0,13400	0,13434
2495,43604	0,11251	0,11311	0,13392	0,13439
2493,50757	0,11253	0,11310	0,13383	0,13434
2491,5791	0,11248	0,11309	0,13386	0,13433
2489,65063	0,11242	0,11305	0,13383	0,13430
2487,72217	0,11239	0,11305	0,13372	0,13426
2485,7937	0,11230	0,11304	0,13368	0,13424
2483,86523	0,11220	0,11303	0,13366	0,13416
2481,93677	0,11216	0,11301	0,13362	0,13417
2480,0083	0,11215	0,11295	0,13358	0,13418
2478,07983	0,11207	0,11290	0,13352	0,13408
2476,15137	0,11198	0,11291	0,13346	0,13411
2474,2229	0,11200	0,11284	0,13341	0,13414
2472,29443	0,11192	0,11273	0,13338	0,13405
2470,36597	0,11183	0,11275	0,13335	0,13399
2468,4375	0,11184	0,11276	0,13334	0,13395
2466,50903	0,11177	0,11273	0,13335	0,13394
2464,58057	0,11167	0,11273	0,13326	0,13392
2462,6521	0,11162	0,11271	0,13321	0,13382
2460,72363	0,11156	0,11270	0,13323	0,13380
2458,79517	0,11150	0,11268	0,13312	0,13381
2456,8667	0,11150	0,11264	0,13308	0,13376
2454,93823	0,11143	0,11257	0,13311	0,13372
2453,00977	0,11130	0,11252	0,13304	0,13368
2451,0813	0,11129	0,11253	0,13299	0,13360
2449,15283	0,11127	0,11251	0,13295	0,13355
2447,22437	0,11118	0,11249	0,13286	0,13353
2445,2959	0,11118	0,11244	0,13276	0,13347
2443,36743	0,11112	0,11236	0,13276	0,13340
2441,43896	0,11104	0,11235	0,13278	0,13330

2439,5105	0,11109	0,11235	0,13269	0,13324
2437,58203	0,11104	0,11233	0,13265	0,13327
2435,65356	0,11097	0,11229	0,13270	0,13328
2433,7251	0,11098	0,11224	0,13262	0,13323
2431,79663	0,11088	0,11218	0,13248	0,13321
2429,86816	0,11078	0,11212	0,13249	0,13314
2427,9397	0,11076	0,11214	0,13247	0,13307
2426,01123	0,11072	0,11213	0,13236	0,13305
2424,08276	0,11068	0,11208	0,13238	0,13303
2422,1543	0,11061	0,11210	0,13242	0,13305
2420,22583	0,11058	0,11213	0,13237	0,13306
2418,29736	0,11056	0,11211	0,13234	0,13303
2416,3689	0,11048	0,11207	0,13229	0,13304
2414,44043	0,11044	0,11207	0,13222	0,13305
2412,51196	0,11041	0,11212	0,13222	0,13303
2410,5835	0,11038	0,11216	0,13224	0,13301
2408,65503	0,11038	0,11212	0,13222	0,13300
2406,72656	0,11033	0,11202	0,13217	0,13299
2404,7981	0,11031	0,11200	0,13213	0,13293
2402,86963	0,11029	0,11203	0,13210	0,13293
2400,94116	0,11018	0,11196	0,13203	0,13294
2399,0127	0,11015	0,11199	0,13200	0,13285
2397,08423	0,11011	0,11203	0,13198	0,13286
2395,15576	0,11008	0,11197	0,13195	0,13293
2393,22729	0,11004	0,11193	0,13193	0,13286
2391,29883	0,11001	0,11191	0,13190	0,13287
2389,37036	0,10997	0,11190	0,13187	0,13291
2387,44189	0,10994	0,11188	0,13185	0,13282
2385,51343	0,10990	0,11186	0,13182	0,13279
2383,58496	0,10987	0,11185	0,13180	0,13277
2381,65649	0,10983	0,11183	0,13177	0,13274
2379,72803	0,10980	0,11182	0,13175	0,13272
2377,79956	0,10977	0,11180	0,13172	0,13269
2375,87109	0,10973	0,11178	0,13170	0,13266
2373,94263	0,10970	0,11177	0,13167	0,13264
2372,01416	0,10966	0,11175	0,13165	0,13261
2370,08569	0,10963	0,11174	0,13162	0,13259
2368,15723	0,10959	0,11172	0,13160	0,13256
2366,22876	0,10956	0,11170	0,13157	0,13254
2364,30029	0,10952	0,11169	0,13155	0,13251
2362,37183	0,10949	0,11167	0,13152	0,13248
2360,44336	0,10945	0,11166	0,13149	0,13246
2358,51489	0,10942	0,11164	0,13147	0,13243
2356,58643	0,10938	0,11162	0,13144	0,13241
2354,65796	0,10935	0,11161	0,13142	0,13238
2352,72949	0,10932	0,11159	0,13139	0,13235
2350,80103	0,10928	0,11158	0,13137	0,13233
2348,87256	0,10925	0,11156	0,13134	0,13230

2346,94409	0,10921	0,11154	0,13132	0,13228
2345,01563	0,10918	0,11153	0,13129	0,13225
2343,08716	0,10914	0,11151	0,13127	0,13222
2341,15869	0,10911	0,11150	0,13124	0,13220
2339,23022	0,10907	0,11148	0,13122	0,13217
2337,30176	0,10904	0,11146	0,13119	0,13215
2335,37329	0,10900	0,11145	0,13117	0,13212
2333,44482	0,10897	0,11143	0,13114	0,13209
2331,51636	0,10893	0,11142	0,13111	0,13207
2329,58789	0,10890	0,11140	0,13109	0,13204
2327,65942	0,10886	0,11138	0,13106	0,13202
2325,73096	0,10883	0,11137	0,13104	0,13199
2323,80249	0,10880	0,11135	0,13101	0,13196
2321,87402	0,10876	0,11134	0,13099	0,13194
2319,94556	0,10873	0,11132	0,13096	0,13191
2318,01709	0,10869	0,11130	0,13094	0,13189
2316,08862	0,10866	0,11129	0,13091	0,13186
2314,16016	0,10862	0,11127	0,13089	0,13184
2312,23169	0,10859	0,11126	0,13086	0,13181
2310,30322	0,10855	0,11124	0,13084	0,13178
2308,37476	0,10852	0,11122	0,13081	0,13176
2306,44629	0,10848	0,11121	0,13079	0,13173
2304,51782	0,10845	0,11119	0,13076	0,13171
2302,58936	0,10841	0,11118	0,13073	0,13168
2300,66089	0,10838	0,11116	0,13071	0,13165
2298,73242	0,10834	0,11114	0,13068	0,13153
2296,80396	0,10831	0,11113	0,13066	0,13148
2294,87549	0,10828	0,11111	0,13063	0,13138
2292,94702	0,10824	0,11110	0,13061	0,13128
2291,01855	0,10821	0,11108	0,13058	0,13128
2289,09009	0,10817	0,11106	0,13056	0,13125
2287,16162	0,10814	0,11105	0,13053	0,13128
2285,23315	0,10810	0,11103	0,13051	0,13132
2283,30469	0,10807	0,11102	0,13048	0,13114
2281,37622	0,10803	0,11100	0,13046	0,13093
2279,44775	0,10800	0,11098	0,13043	0,13106
2277,51929	0,10796	0,11097	0,13041	0,13123
2275,59082	0,10793	0,11095	0,13038	0,13118
2273,66235	0,10789	0,11094	0,13035	0,13108
2271,73389	0,10786	0,11093	0,13033	0,13108
2269,80542	0,10782	0,11090	0,13030	0,13109
2267,87695	0,10773	0,11091	0,13028	0,13109
2265,94849	0,10771	0,11095	0,13025	0,13102
2264,02002	0,10769	0,11092	0,13023	0,13096
2262,09155	0,10759	0,11081	0,13020	0,13098
2260,16309	0,10754	0,11072	0,13018	0,13103
2258,23462	0,10752	0,11072	0,13013	0,13103
2256,30615	0,10741	0,11064	0,13007	0,13092



2254,37769	0,10732	0,11054	0,13001	0,13086
2252,44922	0,10730	0,11052	0,13005	0,13090
2250,52075	0,10716	0,11041	0,13003	0,13083
2248,59229	0,10701	0,11030	0,13001	0,13074
2246,66382	0,10698	0,11024	0,13001	0,13074
2244,73535	0,10696	0,11013	0,12991	0,13065
2242,80688	0,10697	0,11013	0,12992	0,13058
2240,87842	0,10695	0,11016	0,12991	0,13064
2238,94995	0,10680	0,11006	0,12982	0,13064
2237,02148	0,10669	0,10995	0,12982	0,13059
2235,09302	0,10664	0,10991	0,12978	0,13055
2233,16455	0,10659	0,10993	0,12976	0,13048
2231,23608	0,10657	0,10996	0,12978	0,13041
2229,30762	0,10652	0,10988	0,12970	0,13037
2227,37915	0,10645	0,10978	0,12964	0,13032
2225,45068	0,10644	0,10980	0,12965	0,13031
2223,52222	0,10642	0,10984	0,12967	0,13031
2221,59375	0,10632	0,10980	0,12967	0,13025
2219,66528	0,10619	0,10970	0,12963	0,13016
2217,73682	0,10622	0,10967	0,12960	0,13014
2215,80835	0,10627	0,10973	0,12960	0,13023
2213,87988	0,10615	0,10964	0,12958	0,13022
2211,95142	0,10603	0,10948	0,12950	0,13006
2210,02295	0,10601	0,10952	0,12947	0,13003
2208,09448	0,10598	0,10960	0,12940	0,13008
2206,16602	0,10589	0,10950	0,12930	0,13001
2204,23755	0,10579	0,10939	0,12927	0,12986
2202,30908	0,10572	0,10939	0,12928	0,12977
2200,38062	0,10564	0,10933	0,12926	0,12980
2198,45215	0,10560	0,10925	0,12920	0,12975
2196,52368	0,10553	0,10923	0,12911	0,12964
2194,59521	0,10544	0,10919	0,12899	0,12961
2192,66675	0,10541	0,10913	0,12894	0,12951
2190,73828	0,10541	0,10914	0,12899	0,12941
2188,80981	0,10537	0,10914	0,12899	0,12940
2186,88135	0,10533	0,10909	0,12893	0,12935
2184,95288	0,10527	0,10904	0,12882	0,12930
2183,02441	0,10520	0,10897	0,12879	0,12934
2181,09595	0,10513	0,10886	0,12879	0,12934
2179,16748	0,10509	0,10885	0,12869	0,12924
2177,23901	0,10506	0,10891	0,12865	0,12921
2175,31055	0,10500	0,10884	0,12866	0,12922
2173,38208	0,10500	0,10880	0,12862	0,12918
2171,45361	0,10483	0,10869	0,12853	0,12912
2169,52515	0,10464	0,10847	0,12840	0,12897
2167,59668	0,10482	0,10864	0,12836	0,12894
2165,66821	0,10491	0,10882	0,12839	0,12904
2163,73975	0,10479	0,10873	0,12835	0,12894

2161,81128	0,10479	0,10871	0,12832	0,12882
2159,88281	0,10472	0,10864	0,12833	0,12882
2157,95435	0,10464	0,10855	0,12829	0,12874
2156,02588	0,10466	0,10850	0,12828	0,12868
2154,09741	0,10461	0,10843	0,12829	0,12867
2152,16895	0,10454	0,10837	0,12822	0,12860
2150,24048	0,10452	0,10829	0,12820	0,12851
2148,31201	0,10446	0,10822	0,12818	0,12841
2146,38354	0,10437	0,10811	0,12806	0,12833
2144,45508	0,10434	0,10798	0,12801	0,12835
2142,52661	0,10438	0,10800	0,12803	0,12840
2140,59814	0,10434	0,10798	0,12807	0,12838
2138,66968	0,10428	0,10791	0,12806	0,12835
2136,74121	0,10420	0,10785	0,12800	0,12837
2134,81274	0,10410	0,10777	0,12795	0,12828
2132,88428	0,10411	0,10772	0,12790	0,12815
2130,95581	0,10412	0,10773	0,12784	0,12818
2129,02734	0,10403	0,10769	0,12779	0,12818
2127,09888	0,10397	0,10760	0,12780	0,12808
2125,17041	0,10385	0,10756	0,12774	0,12798
2123,24194	0,10371	0,10751	0,12765	0,12790
2121,31348	0,10365	0,10750	0,12761	0,12784
2119,38501	0,10361	0,10749	0,12749	0,12773
2117,45654	0,10352	0,10740	0,12743	0,12770
2115,52808	0,10338	0,10737	0,12751	0,12773
2113,59961	0,10327	0,10730	0,12751	0,12768
2111,67114	0,10323	0,10724	0,12753	0,12768
2109,74268	0,10326	0,10721	0,12753	0,12767
2107,81421	0,10322	0,10706	0,12740	0,12759
2105,88574	0,10310	0,10693	0,12737	0,12749
2103,95728	0,10304	0,10682	0,12731	0,12740
2102,02881	0,10298	0,10665	0,12715	0,12727
2100,10034	0,10286	0,10656	0,12709	0,12714
2098,17188	0,10280	0,10650	0,12701	0,12712
2096,24341	0,10278	0,10638	0,12695	0,12710
2094,31494	0,10269	0,10629	0,12700	0,12695
2092,38647	0,10259	0,10624	0,12697	0,12681
2090,45801	0,10249	0,10617	0,12693	0,12671
2088,52954	0,10244	0,10609	0,12679	0,12656
2086,60107	0,10244	0,10597	0,12669	0,12642
2084,67261	0,10242	0,10583	0,12678	0,12632
2082,74414	0,10237	0,10575	0,12675	0,12624
2080,81567	0,10229	0,10570	0,12670	0,12618
2078,88721	0,10229	0,10575	0,12672	0,12615
2076,95874	0,10225	0,10575	0,12670	0,12616
2075,03027	0,10202	0,10558	0,12668	0,12612
2073,10181	0,10196	0,10555	0,12666	0,12608
2071,17334	0,10200	0,10564	0,12664	0,12609

2069,24487	0,10189	0,10566	0,12653	0,12607
2067,31641	0,10180	0,10572	0,12655	0,12602
2065,38794	0,10170	0,10571	0,12674	0,12600
2063,45947	0,10162	0,10561	0,12658	0,12601
2061,53101	0,10163	0,10561	0,12643	0,12604
2059,60254	0,10164	0,10579	0,12657	0,12605
2057,67407	0,10166	0,10587	0,12651	0,12600
2055,74561	0,10165	0,10582	0,12646	0,12597
2053,81714	0,10163	0,10588	0,12649	0,12594
2051,88867	0,10158	0,10592	0,12644	0,12598
2049,96021	0,10143	0,10584	0,12655	0,12607
2048,03174	0,10131	0,10580	0,12673	0,12602
2046,10327	0,10129	0,10581	0,12670	0,12604
2044,1748	0,10128	0,10580	0,12669	0,12619
2042,24634	0,10125	0,10584	0,12692	0,12616
2040,31787	0,10125	0,10584	0,12700	0,12621
2038,3894	0,10124	0,10580	0,12699	0,12632
2036,46094	0,10118	0,10579	0,12705	0,12622
2034,53247	0,10111	0,10574	0,12709	0,12620
2032,604	0,10107	0,10565	0,12713	0,12623
2030,67554	0,10101	0,10554	0,12712	0,12618
2028,74707	0,10095	0,10546	0,12716	0,12611
2026,8186	0,10092	0,10540	0,12721	0,12600
2024,89014	0,10090	0,10537	0,12721	0,12590
2022,96167	0,10080	0,10533	0,12722	0,12586
2021,0332	0,10074	0,10522	0,12709	0,12586
2019,10474	0,10067	0,10521	0,12718	0,12587
2017,17627	0,10047	0,10526	0,12749	0,12582
2015,2478	0,10050	0,10523	0,12736	0,12585
2013,31934	0,10063	0,10519	0,12729	0,12600
2011,39087	0,10058	0,10512	0,12745	0,12604
2009,4624	0,10060	0,10511	0,12747	0,12600
2007,53394	0,10059	0,10513	0,12759	0,12597
2005,60547	0,10046	0,10508	0,12764	0,12595
2003,677	0,10040	0,10506	0,12763	0,12596
2001,74854	0,10034	0,10506	0,12753	0,12605
1999,82007	0,10032	0,10514	0,12750	0,12606
1997,8916	0,10029	0,10516	0,12757	0,12596
1995,96313	0,10024	0,10505	0,12733	0,12594
1994,03467	0,10021	0,10522	0,12754	0,12592
1992,1062	0,09992	0,10528	0,12793	0,12587
1990,17773	0,09977	0,10506	0,12753	0,12588
1988,24927	0,09989	0,10512	0,12737	0,12582
1986,3208	0,09987	0,10513	0,12738	0,12579
1984,39233	0,09979	0,10509	0,12726	0,12584
1982,46387	0,09973	0,10518	0,12728	0,12581
1980,5354	0,09969	0,10504	0,12716	0,12574
1978,60693	0,09968	0,10489	0,12723	0,12576

1976,67847	0,09960	0,10488	0,12730	0,12580
1974,75	0,09956	0,10486	0,12725	0,12575
1972,82153	0,09943	0,10490	0,12730	0,12572
1970,89307	0,09940	0,10493	0,12710	0,12569
1968,9646	0,09944	0,10502	0,12714	0,12558
1967,03613	0,09915	0,10501	0,12734	0,12547
1965,10767	0,09907	0,10479	0,12686	0,12547
1963,1792	0,09933	0,10477	0,12662	0,12553
1961,25073	0,09936	0,10484	0,12673	0,12549
1959,32227	0,09925	0,10477	0,12659	0,12542
1957,3938	0,09921	0,10477	0,12657	0,12537
1955,46533	0,09918	0,10473	0,12665	0,12522
1953,53687	0,09910	0,10455	0,12666	0,12516
1951,6084	0,09896	0,10435	0,12653	0,12516
1949,67993	0,09895	0,10428	0,12650	0,12504
1947,75146	0,09884	0,10416	0,12649	0,12496
1945,823	0,09877	0,10407	0,12633	0,12486
1943,89453	0,09877	0,10432	0,12689	0,12461
1941,96606	0,09839	0,10412	0,12702	0,12451
1940,0376	0,09846	0,10369	0,12619	0,12464
1938,10913	0,09877	0,10382	0,12619	0,12468
1936,18066	0,09865	0,10388	0,12631	0,12466
1934,2522	0,09852	0,10380	0,12617	0,12461
1932,32373	0,09847	0,10377	0,12607	0,12451
1930,39526	0,09849	0,10382	0,12603	0,12449
1928,4668	0,09837	0,10379	0,12605	0,12451
1926,53833	0,09832	0,10365	0,12575	0,12449
1924,60986	0,09835	0,10381	0,12628	0,12438
1922,6814	0,09772	0,10350	0,12663	0,12417
1920,75293	0,09785	0,10322	0,12599	0,12410
1918,82446	0,09833	0,10354	0,12635	0,12407
1916,896	0,09766	0,10315	0,12636	0,12391
1914,96753	0,09763	0,10293	0,12579	0,12385
1913,03906	0,09801	0,10325	0,12612	0,12387
1911,1106	0,09768	0,10315	0,12656	0,12377
1909,18213	0,09740	0,10297	0,12670	0,12360
1907,25366	0,09748	0,10289	0,12650	0,12351
1905,3252	0,09760	0,10281	0,12636	0,12351
1903,39673	0,09767	0,10281	0,12645	0,12351
1901,46826	0,09760	0,10277	0,12658	0,12341
1899,53979	0,09749	0,10251	0,12657	0,12333
1897,61133	0,09757	0,10255	0,12672	0,12320
1895,68286	0,09742	0,10274	0,12732	0,12298
1893,75439	0,09723	0,10236	0,12681	0,12304
1891,82593	0,09748	0,10245	0,12671	0,12306
1889,89746	0,09719	0,10263	0,12774	0,12280
1887,96899	0,09692	0,10212	0,12701	0,12274
1886,04053	0,09731	0,10223	0,12667	0,12292

1884,11206	0,09728	0,10242	0,12719	0,12297
1882,18359	0,09721	0,10228	0,12689	0,12287
1880,25513	0,09726	0,10227	0,12695	0,12282
1878,32666	0,09701	0,10211	0,12704	0,12284
1876,39819	0,09707	0,10215	0,12692	0,12283
1874,46973	0,09703	0,10217	0,12699	0,12280
1872,54126	0,09693	0,10219	0,12688	0,12277
1870,61279	0,09718	0,10268	0,12748	0,12269
1868,68433	0,09629	0,10253	0,12848	0,12242
1866,75586	0,09580	0,10191	0,12741	0,12240
1864,82739	0,09658	0,10223	0,12672	0,12272
1862,89893	0,09682	0,10242	0,12680	0,12295
1860,97046	0,09667	0,10239	0,12672	0,12300
1859,04199	0,09669	0,10243	0,12652	0,12296
1857,11353	0,09661	0,10223	0,12628	0,12288
1855,18506	0,09668	0,10222	0,12608	0,12296
1853,25659	0,09654	0,10220	0,12594	0,12294
1851,32813	0,09676	0,10226	0,12589	0,12292
1849,39966	0,09653	0,10229	0,12604	0,12278
1847,47119	0,09615	0,10235	0,12626	0,12236
1845,54272	0,09684	0,10284	0,12623	0,12246
1843,61426	0,09590	0,10208	0,12575	0,12245
1841,68579	0,09549	0,10141	0,12507	0,12222
1839,75732	0,09628	0,10202	0,12524	0,12237
1837,82886	0,09629	0,10222	0,12522	0,12239
1835,90039	0,09591	0,10195	0,12531	0,12227
1833,97192	0,09607	0,10189	0,12474	0,12243
1832,04346	0,09646	0,10244	0,12542	0,12229
1830,11499	0,09558	0,10231	0,12661	0,12184
1828,18652	0,09513	0,10145	0,12509	0,12188
1826,25806	0,09589	0,10192	0,12524	0,12201
1824,32959	0,09539	0,10185	0,12577	0,12189
1822,40112	0,09532	0,10144	0,12459	0,12204
1820,47266	0,09603	0,10176	0,12465	0,12219
1818,54419	0,09580	0,10170	0,12517	0,12202
1816,61572	0,09561	0,10152	0,12494	0,12201
1814,68726	0,09574	0,10149	0,12467	0,12208
1812,75879	0,09564	0,10161	0,12520	0,12190
1810,83032	0,09530	0,10155	0,12577	0,12168
1808,90186	0,09520	0,10124	0,12526	0,12161
1806,97339	0,09539	0,10126	0,12490	0,12160
1805,04492	0,09541	0,10116	0,12483	0,12152
1803,11646	0,09532	0,10114	0,12521	0,12121
1801,18799	0,09487	0,10097	0,12583	0,12061
1799,25952	0,09474	0,10035	0,12502	0,12054
1797,33105	0,09468	0,10025	0,12482	0,12061
1795,40259	0,09484	0,10055	0,12518	0,12038
1793,47412	0,09557	0,10094	0,12490	0,12048

1791,54565	0,09415	0,10048	0,12557	0,12032
1789,61719	0,09379	0,09994	0,12462	0,12041
1787,68872	0,09499	0,10061	0,12436	0,12083
1785,76025	0,09503	0,10091	0,12484	0,12087
1783,83179	0,09463	0,10051	0,12432	0,12074
1781,90332	0,09453	0,10060	0,12482	0,12049
1779,97485	0,09435	0,10059	0,12522	0,12028
1778,04639	0,09448	0,10014	0,12424	0,12040
1776,11792	0,09436	0,10015	0,12488	0,12010
1774,18945	0,09537	0,10092	0,12462	0,12031
1772,26099	0,09459	0,10030	0,12416	0,12021
1770,33252	0,09362	0,09937	0,12413	0,11952
1768,40405	0,09464	0,10014	0,12439	0,11978
1766,47559	0,09433	0,09949	0,12313	0,11997
1764,54712	0,09441	0,09963	0,12360	0,11968
1762,61865	0,09516	0,10044	0,12413	0,11985
1760,69019	0,09374	0,09916	0,12319	0,11962
1758,76172	0,09423	0,09956	0,12343	0,11950
1756,83325	0,09446	0,09990	0,12371	0,11961
1754,90479	0,09375	0,09900	0,12291	0,11945
1752,97632	0,09502	0,09982	0,12277	0,11968
1751,04785	0,09480	0,10016	0,12378	0,11963
1749,11938	0,09273	0,09900	0,12457	0,11882
1747,19092	0,09336	0,09932	0,12450	0,11889
1745,26245	0,09389	0,09944	0,12363	0,11937
1743,33398	0,09327	0,09912	0,12402	0,11902
1741,40552	0,09454	0,09976	0,12366	0,11926
1739,47705	0,09415	0,09908	0,12270	0,11955
1737,54858	0,09318	0,09857	0,12334	0,11895
1735,62012	0,09593	0,10035	0,12264	0,11961
1733,69165	0,09431	0,09957	0,12215	0,11986
1731,76318	0,09255	0,09797	0,12175	0,11884
1729,83472	0,09358	0,09930	0,12449	0,11876
1727,90625	0,09393	0,09871	0,12218	0,11945
1725,97778	0,09390	0,09873	0,12268	0,11925
1724,04932	0,09421	0,09914	0,12314	0,11938
1722,12085	0,09345	0,09842	0,12245	0,11926
1720,19238	0,09413	0,09916	0,12360	0,11902
1718,26392	0,09432	0,09967	0,12342	0,11932
1716,33545	0,09247	0,09795	0,12173	0,11922
1714,40698	0,09240	0,09799	0,12332	0,11886
1712,47852	0,09346	0,09865	0,12342	0,11941
1710,55005	0,09357	0,09840	0,12265	0,11967
1708,62158	0,09355	0,09865	0,12396	0,11916
1706,69312	0,09419	0,09927	0,12435	0,11930
1704,76465	0,09201	0,09790	0,12459	0,11884
1702,83618	0,09364	0,09882	0,12427	0,11905
1700,90771	0,09565	0,10018	0,12445	0,12006

1698,97925	0,09132	0,09657	0,12200	0,11864
1697,05078	0,09320	0,09827	0,12243	0,11862
1695,12231	0,09399	0,09880	0,12179	0,12000
1693,19385	0,09257	0,09752	0,12245	0,11937
1691,26538	0,09435	0,09932	0,12427	0,11953
1689,33691	0,09365	0,09887	0,12440	0,11977
1687,40845	0,09335	0,09855	0,12493	0,11920
1685,47998	0,09664	0,10037	0,12262	0,12040
1683,55151	0,09229	0,09795	0,12427	0,11965
1681,62305	0,09245	0,09751	0,12476	0,11911
1679,69458	0,09382	0,09830	0,12436	0,11971
1677,76611	0,09461	0,09850	0,12386	0,12001
1675,83765	0,09546	0,09902	0,12413	0,12032
1673,90918	0,09412	0,09781	0,12318	0,12018
1671,98071	0,09422	0,09811	0,12420	0,11983
1670,05225	0,09502	0,09913	0,12551	0,12017
1668,12378	0,09361	0,09727	0,12363	0,12045
1666,19531	0,09449	0,09767	0,12355	0,12060
1664,26685	0,09617	0,09886	0,12354	0,12120
1662,33838	0,09467	0,09794	0,12423	0,12092
1660,40991	0,09503	0,09787	0,12354	0,12115
1658,48145	0,09590	0,09828	0,12259	0,12174
1656,55298	0,09516	0,09836	0,12528	0,12088
1654,62451	0,09775	0,09999	0,12431	0,12137
1652,69604	0,09374	0,09813	0,12326	0,12240
1650,76758	0,09401	0,09579	0,12018	0,12147
1648,83911	0,09495	0,09824	0,12691	0,12044
1646,91064	0,09496	0,09875	0,12615	0,12108
1644,98218	0,09418	0,09614	0,12191	0,12146
1643,05371	0,09513	0,09719	0,12423	0,12144
1641,12524	0,09578	0,09745	0,12372	0,12201
1639,19678	0,09499	0,09708	0,12473	0,12147
1637,26831	0,09596	0,09793	0,12513	0,12135
1635,33984	0,09447	0,09709	0,12492	0,12146
1633,41138	0,09359	0,09531	0,12283	0,12129
1631,48291	0,09427	0,09609	0,12398	0,12115
1629,55444	0,09475	0,09665	0,12400	0,12118
1627,62598	0,09325	0,09581	0,12440	0,12077
1625,69751	0,09341	0,09562	0,12392	0,12077
1623,76904	0,09348	0,09588	0,12429	0,12065
1621,84058	0,09197	0,09447	0,12353	0,12030
1619,91211	0,09240	0,09471	0,12390	0,12007
1617,98364	0,09433	0,09597	0,12254	0,12052
1616,05518	0,09301	0,09512	0,12141	0,12053
1614,12671	0,09246	0,09518	0,12312	0,12020
1612,19824	0,09336	0,09641	0,12424	0,12048
1610,26978	0,09338	0,09650	0,12391	0,12057
1608,34131	0,09291	0,09636	0,12474	0,12015

1606,41284	0,09324	0,09662	0,12422	0,12024
1604,48438	0,09327	0,09672	0,12408	0,12029
1602,55591	0,09318	0,09686	0,12450	0,12012
1600,62744	0,09314	0,09697	0,12412	0,11998
1598,69897	0,09325	0,09705	0,12389	0,12001
1596,77051	0,09326	0,09713	0,12415	0,11994
1594,84204	0,09295	0,09723	0,12434	0,11967
1592,91357	0,09301	0,09729	0,12387	0,11961
1590,98511	0,09298	0,09715	0,12373	0,11944
1589,05664	0,09282	0,09712	0,12384	0,11938
1587,12817	0,09293	0,09711	0,12317	0,11962
1585,19971	0,09274	0,09704	0,12338	0,11947
1583,27124	0,09306	0,09732	0,12326	0,11946
1581,34277	0,09285	0,09711	0,12288	0,11937
1579,41431	0,09235	0,09709	0,12418	0,11891
1577,48584	0,09402	0,09815	0,12258	0,11942
1575,55737	0,09234	0,09702	0,12107	0,11931
1573,62891	0,09128	0,09626	0,12228	0,11876
1571,70044	0,09307	0,09802	0,12385	0,11908
1569,77197	0,09191	0,09782	0,12409	0,11882
1567,84351	0,09082	0,09670	0,12307	0,11847
1565,91504	0,09242	0,09795	0,12319	0,11902
1563,98657	0,09139	0,09725	0,12335	0,11881
1562,05811	0,09210	0,09763	0,12317	0,11881
1560,12964	0,09455	0,10016	0,12391	0,11979
1558,20117	0,08748	0,09564	0,12401	0,11866
1556,27271	0,09035	0,09598	0,12222	0,11859
1554,34424	0,09183	0,09712	0,12238	0,11935
1552,41577	0,09175	0,09671	0,12178	0,11942
1550,4873	0,09128	0,09738	0,12460	0,11881
1548,55884	0,09139	0,09693	0,12347	0,11922
1546,63037	0,09231	0,09708	0,12263	0,11960
1544,7019	0,09148	0,09756	0,12508	0,11926
1542,77344	0,09094	0,09687	0,12450	0,11921
1540,84497	0,09257	0,09794	0,12325	0,11972
1538,9165	0,08894	0,09557	0,12195	0,11946
1536,98804	0,09016	0,09534	0,12210	0,11955
1535,05957	0,09197	0,09744	0,12456	0,11986
1533,1311	0,09013	0,09698	0,12571	0,11950
1531,20264	0,09014	0,09569	0,12353	0,11969
1529,27417	0,09154	0,09713	0,12442	0,12002
1527,3457	0,09097	0,09748	0,12528	0,11973
1525,41724	0,09029	0,09632	0,12426	0,11952
1523,48877	0,09126	0,09721	0,12483	0,11975
1521,5603	0,09022	0,09671	0,12414	0,11976
1519,63184	0,08996	0,09537	0,12233	0,11956
1517,70337	0,08998	0,09650	0,12568	0,11914
1515,7749	0,08925	0,09601	0,12531	0,11885



1513,84644	0,09035	0,09578	0,12345	0,11917
1511,91797	0,09100	0,09614	0,12337	0,11949
1509,9895	0,08963	0,09615	0,12536	0,11869
1508,06104	0,09031	0,09755	0,12587	0,11867
1506,13257	0,08760	0,09578	0,12373	0,11878
1504,2041	0,08907	0,09424	0,12022	0,11904
1502,27563	0,09018	0,09587	0,12322	0,11927
1500,34717	0,09048	0,09614	0,12291	0,11946
1498,4187	0,09025	0,09607	0,12330	0,11902
1496,49023	0,09031	0,09574	0,12170	0,11929
1494,56177	0,08985	0,09489	0,12054	0,11945
1492,6333	0,09039	0,09580	0,12275	0,11932
1490,70483	0,09018	0,09627	0,12404	0,11895
1488,77637	0,08866	0,09531	0,12437	0,11831
1486,8479	0,08931	0,09514	0,12283	0,11857
1484,91943	0,09013	0,09537	0,12142	0,11898
1482,99097	0,09025	0,09568	0,12216	0,11887
1481,0625	0,08994	0,09555	0,12243	0,11856
1479,13403	0,09020	0,09538	0,12167	0,11868
1477,20557	0,08990	0,09536	0,12280	0,11842
1475,2771	0,08942	0,09524	0,12312	0,11801
1473,34863	0,08993	0,09530	0,12196	0,11810
1471,42017	0,08881	0,09424	0,12175	0,11770
1469,4917	0,08929	0,09420	0,12125	0,11793
1467,56323	0,09078	0,09517	0,12111	0,11842
1465,63477	0,09031	0,09528	0,12239	0,11790
1463,7063	0,08998	0,09450	0,12109	0,11791
1461,77783	0,09033	0,09449	0,12059	0,11814
1459,84937	0,09040	0,09538	0,12284	0,11761
1457,9209	0,09014	0,09570	0,12290	0,11756
1455,99243	0,08907	0,09324	0,11890	0,11782
1454,06396	0,08919	0,09381	0,12102	0,11738
1452,1355	0,09012	0,09440	0,12126	0,11771
1450,20703	0,09041	0,09418	0,12023	0,11783
1448,27856	0,09001	0,09438	0,12138	0,11721
1446,3501	0,08979	0,09395	0,12033	0,11715
1444,42163	0,09034	0,09400	0,11990	0,11734
1442,49316	0,09060	0,09401	0,11977	0,11741
1440,5647	0,08992	0,09351	0,11967	0,11724
1438,63623	0,09078	0,09411	0,11964	0,11733
1436,70776	0,09016	0,09380	0,12027	0,11693
1434,7793	0,08889	0,09237	0,11923	0,11656
1432,85083	0,08968	0,09303	0,11998	0,11666
1430,92236	0,09009	0,09341	0,12029	0,11676
1428,9939	0,08897	0,09279	0,11992	0,11663
1427,06543	0,08960	0,09296	0,11907	0,11682
1425,13696	0,08965	0,09311	0,11965	0,11660
1423,2085	0,08845	0,09251	0,12013	0,11618

1421,28003	0,08971	0,09286	0,11865	0,11661
1419,35156	0,08950	0,09305	0,11935	0,11636
1417,4231	0,08757	0,09202	0,11996	0,11572
1415,49463	0,08844	0,09235	0,11936	0,11611
1413,56616	0,08898	0,09254	0,11830	0,11644
1411,6377	0,08832	0,09231	0,11863	0,11620
1409,70923	0,08820	0,09217	0,11822	0,11632
1407,78076	0,08832	0,09210	0,11785	0,11640
1405,85229	0,08795	0,09220	0,11898	0,11611
1403,92383	0,08737	0,09169	0,11880	0,11614
1401,99536	0,08797	0,09188	0,11814	0,11639
1400,06689	0,08797	0,09237	0,11880	0,11631
1398,13843	0,08695	0,09183	0,11910	0,11604
1396,20996	0,08729	0,09194	0,11903	0,11592
1394,28149	0,08716	0,09216	0,11911	0,11595
1392,35303	0,08703	0,09180	0,11811	0,11628
1390,42456	0,08749	0,09215	0,11819	0,11633
1388,49609	0,08745	0,09229	0,11849	0,11631
1386,56763	0,08636	0,09130	0,11803	0,11602
1384,63916	0,08604	0,09070	0,11728	0,11565
1382,71069	0,08672	0,09116	0,11734	0,11609
1380,78223	0,08718	0,09171	0,11811	0,11676
1378,85376	0,08713	0,09178	0,11827	0,11699
1376,92529	0,08722	0,09200	0,11841	0,11713
1374,99683	0,08674	0,09205	0,11965	0,11678
1373,06836	0,08645	0,09164	0,11937	0,11670
1371,13989	0,08717	0,09197	0,11844	0,11722
1369,21143	0,08713	0,09235	0,11905	0,11710
1367,28296	0,08689	0,09207	0,11869	0,11701
1365,35449	0,08735	0,09223	0,11846	0,11709
1363,42603	0,08681	0,09246	0,11991	0,11646
1361,49756	0,08620	0,09202	0,11952	0,11627
1359,56909	0,08681	0,09193	0,11832	0,11676
1357,64063	0,08692	0,09208	0,11847	0,11675
1355,71216	0,08673	0,09200	0,11843	0,11662
1353,78369	0,08672	0,09182	0,11798	0,11665
1351,85522	0,08659	0,09187	0,11784	0,11647
1349,92676	0,08658	0,09201	0,11797	0,11635
1347,99829	0,08669	0,09197	0,11807	0,11644
1346,06982	0,08665	0,09181	0,11819	0,11641
1344,14136	0,08667	0,09170	0,11806	0,11638
1342,21289	0,08658	0,09186	0,11826	0,11625
1340,28442	0,08591	0,09201	0,11913	0,11579
1338,35596	0,08565	0,09181	0,11895	0,11576
1336,42749	0,08613	0,09172	0,11820	0,11605
1334,49902	0,08647	0,09187	0,11818	0,11603
1332,57056	0,08674	0,09209	0,11823	0,11597
1330,64209	0,08686	0,09221	0,11823	0,11599

1328,71362	0,08688	0,09221	0,11831	0,11588
1326,78516	0,08693	0,09233	0,11823	0,11583
1324,85669	0,08672	0,09242	0,11812	0,11580
1322,92822	0,08655	0,09235	0,11803	0,11565
1320,99976	0,08650	0,09239	0,11825	0,11550
1319,07129	0,08624	0,09245	0,11880	0,11528
1317,14282	0,08631	0,09240	0,11861	0,11515
1315,21436	0,08663	0,09245	0,11833	0,11528
1313,28589	0,08655	0,09250	0,11863	0,11542
1311,35742	0,08659	0,09258	0,11856	0,11555
1309,42896	0,08692	0,09274	0,11854	0,11567
1307,50049	0,08700	0,09281	0,11893	0,11578
1305,57202	0,08718	0,09306	0,11927	0,11586
1303,64355	0,08751	0,09347	0,11945	0,11599
1301,71509	0,08758	0,09362	0,11946	0,11617
1299,78662	0,08758	0,09360	0,11960	0,11632
1297,85815	0,08767	0,09370	0,11976	0,11653
1295,92969	0,08775	0,09384	0,11982	0,11662
1294,00122	0,08771	0,09388	0,11991	0,11668
1292,07275	0,08782	0,09396	0,11988	0,11680
1290,14429	0,08810	0,09421	0,11985	0,11664
1288,21582	0,08807	0,09429	0,11994	0,11675
1286,28735	0,08815	0,09409	0,12001	0,11708
1284,35889	0,08847	0,09427	0,12006	0,11711
1282,43042	0,08850	0,09466	0,12019	0,11750
1280,50195	0,08860	0,09466	0,12058	0,11828
1278,57349	0,08885	0,09475	0,12105	0,11895
1276,64502	0,08901	0,09500	0,12150	0,11966
1274,71655	0,08927	0,09516	0,12214	0,12029
1272,78809	0,08957	0,09547	0,12274	0,12093
1270,85962	0,08986	0,09578	0,12297	0,12173
1268,93115	0,09031	0,09593	0,12302	0,12233
1267,00269	0,09077	0,09612	0,12327	0,12282
1265,07422	0,09122	0,09636	0,12357	0,12344
1263,14575	0,09162	0,09656	0,12367	0,12402
1261,21729	0,09181	0,09674	0,12394	0,12441
1259,28882	0,09214	0,09689	0,12436	0,12467
1257,36035	0,09271	0,09692	0,12439	0,12499
1255,43188	0,09309	0,09697	0,12429	0,12531
1253,50342	0,09352	0,09709	0,12452	0,12569
1251,57495	0,09416	0,09712	0,12492	0,12621
1249,64648	0,09474	0,09729	0,12528	0,12678
1247,71802	0,09542	0,09765	0,12569	0,12728
1245,78955	0,09621	0,09785	0,12614	0,12747
1243,86108	0,09696	0,09797	0,12646	0,12767
1241,93262	0,09771	0,09826	0,12667	0,12800
1240,00415	0,09844	0,09856	0,12695	0,12809
1238,07568	0,09932	0,09896	0,12738	0,12836

1236,14722	0,10018	0,09950	0,12773	0,12865
1234,21875	0,10067	0,09973	0,12794	0,12871
1232,29028	0,10127	0,09996	0,12818	0,12908
1230,36182	0,10213	0,10045	0,12837	0,12938
1228,43335	0,10294	0,10087	0,12855	0,12932
1226,50488	0,10365	0,10132	0,12886	0,12946
1224,57642	0,10427	0,10188	0,12910	0,12975
1222,64795	0,10486	0,10240	0,12927	0,12990
1220,71948	0,10552	0,10289	0,12973	0,13016
1218,79102	0,10612	0,10325	0,13036	0,13056
1216,86255	0,10656	0,10348	0,13078	0,13074
1214,93408	0,10712	0,10397	0,13122	0,13087
1213,00562	0,10787	0,10465	0,13189	0,13128
1211,07715	0,10851	0,10528	0,13248	0,13179
1209,14868	0,10936	0,10603	0,13292	0,13232
1207,22021	0,11018	0,10653	0,13341	0,13287
1205,29175	0,11068	0,10678	0,13405	0,13340
1203,36328	0,11130	0,10740	0,13476	0,13402
1201,43481	0,11184	0,10820	0,13539	0,13462
1199,50635	0,11215	0,10876	0,13620	0,13499
1197,57788	0,11255	0,10914	0,13688	0,13545
1195,64941	0,11301	0,10962	0,13698	0,13622
1193,72095	0,11342	0,11025	0,13744	0,13684
1191,79248	0,11374	0,11077	0,13825	0,13729
1189,86401	0,11405	0,11136	0,13863	0,13792
1187,93555	0,11425	0,11203	0,13911	0,13859
1186,00708	0,11445	0,11268	0,13995	0,13925
1184,07861	0,11492	0,11332	0,14065	0,14008
1182,15015	0,11537	0,11394	0,14124	0,14098
1180,22168	0,11578	0,11456	0,14191	0,14195
1178,29321	0,11641	0,11508	0,14247	0,14301
1176,36475	0,11702	0,11564	0,14302	0,14390
1174,43628	0,11751	0,11625	0,14379	0,14463
1172,50781	0,11790	0,11667	0,14453	0,14541
1170,57935	0,11815	0,11716	0,14507	0,14598
1168,65088	0,11857	0,11771	0,14558	0,14650
1166,72241	0,11918	0,11810	0,14619	0,14739
1164,79395	0,11955	0,11858	0,14673	0,14826
1162,86548	0,11978	0,11900	0,14726	0,14888
1160,93701	0,12013	0,11910	0,14814	0,14943
1159,00854	0,12044	0,11928	0,14885	0,14987
1157,08008	0,12074	0,11984	0,14884	0,15028
1155,15161	0,12118	0,12039	0,14901	0,15078
1153,22314	0,12154	0,12070	0,14956	0,15125
1151,29468	0,12177	0,12120	0,14977	0,15165
1149,36621	0,12201	0,12187	0,15006	0,15218
1147,43774	0,12229	0,12232	0,15068	0,15273
1145,50928	0,12259	0,12273	0,15121	0,15316

1143,58081	0,12288	0,12328	0,15169	0,15373
1141,65234	0,12319	0,12368	0,15208	0,15420
1139,72388	0,12362	0,12414	0,15254	0,15455
1137,79541	0,12390	0,12464	0,15317	0,15512
1135,86694	0,12403	0,12495	0,15344	0,15550
1133,93848	0,12441	0,12540	0,15366	0,15583
1132,01001	0,12464	0,12572	0,15420	0,15632
1130,08154	0,12456	0,12554	0,15447	0,15629
1128,15308	0,12474	0,12559	0,15453	0,15597
1126,22461	0,12495	0,12603	0,15469	0,15608
1124,29614	0,12498	0,12632	0,15500	0,15652
1122,36768	0,12505	0,12647	0,15509	0,15682
1120,43921	0,12523	0,12691	0,15468	0,15690
1118,51074	0,12539	0,12753	0,15478	0,15708
1116,58228	0,12552	0,12785	0,15533	0,15729
1114,65381	0,12570	0,12798	0,15543	0,15742
1112,72534	0,12577	0,12815	0,15547	0,15763
1110,79688	0,12588	0,12838	0,15545	0,15774
1108,86841	0,12597	0,12869	0,15540	0,15766
1106,93994	0,12579	0,12877	0,15541	0,15772
1105,01147	0,12565	0,12861	0,15535	0,15789
1103,08301	0,12567	0,12870	0,15571	0,15803
1101,15454	0,12572	0,12903	0,15599	0,15804
1099,22607	0,12568	0,12899	0,15587	0,15803
1097,29761	0,12559	0,12870	0,15609	0,15826
1095,36914	0,12566	0,12867	0,15623	0,15838
1093,44067	0,12570	0,12875	0,15600	0,15847
1091,51221	0,12568	0,12890	0,15580	0,15866
1089,58374	0,12561	0,12906	0,15553	0,15866
1087,65527	0,12536	0,12892	0,15552	0,15860
1085,72681	0,12509	0,12888	0,15576	0,15834
1083,79834	0,12470	0,12902	0,15548	0,15812
1081,86987	0,12418	0,12886	0,15517	0,15819
1079,94141	0,12384	0,12856	0,15518	0,15807
1078,01294	0,12341	0,12828	0,15490	0,15792
1076,08447	0,12297	0,12790	0,15461	0,15795
1074,15601	0,12280	0,12766	0,15430	0,15784
1072,22754	0,12235	0,12741	0,15397	0,15785
1070,29907	0,12181	0,12695	0,15407	0,15804
1068,37061	0,12163	0,12667	0,15405	0,15808
1066,44214	0,12137	0,12644	0,15384	0,15812
1064,51367	0,12086	0,12594	0,15364	0,15816
1062,58521	0,12042	0,12558	0,15336	0,15802
1060,65674	0,12015	0,12528	0,15349	0,15777
1058,72827	0,11986	0,12473	0,15350	0,15770
1056,7998	0,11942	0,12433	0,15301	0,15772
1054,87134	0,11897	0,12395	0,15288	0,15763
1052,94287	0,11846	0,12353	0,15292	0,15736

1051,0144	0,11800	0,12340	0,15273	0,15681
1049,08594	0,11764	0,12315	0,15274	0,15639
1047,15747	0,11716	0,12268	0,15271	0,15633
1045,229	0,11686	0,12242	0,15234	0,15635
1043,30054	0,11664	0,12239	0,15226	0,15639
1041,37207	0,11610	0,12241	0,15236	0,15627
1039,4436	0,11557	0,12218	0,15216	0,15608
1037,51514	0,11534	0,12175	0,15197	0,15596
1035,58667	0,11512	0,12154	0,15215	0,15574
1033,6582	0,11479	0,12146	0,15224	0,15581
1031,72974	0,11457	0,12130	0,15201	0,15628
1029,80127	0,11442	0,12127	0,15192	0,15669
1027,8728	0,11440	0,12130	0,15174	0,15723
1025,94434	0,11450	0,12111	0,15182	0,15801
1024,01587	0,11423	0,12086	0,15218	0,15876
1022,0874	0,11371	0,12071	0,15192	0,15957
1020,15894	0,11340	0,12047	0,15176	0,16015
1018,23047	0,11316	0,12010	0,15188	0,16001
1016,302	0,11274	0,11964	0,15158	0,15952
1014,37354	0,11224	0,11914	0,15126	0,15874
1012,44507	0,11170	0,11891	0,15095	0,15735
1010,5166	0,11110	0,11878	0,15067	0,15600
1008,58813	0,11083	0,11853	0,15072	0,15518
1006,65967	0,11088	0,11843	0,15082	0,15454
1004,7312	0,11077	0,11805	0,15059	0,15394
1002,80273	0,11059	0,11728	0,14983	0,15339
1000,87427	0,11048	0,11707	0,14908	0,15294
998,9458	0,11015	0,11719	0,14889	0,15278
997,01733	0,10978	0,11687	0,14869	0,15262
995,08887	0,10960	0,11654	0,14843	0,15240
993,1604	0,10935	0,11644	0,14851	0,15238
991,23193	0,10902	0,11628	0,14847	0,15217
989,30347	0,10852	0,11605	0,14843	0,15183
987,375	0,10775	0,11561	0,14833	0,15171
985,44653	0,10717	0,11529	0,14799	0,15156
983,51807	0,10664	0,11518	0,14812	0,15151
981,5896	0,10596	0,11490	0,14842	0,15154
979,66113	0,10552	0,11491	0,14837	0,15127
977,73267	0,10520	0,11499	0,14835	0,15107
975,8042	0,10505	0,11456	0,14821	0,15105
973,87573	0,10494	0,11426	0,14801	0,15098
971,94727	0,10454	0,11434	0,14775	0,15086
970,0188	0,10425	0,11433	0,14741	0,15088
968,09033	0,10413	0,11403	0,14760	0,15103
966,16187	0,10387	0,11379	0,14775	0,15084
964,2334	0,10345	0,11366	0,14757	0,15083
962,30493	0,10291	0,11335	0,14776	0,15106
960,37646	0,10230	0,11329	0,14770	0,15068

958,448	0,10200	0,11331	0,14754	0,15043
956,51953	0,10208	0,11300	0,14776	0,15081
954,59106	0,10195	0,11280	0,14763	0,15086
952,6626	0,10178	0,11255	0,14753	0,15059
950,73413	0,10177	0,11238	0,14765	0,15040
948,80566	0,10142	0,11263	0,14735	0,15007
946,8772	0,10107	0,11245	0,14699	0,14993
944,94873	0,10090	0,11186	0,14711	0,15017
943,02026	0,10059	0,11157	0,14727	0,15005
941,0918	0,10025	0,11142	0,14690	0,14970
939,16333	0,10012	0,11142	0,14648	0,14994
937,23486	0,10009	0,11157	0,14660	0,15028
935,3064	0,09999	0,11148	0,14669	0,15005
933,37793	0,10000	0,11133	0,14646	0,14988
931,44946	0,10006	0,11128	0,14643	0,14999
929,521	0,10003	0,11119	0,14643	0,15000
927,59253	0,10016	0,11103	0,14627	0,15020
925,66406	0,10012	0,11086	0,14629	0,15047
923,7356	0,09974	0,11078	0,14639	0,15052
921,80713	0,09959	0,11069	0,14654	0,15060
919,87866	0,09979	0,11063	0,14679	0,15063
917,9502	0,09979	0,11055	0,14679	0,15070
916,02173	0,09963	0,11059	0,14668	0,15098
914,09326	0,09977	0,11093	0,14684	0,15105
912,16479	0,09980	0,11113	0,14710	0,15073
910,23633	0,09962	0,11112	0,14699	0,15037
908,30786	0,09968	0,11104	0,14690	0,15038
906,37939	0,09971	0,11070	0,14709	0,15057
904,45093	0,09980	0,11046	0,14699	0,15037
902,52246	0,09996	0,11045	0,14688	0,15022
900,59399	0,09985	0,11040	0,14685	0,15021
898,66553	0,10000	0,11036	0,14664	0,14993
896,73706	0,10036	0,11049	0,14686	0,15024
894,80859	0,10018	0,11064	0,14695	0,15058
892,88013	0,09987	0,11079	0,14660	0,15052
890,95166	0,09980	0,11095	0,14723	0,15094
889,02319	0,09971	0,11089	0,14781	0,15095
887,09473	0,09962	0,11087	0,14738	0,15076
885,16626	0,09959	0,11103	0,14771	0,15136
883,23779	0,09973	0,11103	0,14819	0,15197
881,30933	0,10012	0,11120	0,14829	0,15221
879,38086	0,10056	0,11196	0,14907	0,15216
877,45239	0,10120	0,11299	0,14970	0,15251
875,52393	0,10242	0,11409	0,15078	0,15396
873,59546	0,10379	0,11556	0,15311	0,15587
871,66699	0,10540	0,11771	0,15540	0,15824
869,73853	0,10753	0,12028	0,15768	0,16123
867,81006	0,10903	0,12237	0,15999	0,16391

865,88159	0,10972	0,12377	0,16165	0,16569
863,95313	0,11061	0,12489	0,16252	0,16676
862,02466	0,11137	0,12551	0,16318	0,16753
860,09619	0,11144	0,12552	0,16356	0,16732
858,16772	0,11109	0,12514	0,16253	0,16607
856,23926	0,11047	0,12413	0,16057	0,16503
854,31079	0,10942	0,12245	0,15888	0,16375
852,38232	0,10849	0,12145	0,15813	0,16284
850,45386	0,10854	0,12192	0,15883	0,16383
848,52539	0,11032	0,12418	0,16172	0,16664
846,59692	0,11398	0,12900	0,16714	0,17204
844,66846	0,11727	0,13367	0,17203	0,17759
842,73999	0,12060	0,13794	0,17664	0,18209
840,81152	0,12749	0,14706	0,18604	0,19151
838,88306	0,13586	0,15901	0,19774	0,20462
836,95459	0,14337	0,16942	0,20808	0,21609
835,02612	0,15040	0,17902	0,21795	0,22657
833,09766	0,15323	0,18356	0,22251	0,23157
831,16919	0,15285	0,18292	0,22200	0,23064
829,24072	0,15268	0,18242	0,22165	0,22967
827,31226	0,15169	0,18178	0,22095	0,22868
825,38379	0,15455	0,18574	0,22551	0,23309
823,45532	0,16097	0,19428	0,23455	0,24272
821,52686	0,16275	0,19721	0,23719	0,24619
819,59839	0,16239	0,19715	0,23680	0,24587
817,66992	0,16380	0,19958	0,23877	0,24801
815,74146	0,16544	0,20251	0,24153	0,25132
813,81299	0,16796	0,20654	0,24550	0,25541
811,88452	0,16965	0,20899	0,24780	0,25745
809,95605	0,16882	0,20783	0,24704	0,25636
808,02759	0,16880	0,20783	0,24717	0,25606
806,09912	0,17093	0,21048	0,24979	0,25806
804,17065	0,17299	0,21314	0,25269	0,26046
802,24219	0,17453	0,21495	0,25410	0,26190
800,31372	0,17678	0,21755	0,25651	0,26431
798,38525	0,17920	0,22140	0,26070	0,26802
796,45679	0,18072	0,22444	0,26376	0,27035
794,52832	0,18135	0,22574	0,26487	0,27128
792,59985	0,18030	0,22463	0,26357	0,27064
790,67139	0,17771	0,22095	0,25995	0,26755
788,74292	0,17565	0,21799	0,25686	0,26452
786,81445	0,17446	0,21680	0,25519	0,26294
784,88599	0,17222	0,21372	0,25204	0,25949
782,95752	0,16922	0,20908	0,24766	0,25451
781,02905	0,16771	0,20684	0,24595	0,25248
779,10059	0,16770	0,20681	0,24651	0,25292
777,17212	0,16882	0,20855	0,24845	0,25499
775,24365	0,17177	0,21283	0,25309	0,25978



773,31519	0,17499	0,21742	0,25823	0,26489
771,38672	0,17681	0,22047	0,26142	0,26796
769,45825	0,17773	0,22194	0,26299	0,26952
767,52979	0,17841	0,22306	0,26421	0,27123
765,60132	0,17927	0,22484	0,26558	0,27327
763,67285	0,17990	0,22534	0,26635	0,27398
761,74438	0,17901	0,22351	0,26544	0,27243
759,81592	0,17721	0,22113	0,26309	0,26988
757,88745	0,17615	0,21974	0,26166	0,26854
755,95898	0,17559	0,21917	0,26126	0,26809
754,03052	0,17495	0,21846	0,26030	0,26721
752,10205	0,17417	0,21710	0,25897	0,26578
750,17358	0,17398	0,21675	0,25854	0,26542
748,24512	0,17523	0,21882	0,25987	0,26750
746,31665	0,17637	0,22073	0,26100	0,26930
744,38818	0,17717	0,22156	0,26157	0,26998
742,45972	0,17827	0,22256	0,26325	0,27112
740,53125	0,17873	0,22327	0,26444	0,27211
738,60278	0,17929	0,22445	0,26483	0,27356
736,67432	0,18064	0,22629	0,26635	0,27563
734,74585	0,18136	0,22698	0,26753	0,27670
732,81738	0,18071	0,22622	0,26655	0,27638
730,88892	0,18029	0,22615	0,26613	0,27593
728,96045	0,18097	0,22734	0,26748	0,27689
727,03198	0,18200	0,22891	0,26902	0,27858
725,10352	0,18374	0,23173	0,27135	0,28075
723,17505	0,18590	0,23457	0,27337	0,28332
721,24658	0,18744	0,23565	0,27372	0,28453
719,31812	0,18825	0,23659	0,27491	0,28589
717,38965	0,18915	0,23869	0,27769	0,28879
715,46118	0,19062	0,24083	0,27998	0,29110
713,53271	0,19119	0,24172	0,28058	0,29179
711,60425	0,19025	0,24126	0,27961	0,29099
709,67578	0,19004	0,24092	0,27895	0,29037
707,74731	0,19073	0,24132	0,27967	0,29113
705,81885	0,19026	0,24054	0,27970	0,29118
703,89038	0,18948	0,23875	0,27836	0,28970
701,96191	0,18936	0,23786	0,27717	0,28859
700,03345	0,18935	0,23775	0,27673	0,28887
698,10498	0,18930	0,23789	0,27677	0,28952
696,17651	0,18894	0,23812	0,27659	0,28968
694,24805	0,18952	0,23942	0,27695	0,28996
692,31958	0,19139	0,24188	0,27838	0,29087
690,39111	0,19274	0,24344	0,27991	0,29212
688,46265	0,19388	0,24474	0,28182	0,29395
686,53418	0,19635	0,24753	0,28375	0,29620
684,60571	0,19794	0,24916	0,28449	0,29700
682,67725	0,19918	0,25044	0,28574	0,29823

680,74878	0,20187	0,25328	0,28790	0,30115
678,82031	0,20273	0,25425	0,28924	0,30297
676,89185	0,20309	0,25620	0,29070	0,30441
674,96338	0,20346	0,25874	0,29265	0,30690
673,03491	0,20383	0,25919	0,29402	0,30836
671,10645	0,20419	0,25964	0,29498	0,30815
669,17798	0,20456	0,26009	0,29587	0,30906
667,24951	0,20493	0,26053	0,29613	0,31030
665,32104	0,20530	0,26098	0,29639	0,31032
663,39258	0,20566	0,26143	0,29666	0,31033
661,46411	0,20603	0,26188	0,29697	0,31035
659,53564	0,20640	0,26232	0,29728	0,31037
657,60718	0,20676	0,26277	0,29727	0,31038
655,67871	0,20614	0,26322	0,29699	0,31040
653,75024	0,20553	0,26195	0,29641	0,31042
651,82178	0,20504	0,26161	0,29602	0,31044
649,89331	0,20594	0,26339	0,29673	0,31045
647,96484	0,20730	0,26534	0,29856	0,31103
646,03638	0,20785	0,26613	0,30041	0,31255
644,10791	0,20728	0,26545	0,30021	0,31288
642,17944	0,20683	0,26533	0,30002	0,31279
640,25098	0,20709	0,26575	0,30102	0,31250
638,32251	0,20725	0,26546	0,30099	0,31253
636,39404	0,20611	0,26500	0,30124	0,31349
634,46558	0,20443	0,26418	0,30139	0,31347
632,53711	0,20397	0,26364	0,30011	0,31277
630,60864	0,20327	0,26313	0,29864	0,31204
628,68018	0,20267	0,26248	0,29780	0,31101
626,75171	0,20170	0,26128	0,29772	0,30999
624,82324	0,20051	0,26034	0,29728	0,30993
622,89478	0,20081	0,26040	0,29693	0,31065
620,96631	0,20101	0,26008	0,29732	0,31078
619,03784	0,20249	0,26113	0,29809	0,31076
617,10938	0,20445	0,26258	0,29959	0,31101
615,18091	0,20411	0,26230	0,30056	0,31108
613,25244	0,20420	0,26263	0,30100	0,31128
611,32397	0,20430	0,26339	0,30197	0,31111
609,39551	0,20318	0,26370	0,30238	0,31065
607,46704	0,20255	0,26356	0,30251	0,31110
605,53857	0,20228	0,26315	0,30243	0,31116
603,61011	0,20145	0,26266	0,30123	0,31006
601,68164	0,19999	0,26113	0,30074	0,30911
599,75317	0,19913	0,25946	0,30072	0,30825
597,82471	0,19929	0,25901	0,29940	0,30743
595,89624	0,19922	0,25894	0,29855	0,30690
593,96777	0,19750	0,25758	0,29908	0,30609
592,03931	0,19493	0,25587	0,29920	0,30572
590,11084	0,19557	0,25685	0,29812	0,30659

588,18237	0,19644	0,25750	0,29813	0,30653
586,25391	0,19469	0,25610	0,29881	0,30553
584,32544	0,19506	0,25614	0,29806	0,30590
582,39697	0,19501	0,25591	0,29831	0,30627
580,46851	0,19331	0,25516	0,29838	0,30630
578,54004	0,19293	0,25494	0,29696	0,30601
576,61157	0,19183	0,25338	0,29729	0,30426
574,68311	0,19229	0,25338	0,29736	0,30412
572,75464	0,19458	0,25524	0,29675	0,30641
570,82617	0,19533	0,25620	0,29835	0,30784
568,89771	0,19588	0,25797	0,30032	0,30913
566,96924	0,19755	0,26064	0,30150	0,31163
565,04077	0,19901	0,26180	0,30158	0,31271
563,1123	0,19881	0,26154	0,30057	0,31242
561,18384	0,19879	0,26104	0,30003	0,31293
559,25537	0,19986	0,26064	0,29990	0,31306
557,3269	0,20003	0,26049	0,30043	0,31300
555,39844	0,20013	0,26045	0,30116	0,31345
553,46997	0,20037	0,26028	0,30025	0,31314
551,5415	0,19982	0,25928	0,29839	0,31225
549,61304	0,19957	0,25740	0,29730	0,31085
547,68457	0,19893	0,25492	0,29552	0,30871
545,7561	0,19835	0,25290	0,29333	0,30656
543,82764	0,19984	0,25310	0,29323	0,30527
541,89917	0,20057	0,25268	0,29281	0,30512
539,9707	0,20038	0,25156	0,29133	0,30512
538,04224	0,20123	0,25104	0,29066	0,30407
536,11377	0,20198	0,24947	0,29002	0,30354
534,1853	0,20301	0,24892	0,28975	0,30310
532,25684	0,20284	0,24654	0,28763	0,30111
530,32837	0,20368	0,24338	0,28579	0,29955
528,3999	0,20368	0,23888	0,28211	0,29591
526,47144	0,19922	0,22966	0,27411	0,28979
524,54297	0,19995	0,22646	0,27224	0,28671
522,6145	0,20342	0,22531	0,27166	0,28425
520,68604	0,20105	0,21766	0,26412	0,27887
518,75757	0,19699	0,20956	0,25713	0,27398
516,8291	0,19685	0,20454	0,25443	0,27076
514,90063	0,19980	0,20314	0,25297	0,26698
512,97217	0,19981	0,19952	0,24873	0,26349
511,0437	0,19862	0,19215	0,24364	0,25934
509,11523	0,19650	0,18414	0,23941	0,25370
507,18677	0,19393	0,17745	0,23410	0,24961
505,2583	0,19460	0,17363	0,23098	0,24605
503,32983	0,19259	0,16795	0,22764	0,24157
501,40137	0,19271	0,16548	0,22432	0,23884
499,4729	0,19474	0,16582	0,22402	0,23740

Figure 2.6 B				
n°spectre	VD339	VD331	VD222	VD156
nom	F2_grinded	F2_pHNAT	F2_pH=6,5	F2_pH=9,5
cm-1	a	b	c	d
4001,5686	0,03712	0,11956	0,14421	0,06647
3999,64014	0,03704	0,11934	0,14403	0,06629
3997,71167	0,03697	0,11925	0,14405	0,06628
3995,7832	0,03700	0,11933	0,14409	0,06632
3993,85474	0,03696	0,11913	0,14404	0,06618
3991,92627	0,03690	0,11918	0,14401	0,06616
3989,9978	0,03691	0,11933	0,14391	0,06611
3988,06934	0,03681	0,11902	0,14361	0,06592
3986,14087	0,03668	0,11895	0,14356	0,06594
3984,2124	0,03676	0,11900	0,14351	0,06592
3982,28394	0,03683	0,11875	0,14340	0,06575
3980,35547	0,03664	0,11865	0,14336	0,06563
3978,427	0,03652	0,11863	0,14316	0,06559
3976,49854	0,03659	0,11858	0,14329	0,06571
3974,57007	0,03648	0,11857	0,14332	0,06565
3972,6416	0,03631	0,11846	0,14294	0,06546
3970,71313	0,03636	0,11839	0,14291	0,06545
3968,78467	0,03646	0,11846	0,14291	0,06540
3966,8562	0,03636	0,11811	0,14251	0,06518
3964,92773	0,03636	0,11801	0,14244	0,06515
3962,99927	0,03659	0,11853	0,14287	0,06537
3961,0708	0,03646	0,11819	0,14258	0,06524
3959,14233	0,03631	0,11787	0,14231	0,06501
3957,21387	0,03635	0,11795	0,14230	0,06503
3955,2854	0,03630	0,11782	0,14210	0,06510
3953,35693	0,03638	0,11799	0,14231	0,06508
3951,42847	0,03626	0,11774	0,14161	0,06503
3949,5	0,03620	0,11773	0,14133	0,06544
3947,57153	0,03612	0,11743	0,14166	0,06488
3945,64307	0,03607	0,11729	0,14153	0,06441
3943,7146	0,03661	0,11838	0,14245	0,06550
3941,78613	0,03639	0,11760	0,14186	0,06496
3939,85767	0,03583	0,11675	0,14068	0,06406
3937,9292	0,03607	0,11738	0,14120	0,06458
3936,00073	0,03608	0,11713	0,14115	0,06445
3934,07227	0,03612	0,11755	0,14145	0,06475
3932,1438	0,03636	0,11803	0,14205	0,06530
3930,21533	0,03583	0,11671	0,14100	0,06418
3928,28687	0,03555	0,11639	0,14039	0,06368
3926,3584	0,03606	0,11753	0,14130	0,06470
3924,42993	0,03612	0,11750	0,14161	0,06471
3922,50146	0,03558	0,11634	0,14041	0,06376
3920,573	0,03574	0,11672	0,14052	0,06415

3918,64453	0,03597	0,11715	0,14099	0,06463
3916,71606	0,03550	0,11626	0,14026	0,06401
3914,7876	0,03495	0,11538	0,13949	0,06312
3912,85913	0,03530	0,11595	0,14001	0,06337
3910,93066	0,03574	0,11644	0,14025	0,06384
3909,0022	0,03540	0,11587	0,13965	0,06330
3907,07373	0,03569	0,11695	0,14070	0,06414
3905,14526	0,03619	0,11806	0,14168	0,06542
3903,2168	0,03513	0,11569	0,13963	0,06388
3901,28833	0,03451	0,11445	0,13857	0,06278
3899,35986	0,03485	0,11521	0,13929	0,06312
3897,4314	0,03436	0,11417	0,13811	0,06204
3895,50293	0,03470	0,11463	0,13852	0,06205
3893,57446	0,03585	0,11730	0,14082	0,06425
3891,646	0,03590	0,11737	0,14074	0,06475
3889,71753	0,03373	0,11243	0,13631	0,06067
3887,78906	0,03490	0,11555	0,13919	0,06281
3885,8606	0,03604	0,11753	0,14071	0,06516
3883,93213	0,03332	0,11188	0,13556	0,06021
3882,00366	0,03495	0,11620	0,13976	0,06320
3880,0752	0,03613	0,11758	0,14148	0,06515
3878,14673	0,03338	0,11186	0,13589	0,06003
3876,21826	0,03488	0,11590	0,13933	0,06293
3874,28979	0,03560	0,11647	0,14024	0,06409
3872,36133	0,03435	0,11450	0,13825	0,06217
3870,43286	0,03482	0,11639	0,13932	0,06385
3868,50439	0,03315	0,11194	0,13560	0,06049
3866,57593	0,03357	0,11324	0,13672	0,06086
3864,64746	0,03510	0,11626	0,13928	0,06362
3862,71899	0,03409	0,11351	0,13732	0,06150
3860,79053	0,03384	0,11335	0,13682	0,06126
3858,86206	0,03452	0,11403	0,13724	0,06176
3856,93359	0,03550	0,11598	0,13952	0,06314
3855,00513	0,03477	0,11672	0,13822	0,06460
3853,07666	0,03254	0,11178	0,13360	0,06092
3851,14819	0,03038	0,10771	0,13078	0,05595
3849,21973	0,03346	0,11275	0,13633	0,06032
3847,29126	0,03434	0,11368	0,13688	0,06144
3845,36279	0,03508	0,11495	0,13811	0,06242
3843,43433	0,03498	0,11476	0,13766	0,06258
3841,50586	0,03475	0,11405	0,13727	0,06213
3839,57739	0,03477	0,11521	0,13805	0,06280
3837,64893	0,03315	0,11295	0,13519	0,06088
3835,72046	0,03195	0,10977	0,13263	0,05827
3833,79199	0,03380	0,11307	0,13618	0,06095
3831,86353	0,03413	0,11324	0,13623	0,06152
3829,93506	0,03339	0,11135	0,13459	0,05960

3828,00659	0,03456	0,11427	0,13708	0,06180
3826,07813	0,03433	0,11343	0,13632	0,06145
3824,14966	0,03399	0,11298	0,13608	0,06056
3822,22119	0,03526	0,11640	0,13844	0,06395
3820,29272	0,03330	0,11148	0,13468	0,06052
3818,36426	0,03255	0,11101	0,13397	0,05894
3816,43579	0,03354	0,11395	0,13566	0,06155
3814,50732	0,03165	0,10900	0,13146	0,05780
3812,57886	0,03276	0,11087	0,13397	0,05872
3810,65039	0,03410	0,11292	0,13594	0,06071
3808,72192	0,03438	0,11409	0,13647	0,06180
3806,79346	0,03331	0,11227	0,13429	0,06059
3804,86499	0,03207	0,10933	0,13219	0,05777
3802,93652	0,03425	0,11455	0,13711	0,06195
3801,00806	0,03328	0,11251	0,13488	0,06066
3799,07959	0,03104	0,10789	0,13072	0,05628
3797,15112	0,03396	0,11359	0,13661	0,06121
3795,22266	0,03326	0,11124	0,13408	0,05993
3793,29419	0,03265	0,11017	0,13306	0,05826
3791,36572	0,03396	0,11256	0,13543	0,06038
3789,43726	0,03351	0,11120	0,13408	0,05953
3787,50879	0,03337	0,11161	0,13431	0,05957
3785,58032	0,03396	0,11294	0,13557	0,06075
3783,65186	0,03320	0,11099	0,13386	0,05921
3781,72339	0,03326	0,11139	0,13412	0,05951
3779,79492	0,03396	0,11272	0,13531	0,06080
3777,86646	0,03282	0,11021	0,13310	0,05871
3775,93799	0,03273	0,11003	0,13309	0,05838
3774,00952	0,03322	0,11089	0,13385	0,05903
3772,08105	0,03348	0,11183	0,13445	0,05991
3770,15259	0,03349	0,11186	0,13438	0,06024
3768,22412	0,03214	0,10914	0,13201	0,05783
3766,29565	0,03280	0,11061	0,13362	0,05902
3764,36719	0,03283	0,11021	0,13329	0,05885
3762,43872	0,03229	0,10962	0,13266	0,05777
3760,51025	0,03345	0,11202	0,13473	0,06023
3758,58179	0,03294	0,11060	0,13370	0,05951
3756,65332	0,03204	0,10919	0,13255	0,05785
3754,72485	0,03252	0,11044	0,13336	0,05878
3752,79639	0,03244	0,11140	0,13362	0,05963
3750,86792	0,03190	0,11072	0,13286	0,05953
3748,93945	0,02871	0,10371	0,12637	0,05362
3747,01099	0,03088	0,10880	0,13177	0,05683
3745,08252	0,03220	0,11141	0,13327	0,06058
3743,15405	0,02823	0,10258	0,12503	0,05373
3741,22559	0,02988	0,10685	0,13060	0,05501
3739,29712	0,03199	0,11124	0,13478	0,05918
3737,36865	0,03124	0,11036	0,13314	0,05910

3735,44019	0,03068	0,10987	0,13368	0,05847
3733,51172	0,03002	0,10863	0,13261	0,05771
3731,58325	0,02848	0,10566	0,12913	0,05518
3729,65479	0,02860	0,10667	0,13026	0,05537
3727,72632	0,02982	0,10947	0,13309	0,05795
3725,79785	0,02992	0,10899	0,13287	0,05800
3723,86938	0,02961	0,10809	0,13216	0,05704
3721,94092	0,02980	0,10842	0,13233	0,05735
3720,01245	0,02973	0,10752	0,13154	0,05666
3718,08398	0,02986	0,10741	0,13128	0,05652
3716,15552	0,03018	0,10730	0,13121	0,05652
3714,22705	0,03076	0,10843	0,13221	0,05749
3712,29858	0,03056	0,10892	0,13237	0,05833
3710,37012	0,02854	0,10541	0,12981	0,05567
3708,44165	0,02774	0,10476	0,12935	0,05476
3706,51318	0,02779	0,10502	0,12974	0,05499
3704,58472	0,02848	0,10612	0,13071	0,05571
3702,65625	0,02925	0,10743	0,13198	0,05730
3700,72778	0,02800	0,10480	0,12978	0,05531
3698,79932	0,02734	0,10408	0,12913	0,05426
3696,87085	0,02791	0,10528	0,13057	0,05561
3694,94238	0,02747	0,10441	0,12988	0,05506
3693,01392	0,02708	0,10422	0,12989	0,05493
3691,08545	0,02737	0,10536	0,13164	0,05657
3689,15698	0,02537	0,10224	0,12852	0,05420
3687,22852	0,02306	0,09764	0,12388	0,05011
3685,30005	0,02500	0,10012	0,12743	0,05202
3683,37158	0,02631	0,10237	0,12944	0,05389
3681,44312	0,02643	0,10250	0,12899	0,05425
3679,51465	0,02718	0,10298	0,12997	0,05441
3677,58618	0,02751	0,10484	0,13094	0,05581
3675,65771	0,02790	0,10558	0,13160	0,05714
3673,72925	0,02507	0,09820	0,12478	0,05063
3671,80078	0,02639	0,10256	0,12856	0,05315
3669,87231	0,02729	0,10451	0,13011	0,05559
3667,94385	0,02575	0,09948	0,12593	0,05152
3666,01538	0,02696	0,10200	0,12859	0,05292
3664,08691	0,02760	0,10325	0,12944	0,05431
3662,15845	0,02764	0,10285	0,12915	0,05420
3660,22998	0,02748	0,10257	0,12900	0,05368
3658,30151	0,02787	0,10384	0,13022	0,05487
3656,37305	0,02748	0,10300	0,12929	0,05480
3654,44458	0,02580	0,09975	0,12618	0,05158
3652,51611	0,02736	0,10325	0,13017	0,05444
3650,58765	0,02844	0,10548	0,13237	0,05716
3648,65918	0,02614	0,10119	0,12854	0,05342
3646,73071	0,02516	0,09939	0,12717	0,05166
3644,80225	0,02561	0,09998	0,12783	0,05210

3642,87378	0,02582	0,10085	0,12858	0,05264
3640,94531	0,02608	0,10145	0,12938	0,05344
3639,01685	0,02547	0,10030	0,12848	0,05255
3637,08838	0,02524	0,10046	0,12900	0,05265
3635,15991	0,02521	0,10069	0,12929	0,05337
3633,23145	0,02442	0,09949	0,12855	0,05219
3631,30298	0,02419	0,10047	0,12969	0,05300
3629,37451	0,02433	0,10110	0,13015	0,05475
3627,44604	0,02144	0,09483	0,12454	0,04923
3625,51758	0,02195	0,09680	0,12682	0,04965
3623,58911	0,02281	0,09857	0,12877	0,05167
3621,66064	0,02269	0,09840	0,12880	0,05173
3619,73218	0,02301	0,09909	0,12979	0,05277
3617,80371	0,02177	0,09578	0,12721	0,05050
3615,87524	0,02150	0,09607	0,12774	0,05006
3613,94678	0,02243	0,09802	0,12997	0,05201
3612,01831	0,02155	0,09549	0,12775	0,05031
3610,08984	0,02053	0,09471	0,12686	0,04958
3608,16138	0,02040	0,09545	0,12797	0,05031
3606,23291	0,01964	0,09400	0,12704	0,04882
3604,30444	0,01942	0,09407	0,12726	0,04873
3602,37598	0,01964	0,09514	0,12834	0,04977
3600,44751	0,01937	0,09494	0,12856	0,04964
3598,51904	0,01878	0,09385	0,12777	0,04883
3596,59058	0,01887	0,09429	0,12812	0,04923
3594,66211	0,01893	0,09454	0,12864	0,04953
3592,73364	0,01836	0,09307	0,12730	0,04822
3590,80518	0,01842	0,09325	0,12718	0,04825
3588,87671	0,01915	0,09458	0,12870	0,04992
3586,94824	0,01903	0,09360	0,12853	0,04933
3585,01978	0,01791	0,09147	0,12613	0,04721
3583,09131	0,01831	0,09238	0,12705	0,04787
3581,16284	0,01867	0,09262	0,12758	0,04839
3579,23438	0,01848	0,09231	0,12722	0,04817
3577,30591	0,01841	0,09226	0,12713	0,04806
3575,37744	0,01829	0,09215	0,12729	0,04799
3573,44897	0,01809	0,09180	0,12706	0,04788
3571,52051	0,01804	0,09146	0,12667	0,04759
3569,59204	0,01824	0,09227	0,12765	0,04850
3567,66357	0,01868	0,09343	0,12944	0,04982
3565,73511	0,01776	0,09132	0,12750	0,04784
3563,80664	0,01708	0,09028	0,12616	0,04670
3561,87817	0,01743	0,09084	0,12679	0,04738
3559,94971	0,01750	0,09061	0,12669	0,04732
3558,02124	0,01722	0,09013	0,12628	0,04701
3556,09277	0,01709	0,08983	0,12609	0,04687
3554,16431	0,01717	0,09025	0,12663	0,04720
3552,23584	0,01716	0,09030	0,12688	0,04736



3550,30737	0,01659	0,08924	0,12580	0,04655
3548,37891	0,01662	0,08962	0,12626	0,04696
3546,45044	0,01705	0,09004	0,12724	0,04765
3544,52197	0,01648	0,08901	0,12641	0,04676
3542,59351	0,01606	0,08860	0,12575	0,04631
3540,66504	0,01614	0,08828	0,12553	0,04626
3538,73657	0,01608	0,08820	0,12574	0,04622
3536,80811	0,01599	0,08837	0,12604	0,04644
3534,87964	0,01572	0,08777	0,12559	0,04617
3532,95117	0,01550	0,08725	0,12532	0,04574
3531,02271	0,01545	0,08739	0,12572	0,04595
3529,09424	0,01528	0,08765	0,12608	0,04622
3527,16577	0,01501	0,08715	0,12557	0,04579
3525,2373	0,01492	0,08675	0,12549	0,04567
3523,30884	0,01479	0,08669	0,12579	0,04569
3521,38037	0,01440	0,08600	0,12510	0,04515
3519,4519	0,01419	0,08563	0,12479	0,04512
3517,52344	0,01407	0,08560	0,12495	0,04509
3515,59497	0,01384	0,08541	0,12476	0,04479
3513,6665	0,01382	0,08512	0,12460	0,04486
3511,73804	0,01378	0,08497	0,12485	0,04501
3509,80957	0,01362	0,08507	0,12509	0,04504
3507,8811	0,01327	0,08435	0,12435	0,04449
3505,95264	0,01307	0,08403	0,12431	0,04430
3504,02417	0,01333	0,08471	0,12511	0,04488
3502,0957	0,01320	0,08424	0,12459	0,04456
3500,16724	0,01277	0,08349	0,12407	0,04399
3498,23877	0,01276	0,08363	0,12435	0,04417
3496,3103	0,01276	0,08358	0,12424	0,04417
3494,38184	0,01264	0,08330	0,12411	0,04400
3492,45337	0,01250	0,08310	0,12403	0,04394
3490,5249	0,01245	0,08308	0,12392	0,04389
3488,59644	0,01259	0,08312	0,12407	0,04396
3486,66797	0,01255	0,08283	0,12390	0,04382
3484,7395	0,01232	0,08269	0,12365	0,04374
3482,81104	0,01229	0,08286	0,12408	0,04402
3480,88257	0,01231	0,08253	0,12407	0,04390
3478,9541	0,01215	0,08214	0,12346	0,04350
3477,02563	0,01205	0,08229	0,12365	0,04363
3475,09717	0,01212	0,08218	0,12388	0,04375
3473,1687	0,01208	0,08194	0,12365	0,04351
3471,24023	0,01205	0,08198	0,12362	0,04345
3469,31177	0,01210	0,08197	0,12364	0,04356
3467,3833	0,01204	0,08180	0,12356	0,04352
3465,45483	0,01193	0,08156	0,12350	0,04337
3463,52637	0,01190	0,08154	0,12361	0,04336
3461,5979	0,01183	0,08145	0,12353	0,04340
3459,66943	0,01174	0,08124	0,12325	0,04336

3457,74097	0,01171	0,08117	0,12322	0,04329
3455,8125	0,01157	0,08106	0,12329	0,04321
3453,88403	0,01155	0,08107	0,12347	0,04324
3451,95557	0,01160	0,08095	0,12331	0,04317
3450,0271	0,01145	0,08092	0,12328	0,04317
3448,09863	0,01156	0,08132	0,12390	0,04343
3446,17017	0,01152	0,08097	0,12367	0,04326
3444,2417	0,01129	0,08064	0,12326	0,04302
3442,31323	0,01144	0,08095	0,12368	0,04323
3440,38477	0,01138	0,08074	0,12356	0,04315
3438,4563	0,01126	0,08067	0,12348	0,04308
3436,52783	0,01139	0,08083	0,12377	0,04323
3434,59937	0,01140	0,08082	0,12370	0,04321
3432,6709	0,01144	0,08103	0,12374	0,04328
3430,74243	0,01151	0,08095	0,12377	0,04325
3428,81396	0,01155	0,08090	0,12367	0,04321
3426,8855	0,01162	0,08111	0,12384	0,04332
3424,95703	0,01162	0,08107	0,12398	0,04323
3423,02856	0,01168	0,08127	0,12410	0,04337
3421,1001	0,01181	0,08158	0,12440	0,04362
3419,17163	0,01188	0,08142	0,12438	0,04344
3417,24316	0,01190	0,08140	0,12419	0,04337
3415,3147	0,01189	0,08170	0,12430	0,04348
3413,38623	0,01199	0,08184	0,12445	0,04358
3411,45776	0,01213	0,08185	0,12450	0,04375
3409,5293	0,01217	0,08193	0,12460	0,04373
3407,60083	0,01226	0,08207	0,12463	0,04358
3405,67236	0,01229	0,08221	0,12470	0,04361
3403,7439	0,01223	0,08231	0,12485	0,04373
3401,81543	0,01230	0,08234	0,12499	0,04375
3399,88696	0,01246	0,08255	0,12516	0,04379
3397,9585	0,01250	0,08284	0,12531	0,04386
3396,03003	0,01249	0,08277	0,12527	0,04378
3394,10156	0,01248	0,08283	0,12529	0,04380
3392,1731	0,01253	0,08313	0,12543	0,04387
3390,24463	0,01272	0,08303	0,12546	0,04380
3388,31616	0,01265	0,08302	0,12545	0,04383
3386,3877	0,01256	0,08335	0,12551	0,04394
3384,45923	0,01276	0,08343	0,12565	0,04398
3382,53076	0,01274	0,08349	0,12575	0,04393
3380,60229	0,01278	0,08373	0,12577	0,04387
3378,67383	0,01297	0,08378	0,12588	0,04391
3376,74536	0,01287	0,08390	0,12591	0,04393
3374,81689	0,01294	0,08416	0,12600	0,04390
3372,88843	0,01313	0,08425	0,12627	0,04391
3370,95996	0,01308	0,08435	0,12639	0,04392
3369,03149	0,01311	0,08471	0,12653	0,04398
3367,10303	0,01327	0,08507	0,12684	0,04408

3365,17456	0,01329	0,08509	0,12681	0,04412
3363,24609	0,01333	0,08514	0,12678	0,04410
3361,31763	0,01354	0,08543	0,12713	0,04406
3359,38916	0,01360	0,08554	0,12721	0,04407
3357,46069	0,01363	0,08570	0,12712	0,04418
3355,53223	0,01382	0,08592	0,12719	0,04420
3353,60376	0,01389	0,08599	0,12722	0,04417
3351,67529	0,01385	0,08628	0,12732	0,04419
3349,74683	0,01395	0,08659	0,12744	0,04416
3347,81836	0,01406	0,08664	0,12745	0,04413
3345,88989	0,01402	0,08675	0,12753	0,04412
3343,96143	0,01405	0,08708	0,12768	0,04416
3342,03296	0,01415	0,08722	0,12770	0,04421
3340,10449	0,01419	0,08710	0,12766	0,04420
3338,17603	0,01431	0,08733	0,12779	0,04422
3336,24756	0,01443	0,08765	0,12794	0,04420
3334,31909	0,01443	0,08760	0,12796	0,04411
3332,39063	0,01444	0,08770	0,12791	0,04403
3330,46216	0,01446	0,08790	0,12795	0,04401
3328,53369	0,01448	0,08796	0,12809	0,04405
3326,60522	0,01456	0,08817	0,12811	0,04406
3324,67676	0,01468	0,08836	0,12809	0,04408
3322,74829	0,01474	0,08835	0,12811	0,04405
3320,81982	0,01464	0,08847	0,12819	0,04401
3318,89136	0,01451	0,08867	0,12823	0,04400
3316,96289	0,01460	0,08862	0,12812	0,04394
3315,03442	0,01471	0,08863	0,12822	0,04396
3313,10596	0,01470	0,08880	0,12826	0,04397
3311,17749	0,01469	0,08891	0,12815	0,04393
3309,24902	0,01471	0,08904	0,12828	0,04400
3307,32056	0,01477	0,08905	0,12832	0,04397
3305,39209	0,01490	0,08908	0,12834	0,04394
3303,46362	0,01495	0,08913	0,12837	0,04388
3301,53516	0,01483	0,08903	0,12817	0,04372
3299,60669	0,01475	0,08915	0,12825	0,04372
3297,67822	0,01485	0,08925	0,12829	0,04369
3295,74976	0,01487	0,08919	0,12808	0,04357
3293,82129	0,01474	0,08935	0,12818	0,04354
3291,89282	0,01475	0,08943	0,12822	0,04351
3289,96436	0,01478	0,08937	0,12804	0,04348
3288,03589	0,01472	0,08941	0,12803	0,04339
3286,10742	0,01481	0,08939	0,12804	0,04336
3284,17896	0,01489	0,08933	0,12798	0,04342
3282,25049	0,01476	0,08935	0,12800	0,04328
3280,32202	0,01471	0,08940	0,12806	0,04313
3278,39355	0,01470	0,08932	0,12798	0,04320
3276,46509	0,01464	0,08939	0,12794	0,04320
3274,53662	0,01458	0,08952	0,12795	0,04305

3272,60815	0,01453	0,08940	0,12784	0,04299
3270,67969	0,01453	0,08944	0,12782	0,04303
3268,75122	0,01450	0,08950	0,12775	0,04293
3266,82275	0,01448	0,08938	0,12768	0,04286
3264,89429	0,01452	0,08937	0,12781	0,04289
3262,96582	0,01450	0,08938	0,12770	0,04289
3261,03735	0,01442	0,08940	0,12761	0,04283
3259,10889	0,01443	0,08941	0,12764	0,04266
3257,18042	0,01443	0,08939	0,12752	0,04264
3255,25195	0,01435	0,08949	0,12746	0,04269
3253,32349	0,01439	0,08943	0,12744	0,04256
3251,39502	0,01440	0,08926	0,12738	0,04256
3249,46655	0,01431	0,08928	0,12729	0,04257
3247,53809	0,01427	0,08945	0,12730	0,04250
3245,60962	0,01425	0,08952	0,12737	0,04250
3243,68115	0,01424	0,08941	0,12719	0,04238
3241,75269	0,01419	0,08937	0,12717	0,04231
3239,82422	0,01419	0,08946	0,12725	0,04240
3237,89575	0,01424	0,08947	0,12701	0,04233
3235,96729	0,01417	0,08942	0,12695	0,04225
3234,03882	0,01421	0,08948	0,12711	0,04228
3232,11035	0,01423	0,08948	0,12703	0,04218
3230,18188	0,01406	0,08943	0,12691	0,04206
3228,25342	0,01403	0,08946	0,12683	0,04203
3226,32495	0,01407	0,08946	0,12671	0,04202
3224,39648	0,01400	0,08942	0,12672	0,04195
3222,46802	0,01397	0,08947	0,12682	0,04188
3220,53955	0,01403	0,08959	0,12675	0,04198
3218,61108	0,01400	0,08953	0,12657	0,04192
3216,68262	0,01392	0,08951	0,12652	0,04178
3214,75415	0,01393	0,08960	0,12655	0,04180
3212,82568	0,01387	0,08947	0,12644	0,04164
3210,89722	0,01379	0,08951	0,12634	0,04157
3208,96875	0,01376	0,08951	0,12635	0,04158
3207,04028	0,01377	0,08940	0,12636	0,04135
3205,11182	0,01379	0,08958	0,12627	0,04131
3203,18335	0,01376	0,08960	0,12610	0,04136
3201,25488	0,01374	0,08957	0,12610	0,04127
3199,32642	0,01371	0,08981	0,12614	0,04126
3197,39795	0,01367	0,08984	0,12606	0,04133
3195,46948	0,01363	0,08972	0,12603	0,04128
3193,54102	0,01360	0,08968	0,12594	0,04120
3191,61255	0,01367	0,08974	0,12589	0,04120
3189,68408	0,01366	0,08983	0,12596	0,04117
3187,75562	0,01362	0,08986	0,12587	0,04118
3185,82715	0,01368	0,08993	0,12591	0,04119
3183,89868	0,01363	0,08997	0,12590	0,04101
3181,97021	0,01360	0,08999	0,12567	0,04094

3180,04175	0,01369	0,09006	0,12574	0,04105
3178,11328	0,01366	0,09003	0,12577	0,04104
3176,18481	0,01359	0,08997	0,12556	0,04097
3174,25635	0,01360	0,09000	0,12552	0,04092
3172,32788	0,01357	0,09006	0,12553	0,04093
3170,39941	0,01359	0,09016	0,12554	0,04096
3168,47095	0,01360	0,09016	0,12555	0,04093
3166,54248	0,01351	0,09011	0,12550	0,04085
3164,61401	0,01351	0,09018	0,12536	0,04081
3162,68555	0,01354	0,09021	0,12526	0,04079
3160,75708	0,01351	0,09017	0,12522	0,04074
3158,82861	0,01346	0,09018	0,12516	0,04069
3156,90015	0,01342	0,09016	0,12513	0,04061
3154,97168	0,01343	0,09013	0,12510	0,04056
3153,04321	0,01339	0,09023	0,12512	0,04062
3151,11475	0,01334	0,09031	0,12514	0,04061
3149,18628	0,01337	0,09025	0,12498	0,04050
3147,25781	0,01332	0,09023	0,12486	0,04044
3145,32935	0,01324	0,09023	0,12488	0,04046
3143,40088	0,01320	0,09019	0,12484	0,04041
3141,47241	0,01316	0,09023	0,12478	0,04031
3139,54395	0,01323	0,09033	0,12474	0,04037
3137,61548	0,01320	0,09024	0,12458	0,04033
3135,68701	0,01315	0,09022	0,12453	0,04024
3133,75854	0,01316	0,09035	0,12463	0,04035
3131,83008	0,01308	0,09014	0,12445	0,04023
3129,90161	0,01307	0,09009	0,12431	0,04001
3127,97314	0,01306	0,09023	0,12441	0,04010
3126,04468	0,01298	0,09010	0,12427	0,04012
3124,11621	0,01300	0,09016	0,12429	0,04000
3122,18774	0,01302	0,09022	0,12444	0,03999
3120,25928	0,01296	0,09015	0,12425	0,04004
3118,33081	0,01294	0,09033	0,12413	0,03995
3116,40234	0,01289	0,09042	0,12422	0,03984
3114,47388	0,01281	0,09024	0,12413	0,03980
3112,54541	0,01277	0,09009	0,12394	0,03974
3110,61694	0,01269	0,09011	0,12393	0,03972
3108,68848	0,01262	0,09023	0,12396	0,03972
3106,76001	0,01264	0,09020	0,12378	0,03966
3104,83154	0,01269	0,09009	0,12367	0,03960
3102,90308	0,01265	0,09016	0,12378	0,03953
3100,97461	0,01258	0,09019	0,12370	0,03950
3099,04614	0,01256	0,09012	0,12352	0,03951
3097,11768	0,01255	0,09024	0,12361	0,03949
3095,18921	0,01243	0,09023	0,12358	0,03943
3093,26074	0,01243	0,09006	0,12336	0,03935
3091,33228	0,01245	0,09014	0,12333	0,03931
3089,40381	0,01235	0,09020	0,12335	0,03934

3087,47534	0,01237	0,09012	0,12335	0,03936
3085,54688	0,01238	0,09012	0,12332	0,03933
3083,61841	0,01224	0,09014	0,12324	0,03929
3081,68994	0,01216	0,09014	0,12322	0,03923
3079,76147	0,01216	0,09022	0,12327	0,03918
3077,83301	0,01214	0,09022	0,12322	0,03918
3075,90454	0,01206	0,09006	0,12302	0,03906
3073,97607	0,01202	0,08998	0,12297	0,03895
3072,04761	0,01196	0,08996	0,12296	0,03896
3070,11914	0,01189	0,08998	0,12287	0,03891
3068,19067	0,01196	0,09011	0,12293	0,03888
3066,26221	0,01190	0,09010	0,12290	0,03887
3064,33374	0,01177	0,08994	0,12278	0,03878
3062,40527	0,01176	0,08982	0,12274	0,03873
3060,47681	0,01168	0,08986	0,12260	0,03874
3058,54834	0,01165	0,08995	0,12258	0,03874
3056,61987	0,01167	0,08994	0,12262	0,03872
3054,69141	0,01155	0,08990	0,12249	0,03868
3052,76294	0,01151	0,08989	0,12245	0,03864
3050,83447	0,01162	0,08989	0,12248	0,03869
3048,90601	0,01160	0,08985	0,12235	0,03869
3046,97754	0,01152	0,08974	0,12227	0,03855
3045,04907	0,01149	0,08968	0,12225	0,03855
3043,12061	0,01143	0,08974	0,12215	0,03860
3041,19214	0,01139	0,08978	0,12214	0,03848
3039,26367	0,01135	0,08968	0,12212	0,03837
3037,33521	0,01128	0,08966	0,12197	0,03834
3035,40674	0,01130	0,08982	0,12198	0,03834
3033,47827	0,01130	0,08987	0,12203	0,03837
3031,5498	0,01119	0,08974	0,12190	0,03838
3029,62134	0,01116	0,08960	0,12174	0,03831
3027,69287	0,01116	0,08953	0,12170	0,03826
3025,7644	0,01114	0,08955	0,12173	0,03828
3023,83594	0,01116	0,08955	0,12169	0,03827
3021,90747	0,01112	0,08950	0,12151	0,03827
3019,979	0,01113	0,08955	0,12147	0,03832
3018,05054	0,01118	0,08956	0,12171	0,03826
3016,12207	0,01106	0,08952	0,12170	0,03818
3014,1936	0,01099	0,08958	0,12152	0,03820
3012,26514	0,01101	0,08960	0,12159	0,03819
3010,33667	0,01087	0,08947	0,12149	0,03812
3008,4082	0,01073	0,08938	0,12124	0,03805
3006,47974	0,01061	0,08941	0,12126	0,03795
3004,55127	0,01045	0,08936	0,12129	0,03791
3002,6228	0,01036	0,08923	0,12113	0,03789
3000,69434	0,01031	0,08924	0,12113	0,03784
2998,76587	0,01018	0,08926	0,12119	0,03780
2996,8374	0,01005	0,08922	0,12107	0,03777

2994,90894	0,00995	0,08927	0,12108	0,03776
2992,98047	0,00982	0,08923	0,12120	0,03771
2991,052	0,00967	0,08914	0,12114	0,03763
2989,12354	0,00945	0,08913	0,12103	0,03757
2987,19507	0,00926	0,08907	0,12097	0,03750
2985,2666	0,00906	0,08897	0,12101	0,03742
2983,33813	0,00881	0,08892	0,12098	0,03741
2981,40967	0,00867	0,08896	0,12099	0,03740
2979,4812	0,00849	0,08893	0,12114	0,03736
2977,55273	0,00830	0,08880	0,12103	0,03731
2975,62427	0,00829	0,08880	0,12097	0,03725
2973,6958	0,00820	0,08873	0,12112	0,03716
2971,76733	0,00819	0,08855	0,12107	0,03711
2969,83887	0,00817	0,08852	0,12112	0,03710
2967,9104	0,00815	0,08850	0,12122	0,03710
2965,98193	0,00814	0,08841	0,12116	0,03709
2964,05347	0,00812	0,08842	0,12125	0,03713
2962,125	0,00810	0,08843	0,12127	0,03719
2960,19653	0,00809	0,08838	0,12125	0,03713
2958,26807	0,00807	0,08836	0,12128	0,03704
2956,3396	0,00805	0,08832	0,12114	0,03706
2954,41113	0,00804	0,08827	0,12110	0,03706
2952,48267	0,00802	0,08829	0,12117	0,03705
2950,5542	0,00800	0,08828	0,12110	0,03707
2948,62573	0,00799	0,08825	0,12109	0,03703
2946,69727	0,00797	0,08827	0,12113	0,03701
2944,7688	0,00795	0,08833	0,12110	0,03704
2942,84033	0,00792	0,08833	0,12105	0,03700
2940,91187	0,00790	0,08824	0,12100	0,03697
2938,9834	0,00786	0,08823	0,12104	0,03696
2937,05493	0,00784	0,08830	0,12110	0,03699
2935,12646	0,00783	0,08827	0,12113	0,03701
2933,198	0,00782	0,08818	0,12114	0,03695
2931,26953	0,00783	0,08823	0,12114	0,03695
2929,34106	0,00786	0,08828	0,12125	0,03701
2927,4126	0,00784	0,08820	0,12124	0,03699
2925,48413	0,00782	0,08817	0,12113	0,03692
2923,55566	0,00780	0,08806	0,12115	0,03684
2921,6272	0,00778	0,08788	0,12113	0,03679
2919,69873	0,00776	0,08780	0,12103	0,03675
2917,77026	0,00774	0,08769	0,12100	0,03667
2915,8418	0,00772	0,08769	0,12098	0,03665
2913,91333	0,00770	0,08789	0,12097	0,03663
2911,98486	0,00768	0,08799	0,12097	0,03657
2910,0564	0,00766	0,08797	0,12093	0,03652
2908,12793	0,00760	0,08800	0,12093	0,03652
2906,19946	0,00765	0,08800	0,12097	0,03652
2904,271	0,00764	0,08795	0,12088	0,03645

2902,34253	0,00760	0,08791	0,12078	0,03644
2900,41406	0,00765	0,08791	0,12076	0,03643
2898,4856	0,00758	0,08797	0,12074	0,03634
2896,55713	0,00748	0,08803	0,12076	0,03634
2894,62866	0,00752	0,08797	0,12075	0,03637
2892,7002	0,00745	0,08786	0,12068	0,03632
2890,77173	0,00741	0,08780	0,12060	0,03630
2888,84326	0,00747	0,08781	0,12058	0,03630
2886,91479	0,00741	0,08782	0,12064	0,03626
2884,98633	0,00740	0,08776	0,12062	0,03625
2883,05786	0,00744	0,08773	0,12052	0,03624
2881,12939	0,00734	0,08771	0,12047	0,03622
2879,20093	0,00723	0,08766	0,12047	0,03618
2877,27246	0,00722	0,08764	0,12048	0,03615
2875,34399	0,00729	0,08766	0,12043	0,03613
2873,41553	0,00736	0,08772	0,12031	0,03613
2871,48706	0,00736	0,08776	0,12023	0,03613
2869,55859	0,00729	0,08764	0,12016	0,03611
2867,63013	0,00728	0,08763	0,12008	0,03606
2865,70166	0,00729	0,08767	0,12004	0,03598
2863,77319	0,00723	0,08753	0,12000	0,03596
2861,84473	0,00722	0,08751	0,11990	0,03596
2859,91626	0,00721	0,08757	0,11976	0,03599
2857,98779	0,00711	0,08747	0,11967	0,03598
2856,05933	0,00707	0,08745	0,11961	0,03589
2854,13086	0,00716	0,08757	0,11958	0,03592
2852,20239	0,00723	0,08763	0,11951	0,03590
2850,27393	0,00728	0,08766	0,11949	0,03577
2848,34546	0,00729	0,08761	0,11946	0,03571
2846,41699	0,00725	0,08750	0,11936	0,03561
2844,48853	0,00723	0,08748	0,11928	0,03553
2842,56006	0,00717	0,08741	0,11913	0,03553
2840,63159	0,00713	0,08736	0,11907	0,03554
2838,70313	0,00715	0,08740	0,11916	0,03559
2836,77466	0,00714	0,08738	0,11902	0,03557
2834,84619	0,00715	0,08740	0,11882	0,03549
2832,91772	0,00713	0,08738	0,11877	0,03550
2830,98926	0,00711	0,08732	0,11870	0,03548
2829,06079	0,00713	0,08732	0,11862	0,03542
2827,13232	0,00715	0,08727	0,11858	0,03546
2825,20386	0,00715	0,08730	0,11853	0,03548
2823,27539	0,00711	0,08737	0,11852	0,03537
2821,34692	0,00710	0,08733	0,11845	0,03535
2819,41846	0,00711	0,08730	0,11833	0,03538
2817,48999	0,00706	0,08732	0,11833	0,03537
2815,56152	0,00710	0,08735	0,11834	0,03538
2813,63306	0,00712	0,08737	0,11820	0,03538
2811,70459	0,00706	0,08740	0,11818	0,03540



2809,77612	0,00705	0,08744	0,11822	0,03536
2807,84766	0,00703	0,08740	0,11806	0,03532
2805,91919	0,00698	0,08734	0,11799	0,03535
2803,99072	0,00700	0,08735	0,11802	0,03533
2802,06226	0,00706	0,08731	0,11799	0,03532
2800,13379	0,00707	0,08729	0,11802	0,03535
2798,20532	0,00709	0,08738	0,11799	0,03535
2796,27686	0,00711	0,08743	0,11792	0,03537
2794,34839	0,00709	0,08735	0,11789	0,03534
2792,41992	0,00712	0,08734	0,11781	0,03530
2790,49146	0,00715	0,08742	0,11782	0,03537
2788,56299	0,00714	0,08745	0,11787	0,03538
2786,63452	0,00709	0,08747	0,11779	0,03534
2784,70605	0,00702	0,08750	0,11778	0,03538
2782,77759	0,00704	0,08748	0,11778	0,03535
2780,84912	0,00710	0,08750	0,11773	0,03537
2778,92065	0,00711	0,08756	0,11781	0,03547
2776,99219	0,00710	0,08759	0,11782	0,03545
2775,06372	0,00709	0,08760	0,11773	0,03545
2773,13525	0,00706	0,08758	0,11773	0,03548
2771,20679	0,00706	0,08756	0,11769	0,03543
2769,27832	0,00712	0,08760	0,11761	0,03542
2767,34985	0,00711	0,08761	0,11755	0,03544
2765,42139	0,00710	0,08760	0,11753	0,03542
2763,49292	0,00712	0,08765	0,11754	0,03543
2761,56445	0,00708	0,08768	0,11759	0,03544
2759,63599	0,00709	0,08764	0,11767	0,03545
2757,70752	0,00710	0,08762	0,11767	0,03544
2755,77905	0,00701	0,08764	0,11761	0,03544
2753,85059	0,00700	0,08764	0,11759	0,03547
2751,92212	0,00703	0,08768	0,11756	0,03546
2749,99365	0,00700	0,08771	0,11752	0,03543
2748,06519	0,00708	0,08769	0,11759	0,03545
2746,13672	0,00706	0,08772	0,11760	0,03543
2744,20825	0,00698	0,08778	0,11747	0,03544
2742,27979	0,00706	0,08772	0,11748	0,03550
2740,35132	0,00701	0,08761	0,11750	0,03548
2738,42285	0,00694	0,08764	0,11739	0,03546
2736,49438	0,00701	0,08772	0,11737	0,03546
2734,56592	0,00696	0,08771	0,11737	0,03540
2732,63745	0,00688	0,08769	0,11735	0,03539
2730,70898	0,00684	0,08769	0,11738	0,03543
2728,78052	0,00681	0,08774	0,11735	0,03543
2726,85205	0,00681	0,08781	0,11730	0,03543
2724,92358	0,00680	0,08778	0,11729	0,03545
2722,99512	0,00677	0,08778	0,11729	0,03551
2721,06665	0,00682	0,08780	0,11726	0,03552
2719,13818	0,00682	0,08778	0,11723	0,03552

2717,20972	0,00677	0,08778	0,11726	0,03555
2715,28125	0,00679	0,08777	0,11723	0,03554
2713,35278	0,00684	0,08775	0,11711	0,03553
2711,42432	0,00685	0,08776	0,11707	0,03554
2709,49585	0,00688	0,08775	0,11714	0,03555
2707,56738	0,00691	0,08778	0,11715	0,03557
2705,63892	0,00691	0,08782	0,11712	0,03562
2703,71045	0,00689	0,08783	0,11709	0,03566
2701,78198	0,00689	0,08784	0,11702	0,03562
2699,85352	0,00694	0,08786	0,11698	0,03563
2697,92505	0,00702	0,08792	0,11696	0,03568
2695,99658	0,00701	0,08796	0,11697	0,03563
2694,06812	0,00701	0,08799	0,11701	0,03565
2692,13965	0,00705	0,08804	0,11700	0,03572
2690,21118	0,00698	0,08805	0,11697	0,03574
2688,28271	0,00690	0,08807	0,11696	0,03576
2686,35425	0,00692	0,08813	0,11693	0,03576
2684,42578	0,00694	0,08813	0,11695	0,03580
2682,49731	0,00698	0,08814	0,11696	0,03583
2680,56885	0,00706	0,08825	0,11697	0,03582
2678,64038	0,00712	0,08829	0,11701	0,03588
2676,71191	0,00716	0,08832	0,11702	0,03591
2674,78345	0,00719	0,08848	0,11703	0,03595
2672,85498	0,00725	0,08855	0,11703	0,03599
2670,92651	0,00727	0,08854	0,11706	0,03598
2668,99805	0,00728	0,08864	0,11708	0,03604
2667,06958	0,00732	0,08871	0,11707	0,03610
2665,14111	0,00734	0,08877	0,11706	0,03615
2663,21265	0,00743	0,08883	0,11709	0,03627
2661,28418	0,00750	0,08889	0,11712	0,03631
2659,35571	0,00746	0,08902	0,11713	0,03635
2657,42725	0,00754	0,08910	0,11715	0,03641
2655,49878	0,00762	0,08915	0,11716	0,03642
2653,57031	0,00764	0,08929	0,11714	0,03649
2651,64185	0,00771	0,08940	0,11714	0,03656
2649,71338	0,00775	0,08944	0,11717	0,03659
2647,78491	0,00776	0,08955	0,11718	0,03664
2645,85645	0,00783	0,08964	0,11722	0,03672
2643,92798	0,00789	0,08965	0,11730	0,03677
2641,99951	0,00792	0,08967	0,11727	0,03678
2640,07104	0,00793	0,08972	0,11721	0,03678
2638,14258	0,00792	0,08978	0,11726	0,03682
2636,21411	0,00795	0,08986	0,11726	0,03689
2634,28564	0,00797	0,08991	0,11723	0,03693
2632,35718	0,00794	0,08986	0,11725	0,03690
2630,42871	0,00796	0,08985	0,11725	0,03689
2628,50024	0,00798	0,08989	0,11723	0,03692
2626,57178	0,00794	0,08992	0,11719	0,03692

2624,64331	0,00791	0,08990	0,11714	0,03689
2622,71484	0,00793	0,08981	0,11710	0,03687
2620,78638	0,00795	0,08981	0,11706	0,03685
2618,85791	0,00794	0,08982	0,11698	0,03684
2616,92944	0,00791	0,08973	0,11694	0,03679
2615,00098	0,00785	0,08968	0,11691	0,03671
2613,07251	0,00780	0,08962	0,11684	0,03667
2611,14404	0,00779	0,08955	0,11675	0,03664
2609,21558	0,00775	0,08950	0,11668	0,03659
2607,28711	0,00767	0,08937	0,11663	0,03656
2605,35864	0,00758	0,08926	0,11658	0,03652
2603,43018	0,00753	0,08922	0,11649	0,03642
2601,50171	0,00755	0,08911	0,11638	0,03637
2599,57324	0,00748	0,08899	0,11631	0,03633
2597,64478	0,00731	0,08885	0,11628	0,03621
2595,71631	0,00722	0,08871	0,11622	0,03608
2593,78784	0,00716	0,08862	0,11613	0,03600
2591,85938	0,00716	0,08848	0,11603	0,03595
2589,93091	0,00714	0,08835	0,11599	0,03589
2588,00244	0,00705	0,08828	0,11592	0,03576
2586,07397	0,00702	0,08813	0,11581	0,03565
2584,14551	0,00699	0,08797	0,11576	0,03559
2582,21704	0,00688	0,08787	0,11569	0,03551
2580,28857	0,00679	0,08777	0,11562	0,03544
2578,36011	0,00675	0,08770	0,11558	0,03537
2576,43164	0,00670	0,08761	0,11549	0,03525
2574,50317	0,00659	0,08749	0,11542	0,03516
2572,57471	0,00650	0,08738	0,11538	0,03514
2570,64624	0,00646	0,08725	0,11529	0,03507
2568,71777	0,00641	0,08713	0,11522	0,03500
2566,78931	0,00636	0,08705	0,11517	0,03494
2564,86084	0,00632	0,08697	0,11513	0,03485
2562,93237	0,00630	0,08682	0,11510	0,03475
2561,00391	0,00626	0,08667	0,11505	0,03471
2559,07544	0,00612	0,08664	0,11500	0,03465
2557,14697	0,00604	0,08655	0,11499	0,03460
2555,21851	0,00603	0,08639	0,11495	0,03454
2553,29004	0,00597	0,08635	0,11491	0,03445
2551,36157	0,00590	0,08632	0,11488	0,03444
2549,43311	0,00588	0,08621	0,11482	0,03436
2547,50464	0,00585	0,08614	0,11475	0,03428
2545,57617	0,00574	0,08607	0,11475	0,03427
2543,64771	0,00567	0,08596	0,11475	0,03418
2541,71924	0,00569	0,08587	0,11466	0,03415
2539,79077	0,00568	0,08581	0,11464	0,03415
2537,8623	0,00560	0,08576	0,11467	0,03402
2535,93384	0,00551	0,08572	0,11465	0,03396
2534,00537	0,00549	0,08569	0,11461	0,03400

2532,0769	0,00552	0,08567	0,11454	0,03399
2530,14844	0,00548	0,08563	0,11455	0,03399
2528,21997	0,00543	0,08556	0,11457	0,03394
2526,2915	0,00542	0,08547	0,11449	0,03386
2524,36304	0,00539	0,08541	0,11455	0,03387
2522,43457	0,00535	0,08537	0,11458	0,03384
2520,5061	0,00531	0,08536	0,11449	0,03378
2518,57764	0,00528	0,08536	0,11454	0,03377
2516,64917	0,00527	0,08530	0,11456	0,03374
2514,7207	0,00525	0,08521	0,11446	0,03374
2512,79224	0,00516	0,08517	0,11439	0,03369
2510,86377	0,00511	0,08516	0,11432	0,03363
2508,9353	0,00513	0,08519	0,11426	0,03365
2507,00684	0,00510	0,08518	0,11421	0,03362
2505,07837	0,00506	0,08511	0,11413	0,03359
2503,1499	0,00508	0,08509	0,11407	0,03361
2501,22144	0,00509	0,08507	0,11404	0,03358
2499,29297	0,00513	0,08501	0,11400	0,03354
2497,3645	0,00522	0,08494	0,11402	0,03354
2495,43604	0,00524	0,08495	0,11407	0,03351
2493,50757	0,00518	0,08497	0,11402	0,03347
2491,5791	0,00518	0,08493	0,11398	0,03346
2489,65063	0,00522	0,08490	0,11401	0,03346
2487,72217	0,00523	0,08490	0,11393	0,03347
2485,7937	0,00525	0,08490	0,11379	0,03348
2483,86523	0,00522	0,08485	0,11375	0,03344
2481,93677	0,00518	0,08483	0,11364	0,03344
2480,0083	0,00519	0,08485	0,11353	0,03346
2478,07983	0,00524	0,08481	0,11349	0,03342
2476,15137	0,00531	0,08476	0,11341	0,03340
2474,2229	0,00537	0,08476	0,11340	0,03340
2472,29443	0,00536	0,08475	0,11336	0,03338
2470,36597	0,00537	0,08473	0,11331	0,03339
2468,4375	0,00542	0,08477	0,11330	0,03343
2466,50903	0,00545	0,08476	0,11317	0,03344
2464,58057	0,00545	0,08465	0,11316	0,03342
2462,6521	0,00545	0,08464	0,11323	0,03337
2460,72363	0,00546	0,08471	0,11315	0,03340
2458,79517	0,00549	0,08467	0,11310	0,03341
2456,8667	0,00549	0,08466	0,11313	0,03337
2454,93823	0,00541	0,08464	0,11308	0,03338
2453,00977	0,00533	0,08460	0,11307	0,03338
2451,0813	0,00531	0,08460	0,11304	0,03337
2449,15283	0,00531	0,08460	0,11297	0,03339
2447,22437	0,00531	0,08453	0,11298	0,03336
2445,2959	0,00533	0,08441	0,11297	0,03331
2443,36743	0,00530	0,08437	0,11296	0,03327
2441,43896	0,00518	0,08438	0,11294	0,03322

2439,5105	0,00514	0,08438	0,11289	0,03320
2437,58203	0,00516	0,08438	0,11288	0,03321
2435,65356	0,00513	0,08438	0,11284	0,03320
2433,7251	0,00511	0,08441	0,11280	0,03310
2431,79663	0,00511	0,08441	0,11279	0,03308
2429,86816	0,00511	0,08431	0,11281	0,03310
2427,9397	0,00511	0,08424	0,11284	0,03304
2426,01123	0,00509	0,08424	0,11281	0,03304
2424,08276	0,00514	0,08424	0,11274	0,03306
2422,1543	0,00521	0,08422	0,11268	0,03305
2420,22583	0,00521	0,08421	0,11264	0,03312
2418,29736	0,00514	0,08421	0,11260	0,03314
2416,3689	0,00514	0,08423	0,11254	0,03307
2414,44043	0,00522	0,08424	0,11247	0,03309
2412,51196	0,00527	0,08421	0,11246	0,03311
2410,5835	0,00533	0,08419	0,11252	0,03307
2408,65503	0,00534	0,08420	0,11249	0,03310
2406,72656	0,00534	0,08419	0,11239	0,03314
2404,7981	0,00535	0,08416	0,11237	0,03311
2402,86963	0,00536	0,08413	0,11232	0,03312
2400,94116	0,00536	0,08415	0,11232	0,03310
2399,0127	0,00537	0,08412	0,11240	0,03310
2397,08423	0,00538	0,08411	0,11238	0,03312
2395,15576	0,00538	0,08417	0,11237	0,03312
2393,22729	0,00539	0,08413	0,11236	0,03314
2391,29883	0,00540	0,08412	0,11234	0,03313
2389,37036	0,00540	0,08412	0,11233	0,03313
2387,44189	0,00541	0,08411	0,11232	0,03312
2385,51343	0,00542	0,08410	0,11230	0,03312
2383,58496	0,00542	0,08410	0,11229	0,03311
2381,65649	0,00543	0,08409	0,11228	0,03311
2379,72803	0,00544	0,08409	0,11226	0,03310
2377,79956	0,00544	0,08408	0,11225	0,03310
2375,87109	0,00545	0,08407	0,11224	0,03310
2373,94263	0,00546	0,08407	0,11222	0,03309
2372,01416	0,00546	0,08406	0,11221	0,03309
2370,08569	0,00547	0,08406	0,11219	0,03308
2368,15723	0,00548	0,08405	0,11218	0,03308
2366,22876	0,00548	0,08404	0,11217	0,03307
2364,30029	0,00549	0,08404	0,11215	0,03307
2362,37183	0,00550	0,08403	0,11214	0,03306
2360,44336	0,00551	0,08403	0,11213	0,03306
2358,51489	0,00551	0,08402	0,11211	0,03305
2356,58643	0,00552	0,08401	0,11210	0,03305
2354,65796	0,00553	0,08401	0,11209	0,03304
2352,72949	0,00553	0,08400	0,11207	0,03304
2350,80103	0,00554	0,08400	0,11206	0,03303
2348,87256	0,00555	0,08399	0,11205	0,03303

2346,94409	0,00555	0,08398	0,11203	0,03302
2345,01563	0,00556	0,08398	0,11202	0,03302
2343,08716	0,00557	0,08397	0,11201	0,03301
2341,15869	0,00557	0,08397	0,11199	0,03301
2339,23022	0,00558	0,08396	0,11198	0,03300
2337,30176	0,00559	0,08395	0,11197	0,03300
2335,37329	0,00559	0,08395	0,11195	0,03299
2333,44482	0,00560	0,08394	0,11194	0,03299
2331,51636	0,00561	0,08394	0,11192	0,03298
2329,58789	0,00561	0,08393	0,11191	0,03298
2327,65942	0,00562	0,08392	0,11190	0,03297
2325,73096	0,00563	0,08392	0,11188	0,03297
2323,80249	0,00563	0,08391	0,11187	0,03296
2321,87402	0,00564	0,08391	0,11186	0,03296
2319,94556	0,00565	0,08390	0,11184	0,03295
2318,01709	0,00565	0,08389	0,11183	0,03295
2316,08862	0,00566	0,08389	0,11182	0,03294
2314,16016	0,00567	0,08388	0,11180	0,03294
2312,23169	0,00567	0,08388	0,11179	0,03293
2310,30322	0,00568	0,08387	0,11178	0,03293
2308,37476	0,00569	0,08386	0,11176	0,03292
2306,44629	0,00569	0,08386	0,11175	0,03292
2304,51782	0,00570	0,08385	0,11174	0,03291
2302,58936	0,00571	0,08384	0,11172	0,03291
2300,66089	0,00571	0,08384	0,11171	0,03290
2298,73242	0,00572	0,08383	0,11170	0,03290
2296,80396	0,00573	0,08383	0,11168	0,03290
2294,87549	0,00573	0,08382	0,11167	0,03289
2292,94702	0,00574	0,08381	0,11165	0,03289
2291,01855	0,00575	0,08381	0,11164	0,03288
2289,09009	0,00576	0,08380	0,11163	0,03288
2287,16162	0,00576	0,08380	0,11161	0,03287
2285,23315	0,00577	0,08379	0,11160	0,03287
2283,30469	0,00578	0,08378	0,11159	0,03286
2281,37622	0,00578	0,08378	0,11157	0,03286
2279,44775	0,00579	0,08377	0,11156	0,03285
2277,51929	0,00580	0,08377	0,11155	0,03285
2275,59082	0,00580	0,08376	0,11153	0,03285
2273,66235	0,00581	0,08375	0,11152	0,03285
2271,73389	0,00582	0,08374	0,11151	0,03281
2269,80542	0,00582	0,08366	0,11149	0,03279
2267,87695	0,00583	0,08369	0,11148	0,03277
2265,94849	0,00584	0,08371	0,11147	0,03276
2264,02002	0,00584	0,08369	0,11138	0,03278
2262,09155	0,00585	0,08366	0,11135	0,03277
2260,16309	0,00586	0,08363	0,11142	0,03275
2258,23462	0,00586	0,08360	0,11144	0,03279
2256,30615	0,00587	0,08356	0,11137	0,03285

2254,37769	0,00588	0,08351	0,11134	0,03283
2252,44922	0,00588	0,08347	0,11131	0,03281
2250,52075	0,00589	0,08344	0,11126	0,03278
2248,59229	0,00592	0,08342	0,11127	0,03272
2246,66382	0,00592	0,08346	0,11131	0,03270
2244,73535	0,00591	0,08347	0,11131	0,03270
2242,80688	0,00592	0,08336	0,11130	0,03264
2240,87842	0,00591	0,08331	0,11125	0,03263
2238,94995	0,00596	0,08329	0,11122	0,03266
2237,02148	0,00595	0,08328	0,11127	0,03259
2235,09302	0,00588	0,08328	0,11125	0,03254
2233,16455	0,00589	0,08322	0,11121	0,03254
2231,23608	0,00585	0,08319	0,11119	0,03250
2229,30762	0,00575	0,08321	0,11120	0,03247
2227,37915	0,00573	0,08315	0,11122	0,03246
2225,45068	0,00576	0,08304	0,11122	0,03242
2223,52222	0,00575	0,08303	0,11120	0,03241
2221,59375	0,00572	0,08309	0,11123	0,03243
2219,66528	0,00580	0,08314	0,11127	0,03241
2217,73682	0,00589	0,08314	0,11129	0,03244
2215,80835	0,00593	0,08309	0,11129	0,03251
2213,87988	0,00599	0,08310	0,11130	0,03246
2211,95142	0,00599	0,08312	0,11131	0,03239
2210,02295	0,00594	0,08308	0,11128	0,03239
2208,09448	0,00594	0,08308	0,11129	0,03239
2206,16602	0,00590	0,08304	0,11135	0,03239
2204,23755	0,00584	0,08293	0,11133	0,03241
2202,30908	0,00587	0,08290	0,11132	0,03244
2200,38062	0,00583	0,08292	0,11137	0,03246
2198,45215	0,00577	0,08288	0,11139	0,03245
2196,52368	0,00576	0,08285	0,11142	0,03242
2194,59521	0,00571	0,08284	0,11143	0,03238
2192,66675	0,00568	0,08281	0,11142	0,03239
2190,73828	0,00574	0,08279	0,11143	0,03240
2188,80981	0,00574	0,08274	0,11149	0,03233
2186,88135	0,00571	0,08268	0,11156	0,03232
2184,95288	0,00573	0,08269	0,11154	0,03236
2183,02441	0,00573	0,08268	0,11149	0,03234
2181,09595	0,00567	0,08264	0,11145	0,03230
2179,16748	0,00566	0,08267	0,11140	0,03229
2177,23901	0,00561	0,08271	0,11148	0,03223
2175,31055	0,00552	0,08268	0,11156	0,03216
2173,38208	0,00557	0,08266	0,11158	0,03216
2171,45361	0,00547	0,08248	0,11163	0,03206
2169,52515	0,00520	0,08226	0,11167	0,03199
2167,59668	0,00532	0,08241	0,11170	0,03206
2165,66821	0,00546	0,08255	0,11176	0,03207
2163,73975	0,00542	0,08248	0,11189	0,03206

2161,81128	0,00544	0,08244	0,11190	0,03202
2159,88281	0,00537	0,08239	0,11180	0,03193
2157,95435	0,00532	0,08236	0,11180	0,03193
2156,02588	0,00531	0,08235	0,11183	0,03186
2154,09741	0,00516	0,08227	0,11186	0,03177
2152,16895	0,00506	0,08226	0,11187	0,03179
2150,24048	0,00502	0,08229	0,11181	0,03175
2148,31201	0,00500	0,08224	0,11180	0,03166
2146,38354	0,00498	0,08212	0,11179	0,03166
2144,45508	0,00491	0,08208	0,11172	0,03163
2142,52661	0,00483	0,08213	0,11168	0,03156
2140,59814	0,00481	0,08204	0,11170	0,03156
2138,66968	0,00480	0,08194	0,11175	0,03154
2136,74121	0,00481	0,08190	0,11178	0,03149
2134,81274	0,00474	0,08185	0,11177	0,03145
2132,88428	0,00459	0,08183	0,11169	0,03139
2130,95581	0,00449	0,08178	0,11167	0,03142
2129,02734	0,00446	0,08173	0,11169	0,03143
2127,09888	0,00443	0,08176	0,11168	0,03134
2125,17041	0,00437	0,08175	0,11164	0,03136
2123,24194	0,00432	0,08172	0,11154	0,03138
2121,31348	0,00433	0,08167	0,11153	0,03129
2119,38501	0,00438	0,08160	0,11160	0,03117
2117,45654	0,00439	0,08156	0,11156	0,03112
2115,52808	0,00431	0,08154	0,11150	0,03116
2113,59961	0,00420	0,08149	0,11149	0,03112
2111,67114	0,00414	0,08141	0,11147	0,03103
2109,74268	0,00408	0,08135	0,11147	0,03102
2107,81421	0,00401	0,08127	0,11153	0,03097
2105,88574	0,00389	0,08117	0,11159	0,03091
2103,95728	0,00373	0,08108	0,11160	0,03088
2102,02881	0,00360	0,08101	0,11161	0,03081
2100,10034	0,00349	0,08095	0,11162	0,03079
2098,17188	0,00338	0,08085	0,11164	0,03073
2096,24341	0,00326	0,08077	0,11172	0,03059
2094,31494	0,00314	0,08073	0,11172	0,03046
2092,38647	0,00310	0,08074	0,11179	0,03041
2090,45801	0,00303	0,08077	0,11196	0,03042
2088,52954	0,00284	0,08064	0,11194	0,03032
2086,60107	0,00269	0,08051	0,11188	0,03025
2084,67261	0,00262	0,08050	0,11194	0,03024
2082,74414	0,00252	0,08043	0,11193	0,03012
2080,81567	0,00248	0,08033	0,11193	0,03010
2078,88721	0,00242	0,08030	0,11191	0,03010
2076,95874	0,00237	0,08027	0,11184	0,03008
2075,03027	0,00241	0,08017	0,11184	0,03010
2073,10181	0,00245	0,08020	0,11184	0,03005
2071,17334	0,00249	0,08027	0,11180	0,03004



2069,24487	0,00249	0,08013	0,11167	0,03005
2067,31641	0,00255	0,08023	0,11164	0,03011
2065,38794	0,00269	0,08041	0,11174	0,03024
2063,45947	0,00264	0,08023	0,11155	0,03014
2061,53101	0,00262	0,08019	0,11132	0,03013
2059,60254	0,00273	0,08023	0,11131	0,03023
2057,67407	0,00277	0,08013	0,11131	0,03017
2055,74561	0,00281	0,08013	0,11134	0,03023
2053,81714	0,00286	0,08016	0,11136	0,03031
2051,88867	0,00293	0,08017	0,11129	0,03029
2049,96021	0,00300	0,08021	0,11118	0,03026
2048,03174	0,00308	0,08027	0,11114	0,03030
2046,10327	0,00313	0,08025	0,11106	0,03037
2044,1748	0,00314	0,08029	0,11100	0,03041
2042,24634	0,00325	0,08041	0,11116	0,03053
2040,31787	0,00329	0,08026	0,11117	0,03053
2038,3894	0,00319	0,08015	0,11103	0,03043
2036,46094	0,00313	0,08021	0,11112	0,03046
2034,53247	0,00309	0,08014	0,11121	0,03046
2032,604	0,00300	0,08012	0,11114	0,03037
2030,67554	0,00289	0,08010	0,11113	0,03027
2028,74707	0,00283	0,08005	0,11126	0,03024
2026,8186	0,00275	0,07997	0,11125	0,03020
2024,89014	0,00271	0,07996	0,11124	0,03018
2022,96167	0,00271	0,08000	0,11135	0,03018
2021,0332	0,00264	0,07992	0,11127	0,03017
2019,10474	0,00275	0,08016	0,11145	0,03036
2017,17627	0,00289	0,08032	0,11175	0,03047
2015,2478	0,00285	0,07994	0,11143	0,03021
2013,31934	0,00292	0,07990	0,11127	0,03017
2011,39087	0,00297	0,08004	0,11142	0,03028
2009,4624	0,00303	0,07999	0,11145	0,03029
2007,53394	0,00317	0,08002	0,11144	0,03031
2005,60547	0,00315	0,08003	0,11132	0,03027
2003,677	0,00314	0,08003	0,11127	0,03031
2001,74854	0,00320	0,07994	0,11123	0,03030
1999,82007	0,00325	0,08002	0,11126	0,03031
1997,8916	0,00323	0,08005	0,11130	0,03029
1995,96313	0,00312	0,07984	0,11112	0,03011
1994,03467	0,00331	0,08024	0,11146	0,03051
1992,1062	0,00347	0,08046	0,11166	0,03079
1990,17773	0,00326	0,08001	0,11100	0,03033
1988,24927	0,00326	0,08010	0,11080	0,03030
1986,3208	0,00332	0,08003	0,11060	0,03038
1984,39233	0,00326	0,07983	0,11024	0,03030
1982,46387	0,00330	0,07999	0,11015	0,03039
1980,5354	0,00332	0,07996	0,10998	0,03043
1978,60693	0,00332	0,07996	0,10992	0,03048

1976,67847	0,00333	0,07995	0,10980	0,03042
1974,75	0,00339	0,07990	0,10971	0,03040
1972,82153	0,00340	0,07991	0,10970	0,03047
1970,89307	0,00331	0,07984	0,10943	0,03034
1968,9646	0,00349	0,08020	0,10966	0,03058
1967,03613	0,00363	0,08043	0,10997	0,03082
1965,10767	0,00333	0,07986	0,10940	0,03038
1963,1792	0,00325	0,07983	0,10927	0,03032
1961,25073	0,00333	0,08006	0,10942	0,03048
1959,32227	0,00329	0,07986	0,10915	0,03027
1957,3938	0,00329	0,07991	0,10914	0,03031
1955,46533	0,00321	0,08002	0,10927	0,03036
1953,53687	0,00315	0,07991	0,10919	0,03022
1951,6084	0,00305	0,07975	0,10906	0,03009
1949,67993	0,00297	0,07981	0,10917	0,03018
1947,75146	0,00297	0,07983	0,10920	0,03021
1945,823	0,00300	0,07981	0,10917	0,03013
1943,89453	0,00331	0,08042	0,10987	0,03070
1941,96606	0,00326	0,08022	0,10975	0,03061
1940,0376	0,00282	0,07944	0,10877	0,02981
1938,10913	0,00285	0,07967	0,10891	0,02997
1936,18066	0,00285	0,07971	0,10900	0,03006
1934,2522	0,00280	0,07977	0,10899	0,03001
1932,32373	0,00280	0,07981	0,10903	0,03000
1930,39526	0,00282	0,07982	0,10903	0,03000
1928,4668	0,00278	0,07974	0,10897	0,02997
1926,53833	0,00262	0,07943	0,10870	0,02973
1924,60986	0,00297	0,08015	0,10937	0,03034
1922,6814	0,00298	0,08028	0,10965	0,03036
1920,75293	0,00257	0,07975	0,10905	0,02976
1918,82446	0,00272	0,08018	0,10932	0,03026
1916,896	0,00246	0,07954	0,10901	0,02985
1914,96753	0,00219	0,07916	0,10878	0,02926
1913,03906	0,00235	0,07963	0,10921	0,02960
1911,1106	0,00238	0,07976	0,10945	0,02973
1909,18213	0,00235	0,07989	0,10967	0,02974
1907,25366	0,00210	0,07953	0,10936	0,02942
1905,3252	0,00183	0,07929	0,10913	0,02918
1903,39673	0,00171	0,07937	0,10926	0,02927
1901,46826	0,00162	0,07937	0,10940	0,02930
1899,53979	0,00143	0,07909	0,10923	0,02901
1897,61133	0,00139	0,07919	0,10944	0,02913
1895,68286	0,00154	0,07977	0,11015	0,02960
1893,75439	0,00107	0,07915	0,10944	0,02883
1891,82593	0,00103	0,07938	0,10956	0,02896
1889,89746	0,00142	0,08010	0,11055	0,02976
1887,96899	0,00091	0,07896	0,10949	0,02874
1886,04053	0,00087	0,07905	0,10941	0,02870

1884,11206	0,00113	0,07941	0,10981	0,02914
1882,18359	0,00098	0,07898	0,10936	0,02879
1880,25513	0,00103	0,07917	0,10943	0,02898
1878,32666	0,00108	0,07915	0,10938	0,02896
1876,39819	0,00113	0,07916	0,10930	0,02894
1874,46973	0,00120	0,07914	0,10929	0,02898
1872,54126	0,00122	0,07916	0,10935	0,02892
1870,61279	0,00161	0,08011	0,11004	0,02998
1868,68433	0,00201	0,08064	0,11075	0,03067
1866,75586	0,00148	0,07928	0,10956	0,02937
1864,82739	0,00143	0,07922	0,10914	0,02921
1862,89893	0,00165	0,07940	0,10907	0,02943
1860,97046	0,00186	0,07944	0,10915	0,02947
1859,04199	0,00206	0,07953	0,10917	0,02966
1857,11353	0,00215	0,07938	0,10902	0,02962
1855,18506	0,00225	0,07934	0,10894	0,02960
1853,25659	0,00229	0,07937	0,10900	0,02959
1851,32813	0,00229	0,07940	0,10899	0,02975
1849,39966	0,00238	0,07941	0,10905	0,02983
1847,47119	0,00260	0,08009	0,10986	0,03015
1845,54272	0,00267	0,08048	0,10977	0,03094
1843,61426	0,00215	0,07894	0,10831	0,03011
1841,68579	0,00189	0,07848	0,10818	0,02910
1839,75732	0,00235	0,07953	0,10914	0,02990
1837,82886	0,00242	0,07969	0,10916	0,03023
1835,90039	0,00248	0,07957	0,10918	0,03015
1833,97192	0,00225	0,07905	0,10867	0,02969
1832,04346	0,00267	0,08010	0,10945	0,03063
1830,11499	0,00316	0,08093	0,11031	0,03149
1828,18652	0,00220	0,07912	0,10880	0,02993
1826,25806	0,00252	0,07983	0,10949	0,03054
1824,32959	0,00275	0,07983	0,10957	0,03075
1822,40112	0,00208	0,07876	0,10851	0,02950
1820,47266	0,00225	0,07930	0,10888	0,02983
1818,54419	0,00236	0,07941	0,10909	0,03013
1816,61572	0,00220	0,07906	0,10893	0,02986
1814,68726	0,00216	0,07890	0,10878	0,02959
1812,75879	0,00233	0,07957	0,10942	0,03002
1810,83032	0,00238	0,07988	0,10974	0,03030
1808,90186	0,00206	0,07911	0,10901	0,02965
1806,97339	0,00191	0,07907	0,10895	0,02948
1805,04492	0,00163	0,07903	0,10901	0,02933
1803,11646	0,00143	0,07935	0,10965	0,02953
1801,18799	0,00136	0,07985	0,11052	0,02993
1799,25952	0,00071	0,07885	0,10951	0,02903
1797,33105	0,00068	0,07872	0,10948	0,02868
1795,40259	0,00104	0,07954	0,11033	0,02920
1793,47412	0,00088	0,07975	0,10999	0,02967

1791,54565	0,00103	0,07917	0,10978	0,02955
1789,61719	0,00092	0,07794	0,10873	0,02830
1787,68872	0,00146	0,07887	0,10939	0,02900
1785,76025	0,00165	0,07905	0,10957	0,02959
1783,83179	0,00112	0,07832	0,10883	0,02889
1781,90332	0,00145	0,07925	0,10970	0,02946
1779,97485	0,00156	0,07949	0,11007	0,02982
1778,04639	0,00093	0,07819	0,10879	0,02876
1776,11792	0,00131	0,07912	0,10998	0,02926
1774,18945	0,00126	0,08018	0,11030	0,03025
1772,26099	0,00065	0,07881	0,10889	0,02943
1770,33252	0,00032	0,07773	0,10870	0,02835
1768,40405	0,00057	0,07888	0,10977	0,02932
1766,47559	-0,00033	0,07728	0,10839	0,02781
1764,54712	0,00025	0,07855	0,11012	0,02849
1762,61865	0,00057	0,07960	0,11064	0,02991
1760,69019	-0,00055	0,07726	0,10864	0,02787
1758,76172	-0,00004	0,07871	0,11020	0,02854
1756,83325	0,00023	0,07910	0,11022	0,02928
1754,90479	-0,00041	0,07759	0,10893	0,02784
1752,97632	-0,00017	0,07892	0,10988	0,02877
1751,04785	0,00009	0,07940	0,11017	0,02983
1749,11938	-0,00004	0,07876	0,11045	0,02919
1747,19092	0,00008	0,07943	0,11110	0,02949
1745,26245	-0,00033	0,07878	0,11020	0,02908
1743,33398	-0,00019	0,07897	0,11087	0,02901
1741,40552	-0,00021	0,07956	0,11074	0,02963
1739,47705	-0,00101	0,07771	0,10856	0,02834
1737,54858	-0,00071	0,07833	0,11004	0,02810
1735,62012	-0,00063	0,07986	0,11027	0,02988
1733,69165	-0,00129	0,07752	0,10812	0,02906
1731,76318	-0,00186	0,07635	0,10787	0,02692
1729,83472	-0,00002	0,07977	0,11163	0,02986
1727,90625	-0,00124	0,07712	0,10854	0,02774
1725,97778	-0,00076	0,07802	0,10971	0,02813
1724,04932	-0,00045	0,07866	0,11019	0,02908
1722,12085	-0,00104	0,07747	0,10922	0,02792
1720,19238	-0,00036	0,07914	0,11079	0,02962
1718,26392	-0,00029	0,07999	0,11110	0,03089
1716,33545	-0,00174	0,07697	0,10849	0,02826
1714,40698	-0,00109	0,07746	0,10968	0,02853
1712,47852	-0,00081	0,07791	0,11005	0,02893
1710,55005	-0,00123	0,07718	0,10926	0,02802
1708,62158	-0,00043	0,07873	0,11115	0,02919
1706,69312	-0,00019	0,07920	0,11099	0,03032
1704,76465	-0,00063	0,07752	0,11025	0,02882
1702,83618	-0,00033	0,07901	0,11151	0,02982
1700,90771	0,00003	0,07854	0,10964	0,03182

1698,97925	-0,00264	0,07363	0,10591	0,02661
1697,05078	-0,00153	0,07840	0,11043	0,02883
1695,12231	-0,00160	0,07637	0,10804	0,02870
1693,19385	-0,00180	0,07524	0,10822	0,02684
1691,26538	-0,00034	0,07919	0,11204	0,02992
1689,33691	-0,00071	0,07775	0,11085	0,02932
1687,40845	-0,00055	0,07866	0,11239	0,02939
1685,47998	-0,00115	0,07977	0,11135	0,03067
1683,55151	-0,00101	0,07697	0,11078	0,02939
1681,62305	-0,00115	0,07676	0,11109	0,02846
1679,69458	-0,00102	0,07799	0,11200	0,02886
1677,76611	-0,00130	0,07749	0,11133	0,02863
1675,83765	-0,00126	0,07732	0,11085	0,02954
1673,90918	-0,00215	0,07535	0,10942	0,02789
1671,98071	-0,00131	0,07747	0,11206	0,02890
1670,05225	-0,00033	0,07943	0,11358	0,03128
1668,12378	-0,00198	0,07526	0,10996	0,02818
1666,19531	-0,00165	0,07658	0,11182	0,02823
1664,26685	-0,00137	0,07758	0,11205	0,02959
1662,33838	-0,00148	0,07654	0,11150	0,02916
1660,40991	-0,00162	0,07617	0,11147	0,02861
1658,48145	-0,00186	0,07564	0,11085	0,02818
1656,55298	-0,00096	0,07730	0,11362	0,02989
1654,62451	-0,00121	0,07898	0,11380	0,03233
1652,69604	-0,00100	0,07738	0,11317	0,03137
1650,76758	-0,00446	0,07073	0,10670	0,02504
1648,83911	-0,00065	0,07806	0,11541	0,03162
1646,91064	-0,00068	0,07853	0,11531	0,03263
1644,98218	-0,00372	0,07139	0,10831	0,02690
1643,05371	-0,00231	0,07434	0,11191	0,02913
1641,12524	-0,00266	0,07356	0,11090	0,02895
1639,19678	-0,00217	0,07426	0,11218	0,02938
1637,26831	-0,00189	0,07603	0,11321	0,03118
1635,33984	-0,00241	0,07435	0,11148	0,03057
1633,41138	-0,00401	0,07075	0,10835	0,02694
1631,48291	-0,00312	0,07335	0,11125	0,02842
1629,55444	-0,00340	0,07354	0,11079	0,02910
1627,62598	-0,00379	0,07261	0,11069	0,02863
1625,69751	-0,00419	0,07243	0,11068	0,02845
1623,76904	-0,00416	0,07300	0,11065	0,02931
1621,84058	-0,00503	0,07108	0,10915	0,02744
1619,91211	-0,00472	0,07229	0,11065	0,02782
1617,98364	-0,00516	0,07323	0,10988	0,02870
1616,05518	-0,00572	0,07134	0,10765	0,02698
1614,12671	-0,00457	0,07226	0,10931	0,02728
1612,19824	-0,00339	0,07456	0,11108	0,02897
1610,26978	-0,00332	0,07481	0,11070	0,02883
1608,34131	-0,00292	0,07543	0,11148	0,02915

1606,41284	-0,00291	0,07543	0,11102	0,02896
1604,48438	-0,00264	0,07571	0,11109	0,02897
1602,55591	-0,00223	0,07644	0,11171	0,02944
1600,62744	-0,00224	0,07639	0,11142	0,02927
1598,69897	-0,00210	0,07651	0,11146	0,02926
1596,77051	-0,00185	0,07703	0,11197	0,02955
1594,84204	-0,00167	0,07731	0,11226	0,02973
1592,91357	-0,00175	0,07711	0,11190	0,02959
1590,98511	-0,00175	0,07724	0,11193	0,02957
1589,05664	-0,00158	0,07767	0,11217	0,02984
1587,12817	-0,00185	0,07740	0,11167	0,02963
1585,19971	-0,00180	0,07775	0,11218	0,02982
1583,27124	-0,00169	0,07825	0,11233	0,03006
1581,34277	-0,00193	0,07758	0,11165	0,02950
1579,41431	-0,00133	0,07876	0,11342	0,03035
1577,48584	-0,00173	0,07990	0,11304	0,03110
1575,55737	-0,00267	0,07733	0,11040	0,02934
1573,62891	-0,00211	0,07680	0,11139	0,02855
1571,70044	-0,00060	0,08019	0,11424	0,03147
1569,77197	-0,00053	0,07974	0,11347	0,03202
1567,84351	-0,00143	0,07754	0,11238	0,02989
1565,91504	-0,00089	0,07936	0,11373	0,03122
1563,98657	-0,00096	0,07840	0,11323	0,03068
1562,05811	-0,00066	0,07958	0,11453	0,03127
1560,12964	0,00073	0,08321	0,11613	0,03561
1558,20117	-0,00008	0,07812	0,11416	0,03249
1556,27271	-0,00164	0,07689	0,11196	0,02981
1554,34424	-0,00099	0,07876	0,11342	0,03116
1552,41577	-0,00141	0,07745	0,11228	0,03015
1550,4873	0,00019	0,08020	0,11580	0,03237
1548,55884	-0,00038	0,07892	0,11448	0,03141
1546,63037	-0,00068	0,07883	0,11403	0,03109
1544,7019	0,00054	0,08125	0,11686	0,03343
1542,77344	0,00004	0,08007	0,11599	0,03297
1540,84497	0,00006	0,08089	0,11559	0,03403
1538,9165	-0,00134	0,07787	0,11401	0,03151
1536,98804	-0,00168	0,07687	0,11346	0,02982
1535,05957	0,00025	0,08053	0,11679	0,03320
1533,1311	0,00061	0,08052	0,11703	0,03393
1531,20264	-0,00101	0,07760	0,11448	0,03085
1529,27417	-0,00004	0,07998	0,11673	0,03262
1527,3457	0,00041	0,08050	0,11727	0,03375
1525,41724	-0,00055	0,07851	0,11577	0,03203
1523,48877	0,00012	0,08034	0,11715	0,03360
1521,5603	-0,00003	0,07991	0,11665	0,03365
1519,63184	-0,00163	0,07670	0,11369	0,03087
1517,70337	0,00044	0,08034	0,11797	0,03386
1515,7749	0,00024	0,07953	0,11759	0,03321

1513,84644	-0,00079	0,07804	0,11585	0,03168
1511,91797	-0,00073	0,07830	0,11606	0,03212
1509,9895	0,00031	0,08013	0,11861	0,03354
1508,06104	0,00126	0,08307	0,12051	0,03619
1506,13257	0,00028	0,08013	0,11833	0,03442
1504,2041	-0,00259	0,07451	0,11247	0,02914
1502,27563	-0,00035	0,07876	0,11723	0,03229
1500,34717	-0,00063	0,07841	0,11658	0,03251
1498,4187	-0,00060	0,07868	0,11702	0,03297
1496,49023	-0,00126	0,07746	0,11569	0,03212
1494,56177	-0,00193	0,07577	0,11423	0,03022
1492,6333	-0,00040	0,07839	0,11712	0,03241
1490,70483	0,00022	0,07968	0,11843	0,03416
1488,77637	-0,00024	0,07886	0,11823	0,03353
1486,8479	-0,00085	0,07764	0,11682	0,03222
1484,91943	-0,00126	0,07702	0,11597	0,03143
1482,99097	-0,00090	0,07765	0,11663	0,03193
1481,0625	-0,00077	0,07771	0,11691	0,03199
1479,13403	-0,00117	0,07717	0,11640	0,03159
1477,20557	-0,00064	0,07788	0,11729	0,03250
1475,2771	-0,00038	0,07839	0,11772	0,03293
1473,34863	-0,00099	0,07792	0,11662	0,03270
1471,42017	-0,00133	0,07648	0,11582	0,03158
1469,4917	-0,00127	0,07639	0,11624	0,03068
1467,56323	-0,00101	0,07761	0,11716	0,03152
1465,63477	-0,00062	0,07818	0,11761	0,03262
1463,7063	-0,00148	0,07615	0,11562	0,03092
1461,77783	-0,00144	0,07657	0,11627	0,03050
1459,84937	-0,00004	0,07956	0,11923	0,03322
1457,9209	0,00031	0,08045	0,11935	0,03475
1455,99243	-0,00243	0,07362	0,11257	0,02967
1454,06396	-0,00110	0,07651	0,11643	0,03083
1452,1355	-0,00077	0,07714	0,11714	0,03147
1450,20703	-0,00125	0,07644	0,11618	0,03089
1448,27856	-0,00066	0,07745	0,11740	0,03195
1446,3501	-0,00127	0,07604	0,11619	0,03078
1444,42163	-0,00124	0,07640	0,11644	0,03071
1442,49316	-0,00115	0,07640	0,11613	0,03100
1440,5647	-0,00107	0,07623	0,11638	0,03064
1438,63623	-0,00080	0,07706	0,11679	0,03155
1436,70776	-0,00077	0,07637	0,11585	0,03208
1434,7793	-0,00176	0,07470	0,11486	0,02992
1432,85083	-0,00090	0,07676	0,11738	0,03098
1430,92236	-0,00068	0,07710	0,11738	0,03177
1428,9939	-0,00111	0,07598	0,11654	0,03091
1427,06543	-0,00133	0,07596	0,11658	0,03059
1425,13696	-0,00099	0,07662	0,11705	0,03132
1423,2085	-0,00090	0,07664	0,11734	0,03120

1421,28003	-0,00151	0,07629	0,11639	0,03099
1419,35156	-0,00133	0,07636	0,11608	0,03191
1417,4231	-0,00141	0,07555	0,11596	0,03094
1415,49463	-0,00143	0,07606	0,11652	0,03092
1413,56616	-0,00195	0,07582	0,11586	0,03084
1411,6377	-0,00189	0,07614	0,11635	0,03100
1409,70923	-0,00206	0,07589	0,11608	0,03085
1407,78076	-0,00228	0,07572	0,11573	0,03077
1405,85229	-0,00178	0,07666	0,11670	0,03178
1403,92383	-0,00205	0,07569	0,11590	0,03122
1401,99536	-0,00223	0,07569	0,11571	0,03082
1400,06689	-0,00182	0,07657	0,11636	0,03174
1398,13843	-0,00191	0,07622	0,11640	0,03164
1396,20996	-0,00196	0,07674	0,11671	0,03187
1394,28149	-0,00215	0,07645	0,11603	0,03195
1392,35303	-0,00281	0,07517	0,11479	0,03058
1390,42456	-0,00244	0,07629	0,11588	0,03109
1388,49609	-0,00244	0,07646	0,11578	0,03166
1386,56763	-0,00325	0,07524	0,11484	0,03073
1384,63916	-0,00388	0,07465	0,11439	0,02999
1382,71069	-0,00357	0,07499	0,11465	0,03040
1380,78223	-0,00275	0,07593	0,11564	0,03133
1378,85376	-0,00272	0,07621	0,11587	0,03150
1376,92529	-0,00273	0,07657	0,11603	0,03167
1374,99683	-0,00208	0,07770	0,11712	0,03272
1373,06836	-0,00246	0,07681	0,11609	0,03204
1371,13989	-0,00276	0,07630	0,11532	0,03126
1369,21143	-0,00211	0,07728	0,11617	0,03193
1367,28296	-0,00228	0,07656	0,11553	0,03146
1365,35449	-0,00242	0,07642	0,11550	0,03150
1363,42603	-0,00186	0,07752	0,11686	0,03277
1361,49756	-0,00218	0,07649	0,11613	0,03215
1359,56909	-0,00258	0,07559	0,11506	0,03128
1357,64063	-0,00238	0,07607	0,11524	0,03160
1355,71216	-0,00229	0,07623	0,11519	0,03173
1353,78369	-0,00236	0,07592	0,11485	0,03154
1351,85522	-0,00238	0,07592	0,11478	0,03159
1349,92676	-0,00224	0,07612	0,11485	0,03164
1347,99829	-0,00209	0,07602	0,11468	0,03151
1346,06982	-0,00200	0,07610	0,11459	0,03161
1344,14136	-0,00210	0,07603	0,11441	0,03148
1342,21289	-0,00198	0,07641	0,11482	0,03174
1340,28442	-0,00149	0,07743	0,11596	0,03255
1338,35596	-0,00152	0,07692	0,11550	0,03214
1336,42749	-0,00176	0,07624	0,11452	0,03154
1334,49902	-0,00156	0,07636	0,11452	0,03163
1332,57056	-0,00123	0,07631	0,11445	0,03149
1330,64209	-0,00108	0,07649	0,11438	0,03149



1328,71362	-0,00109	0,07654	0,11431	0,03155
1326,78516	-0,00102	0,07653	0,11413	0,03144
1324,85669	-0,00094	0,07663	0,11412	0,03150
1322,92822	-0,00081	0,07636	0,11409	0,03139
1320,99976	-0,00053	0,07658	0,11422	0,03142
1319,07129	-0,00050	0,07690	0,11434	0,03169
1317,14282	-0,00069	0,07651	0,11394	0,03146
1315,21436	-0,00062	0,07656	0,11386	0,03147
1313,28589	-0,00047	0,07674	0,11405	0,03185
1311,35742	-0,00046	0,07647	0,11388	0,03167
1309,42896	-0,00036	0,07677	0,11399	0,03168
1307,50049	-0,00021	0,07701	0,11418	0,03205
1305,57202	-0,00006	0,07692	0,11423	0,03216
1303,64355	0,00009	0,07734	0,11444	0,03228
1301,71509	0,00008	0,07761	0,11451	0,03245
1299,78662	0,00003	0,07770	0,11452	0,03253
1297,85815	0,00011	0,07806	0,11453	0,03269
1295,92969	0,00014	0,07832	0,11450	0,03285
1294,00122	0,00012	0,07852	0,11456	0,03284
1292,07275	0,00030	0,07873	0,11451	0,03286
1290,14429	0,00044	0,07878	0,11461	0,03303
1288,21582	0,00041	0,07886	0,11478	0,03311
1286,28735	0,00050	0,07882	0,11483	0,03310
1284,35889	0,00076	0,07875	0,11503	0,03313
1282,43042	0,00100	0,07898	0,11526	0,03322
1280,50195	0,00123	0,07936	0,11562	0,03352
1278,57349	0,00145	0,07974	0,11612	0,03385
1276,64502	0,00164	0,08005	0,11647	0,03409
1274,71655	0,00187	0,08028	0,11692	0,03440
1272,78809	0,00209	0,08064	0,11746	0,03482
1270,85962	0,00230	0,08089	0,11787	0,03524
1268,93115	0,00251	0,08099	0,11819	0,03559
1267,00269	0,00261	0,08109	0,11840	0,03584
1265,07422	0,00261	0,08098	0,11857	0,03599
1263,14575	0,00269	0,08091	0,11875	0,03619
1261,21729	0,00289	0,08109	0,11891	0,03655
1259,28882	0,00301	0,08116	0,11895	0,03666
1257,36035	0,00310	0,08108	0,11896	0,03667
1255,43188	0,00327	0,08116	0,11918	0,03696
1253,50342	0,00338	0,08137	0,11935	0,03714
1251,57495	0,00356	0,08151	0,11936	0,03724
1249,64648	0,00386	0,08165	0,11952	0,03746
1247,71802	0,00411	0,08182	0,11979	0,03759
1245,78955	0,00448	0,08196	0,11995	0,03780
1243,86108	0,00496	0,08203	0,12015	0,03809
1241,93262	0,00532	0,08206	0,12056	0,03829
1240,00415	0,00555	0,08219	0,12084	0,03848
1238,07568	0,00573	0,08231	0,12112	0,03874

1236,14722	0,00606	0,08252	0,12151	0,03912
1234,21875	0,00653	0,08277	0,12164	0,03948
1232,29028	0,00692	0,08289	0,12189	0,03979
1230,36182	0,00715	0,08297	0,12233	0,04006
1228,43335	0,00739	0,08298	0,12255	0,04017
1226,50488	0,00791	0,08310	0,12274	0,04036
1224,57642	0,00839	0,08324	0,12301	0,04067
1222,64795	0,00853	0,08329	0,12323	0,04088
1220,71948	0,00878	0,08360	0,12343	0,04097
1218,79102	0,00936	0,08392	0,12359	0,04093
1216,86255	0,00975	0,08407	0,12376	0,04105
1214,93408	0,00992	0,08443	0,12409	0,04145
1213,00562	0,01034	0,08482	0,12467	0,04189
1211,07715	0,01086	0,08509	0,12529	0,04228
1209,14868	0,01133	0,08549	0,12588	0,04277
1207,22021	0,01189	0,08592	0,12648	0,04327
1205,29175	0,01227	0,08621	0,12695	0,04361
1203,36328	0,01252	0,08656	0,12741	0,04397
1201,43481	0,01307	0,08695	0,12783	0,04440
1199,50635	0,01368	0,08721	0,12832	0,04494
1197,57788	0,01403	0,08764	0,12881	0,04550
1195,64941	0,01425	0,08824	0,12892	0,04583
1193,72095	0,01428	0,08869	0,12913	0,04613
1191,79248	0,01441	0,08906	0,12967	0,04646
1189,86401	0,01488	0,08939	0,13017	0,04675
1187,93555	0,01519	0,08975	0,13065	0,04720
1186,00708	0,01531	0,09027	0,13121	0,04753
1184,07861	0,01558	0,09089	0,13170	0,04780
1182,15015	0,01589	0,09145	0,13213	0,04836
1180,22168	0,01623	0,09187	0,13275	0,04890
1178,29321	0,01672	0,09247	0,13343	0,04928
1176,36475	0,01717	0,09319	0,13392	0,04983
1174,43628	0,01751	0,09363	0,13429	0,05040
1172,50781	0,01788	0,09397	0,13465	0,05076
1170,57935	0,01813	0,09431	0,13512	0,05114
1168,65088	0,01823	0,09460	0,13559	0,05159
1166,72241	0,01847	0,09500	0,13606	0,05188
1164,79395	0,01865	0,09539	0,13662	0,05204
1162,86548	0,01867	0,09562	0,13686	0,05239
1160,93701	0,01880	0,09588	0,13694	0,05295
1159,00854	0,01891	0,09608	0,13722	0,05328
1157,08008	0,01907	0,09618	0,13735	0,05339
1155,15161	0,01931	0,09639	0,13750	0,05370
1153,22314	0,01936	0,09673	0,13786	0,05416
1151,29468	0,01940	0,09721	0,13811	0,05456
1149,36621	0,01963	0,09763	0,13817	0,05484
1147,43774	0,01983	0,09773	0,13827	0,05501
1145,50928	0,02006	0,09794	0,13846	0,05535

1143,58081	0,02028	0,09835	0,13852	0,05572
1141,65234	0,02035	0,09864	0,13858	0,05592
1139,72388	0,02044	0,09893	0,13882	0,05634
1137,79541	0,02059	0,09925	0,13911	0,05663
1135,86694	0,02079	0,09951	0,13934	0,05674
1133,93848	0,02102	0,09967	0,13961	0,05720
1132,01001	0,02113	0,09980	0,13968	0,05743
1130,08154	0,02120	0,09989	0,13952	0,05732
1128,15308	0,02144	0,09989	0,13978	0,05762
1126,22461	0,02163	0,10010	0,14044	0,05799
1124,29614	0,02177	0,10037	0,14091	0,05808
1122,36768	0,02194	0,10047	0,14114	0,05817
1120,43921	0,02193	0,10054	0,14132	0,05841
1118,51074	0,02200	0,10065	0,14159	0,05880
1116,58228	0,02233	0,10086	0,14165	0,05911
1114,65381	0,02264	0,10103	0,14173	0,05934
1112,72534	0,02282	0,10128	0,14211	0,05981
1110,79688	0,02287	0,10172	0,14229	0,06034
1108,86841	0,02293	0,10180	0,14245	0,06053
1106,93994	0,02306	0,10178	0,14262	0,06054
1105,01147	0,02326	0,10207	0,14266	0,06075
1103,08301	0,02344	0,10217	0,14287	0,06105
1101,15454	0,02345	0,10212	0,14305	0,06123
1099,22607	0,02348	0,10221	0,14314	0,06146
1097,29761	0,02358	0,10216	0,14327	0,06185
1095,36914	0,02356	0,10224	0,14359	0,06226
1093,44067	0,02356	0,10249	0,14401	0,06255
1091,51221	0,02360	0,10242	0,14423	0,06270
1089,58374	0,02364	0,10236	0,14453	0,06274
1087,65527	0,02371	0,10257	0,14489	0,06277
1085,72681	0,02357	0,10255	0,14482	0,06275
1083,79834	0,02325	0,10233	0,14442	0,06270
1081,86987	0,02297	0,10230	0,14388	0,06283
1079,94141	0,02261	0,10228	0,14339	0,06303
1078,01294	0,02223	0,10209	0,14322	0,06309
1076,08447	0,02209	0,10189	0,14313	0,06312
1074,15601	0,02179	0,10164	0,14291	0,06315
1072,22754	0,02113	0,10142	0,14274	0,06321
1070,29907	0,02076	0,10145	0,14266	0,06318
1068,37061	0,02063	0,10128	0,14245	0,06297
1066,44214	0,02032	0,10077	0,14235	0,06285
1064,51367	0,02010	0,10045	0,14242	0,06280
1062,58521	0,02005	0,10029	0,14229	0,06274
1060,65674	0,01987	0,09991	0,14210	0,06281
1058,72827	0,01957	0,09941	0,14189	0,06281
1056,7998	0,01928	0,09920	0,14169	0,06267
1054,87134	0,01888	0,09908	0,14164	0,06240
1052,94287	0,01848	0,09878	0,14131	0,06209

1051,0144	0,01821	0,09863	0,14103	0,06192
1049,08594	0,01788	0,09844	0,14117	0,06176
1047,15747	0,01758	0,09818	0,14124	0,06148
1045,229	0,01756	0,09809	0,14137	0,06130
1043,30054	0,01754	0,09789	0,14139	0,06126
1041,37207	0,01736	0,09782	0,14110	0,06115
1039,4436	0,01724	0,09781	0,14115	0,06099
1037,51514	0,01714	0,09765	0,14130	0,06094
1035,58667	0,01689	0,09765	0,14165	0,06094
1033,6582	0,01659	0,09756	0,14236	0,06094
1031,72974	0,01647	0,09738	0,14266	0,06089
1029,80127	0,01659	0,09743	0,14295	0,06097
1027,8728	0,01653	0,09749	0,14326	0,06109
1025,94434	0,01637	0,09758	0,14321	0,06105
1024,01587	0,01639	0,09758	0,14348	0,06123
1022,0874	0,01629	0,09765	0,14383	0,06155
1020,15894	0,01620	0,09778	0,14395	0,06173
1018,23047	0,01617	0,09750	0,14406	0,06176
1016,302	0,01590	0,09724	0,14397	0,06155
1014,37354	0,01547	0,09716	0,14373	0,06137
1012,44507	0,01515	0,09691	0,14356	0,06119
1010,5166	0,01518	0,09671	0,14361	0,06082
1008,58813	0,01535	0,09648	0,14379	0,06060
1006,65967	0,01543	0,09619	0,14370	0,06050
1004,7312	0,01531	0,09627	0,14339	0,06036
1002,80273	0,01493	0,09629	0,14328	0,06029
1000,87427	0,01471	0,09585	0,14336	0,06024
998,9458	0,01471	0,09578	0,14334	0,06009
997,01733	0,01469	0,09594	0,14324	0,05987
995,08887	0,01471	0,09571	0,14319	0,05971
993,1604	0,01458	0,09557	0,14301	0,05963
991,23193	0,01441	0,09558	0,14279	0,05958
989,30347	0,01440	0,09553	0,14267	0,05948
987,375	0,01419	0,09554	0,14242	0,05927
985,44653	0,01386	0,09547	0,14207	0,05919
983,51807	0,01383	0,09542	0,14172	0,05901
981,5896	0,01377	0,09545	0,14151	0,05866
979,66113	0,01353	0,09544	0,14140	0,05856
977,73267	0,01354	0,09525	0,14140	0,05854
975,8042	0,01364	0,09490	0,14161	0,05861
973,87573	0,01342	0,09493	0,14152	0,05887
971,94727	0,01323	0,09506	0,14121	0,05897
970,0188	0,01319	0,09499	0,14113	0,05889
968,09033	0,01294	0,09516	0,14116	0,05890
966,16187	0,01276	0,09516	0,14144	0,05904
964,2334	0,01275	0,09491	0,14166	0,05915
962,30493	0,01267	0,09490	0,14151	0,05902
960,37646	0,01254	0,09491	0,14141	0,05886

958,448	0,01252	0,09493	0,14128	0,05900
956,51953	0,01268	0,09494	0,14095	0,05934
954,59106	0,01277	0,09489	0,14088	0,05965
952,6626	0,01263	0,09488	0,14097	0,05971
950,73413	0,01265	0,09486	0,14080	0,05958
948,80566	0,01267	0,09493	0,14080	0,05941
946,8772	0,01234	0,09499	0,14098	0,05913
944,94873	0,01215	0,09484	0,14079	0,05880
943,02026	0,01220	0,09459	0,14064	0,05867
941,0918	0,01220	0,09443	0,14069	0,05871
939,16333	0,01241	0,09432	0,14061	0,05874
937,23486	0,01268	0,09423	0,14051	0,05867
935,3064	0,01260	0,09412	0,14045	0,05870
933,37793	0,01239	0,09381	0,14057	0,05888
931,44946	0,01242	0,09386	0,14074	0,05885
929,521	0,01264	0,09423	0,14088	0,05881
927,59253	0,01249	0,09430	0,14114	0,05905
925,66406	0,01230	0,09447	0,14103	0,05906
923,7356	0,01267	0,09446	0,14073	0,05903
921,80713	0,01271	0,09428	0,14086	0,05938
919,87866	0,01237	0,09470	0,14113	0,05950
917,9502	0,01254	0,09505	0,14133	0,05939
916,02173	0,01274	0,09498	0,14144	0,05949
914,09326	0,01265	0,09481	0,14150	0,05970
912,16479	0,01277	0,09444	0,14158	0,06004
910,23633	0,01298	0,09432	0,14156	0,06025
908,30786	0,01307	0,09444	0,14165	0,05997
906,37939	0,01305	0,09432	0,14177	0,05981
904,45093	0,01319	0,09432	0,14175	0,05988
902,52246	0,01347	0,09430	0,14189	0,05974
900,59399	0,01342	0,09405	0,14212	0,05989
898,66553	0,01327	0,09404	0,14217	0,06012
896,73706	0,01328	0,09417	0,14205	0,06007
894,80859	0,01330	0,09404	0,14198	0,06014
892,88013	0,01346	0,09378	0,14214	0,06027
890,95166	0,01351	0,09377	0,14230	0,06052
889,02319	0,01332	0,09398	0,14233	0,06082
887,09473	0,01338	0,09404	0,14248	0,06104
885,16626	0,01359	0,09416	0,14264	0,06128
883,23779	0,01368	0,09449	0,14287	0,06151
881,30933	0,01394	0,09472	0,14327	0,06183
879,38086	0,01444	0,09509	0,14350	0,06221
877,45239	0,01480	0,09577	0,14364	0,06274
875,52393	0,01523	0,09666	0,14444	0,06349
873,59546	0,01618	0,09777	0,14617	0,06457
871,66699	0,01751	0,09928	0,14813	0,06629
869,73853	0,01884	0,10121	0,14996	0,06834
867,81006	0,01978	0,10266	0,15160	0,06982

865,88159	0,02055	0,10341	0,15274	0,07044
863,95313	0,02137	0,10430	0,15332	0,07083
862,02466	0,02167	0,10509	0,15353	0,07142
860,09619	0,02137	0,10503	0,15331	0,07164
858,16772	0,02085	0,10458	0,15258	0,07113
856,23926	0,02022	0,10406	0,15169	0,07034
854,31079	0,01967	0,10299	0,15078	0,06979
852,38232	0,01942	0,10239	0,15011	0,06969
850,45386	0,01942	0,10301	0,15038	0,07009
848,52539	0,02025	0,10470	0,15211	0,07167
846,59692	0,02229	0,10799	0,15553	0,07460
844,66846	0,02414	0,11090	0,15882	0,07732
842,73999	0,02615	0,11322	0,16133	0,08003
840,81152	0,02998	0,11818	0,16627	0,08471
838,88306	0,03423	0,12388	0,17268	0,08973
836,95459	0,03771	0,12834	0,17740	0,09357
835,02612	0,04070	0,13230	0,18101	0,09720
833,09766	0,04184	0,13372	0,18273	0,09893
831,16919	0,04147	0,13327	0,18254	0,09878
829,24072	0,04140	0,13294	0,18235	0,09856
827,31226	0,04147	0,13278	0,18218	0,09815
825,38379	0,04290	0,13492	0,18368	0,09980
823,45532	0,04547	0,13805	0,18662	0,10300
821,52686	0,04626	0,13859	0,18784	0,10377
819,59839	0,04609	0,13846	0,18821	0,10354
817,66992	0,04658	0,13925	0,18898	0,10439
815,74146	0,04760	0,14015	0,18984	0,10565
813,81299	0,04913	0,14138	0,19102	0,10687
811,88452	0,04999	0,14218	0,19179	0,10735
809,95605	0,04995	0,14214	0,19180	0,10728
808,02759	0,05036	0,14239	0,19166	0,10767
806,09912	0,05147	0,14342	0,19246	0,10856
804,17065	0,05231	0,14465	0,19375	0,10938
802,24219	0,05260	0,14536	0,19427	0,10978
800,31372	0,05373	0,14628	0,19517	0,11035
798,38525	0,05537	0,14754	0,19626	0,11154
796,45679	0,05590	0,14816	0,19669	0,11249
794,52832	0,05585	0,14854	0,19712	0,11269
792,59985	0,05562	0,14817	0,19677	0,11241
790,67139	0,05476	0,14658	0,19560	0,11165
788,74292	0,05389	0,14537	0,19490	0,11090
786,81445	0,05347	0,14513	0,19473	0,11077
784,88599	0,05252	0,14449	0,19392	0,11027
782,95752	0,05108	0,14312	0,19238	0,10892
781,02905	0,05051	0,14214	0,19186	0,10815
779,10059	0,05074	0,14181	0,19228	0,10837
777,17212	0,05143	0,14232	0,19293	0,10903
775,24365	0,05280	0,14375	0,19427	0,11030

773,31519	0,05426	0,14482	0,19559	0,11190
771,38672	0,05510	0,14546	0,19643	0,11292
769,45825	0,05543	0,14601	0,19689	0,11314
767,52979	0,05588	0,14616	0,19712	0,11317
765,60132	0,05663	0,14662	0,19755	0,11340
763,67285	0,05700	0,14708	0,19789	0,11374
761,74438	0,05627	0,14622	0,19757	0,11352
759,81592	0,05528	0,14510	0,19681	0,11289
757,88745	0,05486	0,14495	0,19671	0,11296
755,95898	0,05486	0,14488	0,19712	0,11317
754,03052	0,05512	0,14465	0,19718	0,11297
752,10205	0,05483	0,14422	0,19695	0,11254
750,17358	0,05451	0,14392	0,19668	0,11228
748,24512	0,05512	0,14451	0,19706	0,11326
746,31665	0,05564	0,14499	0,19757	0,11439
744,38818	0,05578	0,14540	0,19746	0,11464
742,45972	0,05589	0,14611	0,19766	0,11519
740,53125	0,05606	0,14615	0,19815	0,11578
738,60278	0,05677	0,14627	0,19850	0,11583
736,67432	0,05770	0,14714	0,19915	0,11611
734,74585	0,05818	0,14772	0,19929	0,11647
732,81738	0,05804	0,14763	0,19865	0,11625
730,88892	0,05802	0,14771	0,19876	0,11632
728,96045	0,05881	0,14842	0,19938	0,11701
727,03198	0,05982	0,14924	0,19992	0,11763
725,10352	0,06075	0,15016	0,20096	0,11835
723,17505	0,06150	0,15102	0,20164	0,11904
721,24658	0,06167	0,15142	0,20192	0,11934
719,31812	0,06204	0,15180	0,20249	0,11975
717,38965	0,06305	0,15252	0,20305	0,12040
715,46118	0,06382	0,15330	0,20344	0,12085
713,53271	0,06386	0,15360	0,20337	0,12106
711,60425	0,06346	0,15331	0,20314	0,12118
709,67578	0,06338	0,15307	0,20330	0,12142
707,74731	0,06396	0,15329	0,20328	0,12180
705,81885	0,06441	0,15384	0,20277	0,12169
703,89038	0,06400	0,15415	0,20235	0,12120
701,96191	0,06355	0,15382	0,20222	0,12108
700,03345	0,06366	0,15381	0,20230	0,12148
698,10498	0,06366	0,15422	0,20266	0,12191
696,17651	0,06350	0,15438	0,20301	0,12194
694,24805	0,06355	0,15441	0,20334	0,12215
692,31958	0,06379	0,15454	0,20390	0,12270
690,39111	0,06451	0,15559	0,20452	0,12319
688,46265	0,06581	0,15703	0,20505	0,12381
686,53418	0,06679	0,15787	0,20577	0,12442
684,60571	0,06723	0,15818	0,20607	0,12454
682,67725	0,06803	0,15863	0,20618	0,12484

680,74878	0,06881	0,16015	0,20712	0,12605
678,82031	0,06973	0,16082	0,20752	0,12677
676,89185	0,07053	0,16106	0,20821	0,12715
674,96338	0,07126	0,16208	0,20857	0,12771
673,03491	0,07137	0,16205	0,20870	0,12791
671,10645	0,07145	0,16203	0,20883	0,12811
669,17798	0,07153	0,16201	0,20895	0,12832
667,24951	0,07161	0,16199	0,20908	0,12852
665,32104	0,07168	0,16197	0,20921	0,12872
663,39258	0,07176	0,16195	0,20933	0,12892
661,46411	0,07184	0,16193	0,20946	0,12912
659,53564	0,07192	0,16190	0,20959	0,12932
657,60718	0,07200	0,16188	0,20971	0,12952
655,67871	0,07207	0,16186	0,20984	0,12972
653,75024	0,07189	0,16184	0,20997	0,13019
651,82178	0,07266	0,16205	0,21009	0,13019
649,89331	0,07272	0,16184	0,21022	0,13036
647,96484	0,07310	0,16215	0,21035	0,13092
646,03638	0,07413	0,16224	0,20986	0,13099
644,10791	0,07447	0,16178	0,21000	0,13083
642,17944	0,07454	0,16197	0,21019	0,13110
640,25098	0,07508	0,16226	0,21035	0,13124
638,32251	0,07495	0,16206	0,20999	0,13121
636,39404	0,07477	0,16181	0,20975	0,13195
634,46558	0,07496	0,16166	0,21027	0,13210
632,53711	0,07425	0,16176	0,21052	0,13147
630,60864	0,07380	0,16119	0,21003	0,13103
628,68018	0,07416	0,16025	0,20967	0,13056
626,75171	0,07477	0,16013	0,20955	0,13070
624,82324	0,07514	0,16029	0,20939	0,13086
622,89478	0,07523	0,16018	0,20947	0,13047
620,96631	0,07578	0,15972	0,21006	0,13050
619,03784	0,07625	0,15961	0,21059	0,13079
617,10938	0,07652	0,16026	0,21042	0,13113
615,18091	0,07671	0,16045	0,21061	0,13199
613,25244	0,07647	0,16027	0,21120	0,13273
611,32397	0,07661	0,16072	0,21185	0,13273
609,39551	0,07687	0,16036	0,21291	0,13271
607,46704	0,07689	0,15926	0,21304	0,13305
605,53857	0,07713	0,15903	0,21250	0,13326
603,61011	0,07689	0,15874	0,21244	0,13295
601,68164	0,07699	0,15861	0,21242	0,13230
599,75317	0,07740	0,15866	0,21262	0,13204
597,82471	0,07677	0,15783	0,21274	0,13198
595,89624	0,07635	0,15722	0,21276	0,13144
593,96777	0,07670	0,15762	0,21375	0,13161
592,03931	0,07736	0,15852	0,21441	0,13240
590,11084	0,07710	0,15857	0,21345	0,13241



588,18237	0,07610	0,15809	0,21339	0,13257
586,25391	0,07620	0,15802	0,21440	0,13310
584,32544	0,07669	0,15810	0,21455	0,13331
582,39697	0,07739	0,15884	0,21467	0,13338
580,46851	0,07735	0,15881	0,21468	0,13308
578,54004	0,07660	0,15820	0,21450	0,13289
576,61157	0,07754	0,15889	0,21487	0,13334
574,68311	0,07776	0,15894	0,21441	0,13392
572,75464	0,07732	0,15900	0,21429	0,13439
570,82617	0,07844	0,16045	0,21548	0,13483
568,89771	0,07936	0,16141	0,21593	0,13534
566,96924	0,07965	0,16162	0,21632	0,13540
565,04077	0,07953	0,16214	0,21718	0,13487
563,1123	0,07898	0,16297	0,21719	0,13475
561,18384	0,07847	0,16336	0,21678	0,13462
559,25537	0,07860	0,16400	0,21631	0,13417
557,3269	0,07931	0,16533	0,21636	0,13425
555,39844	0,07915	0,16612	0,21700	0,13335
553,46997	0,07846	0,16653	0,21774	0,13157
551,5415	0,07767	0,16625	0,21835	0,13093
549,61304	0,07639	0,16609	0,21795	0,13001
547,68457	0,07584	0,16678	0,21780	0,12818
545,7561	0,07571	0,16658	0,21927	0,12739
543,82764	0,07441	0,16653	0,21988	0,12657
541,89917	0,07328	0,16760	0,21936	0,12415
539,9707	0,07302	0,16829	0,22056	0,12247
538,04224	0,07114	0,16865	0,22187	0,12064
536,11377	0,06908	0,16946	0,22128	0,11692
534,1853	0,06798	0,17040	0,22182	0,11447
532,25684	0,06501	0,17069	0,22174	0,11096
530,32837	0,06270	0,17133	0,22211	0,10793
528,3999	0,06016	0,17007	0,22188	0,10367
526,47144	0,05525	0,16714	0,21756	0,09395
524,54297	0,05186	0,16803	0,21864	0,09061
522,6145	0,04775	0,16928	0,22263	0,08906
520,68604	0,04193	0,16758	0,22014	0,07959
518,75757	0,03766	0,16680	0,21700	0,07120
516,8291	0,03316	0,16658	0,21761	0,06656
514,90063	0,02888	0,16544	0,21906	0,06370
512,97217	0,02409	0,16428	0,21784	0,05934
511,0437	0,01592	0,16299	0,21666	0,05221
509,11523	0,00946	0,16104	0,21624	0,04541
507,18677	0,00576	0,15928	0,21309	0,03961
505,2583	0,00119	0,15969	0,21249	0,03588
503,32983	-0,00236	0,15876	0,21245	0,03045
501,40137	-0,00607	0,15573	0,20938	0,02530
499,4729	-0,01001	0,15501	0,21020	0,02383

Figure 2.6 C				
n°spectre	VD454	VD458	VD229	VD177
nom	F3_grinded	F3_pHNAT	F3_pH=6,5	F3_pH=9,5
cm-1	a	b	c	d
4001,5686	0,10248	0,10181	0,12499	0,10128
3999,64014	0,10228	0,10176	0,12498	0,10113
3997,71167	0,10229	0,10171	0,12497	0,10107
3995,7832	0,10247	0,10177	0,12500	0,10091
3993,85474	0,10233	0,10175	0,12486	0,10074
3991,92627	0,10226	0,10168	0,12477	0,10074
3989,9978	0,10235	0,10168	0,12482	0,10066
3988,06934	0,10209	0,10162	0,12472	0,10058
3986,14087	0,10197	0,10160	0,12470	0,10056
3984,2124	0,10201	0,10164	0,12461	0,10044
3982,28394	0,10201	0,10165	0,12445	0,10032
3980,35547	0,10194	0,10158	0,12454	0,10020
3978,427	0,10177	0,10150	0,12452	0,10015
3976,49854	0,10205	0,10163	0,12460	0,10016
3974,57007	0,10220	0,10167	0,12465	0,10014
3972,6416	0,10185	0,10144	0,12436	0,09997
3970,71313	0,10174	0,10135	0,12434	0,09986
3968,78467	0,10182	0,10142	0,12443	0,09991
3966,8562	0,10147	0,10128	0,12424	0,09986
3964,92773	0,10135	0,10122	0,12414	0,09986
3962,99927	0,10204	0,10153	0,12426	0,09973
3961,0708	0,10197	0,10157	0,12416	0,09954
3959,14233	0,10145	0,10129	0,12413	0,09959
3957,21387	0,10153	0,10124	0,12406	0,09949
3955,2854	0,10156	0,10130	0,12390	0,09935
3953,35693	0,10128	0,10113	0,12406	0,09936
3951,42847	0,10170	0,10126	0,12385	0,09921
3949,5	0,10344	0,10205	0,12395	0,09869
3947,57153	0,10212	0,10145	0,12412	0,09854
3945,64307	0,10061	0,10075	0,12364	0,09906
3943,7146	0,10293	0,10164	0,12425	0,09888
3941,78613	0,10224	0,10133	0,12429	0,09831
3939,85767	0,10033	0,10062	0,12328	0,09868
3937,9292	0,10109	0,10101	0,12353	0,09899
3936,00073	0,10089	0,10089	0,12362	0,09886
3934,07227	0,10154	0,10118	0,12357	0,09882
3932,1438	0,10300	0,10185	0,12442	0,09810
3930,21533	0,10163	0,10107	0,12396	0,09759
3928,28687	0,10026	0,10049	0,12302	0,09829
3926,3584	0,10161	0,10122	0,12367	0,09843
3924,42993	0,10250	0,10141	0,12410	0,09764
3922,50146	0,10077	0,10066	0,12337	0,09773
3920,573	0,10091	0,10088	0,12342	0,09818

3918,64453	0,10189	0,10131	0,12372	0,09782
3916,71606	0,10109	0,10098	0,12353	0,09732
3914,7876	0,09956	0,10036	0,12297	0,09744
3912,85913	0,09985	0,10048	0,12263	0,09790
3910,93066	0,10028	0,10080	0,12293	0,09826
3909,0022	0,09957	0,10048	0,12286	0,09794
3907,07373	0,10137	0,10103	0,12300	0,09769
3905,14526	0,10356	0,10187	0,12415	0,09739
3903,2168	0,10109	0,10084	0,12403	0,09649
3901,28833	0,09961	0,10026	0,12311	0,09625
3899,35986	0,10082	0,10065	0,12351	0,09608
3897,4314	0,09877	0,09984	0,12270	0,09626
3895,50293	0,09894	0,09999	0,12208	0,09675
3893,57446	0,10220	0,10133	0,12284	0,09753
3891,646	0,10261	0,10151	0,12374	0,09731
3889,71753	0,09646	0,09895	0,12206	0,09583
3887,78906	0,09993	0,10016	0,12200	0,09717
3885,8606	0,10236	0,10149	0,12342	0,09807
3883,93213	0,09594	0,09880	0,12164	0,09553
3882,00366	0,10159	0,10075	0,12243	0,09605
3880,0752	0,10466	0,10209	0,12483	0,09543
3878,14673	0,09628	0,09885	0,12182	0,09487
3876,21826	0,10015	0,10057	0,12148	0,09748
3874,28979	0,10254	0,10142	0,12393	0,09541
3872,36133	0,10021	0,10007	0,12272	0,09508
3870,43286	0,10117	0,10078	0,12179	0,09817
3868,50439	0,09677	0,09895	0,12195	0,09493
3866,57593	0,09785	0,09920	0,12145	0,09525
3864,64746	0,10137	0,10085	0,12236	0,09695
3862,71899	0,09962	0,09982	0,12297	0,09382
3860,79053	0,09787	0,09931	0,12147	0,09558
3858,86206	0,09838	0,09972	0,12167	0,09608
3856,93359	0,10262	0,10096	0,12326	0,09421
3855,00513	0,09951	0,10052	0,12008	0,10120
3853,07666	0,09331	0,09802	0,12056	0,09976
3851,14819	0,09172	0,09611	0,11890	0,09332
3849,21973	0,09834	0,09905	0,12089	0,09432
3847,29126	0,09794	0,09956	0,12095	0,09632
3845,36279	0,10022	0,10030	0,12189	0,09531
3843,43433	0,10023	0,10025	0,12180	0,09543
3841,50586	0,10033	0,09997	0,12274	0,09350
3839,57739	0,10176	0,10035	0,12204	0,09494
3837,64893	0,09729	0,09885	0,11937	0,09753
3835,72046	0,09371	0,09741	0,11953	0,09447
3833,79199	0,09875	0,09931	0,12147	0,09372
3831,86353	0,09851	0,09942	0,12134	0,09495
3829,93506	0,09615	0,09844	0,12081	0,09393

3828,00659	0,09966	0,09988	0,12121	0,09495
3826,07813	0,09922	0,09980	0,12174	0,09424
3824,14966	0,09870	0,09948	0,12130	0,09381
3822,22119	0,10159	0,10081	0,12139	0,09662
3820,29272	0,09843	0,09895	0,12270	0,09192
3818,36426	0,09668	0,09819	0,12044	0,09252
3816,43579	0,09787	0,09921	0,11869	0,09789
3814,50732	0,09259	0,09716	0,11885	0,09453
3812,57886	0,09580	0,09829	0,12003	0,09320
3810,65039	0,09816	0,09957	0,12076	0,09459
3808,72192	0,09910	0,09989	0,12079	0,09536
3806,79346	0,09661	0,09871	0,12015	0,09552
3804,86499	0,09423	0,09762	0,11973	0,09270
3802,93652	0,10085	0,10019	0,12047	0,09474
3801,00806	0,09822	0,09905	0,11981	0,09571
3799,07959	0,09257	0,09676	0,11867	0,09220
3797,15112	0,10041	0,09991	0,12108	0,09283
3795,22266	0,09693	0,09883	0,12058	0,09334
3793,29419	0,09505	0,09808	0,11954	0,09315
3791,36572	0,09780	0,09936	0,12006	0,09442
3789,43726	0,09616	0,09884	0,11996	0,09387
3787,50879	0,09661	0,09897	0,11973	0,09393
3785,58032	0,09892	0,09957	0,12058	0,09344
3783,65186	0,09684	0,09865	0,12011	0,09276
3781,72339	0,09666	0,09883	0,11954	0,09380
3779,79492	0,09905	0,09952	0,12086	0,09291
3777,86646	0,09627	0,09832	0,12020	0,09219
3775,93799	0,09537	0,09827	0,11924	0,09317
3774,00952	0,09622	0,09873	0,11953	0,09344
3772,08105	0,09746	0,09912	0,11986	0,09353
3770,15259	0,09805	0,09916	0,12051	0,09277
3768,22412	0,09471	0,09781	0,11957	0,09196
3766,29565	0,09697	0,09866	0,11965	0,09228
3764,36719	0,09662	0,09861	0,11993	0,09215
3762,43872	0,09512	0,09800	0,11911	0,09238
3760,51025	0,09833	0,09920	0,12002	0,09278
3758,58179	0,09809	0,09889	0,12068	0,09107
3756,65332	0,09618	0,09812	0,11954	0,09091
3754,72485	0,09693	0,09860	0,11936	0,09214
3752,79639	0,09752	0,09873	0,11859	0,09358
3750,86792	0,09683	0,09806	0,11803	0,09479
3748,93945	0,08819	0,09465	0,11676	0,09138
3747,01099	0,09582	0,09738	0,11813	0,09058
3745,08252	0,09697	0,09865	0,11779	0,09611
3743,15405	0,08598	0,09454	0,11688	0,09266
3741,22559	0,09483	0,09683	0,11855	0,08847
3739,29712	0,10000	0,09909	0,11910	0,09199
3737,36865	0,09777	0,09862	0,11825	0,09378

3735,44019	0,10066	0,09907	0,11980	0,09048
3733,51172	0,09915	0,09814	0,11918	0,09069
3731,58325	0,09304	0,09594	0,11658	0,09226
3729,65479	0,09451	0,09662	0,11641	0,09236
3727,72632	0,09851	0,09829	0,11758	0,09300
3725,79785	0,09842	0,09826	0,11794	0,09265
3723,86938	0,09781	0,09782	0,11783	0,09142
3721,94092	0,09774	0,09783	0,11787	0,09143
3720,01245	0,09614	0,09737	0,11775	0,09108
3718,08398	0,09514	0,09721	0,11747	0,09114
3716,15552	0,09445	0,09726	0,11775	0,09078
3714,22705	0,09575	0,09775	0,11784	0,09109
3712,29858	0,09654	0,09771	0,11772	0,09171
3710,37012	0,09468	0,09622	0,11745	0,08946
3708,44165	0,09430	0,09544	0,11666	0,08865
3706,51318	0,09247	0,09519	0,11608	0,08966
3704,58472	0,09402	0,09651	0,11617	0,09135
3702,65625	0,09681	0,09751	0,11728	0,09138
3700,72778	0,09375	0,09608	0,11698	0,08989
3698,79932	0,09217	0,09560	0,11568	0,09069
3696,87085	0,09422	0,09634	0,11641	0,09060
3694,94238	0,09309	0,09591	0,11609	0,09034
3693,01392	0,09294	0,09557	0,11599	0,08987
3691,08545	0,09615	0,09603	0,11748	0,08823
3689,15698	0,09179	0,09411	0,11533	0,08940
3687,22852	0,08439	0,09157	0,11293	0,08952
3685,30005	0,08935	0,09349	0,11556	0,08692
3683,37158	0,09152	0,09476	0,11595	0,08848
3681,44312	0,09059	0,09476	0,11565	0,08967
3679,51465	0,09297	0,09542	0,11759	0,08658
3677,58618	0,09406	0,09593	0,11648	0,08926
3675,65771	0,09565	0,09633	0,11809	0,08943
3673,72925	0,08658	0,09288	0,11723	0,08526
3671,80078	0,09026	0,09450	0,11559	0,08913
3669,87231	0,09282	0,09579	0,11641	0,09037
3667,94385	0,08788	0,09383	0,11664	0,08587
3666,01538	0,09005	0,09478	0,11579	0,08791
3664,08691	0,09067	0,09539	0,11555	0,08953
3662,15845	0,09069	0,09540	0,11633	0,08829
3660,22998	0,09032	0,09512	0,11576	0,08867
3658,30151	0,09190	0,09561	0,11599	0,08903
3656,37305	0,09107	0,09530	0,11620	0,08895
3654,44458	0,08683	0,09346	0,11472	0,08796
3652,51611	0,09222	0,09515	0,11609	0,08755
3650,58765	0,09607	0,09650	0,11741	0,08841
3648,65918	0,09225	0,09458	0,11657	0,08664
3646,73071	0,08993	0,09353	0,11581	0,08503
3644,80225	0,08937	0,09376	0,11528	0,08654

3642,87378	0,08953	0,09397	0,11447	0,08825
3640,94531	0,09078	0,09435	0,11505	0,08816
3639,01685	0,08950	0,09386	0,11474	0,08815
3637,08838	0,08989	0,09382	0,11436	0,08829
3635,15991	0,09047	0,09404	0,11465	0,08855
3633,23145	0,09027	0,09361	0,11462	0,08740
3631,30298	0,09135	0,09374	0,11386	0,08860
3629,37451	0,09201	0,09405	0,11470	0,08990
3627,44604	0,08600	0,09119	0,11357	0,08658
3625,51758	0,08793	0,09177	0,11264	0,08683
3623,58911	0,08956	0,09268	0,11296	0,08865
3621,66064	0,08944	0,09258	0,11326	0,08826
3619,73218	0,09103	0,09301	0,11405	0,08760
3617,80371	0,08798	0,09170	0,11387	0,08573
3615,87524	0,08778	0,09162	0,11294	0,08602
3613,94678	0,09048	0,09280	0,11398	0,08628
3612,01831	0,08760	0,09177	0,11378	0,08536
3610,08984	0,08541	0,09095	0,11208	0,08715
3608,16138	0,08767	0,09156	0,11279	0,08665
3606,23291	0,08707	0,09104	0,11258	0,08541
3604,30444	0,08598	0,09076	0,11163	0,08713
3602,37598	0,08758	0,09142	0,11201	0,08743
3600,44751	0,08861	0,09129	0,11237	0,08609
3598,51904	0,08664	0,09046	0,11179	0,08620
3596,59058	0,08718	0,09111	0,11181	0,08677
3594,66211	0,08855	0,09167	0,11222	0,08638
3592,73364	0,08646	0,09082	0,11168	0,08612
3590,80518	0,08543	0,09063	0,11103	0,08725
3588,87671	0,08762	0,09157	0,11188	0,08729
3586,94824	0,08887	0,09180	0,11292	0,08513
3585,01978	0,08485	0,09017	0,11139	0,08551
3583,09131	0,08481	0,09027	0,11085	0,08688
3581,16284	0,08540	0,09066	0,11117	0,08683
3579,23438	0,08504	0,09034	0,11103	0,08673
3577,30591	0,08467	0,09015	0,11088	0,08689
3575,37744	0,08467	0,09021	0,11081	0,08691
3573,44897	0,08441	0,08999	0,11067	0,08687
3571,52051	0,08390	0,08970	0,11038	0,08696
3569,59204	0,08536	0,09026	0,11067	0,08706
3567,66357	0,08928	0,09155	0,11236	0,08538
3565,73511	0,08728	0,09050	0,11180	0,08441
3563,80664	0,08396	0,08928	0,11005	0,08599
3561,87817	0,08412	0,08952	0,10998	0,08689
3559,94971	0,08404	0,08946	0,11013	0,08673
3558,02124	0,08329	0,08907	0,10976	0,08689
3556,09277	0,08278	0,08890	0,10948	0,08714
3554,16431	0,08370	0,08912	0,10962	0,08705
3552,23584	0,08454	0,08921	0,10999	0,08647

3550,30737	0,08271	0,08846	0,10937	0,08658
3548,37891	0,08296	0,08849	0,10916	0,08695
3546,45044	0,08490	0,08917	0,10997	0,08628
3544,52197	0,08379	0,08870	0,10963	0,08610
3542,59351	0,08231	0,08810	0,10882	0,08667
3540,66504	0,08167	0,08784	0,10851	0,08694
3538,73657	0,08176	0,08778	0,10839	0,08697
3536,80811	0,08244	0,08795	0,10860	0,08671
3534,87964	0,08182	0,08767	0,10848	0,08647
3532,95117	0,08096	0,08729	0,10800	0,08665
3531,02271	0,08146	0,08731	0,10814	0,08669
3529,09424	0,08233	0,08737	0,10856	0,08622
3527,16577	0,08176	0,08714	0,10818	0,08608
3525,2373	0,08148	0,08703	0,10800	0,08619
3523,30884	0,08183	0,08693	0,10825	0,08590
3521,38037	0,08067	0,08643	0,10773	0,08606
3519,4519	0,08001	0,08620	0,10730	0,08637
3517,52344	0,08009	0,08615	0,10730	0,08623
3515,59497	0,07966	0,08594	0,10707	0,08620
3513,6665	0,07941	0,08577	0,10698	0,08626
3511,73804	0,07968	0,08573	0,10702	0,08614
3509,80957	0,08030	0,08581	0,10708	0,08576
3507,8811	0,07945	0,08544	0,10678	0,08576
3505,95264	0,07881	0,08517	0,10651	0,08612
3504,02417	0,08023	0,08555	0,10696	0,08577
3502,0957	0,07998	0,08548	0,10685	0,08545
3500,16724	0,07841	0,08499	0,10618	0,08594
3498,23877	0,07861	0,08491	0,10621	0,08608
3496,3103	0,07882	0,08496	0,10615	0,08580
3494,38184	0,07840	0,08482	0,10583	0,08584
3492,45337	0,07806	0,08464	0,10579	0,08605
3490,5249	0,07802	0,08468	0,10567	0,08609
3488,59644	0,07849	0,08473	0,10566	0,08595
3486,66797	0,07837	0,08457	0,10558	0,08585
3484,7395	0,07792	0,08452	0,10539	0,08598
3482,81104	0,07848	0,08467	0,10557	0,08589
3480,88257	0,07849	0,08456	0,10548	0,08562
3478,9541	0,07764	0,08424	0,10505	0,08589
3477,02563	0,07766	0,08423	0,10505	0,08623
3475,09717	0,07779	0,08434	0,10503	0,08608
3473,1687	0,07762	0,08432	0,10481	0,08608
3471,24023	0,07754	0,08422	0,10468	0,08627
3469,31177	0,07753	0,08424	0,10466	0,08624
3467,3833	0,07753	0,08433	0,10474	0,08611
3465,45483	0,07723	0,08416	0,10462	0,08621
3463,52637	0,07736	0,08406	0,10455	0,08620
3461,5979	0,07753	0,08410	0,10452	0,08601
3459,66943	0,07708	0,08389	0,10429	0,08614

3457,74097	0,07696	0,08380	0,10433	0,08616
3455,8125	0,07693	0,08385	0,10421	0,08608
3453,88403	0,07692	0,08383	0,10402	0,08613
3451,95557	0,07675	0,08368	0,10412	0,08612
3450,0271	0,07669	0,08358	0,10400	0,08619
3448,09863	0,07761	0,08382	0,10418	0,08594
3446,17017	0,07751	0,08376	0,10430	0,08571
3444,2417	0,07676	0,08355	0,10387	0,08604
3442,31323	0,07714	0,08377	0,10382	0,08610
3440,38477	0,07702	0,08373	0,10381	0,08607
3438,4563	0,07675	0,08362	0,10370	0,08637
3436,52783	0,07689	0,08374	0,10377	0,08646
3434,59937	0,07689	0,08371	0,10377	0,08643
3432,6709	0,07714	0,08387	0,10379	0,08651
3430,74243	0,07715	0,08405	0,10370	0,08657
3428,81396	0,07703	0,08394	0,10370	0,08658
3426,8855	0,07724	0,08401	0,10390	0,08656
3424,95703	0,07726	0,08416	0,10380	0,08671
3423,02856	0,07744	0,08425	0,10373	0,08694
3421,1001	0,07793	0,08442	0,10396	0,08685
3419,17163	0,07777	0,08436	0,10393	0,08681
3417,24316	0,07741	0,08424	0,10382	0,08715
3415,3147	0,07759	0,08444	0,10392	0,08729
3413,38623	0,07779	0,08464	0,10397	0,08722
3411,45776	0,07784	0,08462	0,10395	0,08732
3409,5293	0,07797	0,08465	0,10398	0,08747
3407,60083	0,07807	0,08478	0,10403	0,08756
3405,67236	0,07818	0,08492	0,10409	0,08755
3403,7439	0,07837	0,08507	0,10417	0,08750
3401,81543	0,07838	0,08513	0,10429	0,08757
3399,88696	0,07846	0,08519	0,10439	0,08763
3397,9585	0,07875	0,08525	0,10437	0,08764
3396,03003	0,07862	0,08526	0,10434	0,08774
3394,10156	0,07869	0,08537	0,10443	0,08771
3392,1731	0,07906	0,08553	0,10452	0,08758
3390,24463	0,07884	0,08555	0,10449	0,08766
3388,31616	0,07880	0,08567	0,10441	0,08776
3386,3877	0,07918	0,08590	0,10447	0,08777
3384,45923	0,07924	0,08594	0,10464	0,08782
3382,53076	0,07914	0,08594	0,10468	0,08789
3380,60229	0,07925	0,08604	0,10472	0,08795
3378,67383	0,07942	0,08612	0,10479	0,08796
3376,74536	0,07943	0,08629	0,10486	0,08796
3374,81689	0,07955	0,08649	0,10498	0,08804
3372,88843	0,07970	0,08659	0,10500	0,08813
3370,95996	0,07979	0,08678	0,10509	0,08810
3369,03149	0,08009	0,08696	0,10534	0,08810
3367,10303	0,08042	0,08708	0,10543	0,08825



3365,17456	0,08044	0,08719	0,10546	0,08817
3363,24609	0,08037	0,08727	0,10559	0,08807
3361,31763	0,08054	0,08738	0,10563	0,08822
3359,38916	0,08063	0,08750	0,10556	0,08821
3357,46069	0,08073	0,08766	0,10560	0,08818
3355,53223	0,08096	0,08782	0,10580	0,08825
3353,60376	0,08089	0,08791	0,10592	0,08831
3351,67529	0,08099	0,08803	0,10595	0,08837
3349,74683	0,08127	0,08813	0,10610	0,08837
3347,81836	0,08132	0,08821	0,10619	0,08841
3345,88989	0,08130	0,08837	0,10610	0,08841
3343,96143	0,08141	0,08847	0,10607	0,08836
3342,03296	0,08160	0,08855	0,10617	0,08846
3340,10449	0,08160	0,08862	0,10625	0,08850
3338,17603	0,08182	0,08876	0,10645	0,08839
3336,24756	0,08220	0,08897	0,10654	0,08831
3334,31909	0,08209	0,08907	0,10647	0,08835
3332,39063	0,08203	0,08911	0,10652	0,08840
3330,46216	0,08218	0,08917	0,10650	0,08843
3328,53369	0,08224	0,08924	0,10652	0,08842
3326,60522	0,08242	0,08936	0,10674	0,08840
3324,67676	0,08252	0,08941	0,10679	0,08841
3322,74829	0,08246	0,08945	0,10674	0,08832
3320,81982	0,08257	0,08962	0,10681	0,08826
3318,89136	0,08266	0,08968	0,10684	0,08834
3316,96289	0,08260	0,08963	0,10685	0,08836
3315,03442	0,08279	0,08974	0,10690	0,08834
3313,10596	0,08291	0,08981	0,10694	0,08834
3311,17749	0,08280	0,08976	0,10704	0,08832
3309,24902	0,08302	0,08994	0,10708	0,08828
3307,32056	0,08304	0,09003	0,10703	0,08824
3305,39209	0,08293	0,08999	0,10713	0,08827
3303,46362	0,08310	0,09014	0,10719	0,08825
3301,53516	0,08298	0,09018	0,10709	0,08813
3299,60669	0,08305	0,09011	0,10711	0,08809
3297,67822	0,08328	0,09018	0,10710	0,08809
3295,74976	0,08311	0,09022	0,10705	0,08810
3293,82129	0,08320	0,09015	0,10721	0,08803
3291,89282	0,08333	0,09018	0,10731	0,08788
3289,96436	0,08316	0,09026	0,10718	0,08785
3288,03589	0,08309	0,09023	0,10711	0,08779
3286,10742	0,08304	0,09027	0,10714	0,08772
3284,17896	0,08307	0,09031	0,10708	0,08769
3282,25049	0,08312	0,09021	0,10698	0,08759
3280,32202	0,08308	0,09027	0,10703	0,08756
3278,39355	0,08317	0,09029	0,10712	0,08754
3276,46509	0,08331	0,09022	0,10715	0,08747
3274,53662	0,08325	0,09025	0,10716	0,08740

3272,60815	0,08315	0,09022	0,10712	0,08732
3270,67969	0,08315	0,09026	0,10715	0,08733
3268,75122	0,08308	0,09035	0,10712	0,08732
3266,82275	0,08301	0,09031	0,10705	0,08726
3264,89429	0,08307	0,09029	0,10710	0,08718
3262,96582	0,08305	0,09031	0,10712	0,08712
3261,03735	0,08303	0,09032	0,10707	0,08707
3259,10889	0,08302	0,09037	0,10697	0,08703
3257,18042	0,08301	0,09044	0,10696	0,08705
3255,25195	0,08316	0,09041	0,10705	0,08695
3253,32349	0,08315	0,09036	0,10701	0,08685
3251,39502	0,08300	0,09039	0,10705	0,08687
3249,46655	0,08293	0,09038	0,10705	0,08681
3247,53809	0,08303	0,09044	0,10702	0,08676
3245,60962	0,08325	0,09048	0,10711	0,08659
3243,68115	0,08317	0,09036	0,10700	0,08643
3241,75269	0,08298	0,09027	0,10690	0,08649
3239,82422	0,08303	0,09032	0,10698	0,08650
3237,89575	0,08307	0,09035	0,10696	0,08651
3235,96729	0,08301	0,09034	0,10698	0,08643
3234,03882	0,08304	0,09037	0,10708	0,08623
3232,11035	0,08310	0,09034	0,10710	0,08625
3230,18188	0,08302	0,09028	0,10698	0,08623
3228,25342	0,08301	0,09027	0,10691	0,08609
3226,32495	0,08307	0,09031	0,10694	0,08602
3224,39648	0,08294	0,09033	0,10681	0,08602
3222,46802	0,08292	0,09027	0,10683	0,08598
3220,53955	0,08314	0,09025	0,10703	0,08581
3218,61108	0,08304	0,09025	0,10693	0,08571
3216,68262	0,08286	0,09018	0,10688	0,08571
3214,75415	0,08294	0,09014	0,10697	0,08558
3212,82568	0,08285	0,09008	0,10687	0,08547
3210,89722	0,08280	0,09005	0,10683	0,08549
3208,96875	0,08282	0,09006	0,10688	0,08549
3207,04028	0,08260	0,08996	0,10680	0,08540
3205,11182	0,08253	0,08990	0,10676	0,08529
3203,18335	0,08262	0,08990	0,10683	0,08518
3201,25488	0,08261	0,08992	0,10683	0,08522
3199,32642	0,08268	0,08995	0,10685	0,08520
3197,39795	0,08280	0,08992	0,10690	0,08500
3195,46948	0,08266	0,08983	0,10686	0,08505
3193,54102	0,08251	0,08979	0,10686	0,08504
3191,61255	0,08258	0,08980	0,10686	0,08486
3189,68408	0,08257	0,08978	0,10688	0,08479
3187,75562	0,08252	0,08973	0,10694	0,08476
3185,82715	0,08264	0,08971	0,10683	0,08477
3183,89868	0,08262	0,08965	0,10676	0,08472
3181,97021	0,08241	0,08960	0,10683	0,08466

3180,04175	0,08248	0,08961	0,10685	0,08460
3178,11328	0,08260	0,08955	0,10683	0,08442
3176,18481	0,08241	0,08954	0,10683	0,08444
3174,25635	0,08235	0,08957	0,10681	0,08443
3172,32788	0,08238	0,08947	0,10681	0,08427
3170,39941	0,08233	0,08943	0,10682	0,08431
3168,47095	0,08232	0,08938	0,10678	0,08429
3166,54248	0,08219	0,08931	0,10677	0,08416
3164,61401	0,08213	0,08932	0,10679	0,08412
3162,68555	0,08218	0,08922	0,10677	0,08402
3160,75708	0,08213	0,08913	0,10672	0,08387
3158,82861	0,08206	0,08915	0,10676	0,08388
3156,90015	0,08203	0,08915	0,10677	0,08389
3154,97168	0,08204	0,08906	0,10671	0,08374
3153,04321	0,08203	0,08900	0,10675	0,08369
3151,11475	0,08200	0,08901	0,10681	0,08364
3149,18628	0,08197	0,08885	0,10676	0,08343
3147,25781	0,08194	0,08872	0,10676	0,08341
3145,32935	0,08194	0,08881	0,10671	0,08339
3143,40088	0,08188	0,08875	0,10653	0,08323
3141,47241	0,08174	0,08864	0,10658	0,08322
3139,54395	0,08174	0,08866	0,10681	0,08321
3137,61548	0,08169	0,08861	0,10668	0,08314
3135,68701	0,08155	0,08849	0,10651	0,08303
3133,75854	0,08167	0,08836	0,10667	0,08284
3131,83008	0,08154	0,08822	0,10668	0,08275
3129,90161	0,08133	0,08816	0,10656	0,08275
3127,97314	0,08153	0,08818	0,10667	0,08262
3126,04468	0,08144	0,08812	0,10670	0,08247
3124,11621	0,08128	0,08800	0,10651	0,08240
3122,18774	0,08140	0,08801	0,10652	0,08230
3120,25928	0,08129	0,08794	0,10667	0,08218
3118,33081	0,08128	0,08779	0,10665	0,08206
3116,40234	0,08140	0,08776	0,10661	0,08195
3114,47388	0,08121	0,08766	0,10666	0,08188
3112,54541	0,08100	0,08749	0,10651	0,08185
3110,61694	0,08096	0,08742	0,10638	0,08180
3108,68848	0,08099	0,08738	0,10653	0,08170
3106,76001	0,08092	0,08733	0,10653	0,08167
3104,83154	0,08073	0,08722	0,10631	0,08163
3102,90308	0,08073	0,08710	0,10629	0,08147
3100,97461	0,08079	0,08703	0,10639	0,08139
3099,04614	0,08066	0,08695	0,10634	0,08133
3097,11768	0,08059	0,08680	0,10629	0,08120
3095,18921	0,08049	0,08670	0,10632	0,08109
3093,26074	0,08031	0,08663	0,10628	0,08107
3091,33228	0,08024	0,08651	0,10620	0,08099
3089,40381	0,08022	0,08644	0,10621	0,08087

3087,47534	0,08013	0,08639	0,10621	0,08089
3085,54688	0,08005	0,08626	0,10624	0,08080
3083,61841	0,08012	0,08624	0,10629	0,08057
3081,68994	0,08013	0,08622	0,10628	0,08042
3079,76147	0,08009	0,08612	0,10627	0,08034
3077,83301	0,08000	0,08605	0,10623	0,08031
3075,90454	0,07972	0,08592	0,10612	0,08022
3073,97607	0,07961	0,08583	0,10606	0,08013
3072,04761	0,07962	0,08582	0,10605	0,08010
3070,11914	0,07952	0,08572	0,10606	0,08001
3068,19067	0,07958	0,08563	0,10613	0,08000
3066,26221	0,07967	0,08559	0,10615	0,07984
3064,33374	0,07952	0,08546	0,10607	0,07966
3062,40527	0,07927	0,08535	0,10606	0,07969
3060,47681	0,07913	0,08529	0,10598	0,07965
3058,54834	0,07913	0,08522	0,10595	0,07963
3056,61987	0,07917	0,08513	0,10605	0,07949
3054,69141	0,07899	0,08496	0,10597	0,07933
3052,76294	0,07886	0,08489	0,10592	0,07937
3050,83447	0,07901	0,08497	0,10603	0,07930
3048,90601	0,07893	0,08484	0,10597	0,07917
3046,97754	0,07868	0,08465	0,10589	0,07911
3045,04907	0,07870	0,08467	0,10588	0,07905
3043,12061	0,07872	0,08467	0,10585	0,07896
3041,19214	0,07864	0,08456	0,10582	0,07886
3039,26367	0,07854	0,08447	0,10579	0,07887
3037,33521	0,07846	0,08437	0,10575	0,07883
3035,40674	0,07845	0,08431	0,10571	0,07858
3033,47827	0,07854	0,08431	0,10575	0,07845
3031,5498	0,07857	0,08423	0,10580	0,07842
3029,62134	0,07830	0,08405	0,10573	0,07836
3027,69287	0,07812	0,08397	0,10563	0,07837
3025,7644	0,07826	0,08402	0,10564	0,07835
3023,83594	0,07822	0,08394	0,10565	0,07835
3021,90747	0,07806	0,08377	0,10562	0,07834
3019,979	0,07801	0,08371	0,10563	0,07823
3018,05054	0,07795	0,08364	0,10559	0,07827
3016,12207	0,07788	0,08356	0,10552	0,07820
3014,1936	0,07792	0,08357	0,10555	0,07796
3012,26514	0,07800	0,08355	0,10558	0,07788
3010,33667	0,07783	0,08344	0,10551	0,07777
3008,4082	0,07755	0,08326	0,10543	0,07768
3006,47974	0,07751	0,08311	0,10536	0,07764
3004,55127	0,07758	0,08309	0,10530	0,07749
3002,6228	0,07742	0,08306	0,10530	0,07743
3000,69434	0,07725	0,08297	0,10527	0,07741
2998,76587	0,07731	0,08289	0,10530	0,07732
2996,8374	0,07730	0,08283	0,10530	0,07723

2994,90894	0,07718	0,08279	0,10513	0,07712
2992,98047	0,07715	0,08274	0,10512	0,07705
2991,052	0,07702	0,08262	0,10515	0,07701
2989,12354	0,07688	0,08252	0,10503	0,07688
2987,19507	0,07687	0,08245	0,10496	0,07673
2985,2666	0,07674	0,08235	0,10493	0,07666
2983,33813	0,07653	0,08222	0,10492	0,07660
2981,40967	0,07648	0,08215	0,10487	0,07658
2979,4812	0,07643	0,08204	0,10477	0,07657
2977,55273	0,07625	0,08192	0,10471	0,07645
2975,62427	0,07616	0,08186	0,10470	0,07631
2973,6958	0,07610	0,08171	0,10463	0,07629
2971,76733	0,07593	0,08152	0,10451	0,07631
2969,83887	0,07577	0,08135	0,10451	0,07629
2967,9104	0,07571	0,08135	0,10448	0,07624
2965,98193	0,07567	0,08140	0,10440	0,07615
2964,05347	0,07563	0,08128	0,10437	0,07614
2962,125	0,07562	0,08124	0,10430	0,07611
2960,19653	0,07560	0,08124	0,10436	0,07606
2958,26807	0,07552	0,08108	0,10445	0,07610
2956,3396	0,07550	0,08097	0,10435	0,07607
2954,41113	0,07552	0,08097	0,10432	0,07598
2952,48267	0,07548	0,08091	0,10426	0,07596
2950,5542	0,07540	0,08080	0,10416	0,07591
2948,62573	0,07533	0,08074	0,10417	0,07582
2946,69727	0,07523	0,08068	0,10415	0,07573
2944,7688	0,07518	0,08061	0,10409	0,07569
2942,84033	0,07518	0,08058	0,10399	0,07574
2940,91187	0,07507	0,08046	0,10391	0,07576
2938,9834	0,07502	0,08036	0,10388	0,07576
2937,05493	0,07505	0,08037	0,10383	0,07580
2935,12646	0,07506	0,08038	0,10382	0,07576
2933,198	0,07504	0,08042	0,10380	0,07576
2931,26953	0,07503	0,08045	0,10384	0,07581
2929,34106	0,07504	0,08047	0,10388	0,07576
2927,4126	0,07504	0,08047	0,10372	0,07566
2925,48413	0,07505	0,08039	0,10362	0,07558
2923,55566	0,07500	0,08036	0,10363	0,07548
2921,6272	0,07493	0,08033	0,10353	0,07531
2919,69873	0,07493	0,08031	0,10339	0,07512
2917,77026	0,07483	0,08020	0,10327	0,07506
2915,8418	0,07472	0,08000	0,10326	0,07497
2913,91333	0,07479	0,07993	0,10335	0,07482
2911,98486	0,07483	0,07985	0,10338	0,07478
2910,0564	0,07475	0,07971	0,10342	0,07470
2908,12793	0,07473	0,07961	0,10342	0,07458
2906,19946	0,07470	0,07952	0,10336	0,07456
2904,271	0,07464	0,07951	0,10333	0,07447

2902,34253	0,07469	0,07948	0,10331	0,07436
2900,41406	0,07463	0,07933	0,10328	0,07430
2898,4856	0,07455	0,07927	0,10332	0,07421
2896,55713	0,07462	0,07931	0,10338	0,07417
2894,62866	0,07463	0,07928	0,10335	0,07408
2892,7002	0,07455	0,07917	0,10323	0,07397
2890,77173	0,07445	0,07911	0,10318	0,07398
2888,84326	0,07440	0,07908	0,10317	0,07396
2886,91479	0,07441	0,07900	0,10318	0,07382
2884,98633	0,07433	0,07891	0,10319	0,07374
2883,05786	0,07422	0,07882	0,10313	0,07379
2881,12939	0,07418	0,07880	0,10313	0,07379
2879,20093	0,07414	0,07881	0,10315	0,07372
2877,27246	0,07413	0,07882	0,10311	0,07366
2875,34399	0,07411	0,07880	0,10316	0,07359
2873,41553	0,07404	0,07872	0,10329	0,07355
2871,48706	0,07401	0,07868	0,10326	0,07352
2869,55859	0,07400	0,07868	0,10312	0,07343
2867,63013	0,07397	0,07864	0,10303	0,07347
2865,70166	0,07395	0,07863	0,10300	0,07352
2863,77319	0,07394	0,07861	0,10306	0,07345
2861,84473	0,07390	0,07860	0,10308	0,07347
2859,91626	0,07390	0,07868	0,10302	0,07348
2857,98779	0,07393	0,07868	0,10299	0,07341
2856,05933	0,07395	0,07870	0,10288	0,07337
2854,13086	0,07391	0,07879	0,10291	0,07330
2852,20239	0,07391	0,07875	0,10304	0,07322
2850,27393	0,07394	0,07864	0,10303	0,07316
2848,34546	0,07386	0,07856	0,10301	0,07304
2846,41699	0,07377	0,07844	0,10305	0,07286
2844,48853	0,07372	0,07829	0,10304	0,07273
2842,56006	0,07369	0,07829	0,10307	0,07263
2840,63159	0,07375	0,07837	0,10317	0,07258
2838,70313	0,07374	0,07834	0,10321	0,07261
2836,77466	0,07371	0,07832	0,10318	0,07252
2834,84619	0,07375	0,07827	0,10317	0,07243
2832,91772	0,07372	0,07823	0,10311	0,07245
2830,98926	0,07368	0,07825	0,10304	0,07244
2829,06079	0,07368	0,07821	0,10308	0,07235
2827,13232	0,07362	0,07819	0,10309	0,07226
2825,20386	0,07362	0,07823	0,10308	0,07225
2823,27539	0,07367	0,07820	0,10306	0,07219
2821,34692	0,07364	0,07814	0,10304	0,07215
2819,41846	0,07362	0,07818	0,10305	0,07220
2817,48999	0,07365	0,07820	0,10308	0,07208
2815,56152	0,07361	0,07811	0,10311	0,07194
2813,63306	0,07354	0,07810	0,10310	0,07200
2811,70459	0,07357	0,07817	0,10307	0,07198

2809,77612	0,07359	0,07817	0,10311	0,07188
2807,84766	0,07351	0,07810	0,10310	0,07189
2805,91919	0,07346	0,07801	0,10305	0,07187
2803,99072	0,07347	0,07801	0,10302	0,07182
2802,06226	0,07352	0,07807	0,10295	0,07182
2800,13379	0,07357	0,07809	0,10296	0,07179
2798,20532	0,07350	0,07806	0,10305	0,07179
2796,27686	0,07345	0,07798	0,10309	0,07177
2794,34839	0,07346	0,07793	0,10303	0,07168
2792,41992	0,07345	0,07796	0,10302	0,07163
2790,49146	0,07346	0,07801	0,10308	0,07162
2788,56299	0,07344	0,07801	0,10305	0,07162
2786,63452	0,07344	0,07797	0,10303	0,07160
2784,70605	0,07346	0,07797	0,10306	0,07155
2782,77759	0,07343	0,07796	0,10307	0,07155
2780,84912	0,07342	0,07787	0,10311	0,07156
2778,92065	0,07336	0,07783	0,10306	0,07150
2776,99219	0,07331	0,07785	0,10301	0,07148
2775,06372	0,07335	0,07785	0,10307	0,07151
2773,13525	0,07335	0,07783	0,10303	0,07145
2771,20679	0,07330	0,07782	0,10294	0,07136
2769,27832	0,07328	0,07781	0,10294	0,07136
2767,34985	0,07326	0,07776	0,10289	0,07133
2765,42139	0,07330	0,07773	0,10288	0,07123
2763,49292	0,07333	0,07773	0,10295	0,07120
2761,56445	0,07330	0,07771	0,10296	0,07114
2759,63599	0,07330	0,07770	0,10294	0,07112
2757,70752	0,07327	0,07772	0,10292	0,07113
2755,77905	0,07319	0,07771	0,10295	0,07102
2753,85059	0,07318	0,07769	0,10301	0,07098
2751,92212	0,07324	0,07771	0,10300	0,07099
2749,99365	0,07323	0,07773	0,10297	0,07089
2748,06519	0,07315	0,07767	0,10301	0,07091
2746,13672	0,07316	0,07763	0,10297	0,07099
2744,20825	0,07319	0,07767	0,10285	0,07091
2742,27979	0,07312	0,07761	0,10286	0,07087
2740,35132	0,07308	0,07755	0,10292	0,07085
2738,42285	0,07309	0,07755	0,10292	0,07080
2736,49438	0,07304	0,07753	0,10291	0,07075
2734,56592	0,07305	0,07750	0,10292	0,07065
2732,63745	0,07305	0,07752	0,10287	0,07055
2730,70898	0,07304	0,07752	0,10280	0,07054
2728,78052	0,07307	0,07756	0,10280	0,07054
2726,85205	0,07302	0,07760	0,10280	0,07055
2724,92358	0,07297	0,07754	0,10276	0,07057
2722,99512	0,07300	0,07750	0,10278	0,07057
2721,06665	0,07298	0,07749	0,10279	0,07053
2719,13818	0,07299	0,07747	0,10277	0,07049

2717,20972	0,07301	0,07747	0,10280	0,07043
2715,28125	0,07296	0,07746	0,10280	0,07045
2713,35278	0,07297	0,07746	0,10278	0,07050
2711,42432	0,07298	0,07750	0,10275	0,07044
2709,49585	0,07293	0,07749	0,10271	0,07037
2707,56738	0,07298	0,07746	0,10273	0,07041
2705,63892	0,07302	0,07749	0,10272	0,07043
2703,71045	0,07294	0,07748	0,10273	0,07037
2701,78198	0,07287	0,07738	0,10273	0,07031
2699,85352	0,07288	0,07735	0,10267	0,07030
2697,92505	0,07293	0,07741	0,10270	0,07031
2695,99658	0,07291	0,07743	0,10272	0,07029
2694,06812	0,07291	0,07747	0,10267	0,07027
2692,13965	0,07293	0,07744	0,10270	0,07027
2690,21118	0,07291	0,07739	0,10271	0,07025
2688,28271	0,07295	0,07745	0,10272	0,07031
2686,35425	0,07297	0,07749	0,10274	0,07035
2684,42578	0,07293	0,07748	0,10273	0,07029
2682,49731	0,07297	0,07753	0,10276	0,07024
2680,56885	0,07297	0,07753	0,10277	0,07021
2678,64038	0,07293	0,07753	0,10274	0,07023
2676,71191	0,07294	0,07756	0,10271	0,07028
2674,78345	0,07294	0,07756	0,10271	0,07025
2672,85498	0,07296	0,07756	0,10278	0,07022
2670,92651	0,07299	0,07759	0,10277	0,07025
2668,99805	0,07301	0,07758	0,10277	0,07026
2667,06958	0,07302	0,07757	0,10282	0,07031
2665,14111	0,07302	0,07757	0,10279	0,07031
2663,21265	0,07299	0,07754	0,10279	0,07026
2661,28418	0,07296	0,07754	0,10286	0,07030
2659,35571	0,07302	0,07757	0,10288	0,07031
2657,42725	0,07309	0,07758	0,10284	0,07028
2655,49878	0,07308	0,07758	0,10282	0,07027
2653,57031	0,07312	0,07758	0,10290	0,07032
2651,64185	0,07317	0,07760	0,10295	0,07034
2649,71338	0,07315	0,07763	0,10291	0,07032
2647,78491	0,07317	0,07766	0,10293	0,07039
2645,85645	0,07319	0,07767	0,10296	0,07042
2643,92798	0,07318	0,07767	0,10299	0,07035
2641,99951	0,07324	0,07765	0,10297	0,07038
2640,07104	0,07329	0,07764	0,10295	0,07040
2638,14258	0,07326	0,07763	0,10298	0,07034
2636,21411	0,07322	0,07758	0,10297	0,07034
2634,28564	0,07324	0,07761	0,10296	0,07034
2632,35718	0,07324	0,07762	0,10295	0,07034
2630,42871	0,07323	0,07759	0,10294	0,07035
2628,50024	0,07325	0,07761	0,10297	0,07031
2626,57178	0,07319	0,07758	0,10298	0,07024



2624,64331	0,07314	0,07756	0,10294	0,07021
2622,71484	0,07320	0,07757	0,10290	0,07018
2620,78638	0,07318	0,07756	0,10289	0,07018
2618,85791	0,07310	0,07757	0,10284	0,07015
2616,92944	0,07308	0,07754	0,10279	0,07003
2615,00098	0,07301	0,07751	0,10275	0,06997
2613,07251	0,07299	0,07755	0,10269	0,06994
2611,14404	0,07296	0,07749	0,10266	0,06990
2609,21558	0,07285	0,07742	0,10268	0,06983
2607,28711	0,07282	0,07749	0,10268	0,06976
2605,35864	0,07282	0,07753	0,10260	0,06973
2603,43018	0,07271	0,07745	0,10252	0,06967
2601,50171	0,07261	0,07741	0,10247	0,06957
2599,57324	0,07261	0,07741	0,10243	0,06953
2597,64478	0,07252	0,07737	0,10245	0,06947
2595,71631	0,07234	0,07729	0,10246	0,06936
2593,78784	0,07229	0,07727	0,10235	0,06924
2591,85938	0,07230	0,07727	0,10227	0,06918
2589,93091	0,07220	0,07722	0,10227	0,06915
2588,00244	0,07209	0,07717	0,10227	0,06909
2586,07397	0,07201	0,07716	0,10221	0,06900
2584,14551	0,07200	0,07712	0,10212	0,06890
2582,21704	0,07194	0,07703	0,10204	0,06886
2580,28857	0,07183	0,07696	0,10196	0,06878
2578,36011	0,07183	0,07695	0,10193	0,06865
2576,43164	0,07179	0,07694	0,10192	0,06861
2574,50317	0,07175	0,07694	0,10184	0,06859
2572,57471	0,07173	0,07695	0,10176	0,06850
2570,64624	0,07161	0,07688	0,10174	0,06843
2568,71777	0,07156	0,07686	0,10175	0,06845
2566,78931	0,07157	0,07689	0,10172	0,06841
2564,86084	0,07149	0,07682	0,10164	0,06825
2562,93237	0,07143	0,07678	0,10160	0,06817
2561,00391	0,07138	0,07681	0,10151	0,06810
2559,07544	0,07131	0,07677	0,10145	0,06799
2557,14697	0,07133	0,07677	0,10144	0,06797
2555,21851	0,07129	0,07678	0,10139	0,06796
2553,29004	0,07119	0,07674	0,10135	0,06787
2551,36157	0,07114	0,07666	0,10134	0,06784
2549,43311	0,07109	0,07659	0,10137	0,06780
2547,50464	0,07108	0,07659	0,10140	0,06769
2545,57617	0,07109	0,07659	0,10130	0,06766
2543,64771	0,07101	0,07654	0,10120	0,06760
2541,71924	0,07094	0,07651	0,10115	0,06754
2539,79077	0,07096	0,07654	0,10117	0,06756
2537,8623	0,07092	0,07654	0,10118	0,06750
2535,93384	0,07084	0,07647	0,10110	0,06742
2534,00537	0,07085	0,07643	0,10101	0,06740

2532,0769	0,07086	0,07641	0,10099	0,06731
2530,14844	0,07076	0,07639	0,10103	0,06722
2528,21997	0,07071	0,07638	0,10100	0,06718
2526,2915	0,07072	0,07637	0,10091	0,06718
2524,36304	0,07069	0,07633	0,10089	0,06715
2522,43457	0,07068	0,07633	0,10087	0,06709
2520,5061	0,07064	0,07635	0,10088	0,06704
2518,57764	0,07062	0,07633	0,10093	0,06703
2516,64917	0,07061	0,07633	0,10090	0,06704
2514,7207	0,07053	0,07634	0,10084	0,06694
2512,79224	0,07049	0,07632	0,10082	0,06687
2510,86377	0,07048	0,07629	0,10080	0,06693
2508,9353	0,07043	0,07626	0,10078	0,06692
2507,00684	0,07039	0,07626	0,10078	0,06686
2505,07837	0,07039	0,07625	0,10076	0,06684
2503,1499	0,07042	0,07622	0,10071	0,06680
2501,22144	0,07043	0,07624	0,10068	0,06677
2499,29297	0,07037	0,07623	0,10069	0,06674
2497,3645	0,07037	0,07619	0,10072	0,06670
2495,43604	0,07039	0,07625	0,10070	0,06669
2493,50757	0,07035	0,07625	0,10066	0,06670
2491,5791	0,07031	0,07617	0,10064	0,06668
2489,65063	0,07031	0,07615	0,10062	0,06664
2487,72217	0,07029	0,07614	0,10062	0,06656
2485,7937	0,07023	0,07612	0,10065	0,06651
2483,86523	0,07019	0,07609	0,10063	0,06649
2481,93677	0,07021	0,07608	0,10058	0,06645
2480,0083	0,07022	0,07612	0,10057	0,06646
2478,07983	0,07018	0,07611	0,10056	0,06648
2476,15137	0,07020	0,07612	0,10056	0,06642
2474,2229	0,07019	0,07615	0,10053	0,06636
2472,29443	0,07014	0,07610	0,10049	0,06633
2470,36597	0,07016	0,07609	0,10051	0,06631
2468,4375	0,07015	0,07611	0,10044	0,06627
2466,50903	0,07010	0,07606	0,10037	0,06624
2464,58057	0,07009	0,07601	0,10039	0,06628
2462,6521	0,07008	0,07600	0,10038	0,06630
2460,72363	0,07005	0,07601	0,10036	0,06630
2458,79517	0,07003	0,07597	0,10033	0,06635
2456,8667	0,07006	0,07594	0,10029	0,06636
2454,93823	0,07004	0,07592	0,10026	0,06628
2453,00977	0,06992	0,07588	0,10027	0,06618
2451,0813	0,06991	0,07590	0,10029	0,06614
2449,15283	0,06992	0,07592	0,10024	0,06607
2447,22437	0,06985	0,07590	0,10023	0,06600
2445,2959	0,06987	0,07594	0,10023	0,06607
2443,36743	0,06987	0,07600	0,10022	0,06610
2441,43896	0,06982	0,07599	0,10022	0,06606

2439,5105	0,06986	0,07597	0,10020	0,06608
2437,58203	0,06992	0,07601	0,10024	0,06606
2435,65356	0,06985	0,07601	0,10026	0,06597
2433,7251	0,06978	0,07595	0,10020	0,06588
2431,79663	0,06976	0,07590	0,10014	0,06583
2429,86816	0,06971	0,07587	0,10012	0,06579
2427,9397	0,06965	0,07587	0,10009	0,06576
2426,01123	0,06961	0,07586	0,10008	0,06575
2424,08276	0,06962	0,07583	0,10015	0,06575
2422,1543	0,06962	0,07584	0,10014	0,06574
2420,22583	0,06961	0,07587	0,10008	0,06579
2418,29736	0,06964	0,07587	0,10008	0,06581
2416,3689	0,06960	0,07581	0,10008	0,06578
2414,44043	0,06959	0,07582	0,10007	0,06578
2412,51196	0,06960	0,07582	0,10003	0,06576
2410,5835	0,06955	0,07574	0,10002	0,06573
2408,65503	0,06954	0,07574	0,10002	0,06573
2406,72656	0,06955	0,07577	0,10001	0,06571
2404,7981	0,06951	0,07574	0,10000	0,06572
2402,86963	0,06949	0,07574	0,09999	0,06567
2400,94116	0,06945	0,07570	0,09999	0,06559
2399,0127	0,06944	0,07565	0,09998	0,06561
2397,08423	0,06942	0,07565	0,09997	0,06561
2395,15576	0,06942	0,07563	0,09997	0,06551
2393,22729	0,06942	0,07563	0,09996	0,06542
2391,29883	0,06942	0,07563	0,09995	0,06541
2389,37036	0,06942	0,07558	0,09994	0,06540
2387,44189	0,06942	0,07560	0,09994	0,06539
2385,51343	0,06943	0,07561	0,09993	0,06538
2383,58496	0,06943	0,07563	0,09992	0,06536
2381,65649	0,06943	0,07564	0,09992	0,06535
2379,72803	0,06943	0,07566	0,09991	0,06534
2377,79956	0,06943	0,07567	0,09990	0,06533
2375,87109	0,06943	0,07568	0,09989	0,06532
2373,94263	0,06943	0,07570	0,09989	0,06530
2372,01416	0,06943	0,07571	0,09988	0,06529
2370,08569	0,06943	0,07573	0,09987	0,06528
2368,15723	0,06943	0,07574	0,09987	0,06527
2366,22876	0,06943	0,07576	0,09986	0,06526
2364,30029	0,06943	0,07577	0,09985	0,06525
2362,37183	0,06943	0,07579	0,09984	0,06523
2360,44336	0,06943	0,07580	0,09984	0,06522
2358,51489	0,06943	0,07582	0,09983	0,06521
2356,58643	0,06943	0,07583	0,09982	0,06520
2354,65796	0,06944	0,07585	0,09982	0,06519
2352,72949	0,06944	0,07586	0,09981	0,06518
2350,80103	0,06944	0,07587	0,09980	0,06516
2348,87256	0,06944	0,07589	0,09979	0,06515

2346,94409	0,06944	0,07590	0,09979	0,06514
2345,01563	0,06944	0,07592	0,09978	0,06513
2343,08716	0,06944	0,07593	0,09977	0,06512
2341,15869	0,06944	0,07595	0,09977	0,06511
2339,23022	0,06944	0,07596	0,09976	0,06509
2337,30176	0,06944	0,07598	0,09975	0,06508
2335,37329	0,06944	0,07599	0,09974	0,06507
2333,44482	0,06944	0,07601	0,09974	0,06506
2331,51636	0,06944	0,07602	0,09973	0,06505
2329,58789	0,06944	0,07603	0,09972	0,06504
2327,65942	0,06944	0,07605	0,09972	0,06502
2325,73096	0,06944	0,07606	0,09971	0,06501
2323,80249	0,06945	0,07608	0,09970	0,06500
2321,87402	0,06945	0,07609	0,09969	0,06499
2319,94556	0,06945	0,07611	0,09969	0,06498
2318,01709	0,06945	0,07612	0,09968	0,06497
2316,08862	0,06945	0,07614	0,09967	0,06495
2314,16016	0,06945	0,07615	0,09967	0,06494
2312,23169	0,06945	0,07617	0,09966	0,06493
2310,30322	0,06945	0,07618	0,09965	0,06492
2308,37476	0,06945	0,07620	0,09964	0,06491
2306,44629	0,06945	0,07621	0,09964	0,06492
2304,51782	0,06945	0,07622	0,09963	0,06502
2302,58936	0,06945	0,07624	0,09962	0,06512
2300,66089	0,06945	0,07625	0,09962	0,06514
2298,73242	0,06945	0,07627	0,09961	0,06507
2296,80396	0,06945	0,07628	0,09960	0,06512
2294,87549	0,06945	0,07630	0,09959	0,06520
2292,94702	0,06946	0,07631	0,09959	0,06515
2291,01855	0,06946	0,07633	0,09958	0,06514
2289,09009	0,06946	0,07634	0,09957	0,06513
2287,16162	0,06946	0,07636	0,09957	0,06511
2285,23315	0,06946	0,07637	0,09956	0,06510
2283,30469	0,06946	0,07638	0,09955	0,06509
2281,37622	0,06946	0,07640	0,09955	0,06508
2279,44775	0,06946	0,07641	0,09954	0,06506
2277,51929	0,06946	0,07643	0,09953	0,06505
2275,59082	0,06946	0,07644	0,09952	0,06504
2273,66235	0,06946	0,07646	0,09952	0,06502
2271,73389	0,06946	0,07647	0,09947	0,06501
2269,80542	0,06946	0,07649	0,09943	0,06500
2267,87695	0,06946	0,07650	0,09945	0,06498
2265,94849	0,06946	0,07652	0,09947	0,06494
2264,02002	0,06946	0,07652	0,09944	0,06499
2262,09155	0,06947	0,07650	0,09939	0,06497
2260,16309	0,06947	0,07649	0,09935	0,06494
2258,23462	0,06941	0,07647	0,09932	0,06493
2256,30615	0,06931	0,07646	0,09930	0,06487

2254,37769	0,06927	0,07646	0,09925	0,06486
2252,44922	0,06919	0,07642	0,09928	0,06486
2250,52075	0,06910	0,07641	0,09928	0,06485
2248,59229	0,06904	0,07645	0,09925	0,06487
2246,66382	0,06895	0,07642	0,09930	0,06486
2244,73535	0,06890	0,07638	0,09933	0,06484
2242,80688	0,06891	0,07641	0,09935	0,06483
2240,87842	0,06889	0,07637	0,09939	0,06478
2238,94995	0,06887	0,07632	0,09932	0,06471
2237,02148	0,06881	0,07637	0,09926	0,06466
2235,09302	0,06878	0,07646	0,09924	0,06465
2233,16455	0,06877	0,07645	0,09924	0,06464
2231,23608	0,06874	0,07635	0,09921	0,06462
2229,30762	0,06872	0,07630	0,09917	0,06460
2227,37915	0,06868	0,07635	0,09918	0,06460
2225,45068	0,06865	0,07638	0,09912	0,06462
2223,52222	0,06859	0,07631	0,09906	0,06459
2221,59375	0,06850	0,07628	0,09912	0,06450
2219,66528	0,06841	0,07631	0,09915	0,06441
2217,73682	0,06837	0,07627	0,09912	0,06443
2215,80835	0,06842	0,07622	0,09908	0,06450
2213,87988	0,06841	0,07619	0,09903	0,06445
2211,95142	0,06837	0,07614	0,09904	0,06434
2210,02295	0,06837	0,07614	0,09904	0,06428
2208,09448	0,06827	0,07613	0,09901	0,06424
2206,16602	0,06822	0,07611	0,09900	0,06424
2204,23755	0,06826	0,07618	0,09898	0,06419
2202,30908	0,06819	0,07624	0,09898	0,06404
2200,38062	0,06810	0,07624	0,09896	0,06395
2198,45215	0,06804	0,07623	0,09890	0,06395
2196,52368	0,06801	0,07615	0,09888	0,06392
2194,59521	0,06804	0,07612	0,09887	0,06389
2192,66675	0,06798	0,07615	0,09886	0,06383
2190,73828	0,06787	0,07610	0,09890	0,06381
2188,80981	0,06790	0,07610	0,09887	0,06384
2186,88135	0,06786	0,07606	0,09884	0,06377
2184,95288	0,06778	0,07602	0,09891	0,06373
2183,02441	0,06782	0,07611	0,09888	0,06376
2181,09595	0,06781	0,07608	0,09874	0,06372
2179,16748	0,06783	0,07603	0,09869	0,06365
2177,23901	0,06784	0,07609	0,09873	0,06363
2175,31055	0,06774	0,07606	0,09872	0,06361
2173,38208	0,06777	0,07607	0,09868	0,06363
2171,45361	0,06761	0,07597	0,09860	0,06354
2169,52515	0,06740	0,07579	0,09849	0,06339
2167,59668	0,06759	0,07592	0,09852	0,06340
2165,66821	0,06763	0,07601	0,09862	0,06343
2163,73975	0,06760	0,07601	0,09863	0,06339

2161,81128	0,06766	0,07611	0,09867	0,06341
2159,88281	0,06750	0,07605	0,09862	0,06344
2157,95435	0,06746	0,07599	0,09855	0,06340
2156,02588	0,06756	0,07605	0,09856	0,06336
2154,09741	0,06748	0,07604	0,09852	0,06330
2152,16895	0,06742	0,07602	0,09849	0,06324
2150,24048	0,06738	0,07601	0,09849	0,06320
2148,31201	0,06737	0,07602	0,09847	0,06318
2146,38354	0,06736	0,07604	0,09847	0,06318
2144,45508	0,06734	0,07608	0,09845	0,06316
2142,52661	0,06734	0,07609	0,09842	0,06307
2140,59814	0,06725	0,07605	0,09842	0,06299
2138,66968	0,06722	0,07606	0,09841	0,06294
2136,74121	0,06729	0,07609	0,09837	0,06288
2134,81274	0,06723	0,07604	0,09834	0,06289
2132,88428	0,06721	0,07599	0,09837	0,06290
2130,95581	0,06720	0,07602	0,09835	0,06278
2129,02734	0,06714	0,07604	0,09828	0,06275
2127,09888	0,06717	0,07606	0,09828	0,06278
2125,17041	0,06711	0,07607	0,09832	0,06270
2123,24194	0,06699	0,07604	0,09828	0,06267
2121,31348	0,06697	0,07602	0,09819	0,06264
2119,38501	0,06690	0,07595	0,09817	0,06258
2117,45654	0,06690	0,07593	0,09820	0,06258
2115,52808	0,06696	0,07596	0,09821	0,06255
2113,59961	0,06684	0,07589	0,09819	0,06250
2111,67114	0,06679	0,07589	0,09812	0,06247
2109,74268	0,06680	0,07595	0,09811	0,06242
2107,81421	0,06674	0,07593	0,09810	0,06240
2105,88574	0,06674	0,07595	0,09805	0,06237
2103,95728	0,06668	0,07593	0,09805	0,06229
2102,02881	0,06659	0,07590	0,09801	0,06228
2100,10034	0,06657	0,07597	0,09798	0,06226
2098,17188	0,06655	0,07603	0,09797	0,06219
2096,24341	0,06654	0,07606	0,09793	0,06212
2094,31494	0,06645	0,07606	0,09797	0,06207
2092,38647	0,06645	0,07600	0,09801	0,06203
2090,45801	0,06653	0,07599	0,09797	0,06188
2088,52954	0,06642	0,07598	0,09789	0,06180
2086,60107	0,06627	0,07589	0,09788	0,06180
2084,67261	0,06627	0,07587	0,09787	0,06172
2082,74414	0,06626	0,07596	0,09783	0,06173
2080,81567	0,06627	0,07599	0,09783	0,06179
2078,88721	0,06625	0,07595	0,09779	0,06172
2076,95874	0,06618	0,07598	0,09777	0,06165
2075,03027	0,06615	0,07604	0,09783	0,06164
2073,10181	0,06616	0,07605	0,09778	0,06164
2071,17334	0,06619	0,07601	0,09772	0,06156

2069,24487	0,06605	0,07594	0,09769	0,06157
2067,31641	0,06613	0,07599	0,09770	0,06162
2065,38794	0,06645	0,07606	0,09783	0,06142
2063,45947	0,06623	0,07594	0,09778	0,06138
2061,53101	0,06603	0,07585	0,09765	0,06152
2059,60254	0,06615	0,07584	0,09769	0,06147
2057,67407	0,06609	0,07582	0,09770	0,06146
2055,74561	0,06612	0,07586	0,09771	0,06147
2053,81714	0,06624	0,07590	0,09778	0,06142
2051,88867	0,06620	0,07591	0,09776	0,06146
2049,96021	0,06618	0,07587	0,09769	0,06149
2048,03174	0,06624	0,07587	0,09772	0,06141
2046,10327	0,06624	0,07588	0,09769	0,06142
2044,1748	0,06631	0,07586	0,09761	0,06148
2042,24634	0,06666	0,07596	0,09768	0,06135
2040,31787	0,06670	0,07596	0,09767	0,06126
2038,3894	0,06653	0,07584	0,09758	0,06130
2036,46094	0,06664	0,07591	0,09764	0,06128
2034,53247	0,06671	0,07599	0,09769	0,06128
2032,604	0,06671	0,07603	0,09762	0,06128
2030,67554	0,06671	0,07607	0,09755	0,06123
2028,74707	0,06673	0,07602	0,09759	0,06120
2026,8186	0,06669	0,07597	0,09761	0,06110
2024,89014	0,06664	0,07598	0,09763	0,06102
2022,96167	0,06674	0,07601	0,09767	0,06099
2021,0332	0,06663	0,07600	0,09753	0,06102
2019,10474	0,06695	0,07617	0,09759	0,06097
2017,17627	0,06746	0,07631	0,09784	0,06069
2015,2478	0,06696	0,07608	0,09770	0,06073
2013,31934	0,06667	0,07601	0,09754	0,06093
2011,39087	0,06692	0,07605	0,09759	0,06087
2009,4624	0,06695	0,07604	0,09758	0,06085
2007,53394	0,06702	0,07610	0,09760	0,06089
2005,60547	0,06709	0,07611	0,09761	0,06091
2003,677	0,06719	0,07616	0,09757	0,06091
2001,74854	0,06715	0,07615	0,09753	0,06084
1999,82007	0,06722	0,07614	0,09754	0,06080
1997,8916	0,06723	0,07619	0,09757	0,06072
1995,96313	0,06676	0,07602	0,09742	0,06076
1994,03467	0,06743	0,07615	0,09763	0,06064
1992,1062	0,06821	0,07639	0,09800	0,06025
1990,17773	0,06736	0,07613	0,09773	0,06035
1988,24927	0,06718	0,07605	0,09754	0,06062
1986,3208	0,06718	0,07611	0,09755	0,06056
1984,39233	0,06685	0,07607	0,09749	0,06052
1982,46387	0,06702	0,07614	0,09751	0,06050
1980,5354	0,06696	0,07614	0,09741	0,06049
1978,60693	0,06692	0,07612	0,09735	0,06046

1976,67847	0,06692	0,07604	0,09739	0,06045
1974,75	0,06686	0,07604	0,09738	0,06050
1972,82153	0,06692	0,07610	0,09745	0,06044
1970,89307	0,06667	0,07604	0,09740	0,06051
1968,9646	0,06722	0,07627	0,09754	0,06041
1967,03613	0,06792	0,07646	0,09782	0,06002
1965,10767	0,06690	0,07606	0,09752	0,06017
1963,1792	0,06650	0,07599	0,09734	0,06041
1961,25073	0,06687	0,07616	0,09753	0,06024
1959,32227	0,06657	0,07606	0,09740	0,06019
1957,3938	0,06658	0,07606	0,09731	0,06017
1955,46533	0,06677	0,07611	0,09739	0,06009
1953,53687	0,06662	0,07610	0,09738	0,06009
1951,6084	0,06634	0,07610	0,09728	0,06015
1949,67993	0,06642	0,07618	0,09734	0,06008
1947,75146	0,06660	0,07614	0,09742	0,05985
1945,823	0,06654	0,07605	0,09735	0,05998
1943,89453	0,06765	0,07656	0,09780	0,05973
1941,96606	0,06790	0,07660	0,09795	0,05917
1940,0376	0,06631	0,07601	0,09724	0,05969
1938,10913	0,06629	0,07613	0,09713	0,06008
1936,18066	0,06644	0,07622	0,09734	0,05985
1934,2522	0,06633	0,07621	0,09735	0,05986
1932,32373	0,06629	0,07621	0,09729	0,05989
1930,39526	0,06625	0,07624	0,09729	0,05983
1928,4668	0,06632	0,07635	0,09731	0,05976
1926,53833	0,06592	0,07622	0,09711	0,05995
1924,60986	0,06703	0,07669	0,09753	0,05971
1922,6814	0,06786	0,07690	0,09785	0,05902
1920,75293	0,06657	0,07644	0,09732	0,05949
1918,82446	0,06670	0,07668	0,09761	0,05964
1916,896	0,06658	0,07654	0,09779	0,05896
1914,96753	0,06594	0,07629	0,09724	0,05935
1913,03906	0,06637	0,07663	0,09733	0,05969
1911,1106	0,06695	0,07681	0,09762	0,05928
1909,18213	0,06737	0,07689	0,09774	0,05903
1907,25366	0,06684	0,07673	0,09762	0,05914
1905,3252	0,06649	0,07663	0,09742	0,05929
1903,39673	0,06667	0,07674	0,09741	0,05935
1901,46826	0,06679	0,07676	0,09748	0,05932
1899,53979	0,06651	0,07671	0,09744	0,05928
1897,61133	0,06669	0,07686	0,09750	0,05927
1895,68286	0,06785	0,07724	0,09785	0,05881
1893,75439	0,06704	0,07694	0,09755	0,05880
1891,82593	0,06699	0,07698	0,09748	0,05911
1889,89746	0,06863	0,07752	0,09822	0,05831
1887,96899	0,06721	0,07695	0,09778	0,05831
1886,04053	0,06673	0,07686	0,09741	0,05902



1884,11206	0,06738	0,07716	0,09772	0,05884
1882,18359	0,06679	0,07698	0,09755	0,05891
1880,25513	0,06687	0,07703	0,09752	0,05899
1878,32666	0,06701	0,07705	0,09756	0,05884
1876,39819	0,06690	0,07701	0,09741	0,05901
1874,46973	0,06692	0,07698	0,09744	0,05892
1872,54126	0,06706	0,07700	0,09745	0,05903
1870,61279	0,06820	0,07756	0,09786	0,05892
1868,68433	0,07019	0,07810	0,09866	0,05752
1866,75586	0,06857	0,07731	0,09798	0,05769
1864,82739	0,06717	0,07696	0,09734	0,05895
1862,89893	0,06689	0,07694	0,09733	0,05911
1860,97046	0,06707	0,07693	0,09739	0,05904
1859,04199	0,06704	0,07693	0,09739	0,05912
1857,11353	0,06676	0,07681	0,09737	0,05904
1855,18506	0,06646	0,07675	0,09734	0,05908
1853,25659	0,06654	0,07675	0,09741	0,05893
1851,32813	0,06625	0,07667	0,09740	0,05918
1849,39966	0,06635	0,07673	0,09752	0,05883
1847,47119	0,06777	0,07717	0,09775	0,05837
1845,54272	0,06731	0,07724	0,09767	0,05891
1843,61426	0,06568	0,07660	0,09763	0,05805
1841,68579	0,06544	0,07636	0,09719	0,05801
1839,75732	0,06612	0,07672	0,09732	0,05884
1837,82886	0,06617	0,07676	0,09746	0,05876
1835,90039	0,06646	0,07683	0,09763	0,05832
1833,97192	0,06538	0,07653	0,09719	0,05883
1832,04346	0,06634	0,07698	0,09762	0,05886
1830,11499	0,06846	0,07746	0,09859	0,05731
1828,18652	0,06623	0,07653	0,09757	0,05739
1826,25806	0,06659	0,07703	0,09767	0,05823
1824,32959	0,06721	0,07728	0,09821	0,05765
1822,40112	0,06562	0,07655	0,09725	0,05813
1820,47266	0,06571	0,07676	0,09712	0,05883
1818,54419	0,06624	0,07701	0,09750	0,05847
1816,61572	0,06599	0,07691	0,09733	0,05845
1814,68726	0,06557	0,07678	0,09713	0,05867
1812,75879	0,06672	0,07712	0,09746	0,05840
1810,83032	0,06764	0,07733	0,09787	0,05777
1808,90186	0,06651	0,07699	0,09750	0,05789
1806,97339	0,06612	0,07692	0,09725	0,05829
1805,04492	0,06586	0,07685	0,09730	0,05830
1803,11646	0,06649	0,07735	0,09760	0,05813
1801,18799	0,06796	0,07798	0,09829	0,05715
1799,25952	0,06635	0,07720	0,09779	0,05699
1797,33105	0,06622	0,07713	0,09753	0,05728
1795,40259	0,06734	0,07763	0,09781	0,05748
1793,47412	0,06618	0,07743	0,09751	0,05798

1791,54565	0,06695	0,07745	0,09814	0,05634
1789,61719	0,06555	0,07669	0,09740	0,05670
1787,68872	0,06544	0,07681	0,09711	0,05824
1785,76025	0,06581	0,07714	0,09752	0,05788
1783,83179	0,06495	0,07677	0,09711	0,05772
1781,90332	0,06638	0,07716	0,09760	0,05734
1779,97485	0,06720	0,07745	0,09791	0,05700
1778,04639	0,06494	0,07672	0,09711	0,05744
1776,11792	0,06659	0,07736	0,09793	0,05692
1774,18945	0,06674	0,07766	0,09740	0,05819
1772,26099	0,06506	0,07675	0,09699	0,05744
1770,33252	0,06483	0,07668	0,09758	0,05596
1768,40405	0,06554	0,07751	0,09784	0,05708
1766,47559	0,06313	0,07656	0,09705	0,05723
1764,54712	0,06507	0,07717	0,09775	0,05715
1762,61865	0,06556	0,07779	0,09817	0,05756
1760,69019	0,06340	0,07675	0,09764	0,05629
1758,76172	0,06510	0,07742	0,09780	0,05689
1756,83325	0,06514	0,07769	0,09821	0,05682
1754,90479	0,06358	0,07679	0,09781	0,05606
1752,97632	0,06415	0,07733	0,09738	0,05774
1751,04785	0,06500	0,07795	0,09799	0,05716
1749,11938	0,06667	0,07781	0,09879	0,05448
1747,19092	0,06688	0,07782	0,09882	0,05509
1745,26245	0,06507	0,07744	0,09808	0,05620
1743,33398	0,06611	0,07770	0,09867	0,05539
1741,40552	0,06511	0,07760	0,09840	0,05655
1739,47705	0,06235	0,07658	0,09782	0,05615
1737,54858	0,06463	0,07708	0,09840	0,05518
1735,62012	0,06333	0,07740	0,09706	0,05855
1733,69165	0,06159	0,07664	0,09702	0,05746
1731,76318	0,06211	0,07612	0,09705	0,05527
1729,83472	0,06674	0,07805	0,09935	0,05506
1727,90625	0,06183	0,07638	0,09742	0,05649
1725,97778	0,06318	0,07667	0,09784	0,05635
1724,04932	0,06391	0,07699	0,09807	0,05638
1722,12085	0,06290	0,07636	0,09764	0,05599
1720,19238	0,06461	0,07720	0,09850	0,05602
1718,26392	0,06537	0,07758	0,09766	0,05677
1716,33545	0,06295	0,07618	0,09635	0,05586
1714,40698	0,06427	0,07666	0,09822	0,05427
1712,47852	0,06377	0,07677	0,09819	0,05543
1710,55005	0,06232	0,07626	0,09734	0,05616
1708,62158	0,06497	0,07720	0,09845	0,05555
1706,69312	0,06474	0,07736	0,09848	0,05576
1704,76465	0,06511	0,07691	0,09894	0,05350
1702,83618	0,06566	0,07746	0,09847	0,05571
1700,90771	0,06181	0,07697	0,09883	0,05683

1698,97925	0,05913	0,07461	0,09694	0,05340
1697,05078	0,06451	0,07672	0,09611	0,05643
1695,12231	0,06090	0,07619	0,09601	0,05746
1693,19385	0,06144	0,07594	0,09747	0,05485
1691,26538	0,06599	0,07788	0,09856	0,05654
1689,33691	0,06503	0,07763	0,09888	0,05537
1687,40845	0,06685	0,07808	0,09932	0,05506
1685,47998	0,06389	0,07772	0,09595	0,06011
1683,55151	0,06568	0,07752	0,09845	0,05478
1681,62305	0,06526	0,07749	0,09964	0,05335
1679,69458	0,06575	0,07786	0,09889	0,05567
1677,76611	0,06392	0,07739	0,09827	0,05646
1675,83765	0,06256	0,07724	0,09865	0,05641
1673,90918	0,06157	0,07633	0,09811	0,05555
1671,98071	0,06494	0,07730	0,09875	0,05559
1670,05225	0,06691	0,07819	0,09964	0,05575
1668,12378	0,06249	0,07624	0,09859	0,05493
1666,19531	0,06360	0,07669	0,09839	0,05631
1664,26685	0,06286	0,07676	0,09791	0,05785
1662,33838	0,06329	0,07628	0,09858	0,05566
1660,40991	0,06264	0,07620	0,09807	0,05663
1658,48145	0,06112	0,07587	0,09705	0,05829
1656,55298	0,06532	0,07690	0,09931	0,05617
1654,62451	0,06416	0,07708	0,09734	0,05977
1652,69604	0,06678	0,07656	0,09648	0,05989
1650,76758	0,05636	0,07297	0,09444	0,05735
1648,83911	0,06786	0,07738	0,10021	0,05539
1646,91064	0,06858	0,07733	0,09888	0,05689
1644,98218	0,05834	0,07350	0,09594	0,05703
1643,05371	0,06255	0,07529	0,09769	0,05744
1641,12524	0,06083	0,07489	0,09700	0,05837
1639,19678	0,06311	0,07540	0,09790	0,05703
1637,26831	0,06447	0,07600	0,09757	0,05784
1635,33984	0,06314	0,07508	0,09736	0,05659
1633,41138	0,05843	0,07334	0,09604	0,05609
1631,48291	0,06176	0,07469	0,09690	0,05718
1629,55444	0,06095	0,07447	0,09655	0,05755
1627,62598	0,06160	0,07421	0,09703	0,05574
1625,69751	0,06111	0,07412	0,09660	0,05642
1623,76904	0,06133	0,07406	0,09655	0,05618
1621,84058	0,06013	0,07324	0,09618	0,05502
1619,91211	0,06151	0,07403	0,09661	0,05577
1617,98364	0,05977	0,07380	0,09467	0,05844
1616,05518	0,05787	0,07297	0,09398	0,05754
1614,12671	0,06008	0,07412	0,09604	0,05618
1612,19824	0,06201	0,07531	0,09707	0,05703
1610,26978	0,06161	0,07541	0,09688	0,05728
1608,34131	0,06314	0,07598	0,09766	0,05661

1606,41284	0,06216	0,07591	0,09720	0,05741
1604,48438	0,06194	0,07604	0,09730	0,05741
1602,55591	0,06290	0,07650	0,09773	0,05713
1600,62744	0,06231	0,07652	0,09757	0,05727
1598,69897	0,06188	0,07664	0,09769	0,05738
1596,77051	0,06248	0,07688	0,09786	0,05736
1594,84204	0,06307	0,07710	0,09806	0,05702
1592,91357	0,06237	0,07706	0,09800	0,05718
1590,98511	0,06226	0,07710	0,09809	0,05720
1589,05664	0,06269	0,07737	0,09838	0,05712
1587,12817	0,06185	0,07729	0,09811	0,05748
1585,19971	0,06243	0,07761	0,09856	0,05703
1583,27124	0,06245	0,07780	0,09845	0,05747
1581,34277	0,06135	0,07750	0,09812	0,05734
1579,41431	0,06369	0,07842	0,09947	0,05632
1577,48584	0,06265	0,07836	0,09759	0,05911
1575,55737	0,06034	0,07704	0,09659	0,05810
1573,62891	0,06136	0,07756	0,09853	0,05613
1571,70044	0,06435	0,07921	0,09981	0,05757
1569,77197	0,06445	0,07900	0,10009	0,05611
1567,84351	0,06267	0,07826	0,09972	0,05544
1565,91504	0,06359	0,07914	0,09958	0,05738
1563,98657	0,06349	0,07897	0,10004	0,05587
1562,05811	0,06450	0,07961	0,09984	0,05727
1560,12964	0,06592	0,08115	0,09968	0,06016
1558,20117	0,06782	0,07963	0,10073	0,05476
1556,27271	0,06193	0,07845	0,09934	0,05532
1554,34424	0,06296	0,07937	0,09951	0,05741
1552,41577	0,06090	0,07858	0,09919	0,05730
1550,4873	0,06628	0,08042	0,10151	0,05589
1548,55884	0,06395	0,07954	0,10080	0,05663
1546,63037	0,06227	0,07919	0,09993	0,05773
1544,7019	0,06720	0,08112	0,10148	0,05613
1542,77344	0,06591	0,08043	0,10117	0,05591
1540,84497	0,06419	0,07986	0,09978	0,05837
1538,9165	0,06478	0,07891	0,09851	0,05672
1536,98804	0,06209	0,07861	0,09932	0,05616
1535,05957	0,06560	0,08058	0,10146	0,05696
1533,1311	0,06778	0,08095	0,10226	0,05509
1531,20264	0,06335	0,07930	0,10057	0,05580
1529,27417	0,06537	0,08041	0,10131	0,05700
1527,3457	0,06684	0,08091	0,10208	0,05608
1525,41724	0,06443	0,07987	0,10137	0,05569
1523,48877	0,06562	0,08054	0,10157	0,05643
1521,5603	0,06597	0,08060	0,10076	0,05659
1519,63184	0,06108	0,07885	0,09965	0,05602
1517,70337	0,06693	0,08084	0,10271	0,05432
1515,7749	0,06674	0,08057	0,10255	0,05406

1513,84644	0,06289	0,07939	0,10104	0,05582
1511,91797	0,06246	0,07934	0,10091	0,05626
1509,9895	0,06710	0,08063	0,10262	0,05414
1508,06104	0,07003	0,08192	0,10240	0,05567
1506,13257	0,06862	0,08034	0,10096	0,05548
1504,2041	0,05821	0,07704	0,09864	0,05534
1502,27563	0,06390	0,07947	0,10126	0,05561
1500,34717	0,06246	0,07909	0,10093	0,05587
1498,4187	0,06306	0,07919	0,10104	0,05528
1496,49023	0,06129	0,07867	0,09954	0,05621
1494,56177	0,05917	0,07778	0,09911	0,05606
1492,6333	0,06287	0,07928	0,10118	0,05555
1490,70483	0,06546	0,08037	0,10205	0,05463
1488,77637	0,06622	0,08019	0,10230	0,05310
1486,8479	0,06330	0,07915	0,10125	0,05420
1484,91943	0,06103	0,07850	0,10017	0,05591
1482,99097	0,06179	0,07885	0,10058	0,05581
1481,0625	0,06239	0,07897	0,10073	0,05524
1479,13403	0,06101	0,07859	0,10006	0,05584
1477,20557	0,06244	0,07919	0,10101	0,05474
1475,2771	0,06378	0,07951	0,10123	0,05404
1473,34863	0,06193	0,07891	0,09982	0,05509
1471,42017	0,06127	0,07834	0,10001	0,05353
1469,4917	0,06104	0,07820	0,10003	0,05393
1467,56323	0,06123	0,07864	0,09957	0,05567
1465,63477	0,06241	0,07900	0,10044	0,05416
1463,7063	0,05971	0,07786	0,09952	0,05396
1461,77783	0,06019	0,07806	0,09937	0,05451
1459,84937	0,06472	0,07975	0,10140	0,05359
1457,9209	0,06598	0,08032	0,10106	0,05415
1455,99243	0,05684	0,07702	0,09830	0,05386
1454,06396	0,06185	0,07847	0,10015	0,05280
1452,1355	0,06198	0,07881	0,10013	0,05395
1450,20703	0,06026	0,07839	0,09919	0,05459
1448,27856	0,06235	0,07918	0,10049	0,05321
1446,3501	0,06058	0,07849	0,09975	0,05343
1444,42163	0,06045	0,07842	0,09942	0,05432
1442,49316	0,06007	0,07847	0,09954	0,05444
1440,5647	0,06079	0,07844	0,09962	0,05396
1438,63623	0,06079	0,07863	0,09942	0,05475
1436,70776	0,06024	0,07874	0,10016	0,05341
1434,7793	0,05944	0,07798	0,09933	0,05280
1432,85083	0,06194	0,07890	0,09985	0,05368
1430,92236	0,06174	0,07911	0,10007	0,05352
1428,9939	0,06106	0,07853	0,09994	0,05264
1427,06543	0,06005	0,07825	0,09930	0,05392
1425,13696	0,06097	0,07864	0,09980	0,05333
1423,2085	0,06216	0,07867	0,10034	0,05204

1421,28003	0,05934	0,07805	0,09903	0,05409
1419,35156	0,05936	0,07833	0,09948	0,05337
1417,4231	0,06074	0,07829	0,10010	0,05154
1415,49463	0,06012	0,07819	0,10002	0,05285
1413,56616	0,05828	0,07785	0,09937	0,05389
1411,6377	0,05925	0,07829	0,09974	0,05312
1409,70923	0,05858	0,07811	0,09953	0,05320
1407,78076	0,05762	0,07775	0,09930	0,05345
1405,85229	0,05944	0,07849	0,10022	0,05266
1403,92383	0,05863	0,07817	0,10001	0,05243
1401,99536	0,05763	0,07782	0,09938	0,05346
1400,06689	0,05865	0,07841	0,10003	0,05307
1398,13843	0,05933	0,07857	0,10035	0,05213
1396,20996	0,05931	0,07852	0,10020	0,05259
1394,28149	0,05846	0,07827	0,10026	0,05237
1392,35303	0,05647	0,07750	0,09942	0,05278
1390,42456	0,05724	0,07778	0,09952	0,05353
1388,49609	0,05710	0,07781	0,09972	0,05337
1386,56763	0,05639	0,07704	0,09927	0,05236
1384,63916	0,05543	0,07614	0,09859	0,05216
1382,71069	0,05515	0,07628	0,09867	0,05301
1380,78223	0,05651	0,07729	0,09963	0,05347
1378,85376	0,05700	0,07764	0,09996	0,05363
1376,92529	0,05716	0,07778	0,09987	0,05392
1374,99683	0,05945	0,07854	0,10062	0,05300
1373,06836	0,05839	0,07809	0,10041	0,05280
1371,13989	0,05663	0,07767	0,09972	0,05401
1369,21143	0,05815	0,07840	0,10031	0,05384
1367,28296	0,05731	0,07812	0,10018	0,05383
1365,35449	0,05680	0,07802	0,10002	0,05439
1363,42603	0,05958	0,07912	0,10126	0,05332
1361,49756	0,05899	0,07892	0,10107	0,05299
1359,56909	0,05682	0,07819	0,10002	0,05400
1357,64063	0,05715	0,07841	0,10014	0,05407
1355,71216	0,05761	0,07877	0,10047	0,05388
1353,78369	0,05734	0,07883	0,10059	0,05403
1351,85522	0,05721	0,07890	0,10068	0,05419
1349,92676	0,05746	0,07911	0,10069	0,05417
1347,99829	0,05735	0,07908	0,10063	0,05410
1346,06982	0,05739	0,07914	0,10077	0,05403
1344,14136	0,05719	0,07919	0,10083	0,05419
1342,21289	0,05773	0,07938	0,10101	0,05402
1340,28442	0,06011	0,08013	0,10170	0,05286
1338,35596	0,05999	0,08010	0,10155	0,05248
1336,42749	0,05808	0,07958	0,10085	0,05322
1334,49902	0,05784	0,07961	0,10080	0,05364
1332,57056	0,05788	0,07965	0,10099	0,05379
1330,64209	0,05793	0,07966	0,10115	0,05382

1328,71362	0,05792	0,07977	0,10119	0,05386
1326,78516	0,05791	0,07992	0,10112	0,05393
1324,85669	0,05827	0,08011	0,10113	0,05383
1322,92822	0,05818	0,08011	0,10111	0,05376
1320,99976	0,05853	0,08019	0,10120	0,05367
1319,07129	0,05944	0,08042	0,10143	0,05348
1317,14282	0,05896	0,08021	0,10148	0,05359
1315,21436	0,05866	0,08003	0,10152	0,05377
1313,28589	0,05914	0,08015	0,10160	0,05368
1311,35742	0,05863	0,07998	0,10154	0,05379
1309,42896	0,05841	0,07991	0,10173	0,05408
1307,50049	0,05883	0,08016	0,10195	0,05423
1305,57202	0,05876	0,08026	0,10195	0,05436
1303,64355	0,05879	0,08032	0,10213	0,05443
1301,71509	0,05898	0,08041	0,10238	0,05453
1299,78662	0,05922	0,08048	0,10259	0,05464
1297,85815	0,05960	0,08065	0,10281	0,05465
1295,92969	0,05974	0,08079	0,10283	0,05470
1294,00122	0,05974	0,08075	0,10268	0,05477
1292,07275	0,05986	0,08074	0,10274	0,05478
1290,14429	0,06008	0,08092	0,10296	0,05480
1288,21582	0,06022	0,08109	0,10298	0,05485
1286,28735	0,06011	0,08103	0,10279	0,05507
1284,35889	0,06011	0,08087	0,10270	0,05532
1282,43042	0,06035	0,08082	0,10280	0,05551
1280,50195	0,06047	0,08078	0,10296	0,05586
1278,57349	0,06069	0,08079	0,10321	0,05618
1276,64502	0,06104	0,08091	0,10358	0,05639
1274,71655	0,06118	0,08103	0,10384	0,05672
1272,78809	0,06151	0,08109	0,10402	0,05703
1270,85962	0,06187	0,08111	0,10418	0,05732
1268,93115	0,06190	0,08114	0,10426	0,05779
1267,00269	0,06199	0,08126	0,10439	0,05821
1265,07422	0,06208	0,08144	0,10442	0,05847
1263,14575	0,06222	0,08148	0,10437	0,05881
1261,21729	0,06264	0,08159	0,10439	0,05905
1259,28882	0,06288	0,08179	0,10438	0,05930
1257,36035	0,06288	0,08175	0,10455	0,05965
1255,43188	0,06302	0,08175	0,10474	0,05979
1253,50342	0,06321	0,08207	0,10477	0,05999
1251,57495	0,06344	0,08225	0,10485	0,06029
1249,64648	0,06385	0,08219	0,10482	0,06044
1247,71802	0,06428	0,08226	0,10482	0,06057
1245,78955	0,06469	0,08242	0,10514	0,06073
1243,86108	0,06511	0,08247	0,10543	0,06088
1241,93262	0,06548	0,08254	0,10549	0,06105
1240,00415	0,06586	0,08269	0,10560	0,06118
1238,07568	0,06628	0,08272	0,10579	0,06128

1236,14722	0,06675	0,08277	0,10590	0,06144
1234,21875	0,06719	0,08293	0,10608	0,06168
1232,29028	0,06753	0,08305	0,10637	0,06191
1230,36182	0,06796	0,08321	0,10659	0,06212
1228,43335	0,06842	0,08346	0,10671	0,06241
1226,50488	0,06884	0,08365	0,10680	0,06271
1224,57642	0,06939	0,08392	0,10690	0,06291
1222,64795	0,06994	0,08424	0,10703	0,06302
1220,71948	0,07036	0,08445	0,10718	0,06315
1218,79102	0,07091	0,08463	0,10729	0,06336
1216,86255	0,07162	0,08492	0,10734	0,06359
1214,93408	0,07222	0,08527	0,10744	0,06374
1213,00562	0,07285	0,08552	0,10763	0,06394
1211,07715	0,07351	0,08565	0,10783	0,06426
1209,14868	0,07396	0,08572	0,10803	0,06461
1207,22021	0,07450	0,08589	0,10828	0,06494
1205,29175	0,07506	0,08615	0,10836	0,06539
1203,36328	0,07540	0,08634	0,10838	0,06591
1201,43481	0,07585	0,08666	0,10877	0,06636
1199,50635	0,07650	0,08714	0,10935	0,06672
1197,57788	0,07690	0,08744	0,10978	0,06700
1195,64941	0,07718	0,08773	0,11002	0,06733
1193,72095	0,07761	0,08812	0,11018	0,06765
1191,79248	0,07783	0,08827	0,11048	0,06794
1189,86401	0,07800	0,08834	0,11095	0,06828
1187,93555	0,07835	0,08853	0,11134	0,06856
1186,00708	0,07849	0,08862	0,11165	0,06890
1184,07861	0,07864	0,08870	0,11178	0,06941
1182,15015	0,07888	0,08889	0,11195	0,06986
1180,22168	0,07898	0,08907	0,11247	0,07017
1178,29321	0,07918	0,08917	0,11280	0,07048
1176,36475	0,07949	0,08923	0,11292	0,07080
1174,43628	0,07969	0,08944	0,11322	0,07122
1172,50781	0,08004	0,08970	0,11340	0,07175
1170,57935	0,08052	0,08987	0,11353	0,07218
1168,65088	0,08081	0,09004	0,11375	0,07249
1166,72241	0,08113	0,09026	0,11390	0,07288
1164,79395	0,08157	0,09041	0,11407	0,07341
1162,86548	0,08202	0,09046	0,11424	0,07369
1160,93701	0,08248	0,09057	0,11447	0,07374
1159,00854	0,08255	0,09059	0,11477	0,07394
1157,08008	0,08226	0,09051	0,11502	0,07429
1155,15161	0,08207	0,09057	0,11511	0,07461
1153,22314	0,08188	0,09049	0,11504	0,07487
1151,29468	0,08185	0,09043	0,11520	0,07529
1149,36621	0,08213	0,09074	0,11549	0,07590
1147,43774	0,08231	0,09088	0,11561	0,07633
1145,50928	0,08241	0,09075	0,11578	0,07653



1143,58081	0,08267	0,09076	0,11597	0,07671
1141,65234	0,08287	0,09077	0,11613	0,07700
1139,72388	0,08299	0,09097	0,11630	0,07723
1137,79541	0,08330	0,09141	0,11637	0,07732
1135,86694	0,08353	0,09153	0,11662	0,07771
1133,93848	0,08360	0,09146	0,11705	0,07819
1132,01001	0,08378	0,09151	0,11697	0,07828
1130,08154	0,08377	0,09153	0,11646	0,07821
1128,15308	0,08382	0,09164	0,11652	0,07820
1126,22461	0,08430	0,09199	0,11697	0,07834
1124,29614	0,08460	0,09233	0,11705	0,07853
1122,36768	0,08464	0,09230	0,11687	0,07850
1120,43921	0,08481	0,09220	0,11692	0,07844
1118,51074	0,08505	0,09249	0,11724	0,07855
1116,58228	0,08528	0,09274	0,11743	0,07878
1114,65381	0,08529	0,09261	0,11758	0,07891
1112,72534	0,08524	0,09259	0,11780	0,07900
1110,79688	0,08549	0,09296	0,11789	0,07932
1108,86841	0,08564	0,09323	0,11800	0,07960
1106,93994	0,08559	0,09324	0,11813	0,07973
1105,01147	0,08578	0,09333	0,11833	0,07973
1103,08301	0,08590	0,09336	0,11856	0,07964
1101,15454	0,08580	0,09342	0,11859	0,07971
1099,22607	0,08573	0,09368	0,11867	0,07980
1097,29761	0,08573	0,09384	0,11875	0,07983
1095,36914	0,08581	0,09395	0,11866	0,07988
1093,44067	0,08586	0,09402	0,11872	0,07986
1091,51221	0,08582	0,09399	0,11889	0,07984
1089,58374	0,08564	0,09382	0,11887	0,07973
1087,65527	0,08544	0,09351	0,11883	0,07958
1085,72681	0,08525	0,09344	0,11885	0,07966
1083,79834	0,08478	0,09349	0,11888	0,07965
1081,86987	0,08433	0,09335	0,11890	0,07968
1079,94141	0,08406	0,09339	0,11875	0,07971
1078,01294	0,08382	0,09336	0,11862	0,07943
1076,08447	0,08365	0,09312	0,11856	0,07932
1074,15601	0,08332	0,09321	0,11838	0,07916
1072,22754	0,08291	0,09326	0,11831	0,07894
1070,29907	0,08256	0,09302	0,11831	0,07887
1068,37061	0,08235	0,09293	0,11814	0,07850
1066,44214	0,08237	0,09284	0,11809	0,07828
1064,51367	0,08233	0,09272	0,11819	0,07825
1062,58521	0,08240	0,09284	0,11808	0,07797
1060,65674	0,08242	0,09281	0,11792	0,07787
1058,72827	0,08188	0,09249	0,11789	0,07778
1056,7998	0,08150	0,09228	0,11775	0,07737
1054,87134	0,08137	0,09209	0,11761	0,07689
1052,94287	0,08096	0,09182	0,11757	0,07671

1051,0144	0,08069	0,09183	0,11750	0,07667
1049,08594	0,08047	0,09195	0,11749	0,07660
1047,15747	0,07998	0,09171	0,11754	0,07658
1045,229	0,07961	0,09127	0,11760	0,07655
1043,30054	0,07959	0,09107	0,11776	0,07661
1041,37207	0,07960	0,09102	0,11803	0,07672
1039,4436	0,07940	0,09099	0,11826	0,07657
1037,51514	0,07895	0,09095	0,11839	0,07634
1035,58667	0,07850	0,09076	0,11853	0,07611
1033,6582	0,07817	0,09065	0,11875	0,07589
1031,72974	0,07790	0,09080	0,11884	0,07595
1029,80127	0,07779	0,09095	0,11889	0,07622
1027,8728	0,07782	0,09112	0,11910	0,07653
1025,94434	0,07774	0,09135	0,11942	0,07693
1024,01587	0,07751	0,09131	0,11952	0,07743
1022,0874	0,07739	0,09129	0,11956	0,07777
1020,15894	0,07736	0,09145	0,11983	0,07801
1018,23047	0,07716	0,09138	0,11982	0,07812
1016,302	0,07673	0,09110	0,11951	0,07772
1014,37354	0,07621	0,09087	0,11937	0,07711
1012,44507	0,07594	0,09078	0,11925	0,07662
1010,5166	0,07604	0,09090	0,11916	0,07608
1008,58813	0,07611	0,09098	0,11913	0,07576
1006,65967	0,07594	0,09092	0,11890	0,07542
1004,7312	0,07596	0,09088	0,11878	0,07504
1002,80273	0,07603	0,09085	0,11888	0,07508
1000,87427	0,07580	0,09078	0,11872	0,07511
998,9458	0,07553	0,09070	0,11859	0,07497
997,01733	0,07543	0,09064	0,11879	0,07499
995,08887	0,07540	0,09065	0,11875	0,07491
993,1604	0,07515	0,09063	0,11848	0,07478
991,23193	0,07477	0,09071	0,11861	0,07485
989,30347	0,07451	0,09077	0,11894	0,07512
987,375	0,07432	0,09080	0,11888	0,07526
985,44653	0,07424	0,09111	0,11866	0,07504
983,51807	0,07405	0,09128	0,11855	0,07508
981,5896	0,07350	0,09135	0,11848	0,07535
979,66113	0,07297	0,09153	0,11868	0,07537
977,73267	0,07274	0,09132	0,11889	0,07544
975,8042	0,07249	0,09127	0,11888	0,07530
973,87573	0,07199	0,09172	0,11900	0,07497
971,94727	0,07176	0,09193	0,11902	0,07516
970,0188	0,07181	0,09198	0,11882	0,07534
968,09033	0,07167	0,09211	0,11881	0,07516
966,16187	0,07157	0,09208	0,11875	0,07513
964,2334	0,07144	0,09208	0,11851	0,07510
962,30493	0,07115	0,09222	0,11852	0,07502
960,37646	0,07107	0,09226	0,11870	0,07501

958,448	0,07086	0,09217	0,11887	0,07509
956,51953	0,07044	0,09215	0,11881	0,07523
954,59106	0,07035	0,09218	0,11847	0,07517
952,6626	0,07038	0,09207	0,11834	0,07515
950,73413	0,07025	0,09209	0,11843	0,07533
948,80566	0,07011	0,09226	0,11846	0,07524
946,8772	0,06996	0,09231	0,11847	0,07515
944,94873	0,07009	0,09242	0,11827	0,07539
943,02026	0,07021	0,09256	0,11795	0,07559
941,0918	0,06998	0,09260	0,11782	0,07557
939,16333	0,06985	0,09269	0,11767	0,07558
937,23486	0,06958	0,09262	0,11763	0,07562
935,3064	0,06933	0,09238	0,11793	0,07559
933,37793	0,06944	0,09228	0,11794	0,07568
931,44946	0,06933	0,09225	0,11761	0,07574
929,521	0,06921	0,09225	0,11750	0,07566
927,59253	0,06928	0,09234	0,11747	0,07576
925,66406	0,06929	0,09243	0,11752	0,07571
923,7356	0,06944	0,09258	0,11772	0,07548
921,80713	0,06931	0,09259	0,11742	0,07560
919,87866	0,06906	0,09242	0,11716	0,07566
917,9502	0,06919	0,09248	0,11766	0,07540
916,02173	0,06926	0,09256	0,11789	0,07534
914,09326	0,06914	0,09241	0,11747	0,07539
912,16479	0,06902	0,09242	0,11723	0,07536
910,23633	0,06906	0,09266	0,11712	0,07553
908,30786	0,06931	0,09267	0,11697	0,07567
906,37939	0,06935	0,09252	0,11702	0,07567
904,45093	0,06919	0,09254	0,11709	0,07582
902,52246	0,06920	0,09239	0,11696	0,07582
900,59399	0,06916	0,09213	0,11691	0,07575
898,66553	0,06908	0,09228	0,11700	0,07594
896,73706	0,06922	0,09243	0,11697	0,07603
894,80859	0,06934	0,09245	0,11674	0,07607
892,88013	0,06945	0,09282	0,11637	0,07635
890,95166	0,06962	0,09306	0,11623	0,07657
889,02319	0,06953	0,09276	0,11658	0,07660
887,09473	0,06956	0,09260	0,11693	0,07654
885,16626	0,06962	0,09281	0,11708	0,07648
883,23779	0,06938	0,09306	0,11690	0,07675
881,30933	0,06958	0,09310	0,11660	0,07706
879,38086	0,07023	0,09322	0,11698	0,07709
877,45239	0,07051	0,09364	0,11754	0,07735
875,52393	0,07071	0,09376	0,11798	0,07808
873,59546	0,07127	0,09364	0,11898	0,07920
871,66699	0,07231	0,09400	0,12012	0,08074
869,73853	0,07364	0,09464	0,12110	0,08248
867,81006	0,07444	0,09526	0,12216	0,08399

865,88159	0,07465	0,09563	0,12307	0,08518
863,95313	0,07495	0,09574	0,12335	0,08596
862,02466	0,07531	0,09600	0,12313	0,08621
860,09619	0,07522	0,09608	0,12293	0,08607
858,16772	0,07484	0,09582	0,12283	0,08573
856,23926	0,07445	0,09581	0,12268	0,08512
854,31079	0,07390	0,09573	0,12231	0,08408
852,38232	0,07371	0,09559	0,12211	0,08343
850,45386	0,07413	0,09595	0,12245	0,08393
848,52539	0,07497	0,09638	0,12365	0,08553
846,59692	0,07659	0,09693	0,12572	0,08864
844,66846	0,07829	0,09780	0,12722	0,09177
842,73999	0,07984	0,09837	0,12861	0,09440
840,81152	0,08242	0,09920	0,13174	0,09974
838,88306	0,08528	0,10075	0,13496	0,10670
836,95459	0,08770	0,10211	0,13731	0,11297
835,02612	0,08996	0,10322	0,13959	0,11869
833,09766	0,09085	0,10386	0,14032	0,12078
831,16919	0,09062	0,10364	0,13991	0,12021
829,24072	0,09063	0,10333	0,14017	0,12010
827,31226	0,09086	0,10333	0,14021	0,11966
825,38379	0,09233	0,10385	0,14093	0,12245
823,45532	0,09443	0,10472	0,14261	0,12791
821,52686	0,09495	0,10509	0,14282	0,12951
819,59839	0,09491	0,10514	0,14269	0,12931
817,66992	0,09537	0,10531	0,14352	0,13036
815,74146	0,09604	0,10580	0,14424	0,13203
813,81299	0,09705	0,10628	0,14486	0,13467
811,88452	0,09756	0,10636	0,14518	0,13603
809,95605	0,09772	0,10673	0,14525	0,13553
808,02759	0,09857	0,10726	0,14577	0,13591
806,09912	0,09975	0,10764	0,14636	0,13757
804,17065	0,10067	0,10805	0,14657	0,13896
802,24219	0,10119	0,10802	0,14679	0,13974
800,31372	0,10202	0,10821	0,14757	0,14148
798,38525	0,10315	0,10875	0,14842	0,14384
796,45679	0,10353	0,10887	0,14875	0,14497
794,52832	0,10344	0,10912	0,14888	0,14546
792,59985	0,10282	0,10889	0,14857	0,14499
790,67139	0,10149	0,10794	0,14788	0,14279
788,74292	0,10075	0,10782	0,14765	0,14107
786,81445	0,10043	0,10815	0,14762	0,14031
784,88599	0,09959	0,10794	0,14704	0,13840
782,95752	0,09900	0,10775	0,14627	0,13592
781,02905	0,09924	0,10778	0,14589	0,13466
779,10059	0,09960	0,10756	0,14583	0,13460
777,17212	0,09987	0,10758	0,14613	0,13596
775,24365	0,10054	0,10807	0,14692	0,13872

773,31519	0,10134	0,10810	0,14778	0,14139
771,38672	0,10172	0,10795	0,14834	0,14303
769,45825	0,10174	0,10810	0,14835	0,14374
767,52979	0,10175	0,10816	0,14818	0,14409
765,60132	0,10196	0,10813	0,14842	0,14488
763,67285	0,10212	0,10812	0,14864	0,14568
761,74438	0,10174	0,10818	0,14828	0,14493
759,81592	0,10087	0,10804	0,14774	0,14335
757,88745	0,10035	0,10783	0,14757	0,14280
755,95898	0,10005	0,10799	0,14777	0,14273
754,03052	0,09946	0,10781	0,14803	0,14245
752,10205	0,09910	0,10749	0,14780	0,14178
750,17358	0,09923	0,10767	0,14743	0,14126
748,24512	0,09942	0,10759	0,14762	0,14219
746,31665	0,09955	0,10745	0,14763	0,14353
744,38818	0,10005	0,10755	0,14761	0,14433
742,45972	0,10082	0,10764	0,14821	0,14503
740,53125	0,10108	0,10807	0,14866	0,14539
738,60278	0,10093	0,10834	0,14893	0,14613
736,67432	0,10125	0,10840	0,14950	0,14751
734,74585	0,10142	0,10898	0,14968	0,14825
732,81738	0,10063	0,10928	0,14928	0,14785
730,88892	0,10017	0,10919	0,14955	0,14746
728,96045	0,10068	0,10955	0,15032	0,14827
727,03198	0,10138	0,10982	0,15067	0,14969
725,10352	0,10160	0,10970	0,15107	0,15129
723,17505	0,10197	0,10994	0,15165	0,15235
721,24658	0,10321	0,11032	0,15219	0,15233
719,31812	0,10345	0,11028	0,15260	0,15335
717,38965	0,10324	0,11053	0,15275	0,15532
715,46118	0,10418	0,11107	0,15325	0,15626
713,53271	0,10417	0,11091	0,15366	0,15633
711,60425	0,10339	0,11081	0,15349	0,15582
709,67578	0,10372	0,11147	0,15379	0,15563
707,74731	0,10413	0,11172	0,15461	0,15650
705,81885	0,10395	0,11157	0,15517	0,15647
703,89038	0,10391	0,11157	0,15526	0,15527
701,96191	0,10371	0,11150	0,15530	0,15477
700,03345	0,10374	0,11161	0,15568	0,15460
698,10498	0,10442	0,11180	0,15585	0,15433
696,17651	0,10501	0,11202	0,15624	0,15435
694,24805	0,10526	0,11248	0,15696	0,15438
692,31958	0,10565	0,11293	0,15707	0,15475
690,39111	0,10637	0,11290	0,15752	0,15515
688,46265	0,10672	0,11300	0,15835	0,15593
686,53418	0,10716	0,11379	0,15863	0,15754
684,60571	0,10706	0,11370	0,15914	0,15826
682,67725	0,10707	0,11358	0,15995	0,15899

680,74878	0,10810	0,11415	0,16051	0,16058
678,82031	0,10796	0,11464	0,16084	0,16128
676,89185	0,10962	0,11529	0,16138	0,16166
674,96338	0,10968	0,11545	0,16183	0,16302
673,03491	0,10975	0,11560	0,16172	0,16355
671,10645	0,10982	0,11576	0,16231	0,16335
669,17798	0,10988	0,11591	0,16303	0,16433
667,24951	0,10995	0,11607	0,16305	0,16398
665,32104	0,11001	0,11622	0,16307	0,16505
663,39258	0,11008	0,11638	0,16309	0,16549
661,46411	0,11014	0,11653	0,16311	0,16594
659,53564	0,11021	0,11669	0,16313	0,16639
657,60718	0,11027	0,11685	0,16315	0,16684
655,67871	0,11034	0,11700	0,16318	0,16728
653,75024	0,11041	0,11716	0,16321	0,16773
651,82178	0,11047	0,11731	0,16323	0,16818
649,89331	0,11054	0,11747	0,16326	0,16863
647,96484	0,11068	0,11762	0,16281	0,16907
646,03638	0,11089	0,11784	0,16327	0,16952
644,10791	0,11019	0,11707	0,16369	0,16943
642,17944	0,10999	0,11780	0,16353	0,16960
640,25098	0,10952	0,11742	0,16321	0,16914
638,32251	0,10923	0,11746	0,16306	0,16914
636,39404	0,10937	0,11806	0,16331	0,16924
634,46558	0,10884	0,11774	0,16292	0,16879
632,53711	0,10828	0,11691	0,16206	0,16831
630,60864	0,10828	0,11692	0,16182	0,16773
628,68018	0,10825	0,11707	0,16198	0,16705
626,75171	0,10777	0,11699	0,16240	0,16606
624,82324	0,10738	0,11731	0,16229	0,16594
622,89478	0,10714	0,11700	0,16107	0,16667
620,96631	0,10745	0,11649	0,16061	0,16691
619,03784	0,10889	0,11654	0,16139	0,16713
617,10938	0,10968	0,11683	0,16192	0,16720
615,18091	0,10891	0,11651	0,16194	0,16777
613,25244	0,10879	0,11594	0,16169	0,16875
611,32397	0,10952	0,11597	0,16140	0,16844
609,39551	0,10986	0,11589	0,16118	0,16852
607,46704	0,10978	0,11571	0,16106	0,16882
605,53857	0,10905	0,11587	0,16086	0,16840
603,61011	0,10853	0,11614	0,16070	0,16846
601,68164	0,10868	0,11590	0,16105	0,16772
599,75317	0,10856	0,11566	0,16072	0,16693
597,82471	0,10836	0,11572	0,15958	0,16712
595,89624	0,10828	0,11523	0,15934	0,16705
593,96777	0,10854	0,11529	0,16017	0,16560
592,03931	0,10844	0,11566	0,16135	0,16341
590,11084	0,10749	0,11540	0,16133	0,16460

588,18237	0,10715	0,11570	0,16040	0,16571
586,25391	0,10708	0,11611	0,16039	0,16416
584,32544	0,10696	0,11597	0,16061	0,16525
582,39697	0,10726	0,11592	0,16080	0,16542
580,46851	0,10702	0,11550	0,16099	0,16403
578,54004	0,10679	0,11568	0,16153	0,16483
576,61157	0,10747	0,11705	0,16311	0,16402
574,68311	0,10780	0,11723	0,16277	0,16400
572,75464	0,10819	0,11725	0,16178	0,16627
570,82617	0,10848	0,11837	0,16370	0,16654
568,89771	0,10823	0,11880	0,16507	0,16668
566,96924	0,10909	0,11976	0,16467	0,16837
565,04077	0,10977	0,12060	0,16479	0,16969
563,1123	0,11006	0,12009	0,16528	0,17015
561,18384	0,11077	0,12045	0,16641	0,17086
559,25537	0,11091	0,12129	0,16759	0,17142
557,3269	0,11141	0,12233	0,16810	0,17100
555,39844	0,11167	0,12365	0,16834	0,17105
553,46997	0,11182	0,12420	0,16900	0,17102
551,5415	0,11246	0,12507	0,17088	0,17025
549,61304	0,11209	0,12601	0,17263	0,16976
547,68457	0,11077	0,12606	0,17229	0,16936
545,7561	0,11100	0,12653	0,17221	0,16864
543,82764	0,11311	0,12765	0,17387	0,16746
541,89917	0,11323	0,12856	0,17446	0,16670
539,9707	0,11283	0,12961	0,17491	0,16765
538,04224	0,11369	0,13055	0,17652	0,16870
536,11377	0,11308	0,13117	0,17652	0,16874
534,1853	0,11414	0,13300	0,17700	0,16877
532,25684	0,11435	0,13329	0,17706	0,16948
530,32837	0,11597	0,13249	0,17765	0,16718
528,3999	0,11721	0,13413	0,17766	0,16404
526,47144	0,11097	0,13432	0,17339	0,16415
524,54297	0,11083	0,13402	0,17460	0,16235
522,6145	0,11598	0,13567	0,17833	0,15875
520,68604	0,11281	0,13480	0,17477	0,15715
518,75757	0,10857	0,13393	0,17091	0,15583
516,8291	0,11011	0,13427	0,17077	0,15270
514,90063	0,11149	0,13235	0,17168	0,14909
512,97217	0,11057	0,13243	0,17121	0,14773
511,0437	0,11106	0,13395	0,16957	0,14624
509,11523	0,10914	0,13160	0,16758	0,14245
507,18677	0,10678	0,12954	0,16472	0,13929
505,2583	0,10892	0,13022	0,16341	0,13792
503,32983	0,10745	0,12984	0,16184	0,13631
501,40137	0,10610	0,12910	0,16033	0,13319
499,4729	0,10900	0,12872	0,16023	0,13065

Figure 3.2 A					
n°spectre	Vd310	VD317	VD313	VD314	VD315
cm-1	crushed-F1	pHnat-F1	$\theta=2,9$ -F1	$\theta=14,9$ -F1	$\theta=22,3$ -F1
4001,5686	0,22336	0,18486	0,20521	0,22692	0,17684
3999,64014	0,22313	0,18478	0,20493	0,22673	0,17658
3997,71167	0,22308	0,18472	0,20498	0,22663	0,17662
3995,7832	0,22305	0,18449	0,20487	0,22656	0,17659
3993,85474	0,22264	0,18425	0,20452	0,22631	0,17628
3991,92627	0,22251	0,18408	0,20447	0,22627	0,17628
3989,9978	0,22243	0,1841	0,2043	0,22624	0,17617
3988,06934	0,22204	0,18411	0,204	0,22586	0,17581
3986,14087	0,22201	0,18391	0,20411	0,22581	0,17584
3984,2124	0,222	0,18375	0,20395	0,22588	0,17584
3982,28394	0,22175	0,18369	0,20364	0,22571	0,17567
3980,35547	0,22161	0,1836	0,20363	0,22552	0,17554
3978,427	0,22149	0,18346	0,20347	0,22532	0,17534
3976,49854	0,22144	0,18325	0,20351	0,22539	0,17545
3974,57007	0,22123	0,18307	0,20353	0,2253	0,1755
3972,6416	0,22102	0,18302	0,20307	0,22491	0,17518
3970,71313	0,22094	0,18289	0,20288	0,22481	0,17504
3968,78467	0,22078	0,18278	0,20292	0,22484	0,1751
3966,8562	0,22052	0,18287	0,20252	0,22441	0,17477
3964,92773	0,22045	0,18271	0,20239	0,22418	0,17451
3962,99927	0,22057	0,18246	0,20276	0,22466	0,17495
3961,0708	0,22004	0,1824	0,20231	0,22439	0,17468
3959,14233	0,21989	0,18234	0,20201	0,22405	0,17427
3957,21387	0,21998	0,18218	0,20198	0,22404	0,17437
3955,2854	0,21959	0,18199	0,20175	0,22375	0,17426
3953,35693	0,21977	0,18212	0,20188	0,224	0,17433
3951,42847	0,21926	0,18169	0,20149	0,22354	0,1741
3949,5	0,21879	0,18093	0,20163	0,22338	0,17457
3947,57153	0,21894	0,18143	0,20108	0,22345	0,17427
3945,64307	0,21878	0,18163	0,20071	0,22299	0,17344
3943,7146	0,21947	0,18119	0,20223	0,22408	0,17484
3941,78613	0,21902	0,18125	0,20106	0,22366	0,1743
3939,85767	0,21813	0,18121	0,19993	0,22227	0,17276
3937,9292	0,21848	0,18128	0,20081	0,22263	0,17329
3936,00073	0,21823	0,18125	0,20039	0,22245	0,17311
3934,07227	0,21846	0,18085	0,20107	0,22288	0,17355
3932,1438	0,21878	0,18068	0,20169	0,22387	0,17466
3930,21533	0,21766	0,18062	0,19972	0,22265	0,1734
3928,28687	0,21723	0,18058	0,19927	0,22158	0,17229
3926,3584	0,21794	0,18041	0,2007	0,22264	0,17346
3924,42993	0,21794	0,18019	0,20053	0,22308	0,17395
3922,50146	0,21705	0,18014	0,19913	0,22162	0,17235
3920,573	0,21734	0,18012	0,19972	0,22178	0,17252



3918,64453	0,21771	0,17992	0,20029	0,22254	0,17329
3916,71606	0,21677	0,1796	0,19907	0,22175	0,17245
3914,7876	0,21588	0,17961	0,19775	0,22054	0,17117
3912,85913	0,21628	0,1797	0,19851	0,22065	0,17149
3910,93066	0,21661	0,17989	0,19909	0,22096	0,17182
3909,0022	0,21594	0,1799	0,19813	0,22035	0,17116
3907,07373	0,2167	0,17922	0,19972	0,22149	0,17253
3905,14526	0,21772	0,17895	0,20122	0,22326	0,17426
3903,2168	0,21587	0,17895	0,19808	0,22171	0,17221
3901,28833	0,21492	0,17829	0,19679	0,22053	0,17074
3899,35986	0,21552	0,17814	0,19775	0,22124	0,17171
3897,4314	0,21441	0,17853	0,19587	0,21948	0,17003
3895,50293	0,21432	0,17855	0,19621	0,21892	0,16986
3893,57446	0,21642	0,17824	0,19997	0,22148	0,17272
3891,646	0,21659	0,17855	0,19966	0,22235	0,17321
3889,71753	0,21247	0,17857	0,19313	0,21729	0,16768
3887,78906	0,21481	0,17763	0,1979	0,21977	0,17073
3885,8606	0,21657	0,17824	0,19983	0,22239	0,17299
3883,93213	0,21155	0,1783	0,19192	0,21654	0,1669
3882,00366	0,21497	0,17683	0,19861	0,22054	0,17172
3880,0752	0,21627	0,17752	0,19986	0,22313	0,17459
3878,14673	0,21136	0,1777	0,19236	0,21634	0,16731
3876,21826	0,21453	0,17717	0,19799	0,21939	0,17039
3874,28979	0,21505	0,17773	0,19813	0,22117	0,17277
3872,36133	0,2134	0,1768	0,196	0,21902	0,1706
3870,43286	0,21503	0,17687	0,19822	0,22063	0,17095
3868,50439	0,21122	0,17744	0,19183	0,21691	0,16741
3866,57593	0,21192	0,17621	0,19431	0,2172	0,16838
3864,64746	0,21421	0,1766	0,19786	0,22029	0,1712
3862,71899	0,21194	0,17686	0,19398	0,2183	0,16979
3860,79053	0,21206	0,17645	0,19426	0,21708	0,16841
3858,86206	0,2123	0,17694	0,19457	0,21726	0,16866
3856,93359	0,21356	0,17607	0,19755	0,21968	0,17214
3855,00513	0,21424	0,17656	0,19798	0,21946	0,16932
3853,07666	0,20955	0,17919	0,18909	0,21614	0,16467
3851,14819	0,20614	0,17568	0,18502	0,21202	0,16185
3849,21973	0,21083	0,17525	0,19324	0,21648	0,16788
3847,29126	0,21147	0,17654	0,19398	0,2164	0,16784
3845,36279	0,21238	0,17622	0,19569	0,21799	0,17
3843,43433	0,21228	0,17609	0,19534	0,21814	0,16995
3841,50586	0,21167	0,17561	0,19471	0,21804	0,17022
3839,57739	0,2124	0,17488	0,19613	0,21912	0,17092
3837,64893	0,21017	0,17583	0,1918	0,21618	0,1664
3835,72046	0,20764	0,17565	0,1881	0,21309	0,16376
3833,79199	0,2105	0,1747	0,19351	0,21665	0,1684
3831,86353	0,21066	0,1754	0,19335	0,21677	0,16808
3829,93506	0,20885	0,17539	0,19077	0,21435	0,16604

3828,00659	0,21107	0,17474	0,19483	0,21693	0,16894
3826,07813	0,21022	0,17545	0,19303	0,21641	0,16831
3824,14966	0,20975	0,17465	0,19287	0,21556	0,16787
3822,22119	0,21269	0,17437	0,19739	0,21915	0,17058
3820,29272	0,20834	0,17525	0,18994	0,21595	0,16785
3818,36426	0,20793	0,17336	0,19022	0,21393	0,16586
3816,43579	0,2102	0,17413	0,1932	0,21571	0,16636
3814,50732	0,20595	0,17526	0,18635	0,21139	0,16217
3812,57886	0,20754	0,17396	0,18991	0,21302	0,16507
3810,65039	0,20927	0,17436	0,19259	0,21464	0,16708
3808,72192	0,21006	0,17415	0,19403	0,21573	0,16784
3806,79346	0,20848	0,17461	0,19074	0,2145	0,16563
3804,86499	0,20607	0,174	0,18744	0,21164	0,16355
3802,93652	0,21046	0,17264	0,19515	0,21678	0,16894
3801,00806	0,20817	0,17443	0,19017	0,21511	0,16617
3799,07959	0,20432	0,17342	0,18494	0,20991	0,16145
3797,15112	0,20952	0,17235	0,19383	0,21598	0,16854
3795,22266	0,20763	0,17375	0,18992	0,21377	0,16573
3793,29419	0,20614	0,17343	0,18847	0,21151	0,16375
3791,36572	0,20817	0,17334	0,19184	0,21369	0,16612
3789,43726	0,20706	0,17378	0,18985	0,21261	0,16501
3787,50879	0,20711	0,1733	0,19045	0,21268	0,16513
3785,58032	0,20806	0,17307	0,19189	0,21426	0,16691
3783,65186	0,2065	0,17305	0,18937	0,21238	0,16512
3781,72339	0,20685	0,17276	0,19028	0,2124	0,16493
3779,79492	0,2078	0,17254	0,1918	0,21439	0,16699
3777,86646	0,20578	0,17249	0,18859	0,21202	0,16452
3775,93799	0,2057	0,17249	0,1886	0,21117	0,1637
3774,00952	0,20625	0,17255	0,18944	0,2118	0,16442
3772,08105	0,20693	0,17222	0,19076	0,21286	0,16544
3770,15259	0,20681	0,17219	0,19056	0,21346	0,16598
3768,22412	0,20442	0,17202	0,18683	0,2107	0,16293
3766,29565	0,20573	0,1714	0,18933	0,21221	0,16468
3764,36719	0,2053	0,17181	0,18848	0,21176	0,16441
3762,43872	0,20452	0,17166	0,18762	0,21028	0,16303
3760,51025	0,20669	0,17124	0,1912	0,21324	0,16585
3758,58179	0,20543	0,1713	0,18892	0,21283	0,16555
3756,65332	0,20421	0,17076	0,18738	0,21087	0,16367
3754,72485	0,20508	0,17083	0,18895	0,21156	0,16419
3752,79639	0,20542	0,17061	0,18947	0,2122	0,16442
3750,86792	0,20477	0,1708	0,18787	0,21241	0,16379
3748,93945	0,19936	0,17084	0,17876	0,20567	0,15638
3747,01099	0,20326	0,16898	0,18644	0,20998	0,16254
3745,08252	0,20596	0,16977	0,18979	0,21276	0,16378
3743,15405	0,19889	0,17138	0,17734	0,20488	0,15484
3741,22559	0,20191	0,1688	0,18418	0,20845	0,16143
3739,29712	0,20605	0,16864	0,19071	0,21233	0,1656
3737,36865	0,20536	0,16936	0,18879	0,21126	0,16356

3735,44019	0,20502	0,16804	0,18861	0,21224	0,16565
3733,51172	0,2043	0,16766	0,18751	0,21128	0,16426
3731,58325	0,20196	0,16856	0,18319	0,20719	0,15898
3729,65479	0,20295	0,16822	0,18487	0,2073	0,15992
3727,72632	0,20536	0,16779	0,18901	0,20985	0,16315
3725,79785	0,2048	0,1681	0,18804	0,20966	0,16291
3723,86938	0,20393	0,16777	0,18695	0,20916	0,16254
3721,94092	0,20386	0,16782	0,18725	0,20936	0,16267
3720,01245	0,20274	0,16818	0,18585	0,20833	0,1614
3718,08398	0,20226	0,16834	0,18539	0,20787	0,16083
3716,15552	0,20158	0,16869	0,18486	0,20744	0,16054
3714,22705	0,20233	0,16825	0,18652	0,20869	0,16151
3712,29858	0,20269	0,16799	0,1865	0,20955	0,162
3710,37012	0,20064	0,16724	0,18286	0,20729	0,16004
3708,44165	0,20081	0,1665	0,18344	0,207	0,15912
3706,51318	0,20007	0,167	0,18261	0,20544	0,1577
3704,58472	0,20083	0,16671	0,1842	0,20577	0,15881
3702,65625	0,20248	0,16647	0,1866	0,20821	0,16126
3700,72778	0,19996	0,16664	0,1828	0,20592	0,1587
3698,79932	0,19929	0,16615	0,18198	0,20438	0,1569
3696,87085	0,20042	0,16579	0,18382	0,2057	0,15853
3694,94238	0,19904	0,16554	0,18225	0,20451	0,15735
3693,01392	0,1985	0,16466	0,18207	0,20429	0,15693
3691,08545	0,19919	0,16308	0,18396	0,20651	0,15941
3689,15698	0,19568	0,16273	0,17851	0,20301	0,15475
3687,22852	0,19174	0,16287	0,17212	0,19754	0,14821
3685,30005	0,19398	0,16221	0,17661	0,20051	0,15291
3683,37158	0,19576	0,16269	0,17951	0,20216	0,15487
3681,44312	0,19584	0,1636	0,17902	0,20203	0,15417
3679,51465	0,19609	0,1634	0,17972	0,2035	0,15651
3677,58618	0,19745	0,16271	0,18209	0,20487	0,15712
3675,65771	0,19782	0,16388	0,18197	0,20715	0,15885
3673,72925	0,19236	0,16416	0,17289	0,20027	0,15179
3671,80078	0,19566	0,163	0,17896	0,20255	0,15417
3669,87231	0,19709	0,1642	0,18037	0,20514	0,15635
3667,94385	0,19343	0,16461	0,17452	0,20123	0,15301
3666,01538	0,1954	0,16419	0,17843	0,20224	0,15461
3664,08691	0,19637	0,16486	0,1797	0,20289	0,15525
3662,15845	0,1962	0,16496	0,17933	0,20306	0,15556
3660,22998	0,19573	0,16482	0,17873	0,20238	0,15483
3658,30151	0,19679	0,16418	0,1806	0,20372	0,15625
3656,37305	0,19646	0,16428	0,17931	0,20375	0,15568
3654,44458	0,19337	0,16446	0,17456	0,20002	0,15173
3652,51611	0,19626	0,1631	0,18028	0,20376	0,1564
3650,58765	0,19831	0,1628	0,18307	0,20712	0,15952
3648,65918	0,19433	0,16313	0,17637	0,20367	0,15559
3646,73071	0,19306	0,1622	0,17488	0,20159	0,15352
3644,80225	0,19378	0,16244	0,17594	0,20108	0,15312

3642,87378	0,19439	0,16274	0,17685	0,20098	0,15288
3640,94531	0,19499	0,16252	0,17784	0,20187	0,15382
3639,01685	0,19411	0,16244	0,17647	0,20084	0,15268
3637,08838	0,19438	0,16186	0,17694	0,20084	0,15278
3635,15991	0,19489	0,16143	0,1774	0,20129	0,15302
3633,23145	0,194	0,16109	0,17592	0,20049	0,15239
3631,30298	0,19501	0,15989	0,17784	0,20131	0,153
3629,37451	0,19584	0,15966	0,17862	0,20285	0,15364
3627,44604	0,1905	0,15982	0,16967	0,19727	0,14785
3625,51758	0,19174	0,15877	0,1727	0,19778	0,14914
3623,58911	0,19347	0,15885	0,17537	0,1992	0,15045
3621,66064	0,19317	0,15874	0,17504	0,19925	0,15025
3619,73218	0,19332	0,15808	0,17573	0,20075	0,15146
3617,80371	0,19075	0,15818	0,17144	0,19855	0,14874
3615,87524	0,19108	0,15777	0,17243	0,19852	0,14844
3613,94678	0,19246	0,15755	0,17484	0,20092	0,15061
3612,01831	0,19013	0,15731	0,17108	0,19834	0,14789
3610,08984	0,18956	0,15648	0,17029	0,19652	0,1456
3608,16138	0,19028	0,15596	0,17125	0,1977	0,14698
3606,23291	0,18924	0,15555	0,16957	0,19638	0,14595
3604,30444	0,1894	0,15535	0,16993	0,19556	0,14488
3602,37598	0,19036	0,15516	0,17134	0,19666	0,14596
3600,44751	0,19043	0,15475	0,17122	0,19725	0,14657
3598,51904	0,1895	0,15464	0,16973	0,19605	0,1451
3596,59058	0,18963	0,15426	0,1703	0,19614	0,1453
3594,66211	0,19006	0,15383	0,1708	0,19707	0,1461
3592,73364	0,18894	0,15426	0,16872	0,19586	0,14434
3590,80518	0,18878	0,15423	0,16891	0,19512	0,14353
3588,87671	0,19001	0,15359	0,17096	0,19702	0,14534
3586,94824	0,1892	0,15356	0,16942	0,19764	0,14599
3585,01978	0,18732	0,15374	0,16653	0,1947	0,14266
3583,09131	0,18797	0,15373	0,1678	0,19479	0,1427
3581,16284	0,18823	0,15389	0,16825	0,19519	0,14314
3579,23438	0,18793	0,15387	0,16773	0,19485	0,14274
3577,30591	0,18783	0,15379	0,16746	0,19472	0,14249
3575,37744	0,1877	0,15364	0,1674	0,19464	0,14248
3573,44897	0,18749	0,15353	0,167	0,19453	0,1421
3571,52051	0,18722	0,15352	0,16651	0,19418	0,14147
3569,59204	0,1881	0,15299	0,16815	0,19524	0,14271
3567,66357	0,18917	0,15225	0,16982	0,19777	0,14574
3565,73511	0,18722	0,15224	0,16634	0,19582	0,14349
3563,80664	0,18626	0,15244	0,16501	0,19361	0,14084
3561,87817	0,18678	0,1525	0,16605	0,19404	0,14111
3559,94971	0,18664	0,15254	0,1659	0,19394	0,141
3558,02124	0,1863	0,15251	0,16529	0,19325	0,14038
3556,09277	0,18596	0,1524	0,1648	0,19281	0,13984
3554,16431	0,18623	0,1521	0,16547	0,19334	0,14041
3552,23584	0,18633	0,15193	0,16549	0,19373	0,14094

3550,30737	0,18543	0,15198	0,164	0,1925	0,13937
3548,37891	0,18578	0,15159	0,16486	0,19277	0,13957
3546,45044	0,18637	0,15118	0,16557	0,19381	0,141
3544,52197	0,18545	0,1512	0,16403	0,19289	0,13991
3542,59351	0,18489	0,15114	0,16351	0,19207	0,13871
3540,66504	0,18479	0,15102	0,1632	0,19161	0,13812
3538,73657	0,18475	0,15085	0,16329	0,19163	0,13804
3536,80811	0,18469	0,15065	0,1636	0,19202	0,13847
3534,87964	0,18416	0,15049	0,16259	0,19137	0,13776
3532,95117	0,18378	0,1502	0,16206	0,19076	0,13693
3531,02271	0,18386	0,14993	0,1626	0,19115	0,13735
3529,09424	0,18382	0,14967	0,16263	0,19159	0,13781
3527,16577	0,18339	0,1493	0,1618	0,1911	0,13705
3525,2373	0,18321	0,14905	0,16165	0,19072	0,13673
3523,30884	0,18303	0,14895	0,16157	0,19071	0,1369
3521,38037	0,18234	0,14878	0,1606	0,19001	0,1358
3519,4519	0,182	0,14863	0,1603	0,18953	0,13506
3517,52344	0,18183	0,1485	0,16017	0,18936	0,13496
3515,59497	0,18139	0,14816	0,15958	0,18901	0,13449
3513,6665	0,18108	0,14788	0,15927	0,18869	0,13415
3511,73804	0,18109	0,14763	0,15944	0,18874	0,13429
3509,80957	0,18114	0,14729	0,15957	0,18905	0,13468
3507,8811	0,18055	0,14715	0,15858	0,18829	0,13373
3505,95264	0,18035	0,14692	0,15839	0,18787	0,13317
3504,02417	0,18077	0,14651	0,15923	0,18875	0,1343
3502,0957	0,18025	0,14638	0,15844	0,18838	0,13378
3500,16724	0,17963	0,14643	0,1576	0,18747	0,13251
3498,23877	0,1798	0,14637	0,15793	0,18763	0,13278
3496,3103	0,17974	0,14621	0,15782	0,18766	0,1328
3494,38184	0,17942	0,14612	0,15748	0,1874	0,13242
3492,45337	0,17925	0,14618	0,15724	0,18724	0,13215
3490,5249	0,17924	0,14611	0,15715	0,18726	0,13198
3488,59644	0,17925	0,14584	0,15725	0,18742	0,13222
3486,66797	0,17904	0,14571	0,15689	0,18721	0,13201
3484,7395	0,17886	0,14563	0,15667	0,18705	0,13168
3482,81104	0,17898	0,1454	0,15706	0,18747	0,13216
3480,88257	0,1789	0,14538	0,15682	0,18752	0,13208
3478,9541	0,17858	0,14554	0,15625	0,18694	0,13128
3477,02563	0,17852	0,14545	0,15643	0,18686	0,13126
3475,09717	0,17842	0,14533	0,15654	0,18704	0,13143
3473,1687	0,17819	0,14525	0,15613	0,1868	0,1311
3471,24023	0,17805	0,14513	0,15583	0,1866	0,13082
3469,31177	0,17803	0,14516	0,15596	0,18675	0,13098
3467,3833	0,17798	0,14514	0,15601	0,18676	0,13102
3465,45483	0,1778	0,14492	0,15576	0,18649	0,13065
3463,52637	0,17775	0,14474	0,15576	0,18646	0,13067
3461,5979	0,17751	0,14474	0,15556	0,18627	0,13055
3459,66943	0,17724	0,14467	0,15526	0,18594	0,13016

3457,74097	0,17731	0,14444	0,15522	0,18598	0,13014
3455,8125	0,17708	0,14434	0,15499	0,18578	0,12992
3453,88403	0,17696	0,1443	0,15499	0,18568	0,12991
3451,95557	0,17695	0,14429	0,15476	0,18561	0,12979
3450,0271	0,17682	0,14424	0,15472	0,18549	0,12959
3448,09863	0,17718	0,14398	0,15546	0,18619	0,13036
3446,17017	0,17705	0,14393	0,15493	0,18612	0,13025
3444,2417	0,17671	0,144	0,15433	0,18549	0,1295
3442,31323	0,17694	0,14394	0,15478	0,18583	0,12974
3440,38477	0,17667	0,14403	0,15452	0,18577	0,1296
3438,4563	0,17652	0,14409	0,15458	0,18556	0,12952
3436,52783	0,17685	0,14407	0,15492	0,1858	0,1298
3434,59937	0,17686	0,14409	0,15481	0,18591	0,12977
3432,6709	0,17694	0,14412	0,15511	0,18607	0,12997
3430,74243	0,17698	0,14426	0,15516	0,18605	0,13007
3428,81396	0,17701	0,14438	0,15514	0,18608	0,12997
3426,8855	0,17728	0,14436	0,15544	0,18639	0,13007
3424,95703	0,17727	0,14444	0,15536	0,18636	0,13019
3423,02856	0,17732	0,14449	0,15552	0,18649	0,13046
3421,1001	0,1777	0,14453	0,15595	0,18698	0,13085
3419,17163	0,17767	0,14476	0,15578	0,18697	0,1308
3417,24316	0,17757	0,14493	0,15563	0,18679	0,13067
3415,3147	0,1778	0,14494	0,15607	0,18704	0,13093
3413,38623	0,17796	0,14512	0,15637	0,18733	0,13112
3411,45776	0,17808	0,14545	0,15634	0,18746	0,13113
3409,5293	0,17829	0,14562	0,15646	0,18758	0,13127
3407,60083	0,17845	0,14565	0,15666	0,18768	0,13151
3405,67236	0,17852	0,14577	0,1569	0,1878	0,13167
3403,7439	0,17871	0,14586	0,15722	0,18816	0,13187
3401,81543	0,17891	0,14602	0,1574	0,18851	0,13213
3399,88696	0,17909	0,14617	0,15765	0,18861	0,13236
3397,9585	0,1793	0,14618	0,15783	0,18876	0,13263
3396,03003	0,17925	0,1463	0,15778	0,1888	0,13263
3394,10156	0,17935	0,14649	0,15808	0,18898	0,13277
3392,1731	0,17963	0,14673	0,15835	0,18947	0,1332
3390,24463	0,17962	0,14695	0,15832	0,18957	0,13316
3388,31616	0,17973	0,14691	0,15861	0,18959	0,13321
3386,3877	0,17995	0,14698	0,15895	0,1899	0,13357
3384,45923	0,18011	0,14724	0,15908	0,19006	0,13373
3382,53076	0,18031	0,1474	0,15921	0,19016	0,13389
3380,60229	0,18047	0,14764	0,15949	0,19044	0,13415
3378,67383	0,18062	0,14782	0,15985	0,19068	0,13438
3376,74536	0,18081	0,14796	0,16006	0,19074	0,13455
3374,81689	0,18111	0,14829	0,16025	0,19088	0,13474
3372,88843	0,18138	0,14851	0,16047	0,19107	0,13505
3370,95996	0,18156	0,14865	0,16079	0,19133	0,13542
3369,03149	0,18187	0,14889	0,1612	0,19182	0,13584
3367,10303	0,1822	0,14898	0,16151	0,19204	0,13618

3365,17456	0,18244	0,14914	0,16187	0,19205	0,13634
3363,24609	0,18274	0,1494	0,16224	0,19232	0,1366
3361,31763	0,18289	0,14949	0,1624	0,1925	0,13693
3359,38916	0,18296	0,14979	0,16258	0,19251	0,13705
3357,46069	0,18329	0,15013	0,16301	0,19287	0,13729
3355,53223	0,18354	0,15018	0,16333	0,19317	0,13756
3353,60376	0,18366	0,15038	0,16352	0,19318	0,13769
3351,67529	0,18402	0,1507	0,16387	0,19355	0,13802
3349,74683	0,1843	0,1509	0,1641	0,19387	0,13827
3347,81836	0,18439	0,15105	0,16429	0,19377	0,13841
3345,88989	0,18452	0,15123	0,16454	0,19396	0,13862
3343,96143	0,18467	0,15141	0,16475	0,19426	0,13879
3342,03296	0,18483	0,15156	0,16501	0,19442	0,13903
3340,10449	0,18505	0,15174	0,16522	0,19458	0,13931
3338,17603	0,18532	0,15185	0,16555	0,19478	0,1396
3336,24756	0,18548	0,15192	0,16585	0,19499	0,13985
3334,31909	0,18544	0,15208	0,16578	0,195	0,13995
3332,39063	0,1855	0,1522	0,16581	0,19502	0,13997
3330,46216	0,1857	0,15237	0,16609	0,19526	0,14011
3328,53369	0,18584	0,15259	0,16629	0,19544	0,14035
3326,60522	0,18595	0,15272	0,16647	0,19564	0,1405
3324,67676	0,18615	0,15271	0,16662	0,19584	0,14068
3322,74829	0,18614	0,15272	0,16669	0,19584	0,14077
3320,81982	0,18613	0,15288	0,16686	0,19594	0,14084
3318,89136	0,18638	0,15298	0,16698	0,19611	0,14114
3316,96289	0,18643	0,15301	0,1671	0,19608	0,14131
3315,03442	0,18646	0,15308	0,16742	0,19619	0,14145
3313,10596	0,18656	0,15318	0,16745	0,19632	0,14159
3311,17749	0,18657	0,15329	0,16742	0,19639	0,14154
3309,24902	0,18676	0,15335	0,16777	0,19658	0,14176
3307,32056	0,18685	0,15348	0,16791	0,1967	0,14194
3305,39209	0,18684	0,1536	0,16792	0,19678	0,14195
3303,46362	0,18693	0,15355	0,16803	0,19673	0,14208
3301,53516	0,1869	0,15348	0,16798	0,19651	0,14198
3299,60669	0,18684	0,1535	0,16802	0,19656	0,14196
3297,67822	0,18688	0,1535	0,16808	0,19663	0,14218
3295,74976	0,18689	0,15347	0,16809	0,19655	0,14222
3293,82129	0,18685	0,15355	0,16819	0,19659	0,14224
3291,89282	0,18687	0,15358	0,16819	0,19667	0,14237
3289,96436	0,18685	0,15347	0,16812	0,19662	0,14237
3288,03589	0,18677	0,15351	0,16806	0,19656	0,14226
3286,10742	0,1868	0,15353	0,16804	0,19652	0,14224
3284,17896	0,18679	0,15345	0,16819	0,19654	0,1422
3282,25049	0,18673	0,15343	0,16823	0,19659	0,14209
3280,32202	0,18674	0,15337	0,16814	0,19647	0,14208
3278,39355	0,1867	0,15329	0,1682	0,19638	0,14216
3276,46509	0,18667	0,15328	0,16835	0,19654	0,1422
3274,53662	0,18662	0,15322	0,16833	0,19656	0,14218

3272,60815	0,18659	0,15314	0,16819	0,19642	0,14206
3270,67969	0,1866	0,15315	0,16815	0,19642	0,14208
3268,75122	0,18647	0,1531	0,16807	0,19631	0,14214
3266,82275	0,18639	0,15302	0,16801	0,19616	0,14203
3264,89429	0,18633	0,15305	0,16802	0,19619	0,14202
3262,96582	0,18622	0,15302	0,16792	0,19616	0,14206
3261,03735	0,1862	0,15299	0,16793	0,1961	0,14199
3259,10889	0,18612	0,15301	0,16796	0,19609	0,14194
3257,18042	0,18611	0,15285	0,16789	0,19606	0,14199
3255,25195	0,18612	0,15276	0,16786	0,19608	0,14201
3253,32349	0,18593	0,15281	0,16784	0,19603	0,14189
3251,39502	0,18583	0,15272	0,16778	0,19585	0,14182
3249,46655	0,1859	0,1527	0,16771	0,19581	0,14183
3247,53809	0,18599	0,15277	0,1679	0,1959	0,14191
3245,60962	0,18597	0,15266	0,16806	0,19592	0,14201
3243,68115	0,18582	0,15261	0,16782	0,19582	0,14189
3241,75269	0,18582	0,15267	0,16776	0,1957	0,14184
3239,82422	0,18582	0,15267	0,16789	0,19567	0,14192
3237,89575	0,18575	0,1527	0,16781	0,19574	0,14184
3235,96729	0,18578	0,15266	0,16775	0,19572	0,14184
3234,03882	0,18583	0,15256	0,16787	0,19572	0,14195
3232,11035	0,18579	0,15263	0,16793	0,19577	0,14191
3230,18188	0,18566	0,15258	0,16784	0,19568	0,14184
3228,25342	0,1856	0,15241	0,16778	0,19561	0,14183
3226,32495	0,18563	0,15247	0,1678	0,19558	0,14183
3224,39648	0,18555	0,15246	0,16777	0,19545	0,14179
3222,46802	0,18552	0,1523	0,16774	0,19545	0,14178
3220,53955	0,1856	0,15232	0,16779	0,19559	0,14193
3218,61108	0,18538	0,15241	0,16762	0,1954	0,14185
3216,68262	0,18525	0,15227	0,1676	0,19516	0,14171
3214,75415	0,18539	0,15212	0,16779	0,19531	0,14187
3212,82568	0,18526	0,15224	0,16763	0,19531	0,14179
3210,89722	0,18513	0,15227	0,16761	0,19519	0,1417
3208,96875	0,1851	0,15214	0,16771	0,19514	0,14172
3207,04028	0,18499	0,15213	0,16753	0,19499	0,14153
3205,11182	0,18507	0,15212	0,16756	0,19503	0,14162
3203,18335	0,18505	0,15213	0,16762	0,19499	0,14172
3201,25488	0,18498	0,1522	0,16758	0,19491	0,1416
3199,32642	0,18506	0,15211	0,1677	0,19513	0,14171
3197,39795	0,18491	0,15201	0,16767	0,19514	0,1418
3195,46948	0,18478	0,15206	0,16757	0,19497	0,14165
3193,54102	0,18483	0,1521	0,16766	0,19497	0,14159
3191,61255	0,1848	0,15211	0,16774	0,19501	0,14172
3189,68408	0,18476	0,15211	0,16771	0,19501	0,1417
3187,75562	0,1847	0,15206	0,16769	0,19499	0,14167
3185,82715	0,18469	0,15195	0,16774	0,19503	0,14191
3183,89868	0,18468	0,15191	0,16766	0,19496	0,14188
3181,97021	0,1845	0,152	0,1676	0,19481	0,14173



3180,04175	0,18447	0,15205	0,16777	0,19489	0,14185
3178,11328	0,1845	0,15202	0,16774	0,19485	0,14184
3176,18481	0,18439	0,15197	0,16754	0,19465	0,14172
3174,25635	0,18433	0,15189	0,16752	0,19463	0,1417
3172,32788	0,18432	0,15183	0,16754	0,19462	0,1417
3170,39941	0,18429	0,15187	0,16759	0,19454	0,14168
3168,47095	0,18421	0,15192	0,16759	0,19447	0,1416
3166,54248	0,1841	0,15191	0,1675	0,19441	0,14156
3164,61401	0,18404	0,15182	0,16756	0,19443	0,14162
3162,68555	0,184	0,15176	0,16759	0,19442	0,14163
3160,75708	0,1839	0,15173	0,16745	0,19426	0,14156
3158,82861	0,18376	0,15167	0,16742	0,19417	0,14152
3156,90015	0,18369	0,15172	0,16739	0,19415	0,14149
3154,97168	0,18366	0,15173	0,16729	0,1941	0,14147
3153,04321	0,18363	0,15167	0,16743	0,19413	0,14153
3151,11475	0,18367	0,15173	0,16755	0,19414	0,14149
3149,18628	0,18351	0,15155	0,16737	0,19399	0,14131
3147,25781	0,18333	0,1513	0,16722	0,19382	0,14124
3145,32935	0,18338	0,15136	0,1672	0,19376	0,14123
3143,40088	0,18321	0,15135	0,16709	0,19367	0,14111
3141,47241	0,18306	0,15128	0,16704	0,19358	0,14106
3139,54395	0,18316	0,15131	0,16708	0,19365	0,14114
3137,61548	0,18302	0,15124	0,16696	0,19354	0,141
3135,68701	0,1829	0,15109	0,16694	0,19346	0,14092
3133,75854	0,18292	0,15103	0,16692	0,19349	0,14107
3131,83008	0,18265	0,15113	0,16671	0,19319	0,14087
3129,90161	0,18251	0,15112	0,16681	0,19308	0,1407
3127,97314	0,1825	0,15096	0,16685	0,19321	0,1408
3126,04468	0,18238	0,15091	0,16664	0,19307	0,14069
3124,11621	0,18229	0,15083	0,16662	0,19294	0,14056
3122,18774	0,18216	0,15077	0,16659	0,19292	0,14056
3120,25928	0,18216	0,15082	0,16658	0,19281	0,14053
3118,33081	0,18218	0,15071	0,16652	0,19272	0,14056
3116,40234	0,182	0,15061	0,16639	0,19268	0,14057
3114,47388	0,18184	0,15066	0,16633	0,19254	0,14039
3112,54541	0,1817	0,15055	0,16614	0,19234	0,14019
3110,61694	0,18162	0,15044	0,16604	0,19222	0,14015
3108,68848	0,18159	0,15045	0,16606	0,19222	0,14014
3106,76001	0,18145	0,15038	0,16598	0,19216	0,13997
3104,83154	0,18124	0,15029	0,1658	0,19196	0,13978
3102,90308	0,18117	0,15024	0,16579	0,192	0,13982
3100,97461	0,18121	0,15021	0,16581	0,19205	0,13983
3099,04614	0,18111	0,15016	0,16563	0,1918	0,13961
3097,11768	0,18102	0,15011	0,16563	0,19169	0,1396
3095,18921	0,18096	0,15013	0,16557	0,19162	0,13962
3093,26074	0,18073	0,15009	0,16532	0,1914	0,1394
3091,33228	0,18066	0,15003	0,16535	0,19131	0,13937
3089,40381	0,18071	0,15	0,16535	0,19133	0,13944

3087,47534	0,18053	0,15	0,16522	0,19126	0,13931
3085,54688	0,18038	0,15006	0,16517	0,19112	0,13918
3083,61841	0,18043	0,14995	0,1652	0,1911	0,13918
3081,68994	0,18038	0,14973	0,16515	0,19108	0,13912
3079,76147	0,18028	0,14969	0,16506	0,19103	0,13904
3077,83301	0,18017	0,14978	0,16505	0,19095	0,13897
3075,90454	0,17997	0,1497	0,16486	0,19075	0,1388
3073,97607	0,17989	0,14954	0,16477	0,1907	0,13876
3072,04761	0,17984	0,14951	0,16474	0,19068	0,13868
3070,11914	0,17963	0,14944	0,16451	0,19043	0,13841
3068,19067	0,17961	0,14941	0,16465	0,19035	0,13853
3066,26221	0,17966	0,1494	0,16469	0,19045	0,13866
3064,33374	0,17944	0,14919	0,16432	0,19031	0,13843
3062,40527	0,17921	0,14912	0,16422	0,19014	0,1383
3060,47681	0,17913	0,14915	0,16418	0,19013	0,13821
3058,54834	0,1791	0,14907	0,16412	0,18998	0,13815
3056,61987	0,17902	0,14899	0,16413	0,18984	0,13825
3054,69141	0,17879	0,14898	0,16391	0,18974	0,13807
3052,76294	0,17867	0,14894	0,16383	0,18962	0,13784
3050,83447	0,17873	0,14888	0,16398	0,18963	0,13795
3048,90601	0,17863	0,1488	0,16382	0,1895	0,13794
3046,97754	0,17846	0,14875	0,16364	0,1893	0,13777
3045,04907	0,17837	0,14876	0,16365	0,18924	0,13774
3043,12061	0,17829	0,14871	0,16365	0,18921	0,13766
3041,19214	0,17818	0,1486	0,16356	0,1892	0,13759
3039,26367	0,17802	0,1485	0,16335	0,18902	0,13756
3037,33521	0,17795	0,1484	0,16325	0,18888	0,13743
3035,40674	0,17794	0,14834	0,16327	0,18891	0,13739
3033,47827	0,17784	0,14824	0,16323	0,18893	0,13748
3031,5498	0,17769	0,14813	0,16315	0,18885	0,13741
3029,62134	0,17746	0,14811	0,16294	0,18858	0,13722
3027,69287	0,17737	0,14803	0,16283	0,18852	0,13712
3025,7644	0,17735	0,14796	0,16291	0,18859	0,13713
3023,83594	0,17718	0,14805	0,16289	0,18845	0,13716
3021,90747	0,17709	0,14792	0,16282	0,18842	0,13711
3019,979	0,17704	0,14782	0,16282	0,18832	0,13707
3018,05054	0,17681	0,14808	0,16284	0,18802	0,1371
3016,12207	0,17664	0,14809	0,16276	0,18789	0,137
3014,1936	0,17663	0,14782	0,16267	0,18801	0,13696
3012,26514	0,1766	0,14763	0,1627	0,18811	0,1371
3010,33667	0,17653	0,14745	0,16267	0,18801	0,13701
3008,4082	0,17638	0,14737	0,16246	0,18786	0,13676
3006,47974	0,17616	0,14728	0,16229	0,18778	0,13679
3004,55127	0,17606	0,14714	0,16231	0,18778	0,13687
3002,6228	0,17588	0,14707	0,16226	0,18773	0,13678
3000,69434	0,17567	0,14705	0,16208	0,18762	0,13676
2998,76587	0,17577	0,14708	0,16212	0,18765	0,13691
2996,8374	0,17574	0,14699	0,16217	0,1877	0,13701

2994,90894	0,17549	0,14681	0,162	0,18774	0,13698
2992,98047	0,17544	0,14681	0,16199	0,18787	0,13705
2991,052	0,1754	0,14679	0,16202	0,18785	0,13717
2989,12354	0,17516	0,14666	0,1618	0,18783	0,13727
2987,19507	0,17504	0,14659	0,16169	0,18803	0,13744
2985,2666	0,17494	0,14646	0,16177	0,18815	0,13758
2983,33813	0,17485	0,14636	0,16179	0,18837	0,13799
2981,40967	0,17491	0,14639	0,1618	0,18875	0,13857
2979,4812	0,17477	0,14633	0,16172	0,18862	0,13838
2977,55273	0,17461	0,14613	0,16157	0,1883	0,1378
2975,62427	0,17466	0,14598	0,16154	0,18846	0,13779
2973,6958	0,1746	0,14597	0,16148	0,18835	0,13771
2971,76733	0,17455	0,1459	0,16133	0,18775	0,13705
2969,83887	0,17458	0,14572	0,16126	0,18733	0,13642
2967,9104	0,1746	0,1457	0,16117	0,18708	0,13612
2965,98193	0,1746	0,1457	0,16108	0,18694	0,13596
2964,05347	0,1745	0,14561	0,16102	0,18688	0,13581
2962,125	0,17445	0,14556	0,1609	0,18678	0,1357
2960,19653	0,17442	0,14555	0,16089	0,18676	0,13575
2958,26807	0,17437	0,14553	0,16095	0,18673	0,13592
2956,3396	0,17429	0,14546	0,16087	0,18672	0,13599
2954,41113	0,17414	0,14545	0,16088	0,1868	0,13597
2952,48267	0,17407	0,14541	0,16093	0,18683	0,13591
2950,5542	0,17401	0,14527	0,16085	0,18689	0,13586
2948,62573	0,1739	0,14534	0,16087	0,18698	0,13595
2946,69727	0,17385	0,14543	0,16088	0,18704	0,13605
2944,7688	0,17389	0,14536	0,16084	0,18705	0,13602
2942,84033	0,17398	0,14535	0,16085	0,18697	0,13601
2940,91187	0,17398	0,14527	0,16083	0,18699	0,13608
2938,9834	0,1739	0,14522	0,16077	0,1871	0,13615
2937,05493	0,174	0,14532	0,1608	0,18724	0,13627
2935,12646	0,17419	0,14533	0,16082	0,18737	0,13641
2933,198	0,17422	0,14531	0,16073	0,18725	0,13635
2931,26953	0,17423	0,1453	0,16073	0,18711	0,13624
2929,34106	0,17431	0,14533	0,16076	0,1871	0,13616
2927,4126	0,17422	0,14531	0,16061	0,18693	0,13594
2925,48413	0,17421	0,14518	0,16052	0,1868	0,13577
2923,55566	0,17418	0,14508	0,16046	0,18668	0,13554
2921,6272	0,17393	0,14495	0,16033	0,18643	0,13527
2919,69873	0,1737	0,1448	0,16024	0,18628	0,13516
2917,77026	0,17332	0,14472	0,16003	0,18605	0,13493
2915,8418	0,17295	0,1446	0,15995	0,1858	0,13475
2913,91333	0,17284	0,14452	0,16005	0,18577	0,13475
2911,98486	0,1726	0,14445	0,15995	0,1857	0,13465
2910,0564	0,17233	0,14426	0,15983	0,18556	0,13451
2908,12793	0,17212	0,14415	0,15973	0,18541	0,13442
2906,19946	0,1719	0,14413	0,15957	0,18524	0,13434
2904,271	0,17178	0,14406	0,15957	0,18516	0,13427

2902,34253	0,17161	0,14401	0,15955	0,18512	0,13416
2900,41406	0,17143	0,14392	0,15944	0,18502	0,13407
2898,4856	0,17136	0,1438	0,1594	0,18497	0,13407
2896,55713	0,17127	0,14381	0,1594	0,185	0,13413
2894,62866	0,17118	0,14376	0,15935	0,18493	0,13416
2892,7002	0,17103	0,14361	0,15925	0,18483	0,13406
2890,77173	0,17088	0,1436	0,15914	0,18477	0,13397
2888,84326	0,17079	0,14356	0,15907	0,18471	0,13393
2886,91479	0,17069	0,14342	0,15904	0,18466	0,13385
2884,98633	0,17064	0,14338	0,15899	0,18446	0,13373
2883,05786	0,17059	0,14332	0,15894	0,18427	0,13361
2881,12939	0,17047	0,14319	0,15888	0,18423	0,13346
2879,20093	0,17041	0,14313	0,15881	0,18411	0,13335
2877,27246	0,1703	0,14308	0,15877	0,18404	0,13323
2875,34399	0,17019	0,14304	0,15869	0,18402	0,13318
2873,41553	0,17025	0,143	0,15867	0,18396	0,13323
2871,48706	0,17024	0,14298	0,15863	0,18388	0,13317
2869,55859	0,17007	0,14296	0,15839	0,18372	0,13303
2867,63013	0,17002	0,14289	0,15834	0,1837	0,13304
2865,70166	0,17	0,14285	0,15841	0,18373	0,13303
2863,77319	0,16992	0,1428	0,15833	0,18369	0,13302
2861,84473	0,16996	0,14271	0,15829	0,18366	0,13305
2859,91626	0,17008	0,14272	0,15828	0,18364	0,13301
2857,98779	0,17013	0,14276	0,15824	0,18357	0,13293
2856,05933	0,17012	0,14273	0,15818	0,18345	0,13286
2854,13086	0,17003	0,14268	0,15811	0,18334	0,1327
2852,20239	0,16986	0,14263	0,15806	0,18319	0,13255
2850,27393	0,16967	0,14254	0,15793	0,183	0,13247
2848,34546	0,16947	0,1424	0,15781	0,18289	0,13226
2846,41699	0,16916	0,14224	0,15769	0,18266	0,13204
2844,48853	0,16886	0,14212	0,15754	0,18247	0,13198
2842,56006	0,16869	0,14199	0,15744	0,18243	0,13187
2840,63159	0,16855	0,14191	0,15737	0,1823	0,13174
2838,70313	0,16842	0,14192	0,15733	0,18219	0,13166
2836,77466	0,16829	0,14186	0,15727	0,18212	0,13151
2834,84619	0,16812	0,14178	0,15715	0,18198	0,13143
2832,91772	0,16799	0,14174	0,15706	0,18184	0,13141
2830,98926	0,16792	0,14168	0,157	0,18182	0,13132
2829,06079	0,1678	0,1416	0,1569	0,18179	0,13126
2827,13232	0,1677	0,14152	0,15683	0,1817	0,13129
2825,20386	0,16768	0,14144	0,15683	0,18168	0,13133
2823,27539	0,16764	0,14143	0,15682	0,18163	0,13123
2821,34692	0,16757	0,14137	0,1568	0,18152	0,13114
2819,41846	0,16752	0,1413	0,15675	0,1815	0,13114
2817,48999	0,16749	0,14125	0,15668	0,18146	0,1311
2815,56152	0,16742	0,14115	0,15664	0,18144	0,13103
2813,63306	0,16731	0,14111	0,15661	0,18138	0,131
2811,70459	0,16725	0,14111	0,15652	0,18124	0,13092

2809,77612	0,16717	0,14101	0,15646	0,18123	0,13085
2807,84766	0,16703	0,14093	0,15648	0,18127	0,13086
2805,91919	0,16694	0,14096	0,15651	0,18121	0,13082
2803,99072	0,1669	0,14098	0,15652	0,18116	0,13076
2802,06226	0,16685	0,1409	0,15647	0,18111	0,1307
2800,13379	0,16681	0,14083	0,15641	0,18099	0,13061
2798,20532	0,16674	0,14085	0,15645	0,18095	0,13062
2796,27686	0,16659	0,14088	0,15638	0,18095	0,13058
2794,34839	0,16651	0,14089	0,15629	0,18088	0,13051
2792,41992	0,16647	0,14083	0,15633	0,18085	0,13055
2790,49146	0,16642	0,14084	0,15633	0,18086	0,13054
2788,56299	0,16641	0,14086	0,15633	0,18081	0,13053
2786,63452	0,16638	0,14075	0,15631	0,18073	0,13046
2784,70605	0,16625	0,14064	0,15623	0,18068	0,13037
2782,77759	0,16615	0,14063	0,15623	0,18061	0,1304
2780,84912	0,16611	0,14065	0,15622	0,18052	0,13037
2778,92065	0,16607	0,14062	0,15616	0,18053	0,13036
2776,99219	0,166	0,14057	0,15615	0,18054	0,1304
2775,06372	0,16596	0,14055	0,15618	0,18048	0,13035
2773,13525	0,16594	0,14049	0,15617	0,18041	0,13028
2771,20679	0,16593	0,14044	0,15616	0,18039	0,13025
2769,27832	0,16589	0,14049	0,15617	0,18037	0,13024
2767,34985	0,16582	0,14046	0,15609	0,1803	0,13023
2765,42139	0,16576	0,14046	0,15606	0,18028	0,13022
2763,49292	0,16569	0,14048	0,15611	0,18032	0,1302
2761,56445	0,16562	0,14033	0,1561	0,18033	0,13015
2759,63599	0,16561	0,14028	0,15608	0,18032	0,13012
2757,70752	0,16562	0,14036	0,1561	0,1803	0,1301
2755,77905	0,16559	0,14029	0,15608	0,18022	0,13007
2753,85059	0,16556	0,1402	0,15605	0,18013	0,13001
2751,92212	0,16552	0,1402	0,15606	0,18011	0,12996
2749,99365	0,16545	0,14022	0,15596	0,18006	0,12992
2748,06519	0,1654	0,14024	0,15587	0,17998	0,12987
2746,13672	0,16544	0,14018	0,15596	0,17998	0,12989
2744,20825	0,16545	0,14014	0,156	0,17994	0,12993
2742,27979	0,16536	0,14014	0,15595	0,17986	0,1299
2740,35132	0,16527	0,1401	0,15597	0,17982	0,12989
2738,42285	0,16523	0,14007	0,15599	0,17979	0,12993
2736,49438	0,16515	0,14005	0,15597	0,17975	0,12991
2734,56592	0,16505	0,14002	0,15588	0,17964	0,12983
2732,63745	0,16503	0,14001	0,15581	0,17955	0,12976
2730,70898	0,16505	0,13997	0,15586	0,17957	0,12974
2728,78052	0,16502	0,13992	0,15583	0,17954	0,12972
2726,85205	0,16491	0,13993	0,15572	0,17946	0,12964
2724,92358	0,16482	0,13993	0,1557	0,17942	0,12961
2722,99512	0,16484	0,13991	0,15568	0,17939	0,12963
2721,06665	0,16484	0,13987	0,15566	0,17933	0,12961
2719,13818	0,16482	0,13978	0,15569	0,17933	0,12959

2717,20972	0,16477	0,13972	0,15574	0,17934	0,12957
2715,28125	0,16467	0,1397	0,1557	0,17937	0,12952
2713,35278	0,16462	0,13968	0,15565	0,17938	0,12952
2711,42432	0,16459	0,1397	0,15565	0,17931	0,12945
2709,49585	0,16449	0,13975	0,15557	0,17922	0,12934
2707,56738	0,16445	0,13975	0,15549	0,17919	0,12934
2705,63892	0,16449	0,13967	0,15553	0,17919	0,12935
2703,71045	0,1645	0,13964	0,15555	0,17922	0,12933
2701,78198	0,16441	0,13969	0,15548	0,17921	0,12933
2699,85352	0,16431	0,13966	0,15546	0,17917	0,12933
2697,92505	0,16435	0,13964	0,15552	0,17915	0,1293
2695,99658	0,16441	0,13973	0,15551	0,17915	0,12928
2694,06812	0,16436	0,1397	0,15545	0,17916	0,12929
2692,13965	0,16433	0,13962	0,15545	0,1791	0,12929
2690,21118	0,16437	0,13966	0,15543	0,17908	0,1293
2688,28271	0,16436	0,13969	0,15543	0,17915	0,12934
2686,35425	0,16427	0,13965	0,15552	0,17912	0,12928
2684,42578	0,16431	0,13972	0,15563	0,17907	0,12927
2682,49731	0,16437	0,13978	0,15565	0,1791	0,12936
2680,56885	0,1643	0,13971	0,15566	0,17909	0,12936
2678,64038	0,16431	0,13967	0,15574	0,17906	0,12937
2676,71191	0,16432	0,13971	0,1557	0,17904	0,12938
2674,78345	0,16431	0,13977	0,15572	0,17907	0,12936
2672,85498	0,16437	0,13982	0,15588	0,17909	0,1294
2670,92651	0,16442	0,13987	0,15585	0,17903	0,12945
2668,99805	0,16447	0,13989	0,15589	0,17905	0,12949
2667,06958	0,16449	0,13991	0,15597	0,17911	0,12952
2665,14111	0,16447	0,13991	0,15589	0,1791	0,12954
2663,21265	0,16443	0,13998	0,15587	0,17916	0,12958
2661,28418	0,1644	0,14009	0,15592	0,17921	0,12962
2659,35571	0,16447	0,14005	0,15597	0,17922	0,12968
2657,42725	0,16456	0,14003	0,15601	0,17925	0,12974
2655,49878	0,16454	0,14018	0,15602	0,17926	0,12977
2653,57031	0,16457	0,1402	0,15623	0,17932	0,12987
2651,64185	0,16467	0,14019	0,15638	0,17937	0,12994
2649,71338	0,1647	0,14033	0,1563	0,17935	0,1299
2647,78491	0,16473	0,14037	0,15633	0,17937	0,12991
2645,85645	0,16483	0,14034	0,15644	0,17945	0,12996
2643,92798	0,16487	0,14045	0,15648	0,17948	0,12996
2641,99951	0,1648	0,1405	0,15656	0,17947	0,12996
2640,07104	0,16481	0,14046	0,15661	0,17945	0,12998
2638,14258	0,16485	0,14049	0,1566	0,17942	0,12999
2636,21411	0,16479	0,14055	0,15666	0,17943	0,13
2634,28564	0,16485	0,14054	0,15669	0,17945	0,13002
2632,35718	0,16486	0,14053	0,15664	0,17937	0,12997
2630,42871	0,16479	0,14053	0,15654	0,17929	0,12991
2628,50024	0,1648	0,14054	0,15646	0,17928	0,12997
2626,57178	0,16472	0,14054	0,15645	0,17933	0,12999

2624,64331	0,16468	0,1405	0,15649	0,17938	0,12996
2622,71484	0,16469	0,14047	0,15645	0,17931	0,12995
2620,78638	0,1645	0,1404	0,15635	0,17921	0,12982
2618,85791	0,16441	0,14033	0,15629	0,17918	0,12972
2616,92944	0,16444	0,14031	0,15619	0,17913	0,12974
2615,00098	0,16429	0,14023	0,15609	0,17898	0,12968
2613,07251	0,16414	0,14013	0,15603	0,17882	0,12959
2611,14404	0,16407	0,14008	0,1559	0,17871	0,1295
2609,21558	0,16393	0,13996	0,15579	0,17867	0,12939
2607,28711	0,1638	0,13985	0,15576	0,17867	0,12934
2605,35864	0,16367	0,13983	0,15565	0,17858	0,12921
2603,43018	0,16351	0,13975	0,15544	0,17841	0,12907
2601,50171	0,16339	0,13959	0,15534	0,17825	0,12902
2599,57324	0,16324	0,13947	0,1553	0,17809	0,12894
2597,64478	0,16311	0,13935	0,15516	0,17792	0,12884
2595,71631	0,16295	0,13923	0,15497	0,17778	0,12873
2593,78784	0,1628	0,13917	0,15484	0,17766	0,12865
2591,85938	0,16277	0,13908	0,15476	0,17754	0,12859
2589,93091	0,16264	0,1389	0,15456	0,17739	0,12839
2588,00244	0,16241	0,13874	0,15433	0,17719	0,12821
2586,07397	0,16223	0,13862	0,15422	0,17709	0,12812
2584,14551	0,16207	0,1385	0,15412	0,17699	0,12797
2582,21704	0,16193	0,13839	0,15398	0,17679	0,12782
2580,28857	0,16183	0,1383	0,15393	0,17668	0,12774
2578,36011	0,16172	0,1382	0,15381	0,17657	0,12766
2576,43164	0,16152	0,13804	0,15358	0,17643	0,12753
2574,50317	0,16135	0,13791	0,15341	0,17641	0,12738
2572,57471	0,16125	0,13779	0,15328	0,17633	0,12727
2570,64624	0,1611	0,13764	0,1532	0,17616	0,12714
2568,71777	0,161	0,13755	0,1531	0,17607	0,12701
2566,78931	0,16097	0,1375	0,15292	0,17597	0,12693
2564,86084	0,16078	0,1374	0,15281	0,17582	0,12679
2562,93237	0,16061	0,13725	0,15278	0,17569	0,12667
2561,00391	0,16057	0,13715	0,15267	0,17559	0,12661
2559,07544	0,16043	0,1371	0,15254	0,17546	0,12651
2557,14697	0,16032	0,13703	0,15248	0,17537	0,12638
2555,21851	0,16021	0,13687	0,15238	0,17531	0,12625
2553,29004	0,15998	0,13675	0,1522	0,17523	0,12615
2551,36157	0,15987	0,13678	0,1521	0,17519	0,12612
2549,43311	0,15982	0,13672	0,15204	0,17511	0,12601
2547,50464	0,15968	0,13659	0,15196	0,175	0,12588
2545,57617	0,15958	0,13659	0,15188	0,17489	0,1258
2543,64771	0,15946	0,13655	0,1518	0,17477	0,12571
2541,71924	0,15932	0,1365	0,15176	0,17472	0,1257
2539,79077	0,15929	0,13646	0,15173	0,17466	0,12569
2537,8623	0,15926	0,13634	0,1516	0,17455	0,12562
2535,93384	0,15907	0,13627	0,15148	0,17452	0,12555
2534,00537	0,15894	0,13624	0,15144	0,17454	0,12543

2532,0769	0,1589	0,13614	0,15138	0,17447	0,12534
2530,14844	0,15881	0,13607	0,15127	0,17431	0,12524
2528,21997	0,15871	0,13603	0,1512	0,17424	0,12512
2526,2915	0,15864	0,13594	0,15119	0,17423	0,12513
2524,36304	0,1586	0,13592	0,15117	0,17415	0,12515
2522,43457	0,15858	0,13594	0,15108	0,1741	0,12507
2520,5061	0,15847	0,1359	0,15099	0,17402	0,12502
2518,57764	0,15836	0,13587	0,15101	0,17388	0,12495
2516,64917	0,15829	0,13586	0,15098	0,17382	0,12482
2514,7207	0,15825	0,13585	0,15088	0,17381	0,12475
2512,79224	0,15825	0,13578	0,15092	0,17376	0,12473
2510,86377	0,15819	0,13566	0,15091	0,17371	0,12467
2508,9353	0,1581	0,13564	0,15071	0,17366	0,1246
2507,00684	0,15801	0,1357	0,1506	0,1736	0,12454
2505,07837	0,15801	0,13569	0,15061	0,17357	0,12452
2503,1499	0,15802	0,1356	0,1506	0,17357	0,12453
2501,22144	0,15793	0,13557	0,15057	0,17354	0,12451
2499,29297	0,15782	0,13557	0,15052	0,17344	0,12439
2497,3645	0,15779	0,13551	0,15045	0,17338	0,12432
2495,43604	0,15782	0,13549	0,15042	0,17339	0,12436
2493,50757	0,15777	0,13548	0,1504	0,17331	0,12433
2491,5791	0,15762	0,1354	0,15036	0,17326	0,12428
2489,65063	0,15761	0,13535	0,15039	0,17327	0,1243
2487,72217	0,15763	0,13533	0,15044	0,17318	0,12425
2485,7937	0,15753	0,13526	0,15039	0,17311	0,12416
2483,86523	0,1575	0,13529	0,1503	0,17305	0,12413
2481,93677	0,15749	0,13531	0,15025	0,17295	0,12411
2480,0083	0,15735	0,1352	0,15018	0,17294	0,12407
2478,07983	0,15729	0,1352	0,15007	0,1729	0,12405
2476,15137	0,15723	0,1352	0,15002	0,17281	0,12401
2474,2229	0,15714	0,13517	0,15002	0,1728	0,12397
2472,29443	0,15718	0,13524	0,15002	0,17278	0,124
2470,36597	0,15717	0,13523	0,15001	0,1727	0,12401
2468,4375	0,15703	0,13515	0,14999	0,17263	0,12391
2466,50903	0,15695	0,1351	0,14991	0,17258	0,12386
2464,58057	0,1569	0,13508	0,1498	0,17253	0,12387
2462,6521	0,15689	0,13507	0,14979	0,1725	0,1238
2460,72363	0,15685	0,13501	0,14975	0,17245	0,12367
2458,79517	0,15678	0,13497	0,14967	0,17242	0,12362
2456,8667	0,15676	0,13495	0,1497	0,17243	0,12366
2454,93823	0,1567	0,13491	0,14966	0,17239	0,12363
2453,00977	0,15664	0,13494	0,14958	0,17232	0,12356
2451,0813	0,15659	0,1349	0,1496	0,17231	0,12358
2449,15283	0,15648	0,13482	0,14952	0,17227	0,12359
2447,22437	0,15646	0,1348	0,14934	0,17219	0,12347
2445,2959	0,15647	0,13475	0,14932	0,17218	0,12339
2443,36743	0,15639	0,13476	0,14934	0,17215	0,12336
2441,43896	0,15633	0,13482	0,14928	0,17209	0,12328



2439,5105	0,15631	0,1347	0,14917	0,17213	0,12318
2437,58203	0,15625	0,13459	0,14908	0,17212	0,12313
2435,65356	0,15623	0,13463	0,14909	0,17201	0,12313
2433,7251	0,15627	0,13461	0,14905	0,17205	0,12314
2431,79663	0,15622	0,13455	0,14897	0,17204	0,12308
2429,86816	0,15608	0,13455	0,14891	0,17191	0,12299
2427,9397	0,15603	0,13453	0,14881	0,17189	0,12299
2426,01123	0,15599	0,13448	0,14882	0,17189	0,12298
2424,08276	0,15582	0,13453	0,14886	0,17179	0,12289
2422,1543	0,15575	0,13458	0,14891	0,17172	0,12294
2420,22583	0,15579	0,1346	0,14895	0,17173	0,12299
2418,29736	0,15578	0,13463	0,14887	0,17168	0,12291
2416,3689	0,15566	0,13463	0,14881	0,17154	0,12287
2414,44043	0,15552	0,13465	0,14882	0,17146	0,1228
2412,51196	0,15561	0,13464	0,14882	0,17152	0,12282
2410,5835	0,15568	0,13455	0,14881	0,17156	0,12295
2408,65503	0,15558	0,13457	0,14877	0,17148	0,1229
2406,72656	0,15553	0,13463	0,14875	0,17143	0,12281
2404,7981	0,15549	0,13464	0,14869	0,17139	0,12281
2402,86963	0,15545	0,13469	0,14856	0,17124	0,12277
2400,94116	0,15542	0,13469	0,14856	0,17116	0,12272
2399,0127	0,15538	0,13466	0,14862	0,17117	0,12267
2397,08423	0,15534	0,13468	0,14858	0,17109	0,12264
2395,15576	0,1553	0,1346	0,14854	0,17104	0,12268
2393,22729	0,15526	0,13458	0,14851	0,17105	0,12269
2391,29883	0,15523	0,13455	0,14848	0,17103	0,12269
2389,37036	0,15519	0,13453	0,14846	0,171	0,12266
2387,44189	0,15515	0,1345	0,14843	0,17096	0,12263
2385,51343	0,15511	0,13448	0,1484	0,17093	0,1226
2383,58496	0,15508	0,13445	0,14837	0,17089	0,12257
2381,65649	0,15504	0,13442	0,14834	0,17086	0,12254
2379,72803	0,155	0,1344	0,14832	0,17083	0,12251
2377,79956	0,15496	0,13437	0,14829	0,17079	0,12248
2375,87109	0,15492	0,13435	0,14826	0,17076	0,12245
2373,94263	0,15489	0,13432	0,14823	0,17072	0,12242
2372,01416	0,15485	0,1343	0,1482	0,17069	0,12239
2370,08569	0,15481	0,13427	0,14817	0,17066	0,12236
2368,15723	0,15477	0,13424	0,14815	0,17062	0,12233
2366,22876	0,15474	0,13422	0,14812	0,17059	0,1223
2364,30029	0,1547	0,13419	0,14809	0,17055	0,12227
2362,37183	0,15466	0,13417	0,14806	0,17052	0,12224
2360,44336	0,15462	0,13414	0,14803	0,17049	0,12221
2358,51489	0,15459	0,13412	0,14801	0,17045	0,12218
2356,58643	0,15455	0,13409	0,14798	0,17042	0,12215
2354,65796	0,15451	0,13406	0,14795	0,17039	0,12212
2352,72949	0,15447	0,13404	0,14792	0,17035	0,12209
2350,80103	0,15443	0,13401	0,14789	0,17032	0,12206
2348,87256	0,1544	0,13399	0,14786	0,17028	0,12203

2346,94409	0,15436	0,13396	0,14784	0,17025	0,122
2345,01563	0,15432	0,13394	0,14781	0,17022	0,12197
2343,08716	0,15428	0,13391	0,14778	0,17018	0,12194
2341,15869	0,15425	0,13388	0,14775	0,17015	0,12191
2339,23022	0,15421	0,13386	0,14772	0,17011	0,12188
2337,30176	0,15417	0,13383	0,14769	0,17008	0,12185
2335,37329	0,15413	0,13381	0,14767	0,17005	0,12182
2333,44482	0,15409	0,13378	0,14764	0,17001	0,12179
2331,51636	0,15406	0,13376	0,14761	0,16998	0,12176
2329,58789	0,15402	0,13373	0,14758	0,16994	0,12173
2327,65942	0,15398	0,1337	0,14755	0,16991	0,1217
2325,73096	0,15394	0,13368	0,14753	0,16988	0,12167
2323,80249	0,15391	0,13365	0,1475	0,16984	0,12164
2321,87402	0,15387	0,13363	0,14747	0,16981	0,12161
2319,94556	0,15383	0,1336	0,14744	0,16978	0,12158
2318,01709	0,15379	0,13358	0,14741	0,16974	0,12155
2316,08862	0,15376	0,13355	0,14738	0,16971	0,12152
2314,16016	0,15372	0,13352	0,14736	0,16967	0,12149
2312,23169	0,15368	0,1335	0,14733	0,16964	0,12146
2310,30322	0,15364	0,13347	0,1473	0,16961	0,12143
2308,37476	0,1536	0,13345	0,14727	0,16957	0,1214
2306,44629	0,15357	0,13342	0,14724	0,16954	0,12137
2304,51782	0,15353	0,13339	0,14721	0,1695	0,12134
2302,58936	0,15349	0,13337	0,14719	0,16947	0,12131
2300,66089	0,15345	0,13334	0,14716	0,16944	0,12128
2298,73242	0,15342	0,13332	0,14713	0,1694	0,12125
2296,80396	0,15338	0,13329	0,1471	0,16937	0,12122
2294,87549	0,15334	0,13327	0,14707	0,16933	0,12119
2292,94702	0,1533	0,13324	0,14705	0,1693	0,12116
2291,01855	0,15327	0,13321	0,14702	0,16927	0,12113
2289,09009	0,15323	0,13319	0,14699	0,16923	0,1211
2287,16162	0,15319	0,13316	0,14696	0,1692	0,12107
2285,23315	0,15315	0,13314	0,14693	0,16917	0,12104
2283,30469	0,15311	0,13311	0,1469	0,16913	0,12101
2281,37622	0,15308	0,13309	0,14688	0,1691	0,12098
2279,44775	0,15304	0,13306	0,14685	0,16906	0,12095
2277,51929	0,153	0,13303	0,14682	0,16903	0,12092
2275,59082	0,15296	0,13301	0,14679	0,169	0,12089
2273,66235	0,15293	0,13298	0,14676	0,16896	0,12086
2271,73389	0,15289	0,13296	0,14673	0,16893	0,12083
2269,80542	0,15285	0,13293	0,14671	0,16883	0,12066
2267,87695	0,1528	0,13291	0,14668	0,1688	0,12063
2265,94849	0,15275	0,13289	0,14664	0,16876	0,12063
2264,02002	0,1527	0,13295	0,14666	0,16871	0,12064
2262,09155	0,15255	0,13294	0,14658	0,16864	0,12061
2260,16309	0,15239	0,13289	0,14638	0,16859	0,12056
2258,23462	0,15236	0,1329	0,14625	0,16855	0,12056
2256,30615	0,15227	0,13294	0,14615	0,16849	0,12046

2254,37769	0,15211	0,13296	0,14605	0,16837	0,12034
2252,44922	0,1521	0,13294	0,14605	0,1683	0,1203
2250,52075	0,15208	0,13299	0,14596	0,16827	0,12025
2248,59229	0,15196	0,13298	0,14574	0,16822	0,12016
2246,66382	0,15186	0,13294	0,14567	0,16819	0,12008
2244,73535	0,1518	0,13302	0,14565	0,16815	0,12004
2242,80688	0,15173	0,13302	0,14559	0,1681	0,12
2240,87842	0,15167	0,13294	0,14557	0,16803	0,11993
2238,94995	0,15165	0,13294	0,14554	0,16798	0,11988
2237,02148	0,1516	0,13288	0,14546	0,16797	0,11982
2235,09302	0,15156	0,13286	0,14542	0,16795	0,11975
2233,16455	0,15157	0,13293	0,14547	0,16793	0,11972
2231,23608	0,15155	0,13287	0,14549	0,16791	0,11974
2229,30762	0,15143	0,1328	0,14544	0,1679	0,1197
2227,37915	0,15128	0,13279	0,14539	0,16787	0,11955
2225,45068	0,15114	0,13272	0,14534	0,16775	0,11946
2223,52222	0,15103	0,13272	0,14525	0,16762	0,11946
2221,59375	0,15099	0,13279	0,1452	0,16758	0,11941
2219,66528	0,15096	0,13281	0,14522	0,16756	0,11938
2217,73682	0,15098	0,13282	0,14526	0,1675	0,11947
2215,80835	0,15108	0,13283	0,14533	0,16749	0,11961
2213,87988	0,15105	0,13278	0,1453	0,16745	0,1196
2211,95142	0,15092	0,13271	0,14513	0,16732	0,11949
2210,02295	0,15081	0,13272	0,14498	0,16716	0,11939
2208,09448	0,15075	0,13269	0,14491	0,167	0,11928
2206,16602	0,15079	0,13258	0,14486	0,16692	0,11925
2204,23755	0,15072	0,13252	0,14482	0,16683	0,11919
2202,30908	0,1506	0,1325	0,14481	0,16674	0,11909
2200,38062	0,15057	0,13247	0,14479	0,16669	0,11903
2198,45215	0,15045	0,13244	0,14472	0,16664	0,11897
2196,52368	0,15029	0,13241	0,14469	0,16656	0,11889
2194,59521	0,15018	0,13244	0,14464	0,16643	0,11879
2192,66675	0,15013	0,13238	0,14455	0,16639	0,11869
2190,73828	0,15013	0,13225	0,14452	0,16643	0,11868
2188,80981	0,15009	0,13224	0,14448	0,16639	0,11872
2186,88135	0,14997	0,13223	0,14443	0,16627	0,11864
2184,95288	0,1499	0,13217	0,14435	0,16618	0,11854
2183,02441	0,14991	0,13218	0,14423	0,16618	0,11851
2181,09595	0,14985	0,13216	0,14417	0,16608	0,11847
2179,16748	0,14975	0,13214	0,14412	0,16599	0,11841
2177,23901	0,1497	0,13216	0,14409	0,16599	0,11832
2175,31055	0,14967	0,13209	0,14407	0,16591	0,11823
2173,38208	0,14969	0,13202	0,14413	0,16594	0,11822
2171,45361	0,14949	0,13183	0,144	0,16574	0,11801
2169,52515	0,14916	0,13158	0,14369	0,16532	0,11772
2167,59668	0,14931	0,13169	0,14384	0,16553	0,11781
2165,66821	0,14946	0,13184	0,14404	0,1658	0,11798
2163,73975	0,14921	0,13173	0,1439	0,1656	0,1179

2161,81128	0,14915	0,13168	0,14388	0,16556	0,11783
2159,88281	0,14919	0,13169	0,14388	0,16562	0,11784
2157,95435	0,14905	0,13163	0,14373	0,16554	0,11783
2156,02588	0,14898	0,13151	0,14358	0,16551	0,11774
2154,09741	0,14896	0,13144	0,14352	0,16551	0,11772
2152,16895	0,14888	0,13144	0,14352	0,16551	0,11766
2150,24048	0,14885	0,13135	0,14344	0,16548	0,11747
2148,31201	0,14882	0,13121	0,14337	0,16542	0,11739
2146,38354	0,14872	0,13116	0,14333	0,16536	0,11728
2144,45508	0,1486	0,13115	0,14334	0,16534	0,11712
2142,52661	0,14847	0,13106	0,14331	0,16537	0,11712
2140,59814	0,14842	0,13093	0,14321	0,16537	0,11708
2138,66968	0,14842	0,13088	0,14318	0,16532	0,11696
2136,74121	0,14838	0,13085	0,14316	0,16528	0,11696
2134,81274	0,14832	0,13082	0,14308	0,16524	0,11694
2132,88428	0,14824	0,13081	0,14298	0,16517	0,11683
2130,95581	0,14818	0,13073	0,14283	0,16512	0,11676
2129,02734	0,14812	0,13067	0,14271	0,16502	0,11663
2127,09888	0,14803	0,13064	0,14269	0,16492	0,11648
2125,17041	0,14795	0,13053	0,14267	0,16486	0,11641
2123,24194	0,14788	0,13048	0,14259	0,16479	0,11631
2121,31348	0,14784	0,13052	0,14244	0,16476	0,1162
2119,38501	0,1478	0,13044	0,14232	0,16468	0,11613
2117,45654	0,1478	0,13034	0,14231	0,16457	0,11606
2115,52808	0,14778	0,13033	0,14228	0,16448	0,11603
2113,59961	0,14763	0,13025	0,14223	0,16438	0,1159
2111,67114	0,14751	0,13014	0,14221	0,16436	0,11581
2109,74268	0,14743	0,13009	0,14212	0,16427	0,11577
2107,81421	0,14739	0,13	0,14203	0,16416	0,11563
2105,88574	0,14739	0,12993	0,14196	0,1642	0,11555
2103,95728	0,1473	0,12988	0,14184	0,16413	0,1154
2102,02881	0,1472	0,12974	0,14175	0,16398	0,11521
2100,10034	0,14706	0,12959	0,14172	0,16391	0,11512
2098,17188	0,14688	0,1295	0,14168	0,16391	0,11498
2096,24341	0,14683	0,12937	0,14161	0,16393	0,11488
2094,31494	0,1467	0,12921	0,14152	0,16388	0,11478
2092,38647	0,14664	0,12911	0,14146	0,16391	0,11463
2090,45801	0,1467	0,12903	0,14143	0,16397	0,11456
2088,52954	0,14655	0,12892	0,14129	0,16385	0,1144
2086,60107	0,14642	0,12886	0,14116	0,16377	0,11425
2084,67261	0,14642	0,12882	0,14114	0,16377	0,11413
2082,74414	0,14631	0,12876	0,14105	0,16367	0,11395
2080,81567	0,14621	0,12866	0,14094	0,16358	0,1139
2078,88721	0,14617	0,12858	0,1409	0,1636	0,11386
2076,95874	0,14613	0,1285	0,14086	0,16362	0,11384
2075,03027	0,1461	0,12842	0,1408	0,16356	0,11386
2073,10181	0,14604	0,12846	0,14072	0,16356	0,11385
2071,17334	0,14597	0,12847	0,14069	0,16357	0,11384

2069,24487	0,14583	0,12844	0,14062	0,16342	0,11375
2067,31641	0,14581	0,12846	0,14065	0,1634	0,1139
2065,38794	0,14586	0,12845	0,14071	0,16351	0,11411
2063,45947	0,14563	0,12837	0,14041	0,16329	0,11388
2061,53101	0,14553	0,12838	0,14032	0,16317	0,11386
2059,60254	0,1456	0,12847	0,14053	0,16326	0,11403
2057,67407	0,14551	0,12843	0,14046	0,16318	0,1139
2055,74561	0,14545	0,12843	0,14032	0,16313	0,11376
2053,81714	0,14542	0,12853	0,14028	0,16315	0,11372
2051,88867	0,14542	0,12844	0,14025	0,16322	0,11379
2049,96021	0,14542	0,12837	0,14027	0,1633	0,11386
2048,03174	0,14533	0,12844	0,14032	0,16325	0,11385
2046,10327	0,14528	0,12847	0,14028	0,16329	0,11385
2044,1748	0,14533	0,12852	0,14033	0,16351	0,1139
2042,24634	0,14544	0,12853	0,14047	0,16365	0,1141
2040,31787	0,14541	0,12849	0,14043	0,16364	0,11409
2038,3894	0,14533	0,12848	0,14035	0,16369	0,11387
2036,46094	0,14531	0,12836	0,14035	0,16379	0,11385
2034,53247	0,14528	0,12824	0,14037	0,16384	0,11381
2032,604	0,14525	0,12827	0,14032	0,16388	0,11365
2030,67554	0,14512	0,12824	0,14018	0,16391	0,11348
2028,74707	0,14511	0,12817	0,14025	0,16402	0,11342
2026,8186	0,14511	0,12814	0,14022	0,16404	0,11334
2024,89014	0,14497	0,12805	0,14002	0,16404	0,11324
2022,96167	0,14495	0,12794	0,13999	0,16416	0,11322
2021,0332	0,14494	0,1279	0,13989	0,16416	0,11308
2019,10474	0,14503	0,12789	0,14012	0,16435	0,11328
2017,17627	0,14512	0,12783	0,14028	0,16459	0,11359
2015,2478	0,14489	0,12789	0,13981	0,16429	0,11318
2013,31934	0,14481	0,12801	0,13973	0,1641	0,11299
2011,39087	0,14481	0,128	0,13984	0,16418	0,11307
2009,4624	0,14472	0,12799	0,13975	0,16422	0,11301
2007,53394	0,14475	0,12807	0,13977	0,16433	0,11309
2005,60547	0,14475	0,12809	0,13968	0,16432	0,1131
2003,677	0,14479	0,12803	0,13969	0,16428	0,11313
2001,74854	0,14467	0,12798	0,13967	0,16422	0,11302
1999,82007	0,14459	0,12795	0,13967	0,16426	0,11299
1997,8916	0,14463	0,12794	0,13964	0,1643	0,11305
1995,96313	0,14442	0,12796	0,13935	0,16409	0,11272
1994,03467	0,14464	0,12789	0,13988	0,16447	0,11315
1992,1062	0,14482	0,12772	0,14025	0,16479	0,11361
1990,17773	0,14441	0,12771	0,13953	0,16426	0,11297
1988,24927	0,14439	0,1278	0,13945	0,16417	0,1129
1986,3208	0,14432	0,12776	0,13945	0,16413	0,1129
1984,39233	0,14416	0,12772	0,13926	0,16388	0,11267
1982,46387	0,14417	0,12771	0,13932	0,16391	0,11277
1980,5354	0,1441	0,1277	0,13915	0,16386	0,11269
1978,60693	0,14414	0,1277	0,13909	0,16379	0,11266

1976,67847	0,14405	0,12763	0,13898	0,16376	0,11262
1974,75	0,14393	0,1276	0,1389	0,16378	0,11262
1972,82153	0,14396	0,12767	0,139	0,16374	0,11265
1970,89307	0,14384	0,12767	0,13884	0,16346	0,11235
1968,9646	0,14403	0,12759	0,13926	0,16382	0,1128
1967,03613	0,14417	0,12753	0,13965	0,16416	0,11337
1965,10767	0,14371	0,12756	0,13891	0,16347	0,11258
1963,1792	0,14363	0,12764	0,13878	0,1633	0,11226
1961,25073	0,14375	0,12764	0,13902	0,16347	0,11251
1959,32227	0,14352	0,1276	0,13873	0,16312	0,11227
1957,3938	0,14344	0,12754	0,13874	0,16301	0,11227
1955,46533	0,14342	0,12742	0,13887	0,1631	0,11244
1953,53687	0,14333	0,12737	0,13874	0,16304	0,11229
1951,6084	0,14322	0,12738	0,13847	0,16281	0,11197
1949,67993	0,14326	0,12732	0,13858	0,16285	0,11205
1947,75146	0,14321	0,1272	0,13857	0,16297	0,11214
1945,823	0,14317	0,12712	0,13839	0,16288	0,11203
1943,89453	0,14373	0,12705	0,13934	0,16357	0,11293
1941,96606	0,14351	0,12695	0,13908	0,16352	0,11292
1940,0376	0,14274	0,12694	0,13776	0,16247	0,11157
1938,10913	0,14291	0,12708	0,13804	0,16254	0,11158
1936,18066	0,14291	0,12711	0,13806	0,16255	0,11163
1934,2522	0,1428	0,12699	0,13789	0,16247	0,11151
1932,32373	0,14278	0,12696	0,13788	0,16244	0,11144
1930,39526	0,14279	0,12693	0,13795	0,16235	0,11142
1928,4668	0,1428	0,1269	0,13789	0,16235	0,11144
1926,53833	0,14266	0,12681	0,13752	0,16209	0,1111
1924,60986	0,14317	0,12661	0,13857	0,16282	0,11204
1922,6814	0,14316	0,12652	0,13864	0,16311	0,11243
1920,75293	0,14274	0,12643	0,13775	0,16243	0,1114
1918,82446	0,14304	0,1264	0,13843	0,16287	0,11163
1916,896	0,14249	0,12647	0,13762	0,16262	0,11117
1914,96753	0,14222	0,1264	0,13689	0,16209	0,11051
1913,03906	0,14264	0,12628	0,13748	0,16254	0,11087
1911,1106	0,14268	0,12607	0,13768	0,16298	0,11116
1909,18213	0,14271	0,12586	0,13783	0,1633	0,11137
1907,25366	0,14241	0,12584	0,13736	0,16311	0,11084
1905,3252	0,14219	0,12583	0,13706	0,16299	0,11042
1903,39673	0,14231	0,12572	0,13715	0,16318	0,11044
1901,46826	0,14236	0,12557	0,13711	0,16336	0,11038
1899,53979	0,14219	0,12541	0,13674	0,16328	0,11
1897,61133	0,1423	0,12518	0,13686	0,16348	0,11005
1895,68286	0,14257	0,12499	0,13748	0,16422	0,11068
1893,75439	0,14194	0,12496	0,13639	0,16369	0,1098
1891,82593	0,14216	0,12486	0,13662	0,16386	0,10991
1889,89746	0,14279	0,12466	0,13777	0,16498	0,11113
1887,96899	0,14193	0,12465	0,13624	0,16402	0,10976
1886,04053	0,14199	0,12469	0,13623	0,16383	0,10946

1884,11206	0,14228	0,12463	0,13682	0,16424	0,11003
1882,18359	0,14185	0,12456	0,13626	0,16389	0,10954
1880,25513	0,14187	0,12453	0,13641	0,16406	0,10961
1878,32666	0,14183	0,12458	0,13639	0,16397	0,10968
1876,39819	0,14184	0,12476	0,13636	0,16382	0,10959
1874,46973	0,14176	0,1249	0,13627	0,16384	0,10965
1872,54126	0,14167	0,12482	0,13639	0,16384	0,10974
1870,61279	0,14241	0,12471	0,13793	0,16476	0,11073
1868,68433	0,14276	0,12453	0,13883	0,16579	0,11207
1866,75586	0,14168	0,12448	0,13686	0,16439	0,11055
1864,82739	0,14156	0,12475	0,13642	0,16358	0,10982
1862,89893	0,14166	0,12499	0,13662	0,16346	0,10992
1860,97046	0,14164	0,12507	0,13673	0,16352	0,11008
1859,04199	0,14164	0,12522	0,13673	0,16336	0,11004
1857,11353	0,14147	0,12527	0,13649	0,16294	0,10989
1855,18506	0,14134	0,12538	0,13648	0,16264	0,10972
1853,25659	0,1412	0,12539	0,13642	0,1624	0,10973
1851,32813	0,14122	0,1254	0,13643	0,16212	0,10958
1849,39966	0,14118	0,12544	0,13645	0,16192	0,1097
1847,47119	0,1416	0,12517	0,13733	0,16244	0,11084
1845,54272	0,14196	0,12529	0,13816	0,16252	0,11065
1843,61426	0,14067	0,12537	0,13628	0,16125	0,10919
1841,68579	0,14018	0,12502	0,13523	0,16058	0,10899
1839,75732	0,14098	0,12522	0,1365	0,16117	0,10992
1837,82886	0,14094	0,12533	0,13662	0,16117	0,10997
1835,90039	0,14085	0,12515	0,13632	0,16111	0,11012
1833,97192	0,1405	0,12528	0,13543	0,16033	0,1092
1832,04346	0,14125	0,12518	0,13695	0,16128	0,11014
1830,11499	0,14168	0,12496	0,13826	0,16246	0,11171
1828,18652	0,14025	0,12504	0,13568	0,1606	0,10958
1826,25806	0,1409	0,12512	0,13666	0,16114	0,11007
1824,32959	0,14098	0,12519	0,13686	0,16146	0,1104
1822,40112	0,14004	0,12515	0,13509	0,16018	0,10893
1820,47266	0,14036	0,12505	0,13568	0,1605	0,10908
1818,54419	0,1405	0,12484	0,13595	0,16083	0,1093
1816,61572	0,14034	0,12481	0,13548	0,16052	0,10904
1814,68726	0,14023	0,12491	0,13531	0,16038	0,1088
1812,75879	0,14066	0,12476	0,13629	0,16115	0,10963
1810,83032	0,14084	0,12466	0,13679	0,16162	0,11025
1808,90186	0,14024	0,12464	0,13562	0,16096	0,10921
1806,97339	0,14019	0,12454	0,13525	0,16084	0,10878
1805,04492	0,1401	0,12442	0,13515	0,16078	0,10858
1803,11646	0,14028	0,12399	0,13578	0,16128	0,10879
1801,18799	0,14067	0,12342	0,13668	0,16224	0,10949
1799,25952	0,13988	0,12338	0,13534	0,16134	0,10818
1797,33105	0,13975	0,12326	0,13496	0,1612	0,10801
1795,40259	0,14042	0,12304	0,13585	0,1619	0,10885
1793,47412	0,14042	0,12333	0,13604	0,1616	0,10804

1791,54565	0,13982	0,12342	0,13556	0,16178	0,10847
1789,61719	0,13907	0,12364	0,1338	0,16055	0,10756
1787,68872	0,13978	0,12413	0,13473	0,16066	0,108
1785,76025	0,13986	0,12421	0,13512	0,16078	0,10826
1783,83179	0,13914	0,12406	0,13399	0,16001	0,1074
1781,90332	0,13981	0,12393	0,13523	0,16098	0,10862
1779,97485	0,14009	0,12376	0,13585	0,16139	0,10909
1778,04639	0,1391	0,12388	0,13397	0,15987	0,10717
1776,11792	0,1398	0,12357	0,13521	0,16086	0,10862
1774,18945	0,14034	0,12354	0,1365	0,16101	0,10841
1772,26099	0,13887	0,12367	0,13473	0,15978	0,10665
1770,33252	0,13832	0,123	0,13372	0,1596	0,10677
1768,40405	0,13925	0,12302	0,13507	0,16018	0,10756
1766,47559	0,13782	0,12333	0,13248	0,15815	0,10524
1764,54712	0,13893	0,123	0,13434	0,15946	0,10727
1762,61865	0,13976	0,12312	0,13599	0,16016	0,10771
1760,69019	0,13782	0,12297	0,13281	0,15827	0,10545
1758,76172	0,13893	0,12271	0,13458	0,15938	0,10712
1756,83325	0,13914	0,12301	0,13514	0,15956	0,10726
1754,90479	0,13788	0,12297	0,13306	0,15836	0,10623
1752,97632	0,13885	0,12291	0,13466	0,15892	0,10692
1751,04785	0,13909	0,12291	0,13551	0,15955	0,10735
1749,11938	0,13865	0,12228	0,13499	0,16029	0,10871
1747,19092	0,13936	0,12228	0,13588	0,16074	0,10962
1745,26245	0,13879	0,12269	0,1347	0,1597	0,10824
1743,33398	0,1389	0,12251	0,13514	0,16045	0,10932
1741,40552	0,13934	0,12276	0,13606	0,16047	0,10889
1739,47705	0,1377	0,12317	0,13326	0,1586	0,10627
1737,54858	0,13819	0,1226	0,13404	0,1597	0,10823
1735,62012	0,13927	0,12299	0,13615	0,15969	0,10727
1733,69165	0,13688	0,12352	0,13291	0,15799	0,10469
1731,76318	0,13641	0,12247	0,1313	0,15785	0,10526
1729,83472	0,13952	0,1224	0,13651	0,16164	0,11013
1727,90625	0,13725	0,12313	0,13251	0,15839	0,10562
1725,97778	0,13803	0,12293	0,13383	0,15939	0,10712
1724,04932	0,13859	0,12301	0,13489	0,15994	0,10766
1722,12085	0,13754	0,12298	0,13299	0,15881	0,10659
1720,19238	0,13912	0,1228	0,1357	0,16057	0,1086
1718,26392	0,13919	0,12304	0,13659	0,16086	0,10825
1716,33545	0,13657	0,1228	0,13212	0,1584	0,10511
1714,40698	0,13786	0,12233	0,13354	0,15996	0,1073
1712,47852	0,13852	0,12265	0,13418	0,16006	0,10727
1710,55005	0,13773	0,12288	0,13268	0,15891	0,10573
1708,62158	0,13899	0,12258	0,13505	0,16076	0,10817
1706,69312	0,13931	0,12294	0,13595	0,16098	0,10801
1704,76465	0,13809	0,12253	0,13383	0,16038	0,10758
1702,83618	0,13933	0,12231	0,13583	0,16105	0,10819
1700,90771	0,13877	0,12338	0,1361	0,16009	0,10561



1698,97925	0,13472	0,12198	0,12878	0,15635	0,10123
1697,05078	0,13817	0,12151	0,13412	0,1595	0,1056
1695,12231	0,13675	0,12307	0,13148	0,15758	0,10249
1693,19385	0,13645	0,12256	0,12992	0,15772	0,10336
1691,26538	0,13966	0,12241	0,13526	0,16108	0,10758
1689,33691	0,13853	0,12255	0,13341	0,16016	0,10593
1687,40845	0,13936	0,12186	0,1346	0,16138	0,10766
1685,47998	0,13932	0,1227	0,13518	0,16003	0,10455
1683,55151	0,13713	0,12247	0,13235	0,16006	0,10524
1681,62305	0,13819	0,12171	0,13249	0,1602	0,10593
1679,69458	0,13892	0,12209	0,13337	0,16024	0,10607
1677,76611	0,13852	0,12224	0,13271	0,15935	0,10472
1675,83765	0,13861	0,12228	0,13317	0,15915	0,10408
1673,90918	0,13685	0,12229	0,13031	0,15734	0,10223
1671,98071	0,13872	0,12181	0,13296	0,1595	0,10533
1670,05225	0,14028	0,1218	0,13589	0,1613	0,10722
1668,12378	0,13702	0,12206	0,12993	0,15743	0,10262
1666,19531	0,13821	0,12195	0,13116	0,15824	0,1041
1664,26685	0,13912	0,12246	0,13277	0,15844	0,10382
1662,33838	0,13826	0,12229	0,13145	0,15801	0,10366
1660,40991	0,13821	0,12198	0,13075	0,15749	0,10315
1658,48145	0,13785	0,1223	0,12975	0,15628	0,10159
1656,55298	0,13955	0,12147	0,13257	0,15884	0,10529
1654,62451	0,1403	0,12132	0,13485	0,15883	0,10393
1652,69604	0,13636	0,12213	0,13087	0,15762	0,10305
1650,76758	0,13375	0,12073	0,12279	0,15168	0,09538
1648,83911	0,14038	0,1194	0,13441	0,16041	0,10692
1646,91064	0,13932	0,11949	0,13422	0,15984	0,10573
1644,98218	0,13452	0,11979	0,12443	0,15275	0,09679
1643,05371	0,13721	0,11928	0,12848	0,15574	0,10115
1641,12524	0,13647	0,11951	0,12725	0,15463	0,09934
1639,19678	0,13701	0,11896	0,12845	0,15593	0,10111
1637,26831	0,1381	0,11837	0,13094	0,15713	0,10197
1635,33984	0,13613	0,1187	0,1286	0,15597	0,10015
1633,41138	0,13384	0,11853	0,12341	0,15245	0,09612
1631,48291	0,13565	0,11786	0,12642	0,15454	0,09911
1629,55444	0,13539	0,11769	0,12648	0,1542	0,09809
1627,62598	0,1346	0,11716	0,12535	0,15395	0,09801
1625,69751	0,13433	0,11656	0,12517	0,15346	0,09744
1623,76904	0,13442	0,11607	0,12608	0,15385	0,09754
1621,84058	0,13273	0,11584	0,12311	0,15269	0,09603
1619,91211	0,13368	0,11576	0,12474	0,15384	0,0978
1617,98364	0,13394	0,11632	0,12574	0,1532	0,09628
1616,05518	0,13228	0,11726	0,12251	0,15181	0,09414
1614,12671	0,13378	0,11738	0,12414	0,15393	0,09727
1612,19824	0,13568	0,11804	0,12718	0,15586	0,09988
1610,26978	0,13572	0,11874	0,12704	0,15571	0,09954
1608,34131	0,13624	0,11882	0,12814	0,15676	0,10103

1606,41284	0,13606	0,11943	0,12796	0,15632	0,10058
1604,48438	0,13633	0,11978	0,12806	0,1565	0,10073
1602,55591	0,13687	0,11979	0,12894	0,15742	0,10172
1600,62744	0,13658	0,11996	0,12875	0,15721	0,10139
1598,69897	0,13656	0,12009	0,12887	0,15708	0,10137
1596,77051	0,13687	0,1202	0,12942	0,15752	0,10197
1594,84204	0,13712	0,12032	0,12977	0,15804	0,10247
1592,91357	0,13697	0,12059	0,12944	0,15768	0,10205
1590,98511	0,13692	0,12072	0,12949	0,15746	0,10215
1589,05664	0,13711	0,1207	0,12994	0,15779	0,10266
1587,12817	0,13668	0,12086	0,12926	0,15719	0,10179
1585,19971	0,13678	0,12089	0,12951	0,15741	0,10235
1583,27124	0,13689	0,12096	0,12983	0,15753	0,10255
1581,34277	0,13605	0,121	0,12896	0,15677	0,10171
1579,41431	0,13683	0,12069	0,13095	0,15817	0,10405
1577,48584	0,13694	0,12104	0,13155	0,1574	0,10249
1575,55737	0,13422	0,12123	0,12769	0,1551	0,09941
1573,62891	0,13459	0,12065	0,12777	0,15586	0,1014
1571,70044	0,13744	0,1208	0,13244	0,15846	0,10474
1569,77197	0,13667	0,12102	0,13206	0,15834	0,10423
1567,84351	0,13518	0,12073	0,12929	0,15687	0,10267
1565,91504	0,13636	0,12102	0,13123	0,15758	0,10368
1563,98657	0,13553	0,12109	0,13005	0,1571	0,10342
1562,05811	0,13664	0,12095	0,13167	0,15785	0,10443
1560,12964	0,13833	0,12158	0,13649	0,15957	0,10574
1558,20117	0,13332	0,1206	0,13031	0,15836	0,10509
1556,27271	0,13424	0,12043	0,12829	0,15592	0,10129
1554,34424	0,13558	0,12105	0,13022	0,15662	0,10248
1552,41577	0,13452	0,1213	0,12861	0,15521	0,10111
1550,4873	0,13696	0,12076	0,13276	0,15868	0,10594
1548,55884	0,13585	0,12103	0,1309	0,15731	0,10417
1546,63037	0,13555	0,12144	0,13056	0,15656	0,10319
1544,7019	0,13735	0,12111	0,13407	0,15949	0,10681
1542,77344	0,1365	0,12079	0,1329	0,15885	0,1055
1540,84497	0,13613	0,12117	0,13355	0,15815	0,10412
1538,9165	0,13341	0,12089	0,12874	0,15661	0,10219
1536,98804	0,13424	0,12089	0,1281	0,15632	0,10184
1535,05957	0,13726	0,12108	0,13362	0,15964	0,10592
1533,1311	0,1369	0,12082	0,13367	0,16043	0,10682
1531,20264	0,135	0,12091	0,12909	0,15737	0,10309
1529,27417	0,13676	0,12108	0,1321	0,15927	0,10544
1527,3457	0,13678	0,12093	0,133	0,1603	0,10626
1525,41724	0,1352	0,12063	0,13025	0,1585	0,10393
1523,48877	0,13646	0,12051	0,13268	0,15972	0,10533
1521,5603	0,13519	0,12053	0,13172	0,15895	0,10432
1519,63184	0,13325	0,12047	0,12782	0,15588	0,10062
1517,70337	0,13637	0,1202	0,13324	0,16016	0,10664
1515,7749	0,13552	0,12027	0,13178	0,15918	0,10573

1513,84644	0,13459	0,12055	0,12947	0,15689	0,10283
1511,91797	0,1349	0,1207	0,12985	0,15692	0,1027
1509,9895	0,13622	0,11998	0,13239	0,15947	0,10626
1508,06104	0,13748	0,11976	0,13585	0,16118	0,10827
1506,13257	0,13363	0,12011	0,13152	0,15864	0,10536
1504,2041	0,13127	0,12032	0,12435	0,15309	0,09791
1502,27563	0,13501	0,12042	0,13008	0,1572	0,10394
1500,34717	0,13462	0,12083	0,12971	0,15649	0,10274
1498,4187	0,1348	0,1206	0,13032	0,15694	0,10314
1496,49023	0,13359	0,12062	0,12833	0,15519	0,10081
1494,56177	0,13226	0,12071	0,12588	0,15369	0,09905
1492,6333	0,13465	0,12065	0,12974	0,1567	0,10307
1490,70483	0,1357	0,12047	0,13182	0,15824	0,10482
1488,77637	0,13482	0,12006	0,13106	0,15812	0,1048
1486,8479	0,13396	0,12039	0,12915	0,15644	0,10279
1484,91943	0,13344	0,12088	0,12782	0,15512	0,10125
1482,99097	0,13376	0,12088	0,12882	0,15569	0,10214
1481,0625	0,13374	0,12064	0,12895	0,15584	0,10259
1479,13403	0,13338	0,12076	0,12806	0,15513	0,10155
1477,20557	0,13401	0,12072	0,12952	0,15644	0,1031
1475,2771	0,13428	0,12048	0,13025	0,15745	0,10451
1473,34863	0,13347	0,12054	0,12921	0,15672	0,10315
1471,42017	0,13269	0,12043	0,12772	0,15601	0,10235
1469,4917	0,13324	0,12073	0,12749	0,15555	0,10252
1467,56323	0,13407	0,12114	0,12885	0,15577	0,10291
1465,63477	0,13434	0,12091	0,12997	0,15671	0,10399
1463,7063	0,1327	0,12116	0,12696	0,15512	0,10192
1461,77783	0,1329	0,12136	0,12714	0,15515	0,10229
1459,84937	0,13542	0,12076	0,1319	0,15805	0,10608
1457,9209	0,13501	0,1206	0,13297	0,15792	0,10562
1455,99243	0,13027	0,12089	0,12397	0,15149	0,09697
1454,06396	0,13329	0,12044	0,12781	0,15495	0,10224
1452,1355	0,13396	0,12088	0,12883	0,15538	0,1027
1450,20703	0,13321	0,12117	0,1275	0,15431	0,10105
1448,27856	0,13426	0,12092	0,1292	0,15579	0,1032
1446,3501	0,1331	0,12118	0,12733	0,15427	0,10159
1444,42163	0,13306	0,12121	0,12714	0,15456	0,10211
1442,49316	0,13314	0,12132	0,12705	0,15502	0,10258
1440,5647	0,13312	0,1213	0,12697	0,15484	0,1026
1438,63623	0,13366	0,12107	0,12805	0,15463	0,10205
1436,70776	0,1329	0,12089	0,12763	0,15399	0,10068
1434,7793	0,13164	0,12103	0,12519	0,15256	0,09899
1432,85083	0,1334	0,12105	0,12771	0,15434	0,10157
1430,92236	0,13361	0,12102	0,12818	0,15449	0,1012
1428,9939	0,13261	0,12092	0,12661	0,15373	0,10032
1427,06543	0,13264	0,12102	0,12648	0,15318	0,09981
1425,13696	0,13314	0,12091	0,12756	0,15378	0,10033
1423,2085	0,13303	0,12073	0,12756	0,15422	0,10121

1421,28003	0,13247	0,12091	0,12671	0,1528	0,09929
1419,35156	0,13198	0,12055	0,12692	0,15293	0,09892
1417,4231	0,13146	0,12004	0,12618	0,15323	0,09965
1415,49463	0,13201	0,12036	0,1267	0,15324	0,10003
1413,56616	0,13154	0,12063	0,12587	0,15229	0,09877
1411,6377	0,13191	0,12019	0,12628	0,15281	0,09964
1409,70923	0,13175	0,12002	0,12601	0,15248	0,09933
1407,78076	0,13119	0,12023	0,12572	0,15214	0,09894
1405,85229	0,13181	0,11997	0,12726	0,15339	0,10049
1403,92383	0,13109	0,11985	0,12577	0,15274	0,09958
1401,99536	0,13082	0,12006	0,12537	0,15241	0,09916
1400,06689	0,13154	0,11974	0,12707	0,15344	0,10043
1398,13843	0,13142	0,11941	0,12679	0,15363	0,10094
1396,20996	0,13155	0,11949	0,12707	0,15381	0,10126
1394,28149	0,13114	0,11947	0,12667	0,15354	0,10093
1392,35303	0,13004	0,11968	0,12478	0,1524	0,09972
1390,42456	0,1307	0,11972	0,12619	0,15323	0,10099
1388,49609	0,13081	0,11952	0,12649	0,15323	0,1007
1386,56763	0,12971	0,11905	0,12491	0,15245	0,0997
1384,63916	0,12901	0,11875	0,12419	0,1519	0,09945
1382,71069	0,12928	0,11911	0,12424	0,15193	0,09939
1380,78223	0,13011	0,11956	0,12521	0,15313	0,10038
1378,85376	0,13028	0,11978	0,12555	0,15373	0,10093
1376,92529	0,13044	0,11979	0,12579	0,15407	0,10132
1374,99683	0,13107	0,1194	0,12731	0,15572	0,10338
1373,06836	0,13023	0,1195	0,12624	0,15524	0,10309
1371,13989	0,12974	0,11982	0,12523	0,15436	0,10244
1369,21143	0,13021	0,11961	0,12624	0,15522	0,10378
1367,28296	0,12953	0,11959	0,12536	0,15435	0,10249
1365,35449	0,12961	0,11958	0,12543	0,15389	0,10162
1363,42603	0,13056	0,11917	0,12725	0,1552	0,10312
1361,49756	0,12986	0,11905	0,12611	0,1543	0,1018
1359,56909	0,12926	0,11925	0,1246	0,15285	0,09973
1357,64063	0,12952	0,1193	0,12487	0,15306	0,09959
1355,71216	0,12944	0,11904	0,12503	0,15322	0,09947
1353,78369	0,12918	0,11886	0,12482	0,15277	0,09895
1351,85522	0,12928	0,11886	0,12486	0,15254	0,09871
1349,92676	0,12941	0,11876	0,12498	0,15248	0,0987
1347,99829	0,12921	0,11879	0,12487	0,15219	0,09836
1346,06982	0,12912	0,11859	0,12481	0,15227	0,09819
1344,14136	0,12898	0,11837	0,1245	0,15214	0,09789
1342,21289	0,12919	0,11846	0,12508	0,15236	0,09829
1340,28442	0,12977	0,11812	0,12643	0,15355	0,09991
1338,35596	0,12929	0,11772	0,12578	0,15324	0,09959
1336,42749	0,12873	0,11788	0,12475	0,15232	0,09825
1334,49902	0,12878	0,11818	0,12458	0,15228	0,09803
1332,57056	0,12872	0,11836	0,12434	0,15217	0,09788
1330,64209	0,12892	0,11842	0,12464	0,15238	0,09799

1328,71362	0,12911	0,11857	0,12483	0,15258	0,09815
1326,78516	0,12909	0,11861	0,12458	0,15256	0,09821
1324,85669	0,12915	0,11852	0,12475	0,15266	0,09834
1322,92822	0,1293	0,11865	0,12498	0,15258	0,09831
1320,99976	0,12969	0,11868	0,1252	0,15291	0,09875
1319,07129	0,12993	0,11856	0,12544	0,15343	0,09921
1317,14282	0,1297	0,11867	0,12523	0,15315	0,09878
1315,21436	0,12964	0,1187	0,12518	0,15319	0,09866
1313,28589	0,12982	0,11869	0,12536	0,1535	0,09901
1311,35742	0,12994	0,11907	0,12508	0,15313	0,09885
1309,42896	0,13013	0,11922	0,12488	0,15321	0,09882
1307,50049	0,13036	0,1193	0,12494	0,15369	0,09925
1305,57202	0,13049	0,1196	0,12497	0,15371	0,09942
1303,64355	0,13064	0,11948	0,12521	0,154	0,0997
1301,71509	0,13082	0,11933	0,12563	0,15454	0,1005
1299,78662	0,13097	0,11953	0,12593	0,15491	0,1012
1297,85815	0,13104	0,11974	0,12611	0,1553	0,1018
1295,92969	0,13115	0,11994	0,12624	0,15568	0,10254
1294,00122	0,13126	0,12005	0,12627	0,15605	0,10322
1292,07275	0,13134	0,1201	0,12638	0,15653	0,10379
1290,14429	0,1315	0,12011	0,12645	0,15699	0,10427
1288,21582	0,13168	0,12009	0,12637	0,15729	0,10462
1286,28735	0,13193	0,12013	0,12642	0,15746	0,10479
1284,35889	0,13223	0,1202	0,12641	0,15762	0,1052
1282,43042	0,13229	0,12036	0,12638	0,15786	0,10595
1280,50195	0,13251	0,12037	0,12664	0,15818	0,10664
1278,57349	0,13314	0,12046	0,12688	0,15863	0,10746
1276,64502	0,1337	0,12091	0,12702	0,15904	0,10852
1274,71655	0,13421	0,1212	0,1274	0,15941	0,10943
1272,78809	0,13481	0,12132	0,12787	0,16003	0,11027
1270,85962	0,13521	0,12152	0,12808	0,16037	0,1108
1268,93115	0,13552	0,12167	0,12831	0,16031	0,11081
1267,00269	0,13579	0,12183	0,12867	0,16038	0,11098
1265,07422	0,13589	0,12199	0,12875	0,16036	0,11116
1263,14575	0,13623	0,1221	0,12863	0,16029	0,11106
1261,21729	0,13667	0,12229	0,12854	0,16051	0,11126
1259,28882	0,13694	0,12243	0,12851	0,16067	0,11139
1257,36035	0,13739	0,1223	0,12837	0,1607	0,11132
1255,43188	0,13791	0,12216	0,12815	0,16089	0,11159
1253,50342	0,13826	0,12238	0,12817	0,16117	0,11197
1251,57495	0,13873	0,12256	0,12834	0,16134	0,11236
1249,64648	0,13932	0,12263	0,12846	0,16139	0,11265
1247,71802	0,14012	0,12294	0,12862	0,16162	0,11286
1245,78955	0,14109	0,1233	0,12893	0,16229	0,11323
1243,86108	0,14204	0,12355	0,12945	0,163	0,11349
1241,93262	0,1429	0,12372	0,13004	0,16329	0,11345
1240,00415	0,14358	0,12404	0,13028	0,1633	0,11323
1238,07568	0,14446	0,1245	0,1305	0,16339	0,11304

1236,14722	0,14555	0,12472	0,13098	0,16375	0,11302
1234,21875	0,1464	0,1249	0,13124	0,16422	0,11284
1232,29028	0,14747	0,12535	0,13152	0,16454	0,11266
1230,36182	0,14849	0,12584	0,13206	0,16467	0,11264
1228,43335	0,14911	0,12617	0,13231	0,16483	0,11231
1226,50488	0,14992	0,12631	0,13245	0,16518	0,11193
1224,57642	0,15082	0,12648	0,13286	0,1655	0,11186
1222,64795	0,15173	0,12686	0,13323	0,16564	0,1117
1220,71948	0,15246	0,12724	0,13326	0,16581	0,11154
1218,79102	0,15289	0,12754	0,13339	0,16615	0,11152
1216,86255	0,15365	0,12778	0,13365	0,1667	0,11151
1214,93408	0,15469	0,12809	0,13378	0,16741	0,11185
1213,00562	0,15581	0,12869	0,13427	0,16834	0,11261
1211,07715	0,15681	0,12927	0,13485	0,16969	0,11351
1209,14868	0,15758	0,12979	0,1352	0,17141	0,11486
1207,22021	0,15825	0,13045	0,13575	0,17362	0,11697
1205,29175	0,15876	0,13091	0,13657	0,17672	0,11991
1203,36328	0,15935	0,13136	0,1374	0,18011	0,12355
1201,43481	0,16008	0,13202	0,13795	0,18295	0,1272
1199,50635	0,16074	0,13248	0,13837	0,18503	0,12986
1197,57788	0,16121	0,13293	0,13885	0,18528	0,13008
1195,64941	0,1616	0,13352	0,13923	0,18387	0,12821
1193,72095	0,16208	0,13393	0,13954	0,18301	0,12734
1191,79248	0,16259	0,13436	0,13971	0,18292	0,12825
1189,86401	0,16313	0,13491	0,14	0,18251	0,12894
1187,93555	0,16348	0,13534	0,1405	0,18168	0,12832
1186,00708	0,16378	0,13585	0,14084	0,18054	0,12688
1184,07861	0,16435	0,13657	0,14131	0,1793	0,12522
1182,15015	0,16483	0,13727	0,14198	0,17812	0,1233
1180,22168	0,16527	0,13794	0,14249	0,17726	0,12156
1178,29321	0,1658	0,13865	0,14311	0,17706	0,1207
1176,36475	0,16633	0,13945	0,1439	0,17726	0,12051
1174,43628	0,16695	0,14032	0,14454	0,17754	0,12049
1172,50781	0,16739	0,14096	0,14503	0,17798	0,12042
1170,57935	0,16773	0,14133	0,14541	0,17844	0,12048
1168,65088	0,16809	0,14177	0,14582	0,17867	0,12058
1166,72241	0,16847	0,14232	0,14647	0,17901	0,12055
1164,79395	0,16893	0,14278	0,14719	0,17975	0,12093
1162,86548	0,16948	0,14319	0,14793	0,18053	0,12166
1160,93701	0,17032	0,14378	0,14859	0,18114	0,12213
1159,00854	0,17091	0,14431	0,14896	0,18145	0,1225
1157,08008	0,17099	0,14464	0,14932	0,18148	0,1229
1155,15161	0,17125	0,14517	0,14967	0,18164	0,12333
1153,22314	0,17172	0,14576	0,14973	0,18212	0,12394
1151,29468	0,17208	0,14607	0,14992	0,18278	0,12452
1149,36621	0,17256	0,14645	0,15052	0,18332	0,12476
1147,43774	0,17324	0,14697	0,15104	0,18353	0,12471
1145,50928	0,17374	0,1474	0,15142	0,18382	0,12483

1143,58081	0,17417	0,1477	0,15193	0,1843	0,12507
1141,65234	0,17485	0,14803	0,15242	0,18457	0,12511
1139,72388	0,17539	0,14841	0,15287	0,18485	0,12534
1137,79541	0,17582	0,14866	0,15349	0,18523	0,12565
1135,86694	0,17637	0,14908	0,1542	0,18568	0,12595
1133,93848	0,17678	0,14969	0,15481	0,18639	0,12674
1132,01001	0,17724	0,14982	0,15496	0,18723	0,12759
1130,08154	0,17785	0,14989	0,15487	0,189	0,12928
1128,15308	0,17808	0,15035	0,15511	0,19176	0,13262
1126,22461	0,17795	0,15067	0,15543	0,19381	0,13576
1124,29614	0,17811	0,15077	0,15577	0,1951	0,13743
1122,36768	0,17833	0,15097	0,15621	0,19513	0,13711
1120,43921	0,17846	0,15125	0,15646	0,19336	0,13509
1118,51074	0,17909	0,15135	0,1566	0,19197	0,1333
1116,58228	0,17944	0,15155	0,15686	0,19163	0,13246
1114,65381	0,17929	0,15196	0,15704	0,19134	0,13223
1112,72534	0,1797	0,15213	0,15689	0,1911	0,13207
1110,79688	0,1802	0,15227	0,15674	0,19075	0,13173
1108,86841	0,18026	0,15261	0,15672	0,19021	0,13127
1106,93994	0,18034	0,15267	0,15664	0,18961	0,13051
1105,01147	0,18033	0,15251	0,15679	0,18909	0,12994
1103,08301	0,1803	0,15254	0,1568	0,18889	0,12949
1101,15454	0,18029	0,1524	0,15638	0,18864	0,12893
1099,22607	0,18009	0,15222	0,15631	0,18832	0,12857
1097,29761	0,18017	0,15239	0,15685	0,18846	0,1284
1095,36914	0,18029	0,15254	0,15714	0,18855	0,12845
1093,44067	0,18003	0,15266	0,15684	0,18842	0,12839
1091,51221	0,18018	0,15268	0,15668	0,18846	0,12837
1089,58374	0,18035	0,15243	0,15684	0,18848	0,12872
1087,65527	0,17983	0,1524	0,15701	0,18838	0,12873
1085,72681	0,17939	0,15247	0,15717	0,18817	0,12843
1083,79834	0,17914	0,15227	0,157	0,18784	0,12831
1081,86987	0,17865	0,15196	0,15678	0,1875	0,12813
1079,94141	0,1782	0,15178	0,15691	0,18731	0,12798
1078,01294	0,17781	0,15169	0,15668	0,18708	0,12783
1076,08447	0,17717	0,1515	0,15613	0,18658	0,12764
1074,15601	0,17645	0,15131	0,15613	0,18643	0,12764
1072,22754	0,17609	0,15128	0,15638	0,18667	0,12763
1070,29907	0,17589	0,15129	0,15629	0,18671	0,12742
1068,37061	0,17553	0,15093	0,1561	0,18668	0,12722
1066,44214	0,17514	0,15052	0,15613	0,18672	0,12725
1064,51367	0,1747	0,15036	0,15631	0,1868	0,12741
1062,58521	0,1743	0,15025	0,15639	0,18686	0,12735
1060,65674	0,17374	0,15013	0,15622	0,18668	0,12728
1058,72827	0,17292	0,14974	0,15577	0,18643	0,1273
1056,7998	0,17244	0,14925	0,15531	0,18654	0,12742
1054,87134	0,17233	0,14911	0,15508	0,18713	0,12796
1052,94287	0,1721	0,14879	0,15515	0,18852	0,12953

1051,0144	0,17169	0,14832	0,15539	0,19077	0,13288
1049,08594	0,17137	0,1481	0,15534	0,19243	0,13609
1047,15747	0,17106	0,14795	0,15512	0,19248	0,13624
1045,229	0,17045	0,14781	0,15505	0,19193	0,13487
1043,30054	0,1699	0,14767	0,15497	0,19198	0,1348
1041,37207	0,1695	0,1475	0,15488	0,19328	0,13639
1039,4436	0,16905	0,1476	0,15515	0,19621	0,13915
1037,51514	0,16868	0,148	0,15547	0,19977	0,14272
1035,58667	0,16838	0,14808	0,15514	0,20163	0,14561
1033,6582	0,16802	0,14773	0,15457	0,19999	0,14467
1031,72974	0,16783	0,14748	0,15427	0,19601	0,14027
1029,80127	0,16806	0,14726	0,15395	0,19287	0,13703
1027,8728	0,1681	0,14691	0,15377	0,19147	0,13613
1025,94434	0,16772	0,14677	0,15401	0,19106	0,13583
1024,01587	0,1677	0,1468	0,15419	0,19101	0,13554
1022,0874	0,1677	0,1467	0,15396	0,19058	0,13512
1020,15894	0,16704	0,14662	0,15382	0,19014	0,1345
1018,23047	0,16642	0,14645	0,15391	0,19007	0,13383
1016,302	0,16605	0,14601	0,15371	0,18975	0,13312
1014,37354	0,16555	0,14572	0,15343	0,18926	0,13221
1012,44507	0,16533	0,14559	0,15348	0,18939	0,13171
1010,5166	0,16535	0,14536	0,1534	0,18975	0,13183
1008,58813	0,16497	0,14507	0,15295	0,18932	0,13111
1006,65967	0,16464	0,14478	0,1524	0,18836	0,12961
1004,7312	0,16445	0,14443	0,15174	0,18724	0,12825
1002,80273	0,16399	0,14383	0,15121	0,18606	0,12697
1000,87427	0,16391	0,14342	0,15115	0,18525	0,12615
998,9458	0,16403	0,14345	0,15102	0,18464	0,12569
997,01733	0,16362	0,14322	0,15082	0,18411	0,12512
995,08887	0,16312	0,14275	0,15095	0,18384	0,12463
993,1604	0,16245	0,14241	0,15075	0,18349	0,1239
991,23193	0,16166	0,14206	0,15024	0,18309	0,12305
989,30347	0,16144	0,14182	0,15006	0,18275	0,12243
987,375	0,16122	0,14171	0,14993	0,1822	0,12176
985,44653	0,16085	0,14154	0,14955	0,18177	0,12132
983,51807	0,1608	0,14144	0,14917	0,18146	0,12107
981,5896	0,16023	0,14114	0,149	0,18093	0,12059
979,66113	0,15931	0,14067	0,14883	0,18057	0,12012
977,73267	0,1591	0,14067	0,14863	0,18045	0,11982
975,8042	0,15885	0,14067	0,14847	0,1803	0,11958
973,87573	0,15829	0,14055	0,14813	0,18018	0,11912
971,94727	0,15821	0,14062	0,14815	0,18007	0,11858
970,0188	0,15802	0,14045	0,14846	0,17989	0,11839
968,09033	0,15764	0,14035	0,14824	0,17972	0,11827
966,16187	0,15766	0,14036	0,14806	0,17979	0,11809
964,2334	0,15774	0,14015	0,148	0,17964	0,11809
962,30493	0,15767	0,13992	0,14768	0,17942	0,11802
960,37646	0,15754	0,13965	0,14751	0,17965	0,11775



958,448	0,15737	0,13974	0,14741	0,17946	0,11762
956,51953	0,15716	0,14001	0,14746	0,17907	0,11776
954,59106	0,15686	0,1399	0,14734	0,17911	0,11784
952,6626	0,15664	0,13988	0,14691	0,17877	0,11763
950,73413	0,15655	0,13972	0,14703	0,17842	0,11733
948,80566	0,1564	0,13932	0,14723	0,17832	0,11724
946,8772	0,15644	0,13948	0,14714	0,17813	0,11729
944,94873	0,15663	0,1395	0,14722	0,1782	0,11727
943,02026	0,15651	0,139	0,14704	0,17804	0,11731
941,0918	0,15629	0,13903	0,14675	0,17767	0,11716
939,16333	0,1562	0,13924	0,14654	0,17792	0,11681
937,23486	0,15602	0,13918	0,14643	0,17809	0,11694
935,3064	0,15586	0,13919	0,14678	0,17766	0,11705
933,37793	0,15586	0,13946	0,14719	0,17742	0,11673
931,44946	0,15614	0,13989	0,14735	0,17734	0,11669
929,521	0,15637	0,1398	0,14735	0,1772	0,11666
927,59253	0,15622	0,1395	0,14728	0,17746	0,11644
925,66406	0,15639	0,13967	0,14744	0,17777	0,1167
923,7356	0,15688	0,14004	0,14766	0,17776	0,11686
921,80713	0,15681	0,14021	0,14729	0,17754	0,1166
919,87866	0,15665	0,14002	0,14697	0,17726	0,1168
917,9502	0,15679	0,14	0,14727	0,17722	0,11706
916,02173	0,15687	0,14012	0,14737	0,17726	0,11682
914,09326	0,15689	0,14013	0,14738	0,17723	0,11665
912,16479	0,15676	0,14014	0,14763	0,17727	0,11667
910,23633	0,15685	0,14004	0,14765	0,17739	0,11679
908,30786	0,1572	0,13998	0,14777	0,17771	0,117
906,37939	0,15703	0,13985	0,14803	0,17812	0,11699
904,45093	0,15674	0,13971	0,1479	0,17804	0,11674
902,52246	0,15702	0,13969	0,14784	0,17767	0,11683
900,59399	0,15742	0,13961	0,14788	0,1777	0,11727
898,66553	0,15745	0,13975	0,14768	0,17784	0,11741
896,73706	0,15723	0,14005	0,14782	0,17774	0,11729
894,80859	0,15714	0,14007	0,14826	0,17766	0,11722
892,88013	0,1574	0,13985	0,14831	0,17781	0,11726
890,95166	0,15755	0,13956	0,14805	0,178	0,11749
889,02319	0,1574	0,13936	0,14803	0,1779	0,11758
887,09473	0,15755	0,13933	0,14816	0,17782	0,11747
885,16626	0,15801	0,1394	0,14804	0,1779	0,11757
883,23779	0,15826	0,13949	0,1482	0,17785	0,11789
881,30933	0,15858	0,14	0,14886	0,17808	0,11823
879,38086	0,15951	0,14086	0,1497	0,17888	0,1187
877,45239	0,16065	0,1415	0,1507	0,17971	0,11962
875,52393	0,16189	0,14256	0,15211	0,18087	0,1209
873,59546	0,16411	0,14421	0,15435	0,18304	0,12264
871,66699	0,16728	0,14643	0,15717	0,18603	0,12579
869,73853	0,17032	0,14935	0,16001	0,18916	0,12926
867,81006	0,17283	0,15158	0,1625	0,19134	0,13107

865,88159	0,17505	0,1529	0,16441	0,1926	0,13234
863,95313	0,17657	0,15388	0,16571	0,19368	0,13359
862,02466	0,17725	0,15429	0,16611	0,19427	0,1343
860,09619	0,17723	0,15441	0,16594	0,19441	0,13449
858,16772	0,17618	0,15393	0,16541	0,19393	0,13369
856,23926	0,17462	0,15266	0,16392	0,1924	0,13263
854,31079	0,17315	0,15154	0,162	0,19086	0,13152
852,38232	0,17225	0,15098	0,16102	0,19024	0,1307
850,45386	0,17265	0,15118	0,16142	0,19078	0,13134
848,52539	0,17527	0,15365	0,16393	0,19345	0,13366
846,59692	0,18091	0,15881	0,16938	0,19842	0,13856
844,66846	0,18671	0,16361	0,17482	0,20297	0,14382
842,73999	0,19227	0,16846	0,17987	0,20736	0,1484
840,81152	0,20306	0,17768	0,19022	0,21641	0,15756
838,88306	0,21686	0,1892	0,20383	0,22816	0,16965
836,95459	0,2291	0,19993	0,21623	0,23852	0,18028
835,02612	0,2406	0,20969	0,22774	0,24821	0,19013
833,09766	0,24581	0,21356	0,23222	0,25239	0,19405
831,16919	0,24504	0,21276	0,23099	0,2511	0,19282
829,24072	0,24482	0,21249	0,23093	0,25072	0,19276
827,31226	0,24408	0,21193	0,23001	0,2506	0,1923
825,38379	0,24926	0,21664	0,23496	0,25518	0,19656
823,45532	0,26013	0,22567	0,24587	0,26411	0,20567
821,52686	0,26324	0,22807	0,24935	0,26675	0,2083
819,59839	0,26244	0,22744	0,24896	0,26626	0,20773
817,66992	0,26475	0,2296	0,25128	0,26829	0,21
815,74146	0,26782	0,23274	0,25419	0,27109	0,21307
813,81299	0,27232	0,2367	0,25815	0,27507	0,21693
811,88452	0,27527	0,2388	0,26044	0,27747	0,21896
809,95605	0,27448	0,23796	0,25955	0,2766	0,21803
808,02759	0,27455	0,2381	0,25982	0,27694	0,21826
806,09912	0,27736	0,24041	0,2628	0,27973	0,22069
804,17065	0,28052	0,24288	0,26589	0,28208	0,22295
802,24219	0,28259	0,24465	0,26757	0,28341	0,2242
800,31372	0,28588	0,24744	0,27025	0,28602	0,22673
798,38525	0,29078	0,25119	0,27465	0,28955	0,23062
796,45679	0,29431	0,2537	0,27796	0,2918	0,23326
794,52832	0,29568	0,25464	0,27936	0,29271	0,23401
792,59985	0,29444	0,25356	0,27841	0,29167	0,23259
790,67139	0,29049	0,2503	0,27474	0,28816	0,22915
788,74292	0,28691	0,24768	0,27152	0,28472	0,22619
786,81445	0,28517	0,24666	0,2705	0,28305	0,22476
784,88599	0,28202	0,2438	0,26745	0,28044	0,22203
782,95752	0,27702	0,2391	0,26191	0,27641	0,21774
781,02905	0,27438	0,23666	0,25925	0,27456	0,21571
779,10059	0,27463	0,23662	0,25961	0,2748	0,21606
777,17212	0,27705	0,23865	0,26199	0,27686	0,21828
775,24365	0,28224	0,24343	0,26747	0,28146	0,22319

773,31519	0,28786	0,24817	0,2729	0,28593	0,22786
771,38672	0,29134	0,25094	0,27613	0,28877	0,23039
769,45825	0,29297	0,25228	0,27786	0,29028	0,23171
767,52979	0,29453	0,25345	0,27888	0,29155	0,23272
765,60132	0,29632	0,255	0,28067	0,29314	0,23409
763,67285	0,29682	0,25545	0,28215	0,29346	0,23493
761,74438	0,29485	0,25397	0,28094	0,29223	0,23397
759,81592	0,2916	0,25165	0,27846	0,2901	0,2319
757,88745	0,29018	0,25049	0,27745	0,2885	0,23052
755,95898	0,2902	0,25024	0,27726	0,2882	0,22985
754,03052	0,28937	0,24933	0,27643	0,28732	0,22891
752,10205	0,28749	0,24821	0,27475	0,28528	0,22737
750,17358	0,28667	0,24834	0,27426	0,28472	0,22679
748,24512	0,28879	0,25038	0,27665	0,28656	0,22894
746,31665	0,29092	0,25234	0,27861	0,28797	0,23104
744,38818	0,29176	0,25299	0,27921	0,28852	0,23141
742,45972	0,29316	0,25357	0,28029	0,2893	0,23206
740,53125	0,29441	0,25458	0,28107	0,28994	0,23324
738,60278	0,29555	0,25618	0,28215	0,29101	0,23451
736,67432	0,29751	0,25791	0,28415	0,29252	0,23594
734,74585	0,29869	0,25883	0,28524	0,29315	0,23686
732,81738	0,29759	0,25822	0,28469	0,2926	0,23655
730,88892	0,29651	0,2575	0,28473	0,29253	0,23622
728,96045	0,29753	0,25864	0,2863	0,29396	0,23713
727,03198	0,29972	0,26017	0,28838	0,29593	0,23905
725,10352	0,3027	0,26263	0,29131	0,29835	0,24173
723,17505	0,30545	0,26544	0,29418	0,30083	0,24411
721,24658	0,30688	0,26583	0,29565	0,30227	0,24558
719,31812	0,30824	0,26748	0,29691	0,30348	0,24706
717,38965	0,3107	0,27098	0,29904	0,30578	0,24934
715,46118	0,31327	0,27265	0,30119	0,30832	0,25164
713,53271	0,31392	0,27325	0,30169	0,30895	0,25218
711,60425	0,31275	0,27265	0,30035	0,30762	0,25138
709,67578	0,31226	0,27173	0,29963	0,30697	0,25131
707,74731	0,31281	0,27224	0,30025	0,3078	0,25206
705,81885	0,31215	0,272	0,29965	0,30762	0,25212
703,89038	0,31013	0,27051	0,29767	0,30595	0,25093
701,96191	0,30841	0,26912	0,29587	0,30473	0,24945
700,03345	0,30774	0,26829	0,29497	0,3047	0,24915
698,10498	0,30744	0,26846	0,29504	0,30521	0,24944
696,17651	0,30708	0,26851	0,29544	0,30568	0,24943
694,24805	0,30774	0,2685	0,29654	0,30641	0,25017
692,31958	0,30936	0,26954	0,29823	0,30735	0,25182
690,39111	0,31119	0,27046	0,30021	0,30875	0,25411
688,46265	0,31368	0,27222	0,3027	0,31089	0,25678
686,53418	0,31667	0,27492	0,30516	0,31264	0,25896
684,60571	0,31787	0,27601	0,30621	0,31326	0,25975
682,67725	0,31926	0,27694	0,30771	0,31421	0,26078

680,74878	0,32248	0,27871	0,31054	0,31614	0,26311
678,82031	0,32423	0,28093	0,31169	0,31763	0,26416
676,89185	0,32689	0,28298	0,3143	0,3192	0,26567
674,96338	0,32916	0,28574	0,31603	0,32077	0,26743
673,03491	0,32978	0,28787	0,3161	0,32202	0,26777
671,10645	0,33028	0,28806	0,31646	0,32223	0,26811
669,17798	0,33078	0,28826	0,31682	0,32243	0,26844
667,24951	0,33128	0,28845	0,31718	0,32263	0,26878
665,32104	0,33178	0,28864	0,31754	0,32284	0,26912
663,39258	0,33228	0,28884	0,31789	0,32304	0,26945
661,46411	0,33278	0,28903	0,31825	0,32324	0,26979
659,53564	0,33328	0,28923	0,31861	0,32345	0,27013
657,60718	0,33378	0,28942	0,31897	0,32365	0,27046
655,67871	0,33364	0,28962	0,31933	0,32385	0,2708
653,75024	0,33182	0,28719	0,31968	0,32406	0,27114
651,82178	0,33238	0,28791	0,32039	0,32426	0,27147
649,89331	0,33399	0,28926	0,32169	0,32446	0,27181
647,96484	0,33577	0,291	0,32259	0,32467	0,27288
646,03638	0,33787	0,29333	0,32392	0,32487	0,27432
644,10791	0,33791	0,2936	0,32334	0,3244	0,27397
642,17944	0,33758	0,29293	0,32264	0,32464	0,27384
640,25098	0,33776	0,29357	0,32294	0,32528	0,27432
638,32251	0,33742	0,29466	0,323	0,32494	0,27436
636,39404	0,33706	0,29574	0,32288	0,3252	0,27471
634,46558	0,3361	0,29609	0,3222	0,32487	0,27432
632,53711	0,33512	0,29546	0,32166	0,32303	0,27367
630,60864	0,33387	0,29453	0,32078	0,32114	0,27265
628,68018	0,33304	0,2936	0,3198	0,32046	0,2712
626,75171	0,33238	0,29277	0,31888	0,3207	0,27073
624,82324	0,33155	0,29236	0,31825	0,32037	0,27016
622,89478	0,332	0,2926	0,31834	0,31963	0,26938
620,96631	0,3326	0,29238	0,31851	0,31974	0,26976
619,03784	0,33354	0,29208	0,31995	0,32057	0,27054
617,10938	0,33541	0,29318	0,32178	0,32153	0,27127
615,18091	0,3361	0,29444	0,32209	0,32165	0,2712
613,25244	0,33614	0,29466	0,32264	0,32105	0,27029
611,32397	0,33712	0,2947	0,32379	0,32141	0,27056
609,39551	0,33791	0,29503	0,32473	0,32212	0,27121
607,46704	0,33775	0,29528	0,32565	0,32191	0,27111
605,53857	0,33794	0,29525	0,32599	0,32148	0,27132
603,61011	0,3381	0,29476	0,32521	0,32082	0,27133
601,68164	0,33716	0,29415	0,32402	0,32004	0,27081
599,75317	0,33638	0,29321	0,32312	0,3197	0,26986
597,82471	0,33648	0,29193	0,3226	0,3193	0,26883
595,89624	0,33606	0,29147	0,32196	0,31834	0,26827
593,96777	0,33509	0,29131	0,32181	0,31799	0,26853
592,03931	0,3344	0,29127	0,3226	0,31857	0,26911
590,11084	0,33391	0,2918	0,32248	0,31793	0,26796

588,18237	0,33316	0,29179	0,32127	0,31705	0,26685
586,25391	0,33262	0,29106	0,32073	0,31756	0,26767
584,32544	0,33295	0,2909	0,32079	0,31763	0,26818
582,39697	0,33261	0,2916	0,32045	0,31744	0,26846
580,46851	0,33119	0,29132	0,31955	0,31718	0,26852
578,54004	0,32995	0,29037	0,31841	0,31648	0,26817
576,61157	0,32889	0,29032	0,31759	0,31713	0,26904
574,68311	0,32891	0,29044	0,31754	0,31774	0,26895
572,75464	0,33022	0,29114	0,31861	0,31775	0,26886
570,82617	0,33148	0,29272	0,32039	0,31903	0,27138
568,89771	0,33292	0,29494	0,3224	0,32125	0,27376
566,96924	0,33494	0,29742	0,32441	0,32371	0,27497
565,04077	0,3355	0,29757	0,32483	0,32426	0,2757
563,1123	0,33456	0,2969	0,3242	0,32364	0,27627
561,18384	0,33439	0,29739	0,3241	0,32435	0,27668
559,25537	0,3341	0,29676	0,32371	0,32435	0,27656
557,3269	0,33373	0,29614	0,32318	0,32411	0,27687
555,39844	0,33381	0,29614	0,32281	0,32464	0,27678
553,46997	0,33245	0,29658	0,32231	0,32421	0,27628
551,5415	0,33088	0,29807	0,32103	0,32416	0,27625
549,61304	0,3302	0,2972	0,31996	0,32465	0,27579
547,68457	0,3277	0,29549	0,31842	0,32272	0,27346
545,7561	0,32561	0,29525	0,31592	0,32141	0,27109
543,82764	0,32631	0,29344	0,31629	0,32315	0,27154
541,89917	0,32559	0,29311	0,31579	0,32377	0,27153
539,9707	0,32472	0,29535	0,31314	0,32441	0,27068
538,04224	0,32453	0,29554	0,31287	0,32576	0,26993
536,11377	0,32354	0,29535	0,31288	0,32613	0,26836
534,1853	0,32488	0,29599	0,31307	0,32855	0,26892
532,25684	0,32337	0,29496	0,30955	0,32852	0,26671
530,32837	0,32133	0,29259	0,30708	0,32732	0,26479
528,3999	0,31886	0,29071	0,30489	0,32724	0,26185
526,47144	0,30979	0,28932	0,29407	0,32328	0,25186
524,54297	0,30775	0,28705	0,29147	0,32269	0,25048
522,6145	0,30911	0,28482	0,29472	0,32554	0,2521
520,68604	0,30147	0,28234	0,28719	0,32389	0,2437
518,75757	0,29516	0,27965	0,27912	0,32194	0,23734
516,8291	0,29371	0,27861	0,27665	0,3223	0,23483
514,90063	0,29197	0,27584	0,27523	0,32126	0,23159
512,97217	0,28859	0,27174	0,27133	0,31982	0,22925
511,0437	0,2839	0,26895	0,2653	0,32074	0,22508
509,11523	0,27769	0,26512	0,25878	0,31948	0,21785
507,18677	0,27272	0,26224	0,25258	0,31438	0,21174
505,2583	0,27209	0,26089	0,24942	0,31235	0,20818
503,32983	0,26945	0,2582	0,24564	0,31284	0,20452
501,40137	0,26624	0,25544	0,24274	0,31118	0,20199
499,4729	0,26481	0,25279	0,24284	0,3101	0,19949

Figure 3.2 B					
n°spectre	Vd310	VD317	VD171	VD173	Vd174
cm-1	crushed-F1	pHnat-F1	$\theta=1,6$ -F1	$\theta=7,9$ -F1	$\theta=15,7$ -F1
4001,5686	0,22336	0,18486	0,15886	0,1092	0,22497
3999,64014	0,22313	0,18478	0,15872	0,10904	0,22479
3997,71167	0,22308	0,18472	0,15856	0,10896	0,22455
3995,7832	0,22305	0,18449	0,15838	0,10894	0,22446
3993,85474	0,22264	0,18425	0,15828	0,10883	0,22428
3991,92627	0,22251	0,18408	0,15826	0,10886	0,22421
3989,9978	0,22243	0,1841	0,15821	0,10878	0,22415
3988,06934	0,22204	0,18411	0,15815	0,10853	0,22388
3986,14087	0,22201	0,18391	0,15813	0,10861	0,22386
3984,2124	0,222	0,18375	0,15804	0,10861	0,2238
3982,28394	0,22175	0,18369	0,1579	0,10842	0,22359
3980,35547	0,22161	0,1836	0,1578	0,10844	0,22351
3978,427	0,22149	0,18346	0,15769	0,10834	0,22338
3976,49854	0,22144	0,18325	0,15765	0,10831	0,22332
3974,57007	0,22123	0,18307	0,15762	0,10839	0,22324
3972,6416	0,22102	0,18302	0,15752	0,10822	0,22303
3970,71313	0,22094	0,18289	0,15745	0,1082	0,22292
3968,78467	0,22078	0,18278	0,15747	0,10834	0,22294
3966,8562	0,22052	0,18287	0,15725	0,1081	0,22267
3964,92773	0,22045	0,18271	0,1571	0,10792	0,22243
3962,99927	0,22057	0,18246	0,15731	0,10822	0,22265
3961,0708	0,22004	0,1824	0,15709	0,10819	0,22248
3959,14233	0,21989	0,18234	0,15692	0,10792	0,22223
3957,21387	0,21998	0,18218	0,15694	0,10788	0,22219
3955,2854	0,21959	0,18199	0,15684	0,10787	0,22201
3953,35693	0,21977	0,18212	0,15681	0,10791	0,22208
3951,42847	0,21926	0,18169	0,15649	0,1078	0,22162
3949,5	0,21879	0,18093	0,15648	0,10795	0,22124
3947,57153	0,21894	0,18143	0,15614	0,10765	0,22143
3945,64307	0,21878	0,18163	0,15607	0,10743	0,22134
3943,7146	0,21947	0,18119	0,15686	0,1083	0,22161
3941,78613	0,21902	0,18125	0,15595	0,10782	0,22128
3939,85767	0,21813	0,18121	0,15544	0,10707	0,22076
3937,9292	0,21848	0,18128	0,15613	0,10756	0,22104
3936,00073	0,21823	0,18125	0,15578	0,10741	0,22085
3934,07227	0,21846	0,18085	0,15618	0,1077	0,22105
3932,1438	0,21878	0,18068	0,15648	0,1082	0,22137
3930,21533	0,21766	0,18062	0,15496	0,10715	0,22029
3928,28687	0,21723	0,18058	0,15489	0,10678	0,21998
3926,3584	0,21794	0,18041	0,15615	0,10772	0,22078
3924,42993	0,21794	0,18019	0,15569	0,10771	0,22051
3922,50146	0,21705	0,18014	0,15475	0,10689	0,21979
3920,573	0,21734	0,18012	0,15552	0,10722	0,22014

3918,64453	0,21771	0,17992	0,1559	0,10766	0,22041
3916,71606	0,21677	0,1796	0,15492	0,10708	0,21987
3914,7876	0,21588	0,17961	0,15414	0,10628	0,21917
3912,85913	0,21628	0,1797	0,15473	0,10654	0,21935
3910,93066	0,21661	0,17989	0,15521	0,10702	0,21975
3909,0022	0,21594	0,1799	0,15446	0,10653	0,21918
3907,07373	0,2167	0,17922	0,15538	0,10719	0,21956
3905,14526	0,21772	0,17895	0,15648	0,10836	0,22059
3903,2168	0,21587	0,17895	0,1545	0,10696	0,21954
3901,28833	0,21492	0,17829	0,15375	0,1061	0,2186
3899,35986	0,21552	0,17814	0,15416	0,10667	0,21865
3897,4314	0,21441	0,17853	0,15297	0,10561	0,21796
3895,50293	0,21432	0,17855	0,15297	0,10538	0,21775
3893,57446	0,21642	0,17824	0,15564	0,10742	0,21923
3891,646	0,21659	0,17855	0,15599	0,10803	0,2199
3889,71753	0,21247	0,17857	0,15109	0,10426	0,21663
3887,78906	0,21481	0,17763	0,15438	0,10621	0,21807
3885,8606	0,21657	0,17824	0,15696	0,10861	0,22057
3883,93213	0,21155	0,1783	0,15033	0,10385	0,21612
3882,00366	0,21497	0,17683	0,15444	0,10628	0,21765
3880,0752	0,21627	0,17752	0,1556	0,10818	0,21932
3878,14673	0,21136	0,1777	0,15011	0,1037	0,21557
3876,21826	0,21453	0,17717	0,15486	0,1063	0,21795
3874,28979	0,21505	0,17773	0,15438	0,10716	0,21831
3872,36133	0,2134	0,1768	0,15252	0,10548	0,21669
3870,43286	0,21503	0,17687	0,15614	0,10742	0,21908
3868,50439	0,21122	0,17744	0,15062	0,10434	0,21598
3866,57593	0,21192	0,17621	0,15176	0,1045	0,21585
3864,64746	0,21421	0,1766	0,15526	0,10712	0,2184
3862,71899	0,21194	0,17686	0,15103	0,10497	0,21584
3860,79053	0,21206	0,17645	0,15201	0,10483	0,216
3858,86206	0,2123	0,17694	0,15248	0,10548	0,21656
3856,93359	0,21356	0,17607	0,15301	0,10637	0,2164
3855,00513	0,21424	0,17656	0,15804	0,1082	0,22007
3853,07666	0,20955	0,17919	0,15285	0,10591	0,21873
3851,14819	0,20614	0,17568	0,14565	0,10067	0,21216
3849,21973	0,21083	0,17525	0,15078	0,10401	0,21462
3847,29126	0,21147	0,17654	0,15225	0,10508	0,21591
3845,36279	0,21238	0,17622	0,1529	0,10596	0,21614
3843,43433	0,21228	0,17609	0,15298	0,10605	0,21639
3841,50586	0,21167	0,17561	0,15169	0,10554	0,21544
3839,57739	0,2124	0,17488	0,1533	0,10638	0,21627
3837,64893	0,21017	0,17583	0,15213	0,10501	0,21605
3835,72046	0,20764	0,17565	0,14852	0,10258	0,21329
3833,79199	0,2105	0,1747	0,15139	0,1048	0,21465
3831,86353	0,21066	0,1754	0,1519	0,10526	0,21547
3829,93506	0,20885	0,17539	0,14946	0,10353	0,21364

3828,00659	0,21107	0,17474	0,15252	0,10562	0,21532
3826,07813	0,21022	0,17545	0,15114	0,1053	0,21487
3824,14966	0,20975	0,17465	0,15051	0,10432	0,21376
3822,22119	0,21269	0,17437	0,15591	0,1076	0,21739
3820,29272	0,20834	0,17525	0,14908	0,10456	0,21377
3818,36426	0,20793	0,17336	0,14873	0,10293	0,21228
3816,43579	0,2102	0,17413	0,15361	0,10547	0,2159
3814,50732	0,20595	0,17526	0,1477	0,10227	0,21262
3812,57886	0,20754	0,17396	0,14888	0,10297	0,21239
3810,65039	0,20927	0,17436	0,15122	0,1047	0,2139
3808,72192	0,21006	0,17415	0,15276	0,10579	0,21495
3806,79346	0,20848	0,17461	0,15148	0,10502	0,21463
3804,86499	0,20607	0,174	0,14734	0,10217	0,21134
3802,93652	0,21046	0,17264	0,15318	0,1058	0,21458
3801,00806	0,20817	0,17443	0,15133	0,10506	0,21465
3799,07959	0,20432	0,17342	0,14581	0,10094	0,21018
3797,15112	0,20952	0,17235	0,15166	0,1051	0,21343
3795,22266	0,20763	0,17375	0,14987	0,10417	0,2131
3793,29419	0,20614	0,17343	0,14837	0,10281	0,2116
3791,36572	0,20817	0,17334	0,15114	0,10469	0,21323
3789,43726	0,20706	0,17378	0,14967	0,10389	0,21252
3787,50879	0,20711	0,1733	0,15006	0,104	0,21252
3785,58032	0,20806	0,17307	0,15091	0,10498	0,21316
3783,65186	0,2065	0,17305	0,14881	0,10355	0,21176
3781,72339	0,20685	0,17276	0,15002	0,10394	0,21225
3779,79492	0,2078	0,17254	0,15083	0,10502	0,21302
3777,86646	0,20578	0,17249	0,14828	0,1032	0,21137
3775,93799	0,2057	0,17249	0,14874	0,10308	0,21124
3774,00952	0,20625	0,17255	0,1494	0,10368	0,21167
3772,08105	0,20693	0,17222	0,15035	0,10435	0,21229
3770,15259	0,20681	0,17219	0,15044	0,1047	0,21243
3768,22412	0,20442	0,17202	0,14762	0,1027	0,21052
3766,29565	0,20573	0,1714	0,14914	0,10366	0,21125
3764,36719	0,2053	0,17181	0,14871	0,10353	0,21112
3762,43872	0,20452	0,17166	0,1479	0,10258	0,21024
3760,51025	0,20669	0,17124	0,15067	0,10454	0,21195
3758,58179	0,20543	0,1713	0,14863	0,10378	0,21091
3756,65332	0,20421	0,17076	0,14738	0,10251	0,20972
3754,72485	0,20508	0,17083	0,14906	0,10339	0,21076
3752,79639	0,20542	0,17061	0,15025	0,10408	0,21163
3750,86792	0,20477	0,1708	0,15048	0,10442	0,2124
3748,93945	0,19936	0,17084	0,14332	0,09927	0,2077
3747,01099	0,20326	0,16898	0,14687	0,10171	0,20874
3745,08252	0,20596	0,16977	0,15295	0,10571	0,21349
3743,15405	0,19889	0,17138	0,14388	0,09998	0,20839
3741,22559	0,20191	0,1688	0,14421	0,10035	0,20681
3739,29712	0,20605	0,16864	0,14978	0,10401	0,2103
3737,36865	0,20536	0,16936	0,14997	0,10441	0,21116



3735,44019	0,20502	0,16804	0,14804	0,10417	0,20981
3733,51172	0,2043	0,16766	0,14762	0,10341	0,20916
3731,58325	0,20196	0,16856	0,14578	0,10117	0,20791
3729,65479	0,20295	0,16822	0,14602	0,10143	0,20773
3727,72632	0,20536	0,16779	0,1488	0,10361	0,20934
3725,79785	0,2048	0,1681	0,14837	0,10367	0,20944
3723,86938	0,20393	0,16777	0,14703	0,10267	0,20831
3721,94092	0,20386	0,16782	0,14751	0,1028	0,20844
3720,01245	0,20274	0,16818	0,14678	0,10219	0,20804
3718,08398	0,20226	0,16834	0,14672	0,10179	0,20777
3716,15552	0,20158	0,16869	0,14646	0,10164	0,2076
3714,22705	0,20233	0,16825	0,14799	0,10248	0,20851
3712,29858	0,20269	0,16799	0,1487	0,10313	0,20924
3710,37012	0,20064	0,16724	0,1451	0,10095	0,20669
3708,44165	0,20081	0,1665	0,14521	0,10006	0,20587
3706,51318	0,20007	0,167	0,1449	0,09977	0,20556
3704,58472	0,20083	0,16671	0,14592	0,10084	0,20627
3702,65625	0,20248	0,16647	0,14792	0,10255	0,20769
3700,72778	0,19996	0,16664	0,14509	0,10072	0,20583
3698,79932	0,19929	0,16615	0,14463	0,09978	0,20514
3696,87085	0,20042	0,16579	0,14606	0,10074	0,20589
3694,94238	0,19904	0,16554	0,14528	0,10013	0,20528
3693,01392	0,1985	0,16466	0,14523	0,09996	0,20498
3691,08545	0,19919	0,16308	0,14637	0,10113	0,2055
3689,15698	0,19568	0,16273	0,14434	0,09921	0,20438
3687,22852	0,19174	0,16287	0,14062	0,09577	0,20192
3685,30005	0,19398	0,16221	0,1417	0,09709	0,20207
3683,37158	0,19576	0,16269	0,14425	0,09877	0,20354
3681,44312	0,19584	0,1636	0,14492	0,09924	0,20434
3679,51465	0,19609	0,1634	0,14359	0,09912	0,20344
3677,58618	0,19745	0,16271	0,14654	0,10034	0,2051
3675,65771	0,19782	0,16388	0,14718	0,10174	0,20672
3673,72925	0,19236	0,16416	0,13911	0,09607	0,20116
3671,80078	0,19566	0,163	0,14445	0,09832	0,20351
3669,87231	0,19709	0,1642	0,14663	0,10057	0,20587
3667,94385	0,19343	0,16461	0,1402	0,0969	0,20164
3666,01538	0,1954	0,16419	0,14309	0,09814	0,20281
3664,08691	0,19637	0,16486	0,14489	0,09928	0,2042
3662,15845	0,1962	0,16496	0,1441	0,09904	0,20372
3660,22998	0,19573	0,16482	0,14372	0,09863	0,2034
3658,30151	0,19679	0,16418	0,14538	0,09965	0,2043
3656,37305	0,19646	0,16428	0,14527	0,09973	0,20459
3654,44458	0,19337	0,16446	0,14152	0,09706	0,20201
3652,51611	0,19626	0,1631	0,14481	0,09939	0,20336
3650,58765	0,19831	0,1628	0,14776	0,10174	0,20578
3648,65918	0,19433	0,16313	0,14248	0,09853	0,20294
3646,73071	0,19306	0,1622	0,1407	0,09706	0,20101
3644,80225	0,19378	0,16244	0,14201	0,09738	0,20164

3642,87378	0,19439	0,16274	0,14321	0,09778	0,20237
3640,94531	0,19499	0,16252	0,14401	0,09862	0,20284
3639,01685	0,19411	0,16244	0,14309	0,09794	0,20224
3637,08838	0,19438	0,16186	0,14331	0,09788	0,20204
3635,15991	0,19489	0,16143	0,14416	0,09857	0,20261
3633,23145	0,194	0,16109	0,14244	0,09755	0,20149
3631,30298	0,19501	0,15989	0,14435	0,09834	0,20221
3629,37451	0,19584	0,15966	0,14674	0,10043	0,20437
3627,44604	0,1905	0,15982	0,13921	0,09558	0,19971
3625,51758	0,19174	0,15877	0,14051	0,09556	0,1994
3623,58911	0,19347	0,15885	0,14323	0,09731	0,20117
3621,66064	0,19317	0,15874	0,14312	0,0973	0,20104
3619,73218	0,19332	0,15808	0,14421	0,09805	0,20175
3617,80371	0,19075	0,15818	0,14086	0,09579	0,20008
3615,87524	0,19108	0,15777	0,14128	0,09535	0,19991
3613,94678	0,19246	0,15755	0,14368	0,09707	0,20144
3612,01831	0,19013	0,15731	0,14131	0,09541	0,19975
3610,08984	0,18956	0,15648	0,14189	0,09498	0,1995
3608,16138	0,19028	0,15596	0,14235	0,09583	0,19972
3606,23291	0,18924	0,15555	0,14028	0,09438	0,19808
3604,30444	0,1894	0,15535	0,14135	0,09439	0,19839
3602,37598	0,19036	0,15516	0,14258	0,09535	0,19903
3600,44751	0,19043	0,15475	0,142	0,09499	0,19837
3598,51904	0,1895	0,15464	0,1412	0,09419	0,19769
3596,59058	0,18963	0,15426	0,14179	0,09463	0,19793
3594,66211	0,19006	0,15383	0,14209	0,09498	0,19815
3592,73364	0,18894	0,15426	0,14075	0,09394	0,19731
3590,80518	0,18878	0,15423	0,14147	0,09391	0,19733
3588,87671	0,19001	0,15359	0,14331	0,09529	0,19844
3586,94824	0,1892	0,15356	0,14151	0,09472	0,19762
3585,01978	0,18732	0,15374	0,13987	0,09277	0,19625
3583,09131	0,18797	0,15373	0,1412	0,09329	0,19686
3581,16284	0,18823	0,15389	0,14155	0,09373	0,19714
3579,23438	0,18793	0,15387	0,14121	0,09343	0,19676
3577,30591	0,18783	0,15379	0,14116	0,09327	0,1965
3575,37744	0,1877	0,15364	0,14124	0,09323	0,19649
3573,44897	0,18749	0,15353	0,14113	0,0931	0,19646
3571,52051	0,18722	0,15352	0,14075	0,09274	0,19606
3569,59204	0,1881	0,15299	0,14194	0,09354	0,19658
3567,66357	0,18917	0,15225	0,1425	0,09468	0,19707
3565,73511	0,18722	0,15224	0,13994	0,09294	0,19537
3563,80664	0,18626	0,15244	0,13986	0,09201	0,19495
3561,87817	0,18678	0,1525	0,14096	0,09257	0,19558
3559,94971	0,18664	0,15254	0,14067	0,09255	0,19538
3558,02124	0,1863	0,15251	0,14052	0,09233	0,19516
3556,09277	0,18596	0,1524	0,14053	0,09216	0,19508
3554,16431	0,18623	0,1521	0,1409	0,09246	0,19519
3552,23584	0,18633	0,15193	0,14081	0,09252	0,19511

3550,30737	0,18543	0,15198	0,13994	0,09166	0,1945
3548,37891	0,18578	0,15159	0,14059	0,09203	0,19461
3546,45044	0,18637	0,15118	0,14084	0,09264	0,19475
3544,52197	0,18545	0,1512	0,13981	0,0918	0,19425
3542,59351	0,18489	0,15114	0,13985	0,09132	0,19401
3540,66504	0,18479	0,15102	0,13996	0,0913	0,1939
3538,73657	0,18475	0,15085	0,14005	0,09135	0,19386
3536,80811	0,18469	0,15065	0,14021	0,0914	0,19367
3534,87964	0,18416	0,15049	0,13965	0,09096	0,19323
3532,95117	0,18378	0,1502	0,13948	0,09068	0,19307
3531,02271	0,18386	0,14993	0,13988	0,09093	0,19313
3529,09424	0,18382	0,14967	0,13982	0,09108	0,19303
3527,16577	0,18339	0,1493	0,13945	0,09073	0,19267
3525,2373	0,18321	0,14905	0,13949	0,0906	0,19251
3523,30884	0,18303	0,14895	0,13933	0,09053	0,19241
3521,38037	0,18234	0,14878	0,13896	0,09007	0,19207
3519,4519	0,182	0,14863	0,13901	0,08987	0,19188
3517,52344	0,18183	0,1485	0,13897	0,08984	0,1917
3515,59497	0,18139	0,14816	0,13885	0,08969	0,19145
3513,6665	0,18108	0,14788	0,13875	0,08959	0,19128
3511,73804	0,18109	0,14763	0,13878	0,08967	0,19124
3509,80957	0,18114	0,14729	0,13883	0,08969	0,19124
3507,8811	0,18055	0,14715	0,13824	0,08911	0,1909
3505,95264	0,18035	0,14692	0,13824	0,08902	0,19069
3504,02417	0,18077	0,14651	0,13868	0,08949	0,19075
3502,0957	0,18025	0,14638	0,13813	0,08912	0,19046
3500,16724	0,17963	0,14643	0,13792	0,08878	0,19018
3498,23877	0,1798	0,14637	0,13821	0,08894	0,19023
3496,3103	0,17974	0,14621	0,13806	0,0888	0,19014
3494,38184	0,17942	0,14612	0,13796	0,08858	0,18984
3492,45337	0,17925	0,14618	0,13797	0,08847	0,18972
3490,5249	0,17924	0,14611	0,13801	0,08854	0,18977
3488,59644	0,17925	0,14584	0,13804	0,08867	0,18967
3486,66797	0,17904	0,14571	0,13779	0,0884	0,18941
3484,7395	0,17886	0,14563	0,1378	0,08824	0,18927
3482,81104	0,17898	0,1454	0,13801	0,08852	0,18932
3480,88257	0,1789	0,14538	0,13781	0,08839	0,18916
3478,9541	0,17858	0,14554	0,13773	0,08807	0,18897
3477,02563	0,17852	0,14545	0,13793	0,08821	0,18908
3475,09717	0,17842	0,14533	0,13784	0,08826	0,18894
3473,1687	0,17819	0,14525	0,13771	0,08808	0,18869
3471,24023	0,17805	0,14513	0,13778	0,08808	0,18873
3469,31177	0,17803	0,14516	0,13788	0,08817	0,18872
3467,3833	0,17798	0,14514	0,1377	0,08809	0,18858
3465,45483	0,1778	0,14492	0,13752	0,08798	0,18853
3463,52637	0,17775	0,14474	0,13764	0,08809	0,18847
3461,5979	0,17751	0,14474	0,13747	0,08801	0,18829
3459,66943	0,17724	0,14467	0,13739	0,08788	0,18827

3457,74097	0,17731	0,14444	0,13739	0,08786	0,18818
3455,8125	0,17708	0,14434	0,13717	0,08773	0,18788
3453,88403	0,17696	0,1443	0,13732	0,0878	0,18793
3451,95557	0,17695	0,14429	0,13731	0,08773	0,18795
3450,0271	0,17682	0,14424	0,13734	0,08772	0,18791
3448,09863	0,17718	0,14398	0,13761	0,08804	0,18805
3446,17017	0,17705	0,14393	0,13725	0,08784	0,18781
3444,2417	0,17671	0,144	0,13728	0,08764	0,1877
3442,31323	0,17694	0,14394	0,1376	0,08783	0,18778
3440,38477	0,17667	0,14403	0,13727	0,08767	0,18753
3438,4563	0,17652	0,14409	0,13727	0,08768	0,18766
3436,52783	0,17685	0,14407	0,13757	0,08792	0,18779
3434,59937	0,17686	0,14409	0,13763	0,08789	0,18765
3432,6709	0,17694	0,14412	0,13769	0,08799	0,18778
3430,74243	0,17698	0,14426	0,13762	0,08807	0,18782
3428,81396	0,17701	0,14438	0,13757	0,08804	0,18782
3426,8855	0,17728	0,14436	0,13771	0,08812	0,18786
3424,95703	0,17727	0,14444	0,13786	0,08815	0,18783
3423,02856	0,17732	0,14449	0,13796	0,08832	0,18804
3421,1001	0,1777	0,14453	0,13801	0,08846	0,18804
3419,17163	0,17767	0,14476	0,13798	0,08835	0,18792
3417,24316	0,17757	0,14493	0,13801	0,08844	0,18812
3415,3147	0,1778	0,14494	0,13812	0,08857	0,18824
3413,38623	0,17796	0,14512	0,13821	0,08854	0,18823
3411,45776	0,17808	0,14545	0,13829	0,08865	0,18835
3409,5293	0,17829	0,14562	0,13847	0,0888	0,18854
3407,60083	0,17845	0,14565	0,13864	0,08889	0,18855
3405,67236	0,17852	0,14577	0,13862	0,08897	0,18849
3403,7439	0,17871	0,14586	0,13858	0,08904	0,18865
3401,81543	0,17891	0,14602	0,13873	0,08913	0,18881
3399,88696	0,17909	0,14617	0,13887	0,08925	0,18889
3397,9585	0,1793	0,14618	0,13886	0,08931	0,18902
3396,03003	0,17925	0,1463	0,13886	0,08926	0,18909
3394,10156	0,17935	0,14649	0,13901	0,08938	0,18912
3392,1731	0,17963	0,14673	0,13905	0,08953	0,1891
3390,24463	0,17962	0,14695	0,13903	0,0895	0,18913
3388,31616	0,17973	0,14691	0,13924	0,08965	0,1893
3386,3877	0,17995	0,14698	0,13942	0,08977	0,18937
3384,45923	0,18011	0,14724	0,1394	0,08974	0,18939
3382,53076	0,18031	0,1474	0,13941	0,08983	0,18948
3380,60229	0,18047	0,14764	0,1395	0,08988	0,18954
3378,67383	0,18062	0,14782	0,13957	0,0899	0,18966
3376,74536	0,18081	0,14796	0,13966	0,09002	0,18984
3374,81689	0,18111	0,14829	0,13979	0,09017	0,19003
3372,88843	0,18138	0,14851	0,1399	0,09033	0,19017
3370,95996	0,18156	0,14865	0,13999	0,0903	0,19019
3369,03149	0,18187	0,14889	0,14009	0,09037	0,1903
3367,10303	0,1822	0,14898	0,14023	0,09064	0,19057

3365,17456	0,18244	0,14914	0,14031	0,09066	0,19055
3363,24609	0,18274	0,1494	0,14029	0,09075	0,19046
3361,31763	0,18289	0,14949	0,14039	0,09094	0,19069
3359,38916	0,18296	0,14979	0,14053	0,0909	0,19086
3357,46069	0,18329	0,15013	0,14059	0,09103	0,19089
3355,53223	0,18354	0,15018	0,1407	0,09123	0,19099
3353,60376	0,18366	0,15038	0,1409	0,09123	0,19101
3351,67529	0,18402	0,1507	0,14101	0,09127	0,19116
3349,74683	0,1843	0,1509	0,14103	0,09142	0,19156
3347,81836	0,18439	0,15105	0,1411	0,09152	0,19159
3345,88989	0,18452	0,15123	0,14118	0,09149	0,19147
3343,96143	0,18467	0,15141	0,14131	0,09162	0,19165
3342,03296	0,18483	0,15156	0,14138	0,09181	0,1916
3340,10449	0,18505	0,15174	0,14144	0,09175	0,1916
3338,17603	0,18532	0,15185	0,14159	0,09178	0,19175
3336,24756	0,18548	0,15192	0,14146	0,09192	0,19162
3334,31909	0,18544	0,15208	0,14138	0,09191	0,19166
3332,39063	0,1855	0,1522	0,14154	0,09193	0,19181
3330,46216	0,1857	0,15237	0,14157	0,09205	0,1918
3328,53369	0,18584	0,15259	0,14165	0,09212	0,19191
3326,60522	0,18595	0,15272	0,14171	0,09219	0,19214
3324,67676	0,18615	0,15271	0,14173	0,09229	0,19223
3322,74829	0,18614	0,15272	0,14181	0,09224	0,19214
3320,81982	0,18613	0,15288	0,1418	0,09222	0,19212
3318,89136	0,18638	0,15298	0,14178	0,09233	0,19219
3316,96289	0,18643	0,15301	0,14185	0,09231	0,19222
3315,03442	0,18646	0,15308	0,14198	0,09237	0,19228
3313,10596	0,18656	0,15318	0,14197	0,09245	0,19224
3311,17749	0,18657	0,15329	0,14201	0,09242	0,19222
3309,24902	0,18676	0,15335	0,14218	0,09256	0,19242
3307,32056	0,18685	0,15348	0,1421	0,09262	0,19246
3305,39209	0,18684	0,1536	0,1421	0,09256	0,19242
3303,46362	0,18693	0,15355	0,14219	0,09258	0,19248
3301,53516	0,1869	0,15348	0,14206	0,09255	0,19232
3299,60669	0,18684	0,1535	0,14204	0,09259	0,19221
3297,67822	0,18688	0,1535	0,14207	0,09261	0,19224
3295,74976	0,18689	0,15347	0,1421	0,09251	0,19217
3293,82129	0,18685	0,15355	0,14211	0,09247	0,19215
3291,89282	0,18687	0,15358	0,14207	0,09246	0,19212
3289,96436	0,18685	0,15347	0,14207	0,09249	0,19205
3288,03589	0,18677	0,15351	0,14193	0,09245	0,19202
3286,10742	0,1868	0,15353	0,14188	0,09236	0,19192
3284,17896	0,18679	0,15345	0,14197	0,0924	0,19187
3282,25049	0,18673	0,15343	0,1419	0,09239	0,1918
3280,32202	0,18674	0,15337	0,14188	0,09237	0,1917
3278,39355	0,1867	0,15329	0,14187	0,09232	0,19172
3276,46509	0,18667	0,15328	0,14187	0,09225	0,19177
3274,53662	0,18662	0,15322	0,14187	0,09233	0,19165

3272,60815	0,18659	0,15314	0,14171	0,0923	0,19152
3270,67969	0,1866	0,15315	0,14172	0,09214	0,19155
3268,75122	0,18647	0,1531	0,14174	0,09212	0,19152
3266,82275	0,18639	0,15302	0,14165	0,09213	0,1914
3264,89429	0,18633	0,15305	0,14167	0,0921	0,19138
3262,96582	0,18622	0,15302	0,14165	0,09205	0,19139
3261,03735	0,1862	0,15299	0,14154	0,092	0,19128
3259,10889	0,18612	0,15301	0,14148	0,09197	0,19109
3257,18042	0,18611	0,15285	0,14155	0,09202	0,1911
3255,25195	0,18612	0,15276	0,14154	0,09206	0,19111
3253,32349	0,18593	0,15281	0,14139	0,09198	0,19099
3251,39502	0,18583	0,15272	0,14135	0,09192	0,19091
3249,46655	0,1859	0,1527	0,14134	0,09187	0,19083
3247,53809	0,18599	0,15277	0,1413	0,09181	0,19086
3245,60962	0,18597	0,15266	0,14122	0,09182	0,19081
3243,68115	0,18582	0,15261	0,14108	0,09174	0,19064
3241,75269	0,18582	0,15267	0,14113	0,09168	0,19069
3239,82422	0,18582	0,15267	0,14123	0,09175	0,19068
3237,89575	0,18575	0,1527	0,1412	0,09174	0,19055
3235,96729	0,18578	0,15266	0,14114	0,09162	0,19053
3234,03882	0,18583	0,15256	0,14111	0,0916	0,19053
3232,11035	0,18579	0,15263	0,14112	0,0917	0,19048
3230,18188	0,18566	0,15258	0,14113	0,09169	0,1904
3228,25342	0,1856	0,15241	0,14105	0,09153	0,19033
3226,32495	0,18563	0,15247	0,14099	0,09147	0,19039
3224,39648	0,18555	0,15246	0,14098	0,09146	0,19038
3222,46802	0,18552	0,1523	0,14095	0,09132	0,19015
3220,53955	0,1856	0,15232	0,14087	0,09128	0,19008
3218,61108	0,18538	0,15241	0,14077	0,09132	0,19006
3216,68262	0,18525	0,15227	0,14079	0,09128	0,19002
3214,75415	0,18539	0,15212	0,14074	0,0912	0,19007
3212,82568	0,18526	0,15224	0,14057	0,09113	0,18988
3210,89722	0,18513	0,15227	0,14064	0,09114	0,18982
3208,96875	0,1851	0,15214	0,14064	0,09111	0,18991
3207,04028	0,18499	0,15213	0,14053	0,09105	0,18978
3205,11182	0,18507	0,15212	0,14062	0,09111	0,18976
3203,18335	0,18505	0,15213	0,14055	0,09114	0,18968
3201,25488	0,18498	0,1522	0,14053	0,09106	0,18968
3199,32642	0,18506	0,15211	0,14064	0,09101	0,18978
3197,39795	0,18491	0,15201	0,14054	0,091	0,1896
3195,46948	0,18478	0,15206	0,1405	0,09101	0,1896
3193,54102	0,18483	0,1521	0,1405	0,09091	0,18968
3191,61255	0,1848	0,15211	0,14038	0,09084	0,18946
3189,68408	0,18476	0,15211	0,14035	0,09084	0,18937
3187,75562	0,1847	0,15206	0,14039	0,09085	0,18946
3185,82715	0,18469	0,15195	0,14043	0,09088	0,18945
3183,89868	0,18468	0,15191	0,1404	0,09082	0,18929
3181,97021	0,1845	0,152	0,14035	0,09075	0,18921

3180,04175	0,18447	0,15205	0,14034	0,09077	0,18917
3178,11328	0,1845	0,15202	0,14026	0,09076	0,1891
3176,18481	0,18439	0,15197	0,14026	0,09075	0,18912
3174,25635	0,18433	0,15189	0,14026	0,0907	0,18907
3172,32788	0,18432	0,15183	0,14021	0,09067	0,18897
3170,39941	0,18429	0,15187	0,14022	0,09065	0,189
3168,47095	0,18421	0,15192	0,14016	0,09062	0,18899
3166,54248	0,1841	0,15191	0,14016	0,09062	0,18892
3164,61401	0,18404	0,15182	0,14013	0,09054	0,18885
3162,68555	0,184	0,15176	0,13993	0,09048	0,18871
3160,75708	0,1839	0,15173	0,13987	0,09047	0,18861
3158,82861	0,18376	0,15167	0,13992	0,09043	0,18858
3156,90015	0,18369	0,15172	0,13981	0,09037	0,1885
3154,97168	0,18366	0,15173	0,13969	0,09034	0,18849
3153,04321	0,18363	0,15167	0,13982	0,09039	0,18861
3151,11475	0,18367	0,15173	0,13987	0,09033	0,18849
3149,18628	0,18351	0,15155	0,13965	0,09014	0,18828
3147,25781	0,18333	0,1513	0,13959	0,09007	0,18821
3145,32935	0,18338	0,15136	0,13961	0,0901	0,18814
3143,40088	0,18321	0,15135	0,13948	0,0901	0,18806
3141,47241	0,18306	0,15128	0,13945	0,09004	0,18804
3139,54395	0,18316	0,15131	0,13954	0,09002	0,18802
3137,61548	0,18302	0,15124	0,13943	0,08993	0,18789
3135,68701	0,1829	0,15109	0,13933	0,08984	0,18775
3133,75854	0,18292	0,15103	0,13945	0,08989	0,18772
3131,83008	0,18265	0,15113	0,13931	0,08969	0,18753
3129,90161	0,18251	0,15112	0,13917	0,08956	0,18741
3127,97314	0,1825	0,15096	0,13925	0,08964	0,18749
3126,04468	0,18238	0,15091	0,13914	0,08954	0,18735
3124,11621	0,18229	0,15083	0,13903	0,0895	0,18716
3122,18774	0,18216	0,15077	0,13901	0,08944	0,1871
3120,25928	0,18216	0,15082	0,13896	0,08929	0,18711
3118,33081	0,18218	0,15071	0,13896	0,08931	0,18712
3116,40234	0,182	0,15061	0,1389	0,08923	0,18691
3114,47388	0,18184	0,15066	0,13882	0,08911	0,18674
3112,54541	0,1817	0,15055	0,13872	0,08907	0,18674
3110,61694	0,18162	0,15044	0,13859	0,08891	0,18655
3108,68848	0,18159	0,15045	0,13859	0,0889	0,18646
3106,76001	0,18145	0,15038	0,13858	0,08893	0,18656
3104,83154	0,18124	0,15029	0,13849	0,08884	0,18647
3102,90308	0,18117	0,15024	0,13845	0,08883	0,1864
3100,97461	0,18121	0,15021	0,13835	0,08877	0,18637
3099,04614	0,18111	0,15016	0,1383	0,08866	0,18625
3097,11768	0,18102	0,15011	0,1384	0,08864	0,18618
3095,18921	0,18096	0,15013	0,13822	0,08852	0,18601
3093,26074	0,18073	0,15009	0,13802	0,08841	0,18593
3091,33228	0,18066	0,15003	0,13809	0,08835	0,18595
3089,40381	0,18071	0,15	0,138	0,08831	0,18579

3087,47534	0,18053	0,15	0,13793	0,08833	0,18574
3085,54688	0,18038	0,15006	0,13799	0,08826	0,18574
3083,61841	0,18043	0,14995	0,13786	0,08818	0,18558
3081,68994	0,18038	0,14973	0,13769	0,08804	0,18539
3079,76147	0,18028	0,14969	0,13776	0,08796	0,18534
3077,83301	0,18017	0,14978	0,13781	0,08798	0,18537
3075,90454	0,17997	0,1497	0,13758	0,08783	0,18516
3073,97607	0,17989	0,14954	0,13746	0,0878	0,18502
3072,04761	0,17984	0,14951	0,13749	0,08775	0,18494
3070,11914	0,17963	0,14944	0,13742	0,08758	0,18484
3068,19067	0,17961	0,14941	0,13743	0,08761	0,18494
3066,26221	0,17966	0,1494	0,13737	0,08753	0,1848
3064,33374	0,17944	0,14919	0,13723	0,08739	0,18458
3062,40527	0,17921	0,14912	0,13722	0,08739	0,18454
3060,47681	0,17913	0,14915	0,13722	0,08735	0,18444
3058,54834	0,1791	0,14907	0,13719	0,08734	0,18444
3056,61987	0,17902	0,14899	0,13711	0,08725	0,18429
3054,69141	0,17879	0,14898	0,13698	0,08705	0,18411
3052,76294	0,17867	0,14894	0,13697	0,08702	0,18418
3050,83447	0,17873	0,14888	0,13697	0,08712	0,18411
3048,90601	0,17863	0,1488	0,13682	0,08698	0,18394
3046,97754	0,17846	0,14875	0,13671	0,08678	0,18388
3045,04907	0,17837	0,14876	0,13671	0,0868	0,1839
3043,12061	0,17829	0,14871	0,13666	0,08679	0,18387
3041,19214	0,17818	0,1486	0,13662	0,08668	0,18373
3039,26367	0,17802	0,1485	0,13661	0,08672	0,18361
3037,33521	0,17795	0,1484	0,13653	0,08667	0,1835
3035,40674	0,17794	0,14834	0,13643	0,08649	0,18342
3033,47827	0,17784	0,14824	0,13632	0,08649	0,18339
3031,5498	0,17769	0,14813	0,13623	0,0865	0,18331
3029,62134	0,17746	0,14811	0,13615	0,08634	0,18325
3027,69287	0,17737	0,14803	0,13614	0,08636	0,1832
3025,7644	0,17735	0,14796	0,13622	0,0864	0,18317
3023,83594	0,17718	0,14805	0,13618	0,08626	0,18316
3021,90747	0,17709	0,14792	0,13603	0,08621	0,18303
3019,979	0,17704	0,14782	0,136	0,0862	0,18299
3018,05054	0,17681	0,14808	0,13603	0,08608	0,18317
3016,12207	0,17664	0,14809	0,13599	0,08599	0,18312
3014,1936	0,17663	0,14782	0,13589	0,08598	0,1829
3012,26514	0,1766	0,14763	0,1358	0,08598	0,18285
3010,33667	0,17653	0,14745	0,13574	0,08592	0,18284
3008,4082	0,17638	0,14737	0,1357	0,08584	0,18271
3006,47974	0,17616	0,14728	0,13562	0,08578	0,18258
3004,55127	0,17606	0,14714	0,13553	0,08576	0,18256
3002,6228	0,17588	0,14707	0,13545	0,08569	0,18253
3000,69434	0,17567	0,14705	0,13538	0,08562	0,18244
2998,76587	0,17577	0,14708	0,13537	0,08563	0,18244
2996,8374	0,17574	0,14699	0,13534	0,08556	0,18243



2994,90894	0,17549	0,14681	0,13528	0,08549	0,18245
2992,98047	0,17544	0,14681	0,13527	0,08551	0,18252
2991,052	0,1754	0,14679	0,13532	0,08548	0,18247
2989,12354	0,17516	0,14666	0,13531	0,08545	0,18245
2987,19507	0,17504	0,14659	0,13516	0,08547	0,18252
2985,2666	0,17494	0,14646	0,13508	0,08548	0,18259
2983,33813	0,17485	0,14636	0,13511	0,08556	0,18277
2981,40967	0,17491	0,14639	0,13517	0,08566	0,18306
2979,4812	0,17477	0,14633	0,13525	0,0858	0,18334
2977,55273	0,17461	0,14613	0,13523	0,08599	0,18367
2975,62427	0,17466	0,14598	0,13516	0,08616	0,1842
2973,6958	0,1746	0,14597	0,13521	0,0865	0,18504
2971,76733	0,17455	0,1459	0,13539	0,08712	0,18618
2969,83887	0,17458	0,14572	0,13563	0,0878	0,18762
2967,9104	0,1746	0,1457	0,13573	0,08839	0,18903
2965,98193	0,1746	0,1457	0,13575	0,08889	0,1902
2964,05347	0,1745	0,14561	0,13585	0,08938	0,19135
2962,125	0,17445	0,14556	0,13589	0,08985	0,19233
2960,19653	0,17442	0,14555	0,13589	0,09014	0,19293
2958,26807	0,17437	0,14553	0,13588	0,09015	0,19315
2956,3396	0,17429	0,14546	0,1358	0,09004	0,19296
2954,41113	0,17414	0,14545	0,13569	0,08987	0,19243
2952,48267	0,17407	0,14541	0,13557	0,08952	0,19173
2950,5542	0,17401	0,14527	0,13548	0,08916	0,19096
2948,62573	0,1739	0,14534	0,13551	0,08887	0,19015
2946,69727	0,17385	0,14543	0,13548	0,08859	0,18954
2944,7688	0,17389	0,14536	0,13536	0,08849	0,18935
2942,84033	0,17398	0,14535	0,13551	0,08861	0,1894
2940,91187	0,17398	0,14527	0,13568	0,08876	0,18965
2938,9834	0,1739	0,14522	0,13568	0,08884	0,19
2937,05493	0,174	0,14532	0,13578	0,08894	0,19024
2935,12646	0,17419	0,14533	0,13585	0,08906	0,19037
2933,198	0,17422	0,14531	0,13587	0,08904	0,19036
2931,26953	0,17423	0,1453	0,13596	0,08891	0,19017
2929,34106	0,17431	0,14533	0,13602	0,08868	0,18985
2927,4126	0,17422	0,14531	0,13601	0,08841	0,18936
2925,48413	0,17421	0,14518	0,1359	0,08822	0,18878
2923,55566	0,17418	0,14508	0,1358	0,08787	0,18815
2921,6272	0,17393	0,14495	0,13563	0,08738	0,18737
2919,69873	0,1737	0,1448	0,13539	0,087	0,18665
2917,77026	0,17332	0,14472	0,13523	0,08664	0,18608
2915,8418	0,17295	0,1446	0,13502	0,08631	0,18558
2913,91333	0,17284	0,14452	0,13483	0,08606	0,18522
2911,98486	0,1726	0,14445	0,13475	0,08587	0,18486
2910,0564	0,17233	0,14426	0,13462	0,08564	0,18435
2908,12793	0,17212	0,14415	0,13448	0,0854	0,18388
2906,19946	0,1719	0,14413	0,1344	0,08523	0,18347
2904,271	0,17178	0,14406	0,13426	0,08498	0,18306

2902,34253	0,17161	0,14401	0,13411	0,08468	0,18264
2900,41406	0,17143	0,14392	0,13403	0,08449	0,18229
2898,4856	0,17136	0,1438	0,13395	0,08436	0,1821
2896,55713	0,17127	0,14381	0,1338	0,08421	0,18185
2894,62866	0,17118	0,14376	0,13369	0,08399	0,1816
2892,7002	0,17103	0,14361	0,13362	0,08388	0,18142
2890,77173	0,17088	0,1436	0,13356	0,08382	0,1812
2888,84326	0,17079	0,14356	0,13348	0,08364	0,18101
2886,91479	0,17069	0,14342	0,13338	0,08358	0,1809
2884,98633	0,17064	0,14338	0,13339	0,08362	0,18092
2883,05786	0,17059	0,14332	0,13342	0,08366	0,18109
2881,12939	0,17047	0,14319	0,13328	0,0838	0,18129
2879,20093	0,17041	0,14313	0,13323	0,08393	0,18155
2877,27246	0,1703	0,14308	0,13329	0,08402	0,18177
2875,34399	0,17019	0,14304	0,13322	0,08412	0,18195
2873,41553	0,17025	0,143	0,13317	0,0842	0,18238
2871,48706	0,17024	0,14298	0,13319	0,08424	0,18274
2869,55859	0,17007	0,14296	0,13315	0,08421	0,18263
2867,63013	0,17002	0,14289	0,13316	0,08402	0,18235
2865,70166	0,17	0,14285	0,13311	0,08387	0,18208
2863,77319	0,16992	0,1428	0,13305	0,08389	0,18193
2861,84473	0,16996	0,14271	0,13314	0,08392	0,18199
2859,91626	0,17008	0,14272	0,13322	0,08398	0,18205
2857,98779	0,17013	0,14276	0,13316	0,08406	0,18198
2856,05933	0,17012	0,14273	0,13313	0,084	0,1818
2854,13086	0,17003	0,14268	0,13312	0,08377	0,18145
2852,20239	0,16986	0,14263	0,133	0,08344	0,18084
2850,27393	0,16967	0,14254	0,13287	0,0831	0,18013
2848,34546	0,16947	0,1424	0,13275	0,08271	0,17945
2846,41699	0,16916	0,14224	0,13249	0,08228	0,17882
2844,48853	0,16886	0,14212	0,13217	0,08197	0,17823
2842,56006	0,16869	0,14199	0,13198	0,08172	0,17785
2840,63159	0,16855	0,14191	0,13189	0,08155	0,17762
2838,70313	0,16842	0,14192	0,13185	0,08142	0,17725
2836,77466	0,16829	0,14186	0,13173	0,0812	0,1769
2834,84619	0,16812	0,14178	0,13156	0,08106	0,17676
2832,91772	0,16799	0,14174	0,13155	0,08098	0,17658
2830,98926	0,16792	0,14168	0,13151	0,08084	0,1763
2829,06079	0,1678	0,1416	0,13139	0,08069	0,17609
2827,13232	0,1677	0,14152	0,13131	0,08054	0,17602
2825,20386	0,16768	0,14144	0,13121	0,08046	0,17597
2823,27539	0,16764	0,14143	0,1312	0,08045	0,17588
2821,34692	0,16757	0,14137	0,13119	0,08041	0,17576
2819,41846	0,16752	0,1413	0,13107	0,08037	0,17565
2817,48999	0,16749	0,14125	0,13102	0,0803	0,1756
2815,56152	0,16742	0,14115	0,13098	0,08023	0,17548
2813,63306	0,16731	0,14111	0,13093	0,08018	0,17528
2811,70459	0,16725	0,14111	0,13091	0,08006	0,17519

2809,77612	0,16717	0,14101	0,13089	0,07999	0,17513
2807,84766	0,16703	0,14093	0,13088	0,08002	0,17504
2805,91919	0,16694	0,14096	0,13086	0,07995	0,17496
2803,99072	0,1669	0,14098	0,13082	0,07988	0,17492
2802,06226	0,16685	0,1409	0,13077	0,07988	0,17489
2800,13379	0,16681	0,14083	0,13076	0,07981	0,17476
2798,20532	0,16674	0,14085	0,13074	0,07976	0,17463
2796,27686	0,16659	0,14088	0,13065	0,07976	0,17456
2794,34839	0,16651	0,14089	0,13063	0,07969	0,17449
2792,41992	0,16647	0,14083	0,13063	0,07962	0,17444
2790,49146	0,16642	0,14084	0,13055	0,07959	0,17441
2788,56299	0,16641	0,14086	0,13051	0,07955	0,17437
2786,63452	0,16638	0,14075	0,1305	0,07953	0,1743
2784,70605	0,16625	0,14064	0,13043	0,07946	0,17426
2782,77759	0,16615	0,14063	0,13037	0,07945	0,17423
2780,84912	0,16611	0,14065	0,13042	0,07946	0,17423
2778,92065	0,16607	0,14062	0,13038	0,07938	0,17423
2776,99219	0,166	0,14057	0,13031	0,07936	0,17415
2775,06372	0,16596	0,14055	0,13035	0,07933	0,17412
2773,13525	0,16594	0,14049	0,1303	0,07925	0,17409
2771,20679	0,16593	0,14044	0,13024	0,07925	0,17397
2769,27832	0,16589	0,14049	0,13022	0,0792	0,17395
2767,34985	0,16582	0,14046	0,13017	0,0791	0,17389
2765,42139	0,16576	0,14046	0,13011	0,07904	0,17377
2763,49292	0,16569	0,14048	0,13003	0,07898	0,17374
2761,56445	0,16562	0,14033	0,12997	0,07893	0,17365
2759,63599	0,16561	0,14028	0,12996	0,07891	0,1736
2757,70752	0,16562	0,14036	0,1299	0,07887	0,17358
2755,77905	0,16559	0,14029	0,12982	0,07876	0,17344
2753,85059	0,16556	0,1402	0,12984	0,07874	0,17341
2751,92212	0,16552	0,1402	0,12982	0,07876	0,17346
2749,99365	0,16545	0,14022	0,12971	0,07868	0,17334
2748,06519	0,1654	0,14024	0,12971	0,07864	0,1733
2746,13672	0,16544	0,14018	0,12969	0,07865	0,17334
2744,20825	0,16545	0,14014	0,12964	0,07864	0,17328
2742,27979	0,16536	0,14014	0,12959	0,07863	0,17327
2740,35132	0,16527	0,1401	0,12949	0,07857	0,17322
2738,42285	0,16523	0,14007	0,12947	0,07846	0,17313
2736,49438	0,16515	0,14005	0,12945	0,07846	0,17314
2734,56592	0,16505	0,14002	0,1293	0,07843	0,17305
2732,63745	0,16503	0,14001	0,12928	0,07835	0,17295
2730,70898	0,16505	0,13997	0,12932	0,07832	0,17293
2728,78052	0,16502	0,13992	0,12928	0,07827	0,17287
2726,85205	0,16491	0,13993	0,12934	0,07821	0,17278
2724,92358	0,16482	0,13993	0,12932	0,07819	0,17267
2722,99512	0,16484	0,13991	0,12917	0,07816	0,17266
2721,06665	0,16484	0,13987	0,12913	0,07809	0,17266
2719,13818	0,16482	0,13978	0,12908	0,07803	0,17255

2717,20972	0,16477	0,13972	0,12901	0,07797	0,17243
2715,28125	0,16467	0,1397	0,12901	0,07797	0,17235
2713,35278	0,16462	0,13968	0,12903	0,07799	0,17237
2711,42432	0,16459	0,1397	0,12896	0,07789	0,17234
2709,49585	0,16449	0,13975	0,1289	0,0778	0,17221
2707,56738	0,16445	0,13975	0,12894	0,0778	0,17219
2705,63892	0,16449	0,13967	0,12892	0,07772	0,17218
2703,71045	0,1645	0,13964	0,12887	0,07768	0,17211
2701,78198	0,16441	0,13969	0,12884	0,07764	0,17206
2699,85352	0,16431	0,13966	0,12878	0,07758	0,17191
2697,92505	0,16435	0,13964	0,12877	0,0776	0,1718
2695,99658	0,16441	0,13973	0,12879	0,07761	0,17183
2694,06812	0,16436	0,1397	0,12875	0,07759	0,17189
2692,13965	0,16433	0,13962	0,12868	0,07754	0,17183
2690,21118	0,16437	0,13966	0,12869	0,07748	0,1718
2688,28271	0,16436	0,13969	0,12867	0,07744	0,17184
2686,35425	0,16427	0,13965	0,1286	0,07741	0,17179
2684,42578	0,16431	0,13972	0,1286	0,07741	0,17172
2682,49731	0,16437	0,13978	0,12852	0,07732	0,17166
2680,56885	0,1643	0,13971	0,12843	0,07726	0,17163
2678,64038	0,16431	0,13967	0,12848	0,07725	0,17163
2676,71191	0,16432	0,13971	0,12845	0,07716	0,17158
2674,78345	0,16431	0,13977	0,12843	0,07712	0,17154
2672,85498	0,16437	0,13982	0,12849	0,07713	0,17155
2670,92651	0,16442	0,13987	0,12852	0,07711	0,17154
2668,99805	0,16447	0,13989	0,12852	0,07715	0,17149
2667,06958	0,16449	0,13991	0,12848	0,07711	0,17149
2665,14111	0,16447	0,13991	0,12842	0,077	0,17151
2663,21265	0,16443	0,13998	0,12843	0,07699	0,17145
2661,28418	0,1644	0,14009	0,12844	0,07701	0,17148
2659,35571	0,16447	0,14005	0,12838	0,07699	0,17151
2657,42725	0,16456	0,14003	0,12833	0,07695	0,17142
2655,49878	0,16454	0,14018	0,12835	0,07687	0,17139
2653,57031	0,16457	0,1402	0,12839	0,07681	0,17143
2651,64185	0,16467	0,14019	0,12839	0,0768	0,17139
2649,71338	0,1647	0,14033	0,12835	0,07676	0,17135
2647,78491	0,16473	0,14037	0,12833	0,07675	0,17132
2645,85645	0,16483	0,14034	0,12834	0,07675	0,17129
2643,92798	0,16487	0,14045	0,12828	0,07672	0,17129
2641,99951	0,1648	0,1405	0,12822	0,07667	0,17124
2640,07104	0,16481	0,14046	0,12821	0,07664	0,17121
2638,14258	0,16485	0,14049	0,12823	0,07664	0,17128
2636,21411	0,16479	0,14055	0,12824	0,07663	0,17129
2634,28564	0,16485	0,14054	0,1282	0,0766	0,17121
2632,35718	0,16486	0,14053	0,12815	0,07655	0,17114
2630,42871	0,16479	0,14053	0,1281	0,07649	0,17112
2628,50024	0,1648	0,14054	0,12802	0,07644	0,17109
2626,57178	0,16472	0,14054	0,128	0,07637	0,17096

2624,64331	0,16468	0,1405	0,12795	0,07631	0,17089
2622,71484	0,16469	0,14047	0,12785	0,0763	0,17088
2620,78638	0,1645	0,1404	0,12784	0,07628	0,1708
2618,85791	0,16441	0,14033	0,12782	0,07623	0,1707
2616,92944	0,16444	0,14031	0,12768	0,07615	0,17057
2615,00098	0,16429	0,14023	0,12756	0,07605	0,17047
2613,07251	0,16414	0,14013	0,12754	0,07596	0,17039
2611,14404	0,16407	0,14008	0,12751	0,07593	0,17024
2609,21558	0,16393	0,13996	0,12744	0,07588	0,17011
2607,28711	0,1638	0,13985	0,1274	0,0758	0,17005
2605,35864	0,16367	0,13983	0,12734	0,07578	0,16999
2603,43018	0,16351	0,13975	0,12726	0,07573	0,16988
2601,50171	0,16339	0,13959	0,12726	0,07563	0,16974
2599,57324	0,16324	0,13947	0,12725	0,07557	0,16968
2597,64478	0,16311	0,13935	0,12713	0,07555	0,16958
2595,71631	0,16295	0,13923	0,127	0,07547	0,16945
2593,78784	0,1628	0,13917	0,12687	0,07535	0,16938
2591,85938	0,16277	0,13908	0,12678	0,07531	0,16924
2589,93091	0,16264	0,1389	0,12677	0,07528	0,16911
2588,00244	0,16241	0,13874	0,12675	0,07516	0,16898
2586,07397	0,16223	0,13862	0,12668	0,07508	0,16878
2584,14551	0,16207	0,1385	0,12661	0,07508	0,16872
2582,21704	0,16193	0,13839	0,12653	0,07502	0,16863
2580,28857	0,16183	0,1383	0,12647	0,07495	0,16849
2578,36011	0,16172	0,1382	0,12641	0,07487	0,16847
2576,43164	0,16152	0,13804	0,12632	0,0748	0,16833
2574,50317	0,16135	0,13791	0,12628	0,07479	0,16817
2572,57471	0,16125	0,13779	0,12624	0,07471	0,16806
2570,64624	0,1611	0,13764	0,12618	0,07463	0,16793
2568,71777	0,161	0,13755	0,12617	0,07462	0,16792
2566,78931	0,16097	0,1375	0,12612	0,07455	0,16783
2564,86084	0,16078	0,1374	0,12602	0,07448	0,16763
2562,93237	0,16061	0,13725	0,12601	0,07442	0,16755
2561,00391	0,16057	0,13715	0,12599	0,07434	0,16747
2559,07544	0,16043	0,1371	0,12588	0,07428	0,16734
2557,14697	0,16032	0,13703	0,12584	0,07422	0,16725
2555,21851	0,16021	0,13687	0,12582	0,07414	0,16716
2553,29004	0,15998	0,13675	0,12578	0,07402	0,16703
2551,36157	0,15987	0,13678	0,12577	0,074	0,16697
2549,43311	0,15982	0,13672	0,12571	0,07397	0,16694
2547,50464	0,15968	0,13659	0,12562	0,07384	0,16679
2545,57617	0,15958	0,13659	0,12559	0,07382	0,16663
2543,64771	0,15946	0,13655	0,12551	0,07381	0,16655
2541,71924	0,15932	0,1365	0,12541	0,07373	0,16647
2539,79077	0,15929	0,13646	0,12542	0,0737	0,16641
2537,8623	0,15926	0,13634	0,12541	0,07364	0,16635
2535,93384	0,15907	0,13627	0,12542	0,07358	0,16629
2534,00537	0,15894	0,13624	0,12542	0,07353	0,16624

2532,0769	0,1589	0,13614	0,1253	0,07345	0,16616
2530,14844	0,15881	0,13607	0,12521	0,07336	0,16607
2528,21997	0,15871	0,13603	0,12517	0,07332	0,16603
2526,2915	0,15864	0,13594	0,12513	0,07332	0,16598
2524,36304	0,1586	0,13592	0,12513	0,07327	0,16584
2522,43457	0,15858	0,13594	0,12509	0,07317	0,16571
2520,5061	0,15847	0,1359	0,12501	0,07313	0,16567
2518,57764	0,15836	0,13587	0,12496	0,07311	0,16564
2516,64917	0,15829	0,13586	0,1249	0,07308	0,16556
2514,7207	0,15825	0,13585	0,12483	0,073	0,16542
2512,79224	0,15825	0,13578	0,12479	0,07294	0,1653
2510,86377	0,15819	0,13566	0,12481	0,07297	0,16534
2508,9353	0,1581	0,13564	0,12477	0,07297	0,16535
2507,00684	0,15801	0,1357	0,1247	0,07294	0,16522
2505,07837	0,15801	0,13569	0,12467	0,07291	0,16517
2503,1499	0,15802	0,1356	0,12466	0,07286	0,16512
2501,22144	0,15793	0,13557	0,12463	0,07284	0,16505
2499,29297	0,15782	0,13557	0,1246	0,07281	0,16502
2497,3645	0,15779	0,13551	0,12458	0,07276	0,16494
2495,43604	0,15782	0,13549	0,12454	0,07272	0,16489
2493,50757	0,15777	0,13548	0,12448	0,07268	0,16485
2491,5791	0,15762	0,1354	0,1245	0,07264	0,16474
2489,65063	0,15761	0,13535	0,12446	0,07258	0,16466
2487,72217	0,15763	0,13533	0,12429	0,07251	0,16462
2485,7937	0,15753	0,13526	0,12423	0,07248	0,16461
2483,86523	0,1575	0,13529	0,12425	0,07247	0,16452
2481,93677	0,15749	0,13531	0,12417	0,07245	0,16439
2480,0083	0,15735	0,1352	0,12418	0,07247	0,16441
2478,07983	0,15729	0,1352	0,12418	0,07246	0,16448
2476,15137	0,15723	0,1352	0,12408	0,07242	0,16441
2474,2229	0,15714	0,13517	0,12408	0,07244	0,16432
2472,29443	0,15718	0,13524	0,12405	0,07241	0,16427
2470,36597	0,15717	0,13523	0,12394	0,0723	0,16417
2468,4375	0,15703	0,13515	0,1239	0,07226	0,16408
2466,50903	0,15695	0,1351	0,12386	0,07223	0,16406
2464,58057	0,1569	0,13508	0,12384	0,0722	0,16405
2462,6521	0,15689	0,13507	0,12383	0,07222	0,16407
2460,72363	0,15685	0,13501	0,12376	0,07224	0,16401
2458,79517	0,15678	0,13497	0,12372	0,07219	0,16392
2456,8667	0,15676	0,13495	0,12375	0,07214	0,16394
2454,93823	0,1567	0,13491	0,12371	0,0721	0,16388
2453,00977	0,15664	0,13494	0,12362	0,07205	0,1638
2451,0813	0,15659	0,1349	0,12353	0,07195	0,16377
2449,15283	0,15648	0,13482	0,12346	0,07184	0,16369
2447,22437	0,15646	0,1348	0,12348	0,07186	0,1636
2445,2959	0,15647	0,13475	0,12347	0,07189	0,16353
2443,36743	0,15639	0,13476	0,1234	0,07181	0,16343
2441,43896	0,15633	0,13482	0,12336	0,07173	0,16334

2439,5105	0,15631	0,1347	0,12333	0,07168	0,1633
2437,58203	0,15625	0,13459	0,12328	0,07165	0,16321
2435,65356	0,15623	0,13463	0,1233	0,07166	0,16307
2433,7251	0,15627	0,13461	0,12327	0,07163	0,16302
2431,79663	0,15622	0,13455	0,12321	0,07157	0,16296
2429,86816	0,15608	0,13455	0,12317	0,07156	0,16291
2427,9397	0,15603	0,13453	0,12315	0,07153	0,1629
2426,01123	0,15599	0,13448	0,12314	0,07148	0,16283
2424,08276	0,15582	0,13453	0,12306	0,07149	0,16276
2422,1543	0,15575	0,13458	0,12299	0,07147	0,1627
2420,22583	0,15579	0,1346	0,12298	0,07143	0,16269
2418,29736	0,15578	0,13463	0,12299	0,07147	0,16276
2416,3689	0,15566	0,13463	0,12294	0,07146	0,16268
2414,44043	0,15552	0,13465	0,12284	0,07138	0,16258
2412,51196	0,15561	0,13464	0,12281	0,07135	0,16253
2410,5835	0,15568	0,13455	0,1228	0,07135	0,16242
2408,65503	0,15558	0,13457	0,12273	0,07131	0,16243
2406,72656	0,15553	0,13463	0,12273	0,07125	0,16248
2404,7981	0,15549	0,13464	0,1227	0,07127	0,16242
2402,86963	0,15545	0,13469	0,12267	0,07126	0,16239
2400,94116	0,15542	0,13469	0,12264	0,07119	0,16237
2399,0127	0,15538	0,13466	0,12261	0,07123	0,16233
2397,08423	0,15534	0,13468	0,12258	0,07124	0,16226
2395,15576	0,1553	0,1346	0,12256	0,0712	0,16214
2393,22729	0,15526	0,13458	0,12253	0,07117	0,16201
2391,29883	0,15523	0,13455	0,1225	0,07114	0,16196
2389,37036	0,15519	0,13453	0,12247	0,07111	0,16191
2387,44189	0,15515	0,1345	0,12244	0,07107	0,16186
2385,51343	0,15511	0,13448	0,12241	0,07104	0,16181
2383,58496	0,15508	0,13445	0,12238	0,07101	0,16176
2381,65649	0,15504	0,13442	0,12236	0,07098	0,16171
2379,72803	0,155	0,1344	0,12233	0,07094	0,16166
2377,79956	0,15496	0,13437	0,1223	0,07091	0,16161
2375,87109	0,15492	0,13435	0,12227	0,07088	0,16155
2373,94263	0,15489	0,13432	0,12224	0,07085	0,1615
2372,01416	0,15485	0,1343	0,12221	0,07081	0,16145
2370,08569	0,15481	0,13427	0,12218	0,07078	0,1614
2368,15723	0,15477	0,13424	0,12216	0,07075	0,16135
2366,22876	0,15474	0,13422	0,12213	0,07071	0,1613
2364,30029	0,1547	0,13419	0,1221	0,07068	0,16125
2362,37183	0,15466	0,13417	0,12207	0,07065	0,1612
2360,44336	0,15462	0,13414	0,12204	0,07062	0,16115
2358,51489	0,15459	0,13412	0,12201	0,07058	0,1611
2356,58643	0,15455	0,13409	0,12198	0,07055	0,16104
2354,65796	0,15451	0,13406	0,12196	0,07052	0,16099
2352,72949	0,15447	0,13404	0,12193	0,07049	0,16094
2350,80103	0,15443	0,13401	0,1219	0,07045	0,16089
2348,87256	0,1544	0,13399	0,12187	0,07042	0,16084

2346,94409	0,15436	0,13396	0,12184	0,07039	0,16079
2345,01563	0,15432	0,13394	0,12181	0,07036	0,16074
2343,08716	0,15428	0,13391	0,12178	0,07032	0,16069
2341,15869	0,15425	0,13388	0,12176	0,07029	0,16064
2339,23022	0,15421	0,13386	0,12173	0,07026	0,16059
2337,30176	0,15417	0,13383	0,1217	0,07023	0,16053
2335,37329	0,15413	0,13381	0,12167	0,07019	0,16048
2333,44482	0,15409	0,13378	0,12164	0,07016	0,16043
2331,51636	0,15406	0,13376	0,12161	0,07013	0,16038
2329,58789	0,15402	0,13373	0,12159	0,07009	0,16033
2327,65942	0,15398	0,1337	0,12156	0,07006	0,16028
2325,73096	0,15394	0,13368	0,12153	0,07003	0,16023
2323,80249	0,15391	0,13365	0,1215	0,07	0,16018
2321,87402	0,15387	0,13363	0,12147	0,06996	0,16013
2319,94556	0,15383	0,1336	0,12144	0,06993	0,16008
2318,01709	0,15379	0,13358	0,12141	0,0699	0,16002
2316,08862	0,15376	0,13355	0,12139	0,06987	0,15997
2314,16016	0,15372	0,13352	0,12136	0,06983	0,15992
2312,23169	0,15368	0,1335	0,12133	0,0698	0,15987
2310,30322	0,15364	0,13347	0,1213	0,06977	0,15982
2308,37476	0,1536	0,13345	0,12127	0,06974	0,15977
2306,44629	0,15357	0,13342	0,12124	0,0697	0,15972
2304,51782	0,15353	0,13339	0,12121	0,06967	0,15967
2302,58936	0,15349	0,13337	0,12119	0,06964	0,15962
2300,66089	0,15345	0,13334	0,12116	0,0696	0,15956
2298,73242	0,15342	0,13332	0,12113	0,06957	0,15951
2296,80396	0,15338	0,13329	0,1211	0,06954	0,15946
2294,87549	0,15334	0,13327	0,12107	0,06951	0,15941
2292,94702	0,1533	0,13324	0,12104	0,06947	0,15936
2291,01855	0,15327	0,13321	0,12101	0,06944	0,15923
2289,09009	0,15323	0,13319	0,12099	0,06941	0,15912
2287,16162	0,15319	0,13316	0,12096	0,06938	0,15905
2285,23315	0,15315	0,13314	0,12093	0,06934	0,15902
2283,30469	0,15311	0,13311	0,1209	0,06931	0,15889
2281,37622	0,15308	0,13309	0,12087	0,06928	0,15869
2279,44775	0,15304	0,13306	0,12084	0,06925	0,15889
2277,51929	0,153	0,13303	0,12081	0,06921	0,15899
2275,59082	0,15296	0,13301	0,12079	0,06918	0,15891
2273,66235	0,15293	0,13298	0,12076	0,06915	0,15884
2271,73389	0,15289	0,13296	0,1207	0,06912	0,1587
2269,80542	0,15285	0,13293	0,12067	0,06908	0,15863
2267,87695	0,1528	0,13291	0,12063	0,06905	0,15863
2265,94849	0,15275	0,13289	0,12056	0,06902	0,15862
2264,02002	0,1527	0,13295	0,12058	0,06902	0,15862
2262,09155	0,15255	0,13294	0,12056	0,06899	0,1586
2260,16309	0,15239	0,13289	0,12056	0,06894	0,15859
2258,23462	0,15236	0,1329	0,12054	0,06887	0,15853
2256,30615	0,15227	0,13294	0,12044	0,0688	0,15843



2254,37769	0,15211	0,13296	0,12041	0,0688	0,15835
2252,44922	0,1521	0,13294	0,12038	0,06878	0,15829
2250,52075	0,15208	0,13299	0,12035	0,06869	0,15821
2248,59229	0,15196	0,13298	0,12034	0,06866	0,15817
2246,66382	0,15186	0,13294	0,1203	0,06863	0,15816
2244,73535	0,1518	0,13302	0,12027	0,06859	0,1581
2242,80688	0,15173	0,13302	0,12024	0,06857	0,15804
2240,87842	0,15167	0,13294	0,12019	0,06851	0,15798
2238,94995	0,15165	0,13294	0,12013	0,06848	0,15794
2237,02148	0,1516	0,13288	0,1201	0,06849	0,15795
2235,09302	0,15156	0,13286	0,12012	0,06845	0,1579
2233,16455	0,15157	0,13293	0,12007	0,0684	0,15778
2231,23608	0,15155	0,13287	0,11995	0,06835	0,15771
2229,30762	0,15143	0,1328	0,11995	0,0683	0,15766
2227,37915	0,15128	0,13279	0,11998	0,06826	0,15759
2225,45068	0,15114	0,13272	0,11996	0,06821	0,15751
2223,52222	0,15103	0,13272	0,11992	0,06813	0,15743
2221,59375	0,15099	0,13279	0,11982	0,06803	0,15733
2219,66528	0,15096	0,13281	0,11973	0,06793	0,15723
2217,73682	0,15098	0,13282	0,11979	0,06796	0,15726
2215,80835	0,15108	0,13283	0,11984	0,06803	0,15736
2213,87988	0,15105	0,13278	0,11971	0,06801	0,1573
2211,95142	0,15092	0,13271	0,1196	0,06793	0,15715
2210,02295	0,15081	0,13272	0,11956	0,06789	0,15701
2208,09448	0,15075	0,13269	0,11951	0,06786	0,15688
2206,16602	0,15079	0,13258	0,11947	0,0678	0,15681
2204,23755	0,15072	0,13252	0,11946	0,06775	0,15671
2202,30908	0,1506	0,1325	0,11939	0,06764	0,15653
2200,38062	0,15057	0,13247	0,1193	0,06755	0,15648
2198,45215	0,15045	0,13244	0,1193	0,0675	0,15646
2196,52368	0,15029	0,13241	0,11929	0,06743	0,15642
2194,59521	0,15018	0,13244	0,11926	0,0674	0,1564
2192,66675	0,15013	0,13238	0,11924	0,06737	0,15632
2190,73828	0,15013	0,13225	0,11923	0,0673	0,15624
2188,80981	0,15009	0,13224	0,11918	0,06722	0,15618
2186,88135	0,14997	0,13223	0,11916	0,06713	0,1561
2184,95288	0,1499	0,13217	0,11917	0,06712	0,15611
2183,02441	0,14991	0,13218	0,11912	0,06715	0,15606
2181,09595	0,14985	0,13216	0,11911	0,06711	0,15596
2179,16748	0,14975	0,13214	0,11912	0,06706	0,15592
2177,23901	0,1497	0,13216	0,11905	0,06703	0,15586
2175,31055	0,14967	0,13209	0,11901	0,06696	0,15579
2173,38208	0,14969	0,13202	0,11909	0,06694	0,15579
2171,45361	0,14949	0,13183	0,11905	0,06685	0,15572
2169,52515	0,14916	0,13158	0,11887	0,06671	0,15557
2167,59668	0,14931	0,13169	0,11884	0,06673	0,15552
2165,66821	0,14946	0,13184	0,11889	0,06674	0,15553
2163,73975	0,14921	0,13173	0,11886	0,06671	0,15558

2161,81128	0,14915	0,13168	0,11888	0,0667	0,15558
2159,88281	0,14919	0,13169	0,11894	0,06661	0,1554
2157,95435	0,14905	0,13163	0,11897	0,06653	0,15526
2156,02588	0,14898	0,13151	0,11897	0,06652	0,15523
2154,09741	0,14896	0,13144	0,11891	0,06646	0,15515
2152,16895	0,14888	0,13144	0,11883	0,06637	0,15506
2150,24048	0,14885	0,13135	0,11883	0,06631	0,15502
2148,31201	0,14882	0,13121	0,11883	0,0663	0,15496
2146,38354	0,14872	0,13116	0,11879	0,0662	0,15482
2144,45508	0,1486	0,13115	0,11876	0,06611	0,15472
2142,52661	0,14847	0,13106	0,11872	0,06604	0,15468
2140,59814	0,14842	0,13093	0,11865	0,06589	0,15456
2138,66968	0,14842	0,13088	0,11865	0,06583	0,15446
2136,74121	0,14838	0,13085	0,11867	0,06581	0,15441
2134,81274	0,14832	0,13082	0,11864	0,06567	0,15434
2132,88428	0,14824	0,13081	0,11859	0,06563	0,15428
2130,95581	0,14818	0,13073	0,11857	0,06561	0,1542
2129,02734	0,14812	0,13067	0,11857	0,06549	0,15416
2127,09888	0,14803	0,13064	0,11861	0,06543	0,15414
2125,17041	0,14795	0,13053	0,11855	0,06537	0,15409
2123,24194	0,14788	0,13048	0,11842	0,06528	0,15404
2121,31348	0,14784	0,13052	0,11839	0,06522	0,15397
2119,38501	0,1478	0,13044	0,11842	0,06519	0,15392
2117,45654	0,1478	0,13034	0,11845	0,06517	0,15391
2115,52808	0,14778	0,13033	0,11842	0,06507	0,15385
2113,59961	0,14763	0,13025	0,11833	0,06499	0,15379
2111,67114	0,14751	0,13014	0,11828	0,06498	0,15371
2109,74268	0,14743	0,13009	0,11823	0,06497	0,15361
2107,81421	0,14739	0,13	0,11821	0,06491	0,1535
2105,88574	0,14739	0,12993	0,11822	0,06478	0,15335
2103,95728	0,1473	0,12988	0,11826	0,06466	0,15328
2102,02881	0,1472	0,12974	0,11825	0,06457	0,15324
2100,10034	0,14706	0,12959	0,1182	0,06441	0,15314
2098,17188	0,14688	0,1295	0,11816	0,06432	0,15306
2096,24341	0,14683	0,12937	0,1181	0,06425	0,15297
2094,31494	0,1467	0,12921	0,11808	0,06412	0,15282
2092,38647	0,14664	0,12911	0,11806	0,06403	0,15277
2090,45801	0,1467	0,12903	0,118	0,06391	0,15268
2088,52954	0,14655	0,12892	0,11798	0,06379	0,15253
2086,60107	0,14642	0,12886	0,11794	0,06376	0,1525
2084,67261	0,14642	0,12882	0,11787	0,06365	0,15244
2082,74414	0,14631	0,12876	0,11788	0,06349	0,15236
2080,81567	0,14621	0,12866	0,11788	0,06346	0,15234
2078,88721	0,14617	0,12858	0,11781	0,06348	0,15221
2076,95874	0,14613	0,1285	0,1178	0,06348	0,15215
2075,03027	0,1461	0,12842	0,11783	0,0634	0,15221
2073,10181	0,14604	0,12846	0,11779	0,06326	0,15211
2071,17334	0,14597	0,12847	0,11769	0,06323	0,15201

2069,24487	0,14583	0,12844	0,11765	0,06321	0,15203
2067,31641	0,14581	0,12846	0,11767	0,06322	0,15202
2065,38794	0,14586	0,12845	0,1176	0,06322	0,15189
2063,45947	0,14563	0,12837	0,11749	0,06311	0,15176
2061,53101	0,14553	0,12838	0,11748	0,06311	0,1517
2059,60254	0,1456	0,12847	0,11743	0,06311	0,15163
2057,67407	0,14551	0,12843	0,11743	0,06305	0,15154
2055,74561	0,14545	0,12843	0,11744	0,06302	0,15154
2053,81714	0,14542	0,12853	0,1174	0,06301	0,15162
2051,88867	0,14542	0,12844	0,1174	0,06305	0,1516
2049,96021	0,14542	0,12837	0,11734	0,06299	0,1516
2048,03174	0,14533	0,12844	0,11727	0,06292	0,15162
2046,10327	0,14528	0,12847	0,11724	0,06296	0,15154
2044,1748	0,14533	0,12852	0,11726	0,06296	0,15152
2042,24634	0,14544	0,12853	0,11728	0,06301	0,15155
2040,31787	0,14541	0,12849	0,11719	0,06298	0,15144
2038,3894	0,14533	0,12848	0,11718	0,06281	0,15134
2036,46094	0,14531	0,12836	0,11724	0,06277	0,15133
2034,53247	0,14528	0,12824	0,11729	0,06277	0,1513
2032,604	0,14525	0,12827	0,11732	0,06264	0,15125
2030,67554	0,14512	0,12824	0,11728	0,06255	0,1512
2028,74707	0,14511	0,12817	0,11729	0,06251	0,1511
2026,8186	0,14511	0,12814	0,11725	0,06238	0,15094
2024,89014	0,14497	0,12805	0,1172	0,06228	0,15089
2022,96167	0,14495	0,12794	0,1172	0,0623	0,15087
2021,0332	0,14494	0,1279	0,11718	0,06226	0,15083
2019,10474	0,14503	0,12789	0,11725	0,06236	0,15087
2017,17627	0,14512	0,12783	0,1172	0,06242	0,15087
2015,2478	0,14489	0,12789	0,11705	0,06221	0,15076
2013,31934	0,14481	0,12801	0,11709	0,06217	0,15079
2011,39087	0,14481	0,128	0,11714	0,06221	0,15086
2009,4624	0,14472	0,12799	0,11716	0,06216	0,15082
2007,53394	0,14475	0,12807	0,11712	0,06219	0,15083
2005,60547	0,14475	0,12809	0,11707	0,06219	0,15084
2003,677	0,14479	0,12803	0,11705	0,06211	0,15073
2001,74854	0,14467	0,12798	0,11697	0,062	0,1507
1999,82007	0,14459	0,12795	0,11706	0,06204	0,15078
1997,8916	0,14463	0,12794	0,11698	0,06197	0,15071
1995,96313	0,14442	0,12796	0,11673	0,06172	0,15056
1994,03467	0,14464	0,12789	0,11695	0,06193	0,15067
1992,1062	0,14482	0,12772	0,11692	0,06204	0,15062
1990,17773	0,14441	0,12771	0,11653	0,06173	0,15036
1988,24927	0,14439	0,1278	0,11666	0,0618	0,15045
1986,3208	0,14432	0,12776	0,11669	0,06176	0,15045
1984,39233	0,14416	0,12772	0,11652	0,06162	0,15023
1982,46387	0,14417	0,12771	0,11654	0,06168	0,15019
1980,5354	0,1441	0,1277	0,11653	0,06162	0,15021
1978,60693	0,14414	0,1277	0,11649	0,06157	0,15017

1976,67847	0,14405	0,12763	0,11643	0,06154	0,15011
1974,75	0,14393	0,1276	0,11645	0,0616	0,15012
1972,82153	0,14396	0,12767	0,11638	0,06162	0,15005
1970,89307	0,14384	0,12767	0,11622	0,06145	0,14995
1968,9646	0,14403	0,12759	0,11647	0,06165	0,1501
1967,03613	0,14417	0,12753	0,11644	0,06179	0,14998
1965,10767	0,14371	0,12756	0,11595	0,06136	0,14969
1963,1792	0,14363	0,12764	0,11599	0,06128	0,14979
1961,25073	0,14375	0,12764	0,11605	0,06138	0,14974
1959,32227	0,14352	0,1276	0,11589	0,06116	0,14955
1957,3938	0,14344	0,12754	0,11594	0,06114	0,14954
1955,46533	0,14342	0,12742	0,11595	0,06119	0,14941
1953,53687	0,14333	0,12737	0,11593	0,061	0,14925
1951,6084	0,14322	0,12738	0,11584	0,06084	0,14921
1949,67993	0,14326	0,12732	0,11585	0,06092	0,14919
1947,75146	0,14321	0,1272	0,11577	0,06085	0,149
1945,823	0,14317	0,12712	0,11571	0,06075	0,14889
1943,89453	0,14373	0,12705	0,11612	0,06121	0,14909
1941,96606	0,14351	0,12695	0,11574	0,06111	0,14882
1940,0376	0,14274	0,12694	0,11529	0,0605	0,14859
1938,10913	0,14291	0,12708	0,11559	0,0606	0,1488
1936,18066	0,14291	0,12711	0,11549	0,06058	0,14869
1934,2522	0,1428	0,12699	0,11547	0,06045	0,14858
1932,32373	0,14278	0,12696	0,11556	0,06045	0,14856
1930,39526	0,14279	0,12693	0,11555	0,06044	0,14851
1928,4668	0,1428	0,1269	0,11538	0,06032	0,14838
1926,53833	0,14266	0,12681	0,11528	0,06016	0,14831
1924,60986	0,14317	0,12661	0,11575	0,06054	0,14852
1922,6814	0,14316	0,12652	0,11534	0,06041	0,14813
1920,75293	0,14274	0,12643	0,11529	0,06013	0,1481
1918,82446	0,14304	0,1264	0,11601	0,06052	0,14855
1916,896	0,14249	0,12647	0,11517	0,05992	0,14788
1914,96753	0,14222	0,1264	0,11497	0,05951	0,14764
1913,03906	0,14264	0,12628	0,11564	0,0599	0,14804
1911,1106	0,14268	0,12607	0,1156	0,0599	0,14798
1909,18213	0,14271	0,12586	0,11556	0,0598	0,1479
1907,25366	0,14241	0,12584	0,11551	0,05958	0,14779
1905,3252	0,14219	0,12583	0,1155	0,05941	0,14774
1903,39673	0,14231	0,12572	0,11559	0,05942	0,14778
1901,46826	0,14236	0,12557	0,11566	0,05942	0,14776
1899,53979	0,14219	0,12541	0,11558	0,05922	0,14772
1897,61133	0,1423	0,12518	0,11566	0,0592	0,14772
1895,68286	0,14257	0,12499	0,11581	0,05939	0,14763
1893,75439	0,14194	0,12496	0,11541	0,05885	0,14735
1891,82593	0,14216	0,12486	0,11581	0,05891	0,14763
1889,89746	0,14279	0,12466	0,11603	0,05937	0,14775
1887,96899	0,14193	0,12465	0,11522	0,05867	0,14722
1886,04053	0,14199	0,12469	0,11555	0,05863	0,14745

1884,11206	0,14228	0,12463	0,1157	0,0588	0,14762
1882,18359	0,14185	0,12456	0,11548	0,05847	0,14737
1880,25513	0,14187	0,12453	0,11566	0,05857	0,1474
1878,32666	0,14183	0,12458	0,11542	0,05853	0,14731
1876,39819	0,14184	0,12476	0,11549	0,05846	0,14733
1874,46973	0,14176	0,1249	0,11544	0,05841	0,14721
1872,54126	0,14167	0,12482	0,11544	0,05839	0,14707
1870,61279	0,14241	0,12471	0,11629	0,05908	0,14762
1868,68433	0,14276	0,12453	0,1158	0,05935	0,1474
1866,75586	0,14168	0,12448	0,11457	0,05837	0,14659
1864,82739	0,14156	0,12475	0,11505	0,05836	0,14704
1862,89893	0,14166	0,12499	0,11517	0,05847	0,14715
1860,97046	0,14164	0,12507	0,11501	0,05844	0,14685
1859,04199	0,14164	0,12522	0,11498	0,05854	0,14688
1857,11353	0,14147	0,12527	0,11476	0,05845	0,14678
1855,18506	0,14134	0,12538	0,11479	0,05845	0,14671
1853,25659	0,1412	0,12539	0,11462	0,05842	0,14654
1851,32813	0,14122	0,1254	0,11475	0,05847	0,14662
1849,39966	0,14118	0,12544	0,11449	0,05838	0,14644
1847,47119	0,1416	0,12517	0,11458	0,05851	0,14629
1845,54272	0,14196	0,12529	0,11549	0,05905	0,14682
1843,61426	0,14067	0,12537	0,11389	0,05822	0,14591
1841,68579	0,14018	0,12502	0,11313	0,05746	0,14529
1839,75732	0,14098	0,12522	0,11434	0,05815	0,146
1837,82886	0,14094	0,12533	0,11435	0,05827	0,14599
1835,90039	0,14085	0,12515	0,11389	0,05809	0,14557
1833,97192	0,1405	0,12528	0,11365	0,05777	0,14545
1832,04346	0,14125	0,12518	0,1146	0,05846	0,14608
1830,11499	0,14168	0,12496	0,11442	0,05878	0,14586
1828,18652	0,14025	0,12504	0,11303	0,0575	0,1449
1826,25806	0,1409	0,12512	0,11418	0,05813	0,14552
1824,32959	0,14098	0,12519	0,11398	0,0583	0,14539
1822,40112	0,14004	0,12515	0,11313	0,05745	0,14497
1820,47266	0,14036	0,12505	0,11378	0,05775	0,14546
1818,54419	0,1405	0,12484	0,11379	0,05785	0,14545
1816,61572	0,14034	0,12481	0,11363	0,05756	0,14519
1814,68726	0,14023	0,12491	0,11366	0,0574	0,1451
1812,75879	0,14066	0,12476	0,11402	0,05775	0,14527
1810,83032	0,14084	0,12466	0,11391	0,05776	0,14508
1808,90186	0,14024	0,12464	0,11333	0,05716	0,14463
1806,97339	0,14019	0,12454	0,11348	0,05707	0,14459
1805,04492	0,1401	0,12442	0,11359	0,05698	0,1445
1803,11646	0,14028	0,12399	0,11402	0,05719	0,14466
1801,18799	0,14067	0,12342	0,11421	0,05736	0,14458
1799,25952	0,13988	0,12338	0,11353	0,0566	0,144
1797,33105	0,13975	0,12326	0,11333	0,05635	0,14388
1795,40259	0,14042	0,12304	0,11391	0,05669	0,14414
1793,47412	0,14042	0,12333	0,11459	0,05694	0,14447

1791,54565	0,13982	0,12342	0,11315	0,05668	0,14361
1789,61719	0,13907	0,12364	0,11213	0,05586	0,14307
1787,68872	0,13978	0,12413	0,11355	0,05652	0,14405
1785,76025	0,13986	0,12421	0,11367	0,05676	0,14418
1783,83179	0,13914	0,12406	0,11291	0,05613	0,1436
1781,90332	0,13981	0,12393	0,11333	0,05645	0,14377
1779,97485	0,14009	0,12376	0,11341	0,0566	0,14382
1778,04639	0,1391	0,12388	0,11271	0,05583	0,14328
1776,11792	0,1398	0,12357	0,11313	0,05615	0,14323
1774,18945	0,14034	0,12354	0,11449	0,05675	0,14391
1772,26099	0,13887	0,12367	0,11299	0,05594	0,14291
1770,33252	0,13832	0,123	0,11189	0,05521	0,142
1768,40405	0,13925	0,12302	0,11347	0,05614	0,14302
1766,47559	0,13782	0,12333	0,11206	0,05504	0,14221
1764,54712	0,13893	0,123	0,11302	0,05566	0,14256
1762,61865	0,13976	0,12312	0,11431	0,0566	0,14336
1760,69019	0,13782	0,12297	0,11176	0,05494	0,14184
1758,76172	0,13893	0,12271	0,1131	0,05561	0,14257
1756,83325	0,13914	0,12301	0,11351	0,05602	0,14289
1754,90479	0,13788	0,12297	0,11185	0,05486	0,14189
1752,97632	0,13885	0,12291	0,11363	0,05577	0,14315
1751,04785	0,13909	0,12291	0,11396	0,05649	0,14362
1749,11938	0,13865	0,12228	0,11206	0,05572	0,14253
1747,19092	0,13936	0,12228	0,11289	0,05613	0,14335
1745,26245	0,13879	0,12269	0,11285	0,05605	0,14365
1743,33398	0,1389	0,12251	0,11259	0,05606	0,14329
1741,40552	0,13934	0,12276	0,11396	0,05652	0,14395
1739,47705	0,1377	0,12317	0,11235	0,05537	0,14304
1737,54858	0,13819	0,1226	0,11195	0,05522	0,14257
1735,62012	0,13927	0,12299	0,11508	0,05658	0,14435
1733,69165	0,13688	0,12352	0,11245	0,05546	0,14269
1731,76318	0,13641	0,12247	0,11034	0,05373	0,14099
1729,83472	0,13952	0,1224	0,11353	0,05624	0,14277
1727,90625	0,13725	0,12313	0,11197	0,05474	0,14205
1725,97778	0,13803	0,12293	0,11238	0,05505	0,14223
1724,04932	0,13859	0,12301	0,11289	0,05547	0,14246
1722,12085	0,13754	0,12298	0,11158	0,05445	0,14165
1720,19238	0,13912	0,1228	0,11355	0,05572	0,14275
1718,26392	0,13919	0,12304	0,114	0,05616	0,14298
1716,33545	0,13657	0,1228	0,11065	0,05391	0,14089
1714,40698	0,13786	0,12233	0,11103	0,0544	0,141
1712,47852	0,13852	0,12265	0,11189	0,05476	0,14162
1710,55005	0,13773	0,12288	0,11126	0,05407	0,14134
1708,62158	0,13899	0,12258	0,11231	0,05495	0,14173
1706,69312	0,13931	0,12294	0,11315	0,05549	0,14204
1704,76465	0,13809	0,12253	0,1106	0,05413	0,14031
1702,83618	0,13933	0,12231	0,11296	0,0551	0,14164
1700,90771	0,13877	0,12338	0,1148	0,05648	0,14291

1698,97925	0,13472	0,12198	0,10815	0,0518	0,13846
1697,05078	0,13817	0,12151	0,11186	0,05355	0,14038
1695,12231	0,13675	0,12307	0,11133	0,05343	0,1404
1693,19385	0,13645	0,12256	0,10948	0,05245	0,13931
1691,26538	0,13966	0,12241	0,11333	0,05493	0,14162
1689,33691	0,13853	0,12255	0,11175	0,05418	0,14079
1687,40845	0,13936	0,12186	0,11219	0,05444	0,14077
1685,47998	0,13932	0,1227	0,11508	0,0553	0,14236
1683,55151	0,13713	0,12247	0,1105	0,05389	0,1393
1681,62305	0,13819	0,12171	0,1105	0,05347	0,13937
1679,69458	0,13892	0,12209	0,1119	0,05391	0,14032
1677,76611	0,13852	0,12224	0,11234	0,05374	0,14035
1675,83765	0,13861	0,12228	0,11322	0,05432	0,14077
1673,90918	0,13685	0,12229	0,11079	0,05283	0,13941
1671,98071	0,13872	0,12181	0,11217	0,05368	0,13989
1670,05225	0,14028	0,1218	0,11408	0,05527	0,14077
1668,12378	0,13702	0,12206	0,11013	0,05268	0,13858
1666,19531	0,13821	0,12195	0,11144	0,05309	0,13925
1664,26685	0,13912	0,12246	0,11343	0,05405	0,14033
1662,33838	0,13826	0,12229	0,11144	0,0532	0,13904
1660,40991	0,13821	0,12198	0,11152	0,05294	0,13912
1658,48145	0,13785	0,1223	0,11165	0,05278	0,13932
1656,55298	0,13955	0,12147	0,11249	0,0539	0,13945
1654,62451	0,1403	0,12132	0,11604	0,05545	0,14131
1652,69604	0,13636	0,12213	0,11155	0,05431	0,13903
1650,76758	0,13375	0,12073	0,10765	0,04948	0,13648
1648,83911	0,14038	0,1194	0,1139	0,05474	0,13969
1646,91064	0,13932	0,11949	0,11361	0,05485	0,13939
1644,98218	0,13452	0,11979	0,10883	0,05043	0,1369
1643,05371	0,13721	0,11928	0,11165	0,0524	0,13844
1641,12524	0,13647	0,11951	0,1116	0,05202	0,13843
1639,19678	0,13701	0,11896	0,11158	0,05213	0,13823
1637,26831	0,1381	0,11837	0,11343	0,05313	0,13887
1635,33984	0,13613	0,1187	0,11118	0,05213	0,1374
1633,41138	0,13384	0,11853	0,10853	0,04961	0,13612
1631,48291	0,13565	0,11786	0,11083	0,05109	0,13747
1629,55444	0,13539	0,11769	0,11147	0,0513	0,13775
1627,62598	0,1346	0,11716	0,11006	0,05062	0,13682
1625,69751	0,13433	0,11656	0,1105	0,05056	0,13706
1623,76904	0,13442	0,11607	0,11105	0,05094	0,13724
1621,84058	0,13273	0,11584	0,10881	0,04953	0,13592
1619,91211	0,13368	0,11576	0,11011	0,05017	0,13681
1617,98364	0,13394	0,11632	0,11175	0,05053	0,13779
1616,05518	0,13228	0,11726	0,10891	0,04894	0,13602
1614,12671	0,13378	0,11738	0,10935	0,04961	0,13658
1612,19824	0,13568	0,11804	0,11141	0,05111	0,13822
1610,26978	0,13572	0,11874	0,11121	0,05104	0,1382
1608,34131	0,13624	0,11882	0,11132	0,05136	0,13829

1606,41284	0,13606	0,11943	0,11151	0,05126	0,13869
1604,48438	0,13633	0,11978	0,11152	0,05123	0,13873
1602,55591	0,13687	0,11979	0,11118	0,05151	0,13896
1600,62744	0,13658	0,11996	0,11172	0,05146	0,13908
1598,69897	0,13656	0,12009	0,11187	0,05159	0,13909
1596,77051	0,13687	0,1202	0,11214	0,05177	0,1392
1594,84204	0,13712	0,12032	0,1122	0,0519	0,13926
1592,91357	0,13697	0,12059	0,11216	0,0518	0,13925
1590,98511	0,13692	0,12072	0,11212	0,05169	0,13932
1589,05664	0,13711	0,1207	0,11226	0,05187	0,13937
1587,12817	0,13668	0,12086	0,11208	0,05167	0,13906
1585,19971	0,13678	0,12089	0,11193	0,05172	0,139
1583,27124	0,13689	0,12096	0,11212	0,05188	0,13919
1581,34277	0,13605	0,121	0,11149	0,05139	0,13875
1579,41431	0,13683	0,12069	0,11209	0,052	0,13907
1577,48584	0,13694	0,12104	0,11346	0,05238	0,13993
1575,55737	0,13422	0,12123	0,11036	0,05053	0,13805
1573,62891	0,13459	0,12065	0,10992	0,05039	0,13772
1571,70044	0,13744	0,1208	0,11346	0,05292	0,13978
1569,77197	0,13667	0,12102	0,11228	0,05275	0,13893
1567,84351	0,13518	0,12073	0,11036	0,05116	0,13771
1565,91504	0,13636	0,12102	0,11238	0,05232	0,13892
1563,98657	0,13553	0,12109	0,11102	0,05167	0,13812
1562,05811	0,13664	0,12095	0,11246	0,05236	0,13904
1560,12964	0,13833	0,12158	0,1164	0,05544	0,14133
1558,20117	0,13332	0,1206	0,10909	0,05223	0,13657
1556,27271	0,13424	0,12043	0,1098	0,05069	0,13728
1554,34424	0,13558	0,12105	0,11154	0,05188	0,13856
1552,41577	0,13452	0,1213	0,11051	0,05107	0,13793
1550,4873	0,13696	0,12076	0,11193	0,05273	0,13881
1548,55884	0,13585	0,12103	0,11112	0,05201	0,13849
1546,63037	0,13555	0,12144	0,11162	0,05193	0,13866
1544,7019	0,13735	0,12111	0,11257	0,05327	0,1389
1542,77344	0,1365	0,12079	0,11177	0,0526	0,13821
1540,84497	0,13613	0,12117	0,11331	0,05332	0,13907
1538,9165	0,13341	0,12089	0,10887	0,05075	0,13641
1536,98804	0,13424	0,12089	0,10914	0,05019	0,13675
1535,05957	0,13726	0,12108	0,11273	0,05296	0,13903
1533,1311	0,1369	0,12082	0,11143	0,05276	0,13825
1531,20264	0,135	0,12091	0,10958	0,05059	0,13716
1529,27417	0,13676	0,12108	0,11185	0,05217	0,13852
1527,3457	0,13678	0,12093	0,11189	0,05269	0,13847
1525,41724	0,1352	0,12063	0,11033	0,05124	0,13738
1523,48877	0,13646	0,12051	0,11191	0,05236	0,13829
1521,5603	0,13519	0,12053	0,11084	0,05202	0,13769
1519,63184	0,13325	0,12047	0,10903	0,04984	0,13644
1517,70337	0,13637	0,1202	0,11113	0,05198	0,13751
1515,7749	0,13552	0,12027	0,10998	0,05134	0,13681



1513,84644	0,13459	0,12055	0,10992	0,05051	0,13691
1511,91797	0,1349	0,1207	0,11036	0,05067	0,13713
1509,9895	0,13622	0,11998	0,11046	0,05148	0,13672
1508,06104	0,13748	0,11976	0,11287	0,05332	0,13778
1506,13257	0,13363	0,12011	0,10921	0,05132	0,13553
1504,2041	0,13127	0,12032	0,10655	0,04763	0,13428
1502,27563	0,13501	0,12042	0,10992	0,05043	0,13636
1500,34717	0,13462	0,12083	0,10991	0,05036	0,13632
1498,4187	0,1348	0,1206	0,10992	0,05048	0,13616
1496,49023	0,13359	0,12062	0,1091	0,04959	0,13569
1494,56177	0,13226	0,12071	0,10773	0,04835	0,13497
1492,6333	0,13465	0,12065	0,1099	0,05018	0,13615
1490,70483	0,1357	0,12047	0,1105	0,05114	0,13635
1488,77637	0,13482	0,12006	0,10897	0,05054	0,13532
1486,8479	0,13396	0,12039	0,1088	0,04975	0,13518
1484,91943	0,13344	0,12088	0,1089	0,04937	0,13533
1482,99097	0,13376	0,12088	0,10925	0,04989	0,13551
1481,0625	0,13374	0,12064	0,10907	0,04985	0,13532
1479,13403	0,13338	0,12076	0,10903	0,04956	0,13545
1477,20557	0,13401	0,12072	0,10942	0,05033	0,13569
1475,2771	0,13428	0,12048	0,10952	0,05057	0,13578
1473,34863	0,13347	0,12054	0,10958	0,05027	0,13625
1471,42017	0,13269	0,12043	0,10798	0,04985	0,13603
1469,4917	0,13324	0,12073	0,10819	0,05012	0,13711
1467,56323	0,13407	0,12114	0,10985	0,05141	0,13929
1465,63477	0,13434	0,12091	0,10993	0,05229	0,13999
1463,7063	0,1327	0,12116	0,1084	0,05088	0,13884
1461,77783	0,1329	0,12136	0,10853	0,05081	0,139
1459,84937	0,13542	0,12076	0,11066	0,05287	0,14023
1457,9209	0,13501	0,1206	0,11134	0,05363	0,14009
1455,99243	0,13027	0,12089	0,10678	0,04952	0,13695
1454,06396	0,13329	0,12044	0,108	0,05055	0,13764
1452,1355	0,13396	0,12088	0,10919	0,0509	0,13791
1450,20703	0,13321	0,12117	0,10891	0,05003	0,13691
1448,27856	0,13426	0,12092	0,10916	0,05046	0,13639
1446,3501	0,1331	0,12118	0,1082	0,04925	0,13511
1444,42163	0,13306	0,12121	0,10861	0,04918	0,13497
1442,49316	0,13314	0,12132	0,10868	0,04927	0,13479
1440,5647	0,13312	0,1213	0,10809	0,04875	0,13405
1438,63623	0,13366	0,12107	0,10926	0,04924	0,1344
1436,70776	0,1329	0,12089	0,10858	0,04939	0,1336
1434,7793	0,13164	0,12103	0,10642	0,04781	0,13235
1432,85083	0,1334	0,12105	0,1081	0,04882	0,13343
1430,92236	0,13361	0,12102	0,10861	0,04924	0,13364
1428,9939	0,13261	0,12092	0,10724	0,04832	0,13263
1427,06543	0,13264	0,12102	0,1077	0,04806	0,13275
1425,13696	0,13314	0,12091	0,10795	0,04837	0,13265
1423,2085	0,13303	0,12073	0,1072	0,04804	0,13188

1421,28003	0,13247	0,12091	0,10816	0,04782	0,13218
1419,35156	0,13198	0,12055	0,10816	0,04802	0,13189
1417,4231	0,13146	0,12004	0,10625	0,04708	0,13095
1415,49463	0,13201	0,12036	0,1071	0,04723	0,13153
1413,56616	0,13154	0,12063	0,10735	0,04711	0,1315
1411,6377	0,13191	0,12019	0,10718	0,04722	0,1314
1409,70923	0,13175	0,12002	0,10688	0,0469	0,13124
1407,78076	0,13119	0,12023	0,10681	0,04667	0,13107
1405,85229	0,13181	0,11997	0,10735	0,04734	0,13129
1403,92383	0,13109	0,11985	0,10648	0,04679	0,13085
1401,99536	0,13082	0,12006	0,1068	0,04673	0,13104
1400,06689	0,13154	0,11974	0,10757	0,04754	0,13154
1398,13843	0,13142	0,11941	0,10666	0,04737	0,13146
1396,20996	0,13155	0,11949	0,10688	0,04753	0,13186
1394,28149	0,13114	0,11947	0,10669	0,04743	0,1321
1392,35303	0,13004	0,11968	0,10585	0,04662	0,13225
1390,42456	0,1307	0,11972	0,10684	0,04738	0,13305
1388,49609	0,13081	0,11952	0,10704	0,04769	0,13329
1386,56763	0,12971	0,11905	0,10558	0,04662	0,13231
1384,63916	0,12901	0,11875	0,10507	0,04607	0,13186
1382,71069	0,12928	0,11911	0,10573	0,04659	0,13288
1380,78223	0,13011	0,11956	0,10659	0,04753	0,13401
1378,85376	0,13028	0,11978	0,10676	0,04775	0,13391
1376,92529	0,13044	0,11979	0,10695	0,04771	0,13353
1374,99683	0,13107	0,1194	0,10731	0,04803	0,13306
1373,06836	0,13023	0,1195	0,10669	0,04728	0,13211
1371,13989	0,12974	0,11982	0,10678	0,04675	0,13193
1369,21143	0,13021	0,11961	0,10724	0,0472	0,13192
1367,28296	0,12953	0,11959	0,10675	0,04681	0,1315
1365,35449	0,12961	0,11958	0,1071	0,04674	0,1317
1363,42603	0,13056	0,11917	0,10756	0,04739	0,13173
1361,49756	0,12986	0,11905	0,10678	0,04682	0,13113
1359,56909	0,12926	0,11925	0,10658	0,0462	0,13116
1357,64063	0,12952	0,1193	0,1069	0,04635	0,13123
1355,71216	0,12944	0,11904	0,1068	0,04641	0,13089
1353,78369	0,12918	0,11886	0,10661	0,04628	0,13075
1351,85522	0,12928	0,11886	0,10675	0,04624	0,1308
1349,92676	0,12941	0,11876	0,10682	0,04632	0,13082
1347,99829	0,12921	0,11879	0,10676	0,04629	0,1309
1346,06982	0,12912	0,11859	0,10671	0,04628	0,131
1344,14136	0,12898	0,11837	0,10657	0,04623	0,13089
1342,21289	0,12919	0,11846	0,10676	0,0464	0,13081
1340,28442	0,12977	0,11812	0,10683	0,04684	0,13072
1338,35596	0,12929	0,11772	0,10637	0,04661	0,13044
1336,42749	0,12873	0,11788	0,10625	0,04618	0,13037
1334,49902	0,12878	0,11818	0,10643	0,04607	0,13046
1332,57056	0,12872	0,11836	0,10662	0,04612	0,13045
1330,64209	0,12892	0,11842	0,10667	0,0464	0,1305

1328,71362	0,12911	0,11857	0,10655	0,04646	0,13069
1326,78516	0,12909	0,11861	0,10664	0,04631	0,13079
1324,85669	0,12915	0,11852	0,10671	0,04631	0,13074
1322,92822	0,1293	0,11865	0,10664	0,04633	0,13082
1320,99976	0,12969	0,11868	0,10677	0,04653	0,13107
1319,07129	0,12993	0,11856	0,10674	0,04672	0,13126
1317,14282	0,1297	0,11867	0,10644	0,04645	0,13112
1315,21436	0,12964	0,1187	0,10641	0,04634	0,13081
1313,28589	0,12982	0,11869	0,10649	0,04646	0,13072
1311,35742	0,12994	0,11907	0,10643	0,04636	0,1308
1309,42896	0,13013	0,11922	0,10658	0,0464	0,131
1307,50049	0,13036	0,1193	0,10678	0,04665	0,13136
1305,57202	0,13049	0,1196	0,10675	0,04685	0,13165
1303,64355	0,13064	0,11948	0,10677	0,04707	0,13191
1301,71509	0,13082	0,11933	0,10688	0,04726	0,13235
1299,78662	0,13097	0,11953	0,10704	0,04747	0,13293
1297,85815	0,13104	0,11974	0,1072	0,04773	0,13336
1295,92969	0,13115	0,11994	0,10717	0,04797	0,13371
1294,00122	0,13126	0,12005	0,10719	0,04831	0,13444
1292,07275	0,13134	0,1201	0,1072	0,04861	0,13529
1290,14429	0,1315	0,12011	0,10714	0,04887	0,13615
1288,21582	0,13168	0,12009	0,10723	0,04938	0,13735
1286,28735	0,13193	0,12013	0,10727	0,04998	0,13859
1284,35889	0,13223	0,1202	0,10727	0,05049	0,13986
1282,43042	0,13229	0,12036	0,10744	0,05111	0,14141
1280,50195	0,13251	0,12037	0,10769	0,05169	0,14323
1278,57349	0,13314	0,12046	0,10784	0,05208	0,14516
1276,64502	0,1337	0,12091	0,1079	0,05248	0,14684
1274,71655	0,13421	0,1212	0,10813	0,05293	0,14827
1272,78809	0,13481	0,12132	0,10846	0,05335	0,14971
1270,85962	0,13521	0,12152	0,10868	0,05387	0,15141
1268,93115	0,13552	0,12167	0,10898	0,05447	0,15324
1267,00269	0,13579	0,12183	0,1093	0,05492	0,15456
1265,07422	0,13589	0,12199	0,10951	0,05521	0,15538
1263,14575	0,13623	0,1221	0,10982	0,05546	0,15604
1261,21729	0,13667	0,12229	0,1101	0,0555	0,15597
1259,28882	0,13694	0,12243	0,1102	0,05532	0,15522
1257,36035	0,13739	0,1223	0,11019	0,05512	0,1544
1255,43188	0,13791	0,12216	0,11011	0,05492	0,15314
1253,50342	0,13826	0,12238	0,11016	0,05459	0,15161
1251,57495	0,13873	0,12256	0,11026	0,05427	0,15041
1249,64648	0,13932	0,12263	0,11026	0,05411	0,14925
1247,71802	0,14012	0,12294	0,1104	0,05398	0,14822
1245,78955	0,14109	0,1233	0,1107	0,05382	0,14756
1243,86108	0,14204	0,12355	0,11099	0,05385	0,14697
1241,93262	0,1429	0,12372	0,11141	0,05405	0,14658
1240,00415	0,14358	0,12404	0,11178	0,05426	0,14633
1238,07568	0,14446	0,1245	0,11198	0,05439	0,14612

1236,14722	0,14555	0,12472	0,11234	0,05457	0,14641
1234,21875	0,1464	0,1249	0,11273	0,05495	0,14691
1232,29028	0,14747	0,12535	0,11302	0,05543	0,14725
1230,36182	0,14849	0,12584	0,11347	0,05588	0,14764
1228,43335	0,14911	0,12617	0,11385	0,05609	0,14802
1226,50488	0,14992	0,12631	0,11405	0,05615	0,14835
1224,57642	0,15082	0,12648	0,11426	0,05629	0,14838
1222,64795	0,15173	0,12686	0,11459	0,05647	0,14813
1220,71948	0,15246	0,12724	0,11506	0,05684	0,14801
1218,79102	0,15289	0,12754	0,11531	0,05717	0,14786
1216,86255	0,15365	0,12778	0,11556	0,05738	0,14798
1214,93408	0,15469	0,12809	0,11605	0,05786	0,14875
1213,00562	0,15581	0,12869	0,11641	0,05848	0,14973
1211,07715	0,15681	0,12927	0,11679	0,05915	0,15072
1209,14868	0,15758	0,12979	0,11741	0,0599	0,1517
1207,22021	0,15825	0,13045	0,11807	0,06058	0,15254
1205,29175	0,15876	0,13091	0,11882	0,06139	0,1536
1203,36328	0,15935	0,13136	0,11949	0,06255	0,1552
1201,43481	0,16008	0,13202	0,12002	0,06379	0,15689
1199,50635	0,16074	0,13248	0,12071	0,0646	0,15833
1197,57788	0,16121	0,13293	0,12143	0,06505	0,15938
1195,64941	0,1616	0,13352	0,1218	0,06545	0,15966
1193,72095	0,16208	0,13393	0,12187	0,06561	0,15963
1191,79248	0,16259	0,13436	0,12211	0,06574	0,15999
1189,86401	0,16313	0,13491	0,12257	0,06607	0,16061
1187,93555	0,16348	0,13534	0,12284	0,06634	0,1611
1186,00708	0,16378	0,13585	0,12307	0,06651	0,1612
1184,07861	0,16435	0,13657	0,12372	0,06657	0,16102
1182,15015	0,16483	0,13727	0,12456	0,06636	0,16064
1180,22168	0,16527	0,13794	0,12516	0,06585	0,15967
1178,29321	0,1658	0,13865	0,12552	0,06519	0,15862
1176,36475	0,16633	0,13945	0,12614	0,06474	0,15813
1174,43628	0,16695	0,14032	0,12685	0,06444	0,15776
1172,50781	0,16739	0,14096	0,12722	0,06409	0,15748
1170,57935	0,16773	0,14133	0,12774	0,06396	0,1576
1168,65088	0,16809	0,14177	0,1284	0,06389	0,15752
1166,72241	0,16847	0,14232	0,12881	0,06366	0,15744
1164,79395	0,16893	0,14278	0,1292	0,06357	0,15769
1162,86548	0,16948	0,14319	0,12971	0,06357	0,1578
1160,93701	0,17032	0,14378	0,1301	0,06344	0,15784
1159,00854	0,17091	0,14431	0,13015	0,06328	0,1578
1157,08008	0,17099	0,14464	0,1302	0,06317	0,15758
1155,15161	0,17125	0,14517	0,13042	0,06308	0,15739
1153,22314	0,17172	0,14576	0,13065	0,06308	0,15733
1151,29468	0,17208	0,14607	0,13105	0,06329	0,15774
1149,36621	0,17256	0,14645	0,1314	0,06369	0,15858
1147,43774	0,17324	0,14697	0,13161	0,06423	0,15939
1145,50928	0,17374	0,1474	0,13191	0,06482	0,16011

1143,58081	0,17417	0,1477	0,13218	0,06521	0,16059
1141,65234	0,17485	0,14803	0,13243	0,06528	0,16062
1139,72388	0,17539	0,14841	0,13269	0,06521	0,16036
1137,79541	0,17582	0,14866	0,13296	0,06503	0,15996
1135,86694	0,17637	0,14908	0,13332	0,0649	0,15971
1133,93848	0,17678	0,14969	0,13369	0,06507	0,15992
1132,01001	0,17724	0,14982	0,1339	0,06518	0,16
1130,08154	0,17785	0,14989	0,13396	0,06515	0,1598
1128,15308	0,17808	0,15035	0,1341	0,06532	0,16
1126,22461	0,17795	0,15067	0,13435	0,0655	0,1603
1124,29614	0,17811	0,15077	0,13455	0,06566	0,16064
1122,36768	0,17833	0,15097	0,1347	0,06569	0,16073
1120,43921	0,17846	0,15125	0,13489	0,06544	0,16009
1118,51074	0,17909	0,15135	0,13515	0,06535	0,15973
1116,58228	0,17944	0,15155	0,13541	0,06535	0,15961
1114,65381	0,17929	0,15196	0,13557	0,06523	0,15935
1112,72534	0,1797	0,15213	0,13571	0,06531	0,15944
1110,79688	0,1802	0,15227	0,136	0,06545	0,15945
1108,86841	0,18026	0,15261	0,13639	0,06551	0,15933
1106,93994	0,18034	0,15267	0,13655	0,06569	0,15931
1105,01147	0,18033	0,15251	0,1366	0,06569	0,15923
1103,08301	0,1803	0,15254	0,13662	0,06545	0,15909
1101,15454	0,18029	0,1524	0,13651	0,06534	0,1587
1099,22607	0,18009	0,15222	0,13653	0,06527	0,15854
1097,29761	0,18017	0,15239	0,13686	0,06529	0,15876
1095,36914	0,18029	0,15254	0,13691	0,06537	0,15863
1093,44067	0,18003	0,15266	0,13649	0,06523	0,15859
1091,51221	0,18018	0,15268	0,13638	0,06517	0,15883
1089,58374	0,18035	0,15243	0,13647	0,06494	0,15873
1087,65527	0,17983	0,1524	0,13637	0,06457	0,15865
1085,72681	0,17939	0,15247	0,13644	0,06454	0,15873
1083,79834	0,17914	0,15227	0,13628	0,06437	0,15842
1081,86987	0,17865	0,15196	0,13569	0,06408	0,15815
1079,94141	0,1782	0,15178	0,13531	0,06405	0,15839
1078,01294	0,17781	0,15169	0,13524	0,06402	0,15876
1076,08447	0,17717	0,1515	0,13523	0,06408	0,1591
1074,15601	0,17645	0,15131	0,13494	0,06408	0,15925
1072,22754	0,17609	0,15128	0,13432	0,06383	0,15919
1070,29907	0,17589	0,15129	0,13374	0,06361	0,15911
1068,37061	0,17553	0,15093	0,1334	0,06334	0,15901
1066,44214	0,17514	0,15052	0,1332	0,06312	0,15893
1064,51367	0,1747	0,15036	0,13288	0,06294	0,15878
1062,58521	0,1743	0,15025	0,13259	0,06271	0,15877
1060,65674	0,17374	0,15013	0,13234	0,06268	0,15912
1058,72827	0,17292	0,14974	0,13201	0,06266	0,15955
1056,7998	0,17244	0,14925	0,13174	0,06262	0,16013
1054,87134	0,17233	0,14911	0,13137	0,06294	0,16117
1052,94287	0,1721	0,14879	0,13105	0,06373	0,1629

1051,0144	0,17169	0,14832	0,13092	0,06484	0,16532
1049,08594	0,17137	0,1481	0,13076	0,06619	0,16817
1047,15747	0,17106	0,14795	0,13074	0,06782	0,17139
1045,229	0,17045	0,14781	0,13094	0,06972	0,17467
1043,30054	0,1699	0,14767	0,13116	0,07164	0,17772
1041,37207	0,1695	0,1475	0,13121	0,07275	0,18023
1039,4436	0,16905	0,1476	0,13122	0,07293	0,18184
1037,51514	0,16868	0,148	0,1312	0,07298	0,18297
1035,58667	0,16838	0,14808	0,13097	0,07316	0,18427
1033,6582	0,16802	0,14773	0,13092	0,07353	0,18546
1031,72974	0,16783	0,14748	0,13098	0,07364	0,18564
1029,80127	0,16806	0,14726	0,13078	0,07293	0,185
1027,8728	0,1681	0,14691	0,13055	0,07162	0,18401
1025,94434	0,16772	0,14677	0,13029	0,06998	0,18217
1024,01587	0,1677	0,1468	0,13011	0,06823	0,17965
1022,0874	0,1677	0,1467	0,13018	0,06654	0,17686
1020,15894	0,16704	0,14662	0,12998	0,06496	0,1738
1018,23047	0,16642	0,14645	0,12951	0,06364	0,17106
1016,302	0,16605	0,14601	0,12912	0,06246	0,16869
1014,37354	0,16555	0,14572	0,12888	0,06146	0,16631
1012,44507	0,16533	0,14559	0,12867	0,06059	0,16412
1010,5166	0,16535	0,14536	0,12848	0,05958	0,16219
1008,58813	0,16497	0,14507	0,12846	0,05876	0,1606
1006,65967	0,16464	0,14478	0,12817	0,05811	0,15964
1004,7312	0,16445	0,14443	0,12785	0,05751	0,15879
1002,80273	0,16399	0,14383	0,12791	0,0573	0,15767
1000,87427	0,16391	0,14342	0,1276	0,05713	0,15661
998,9458	0,16403	0,14345	0,12713	0,05654	0,15561
997,01733	0,16362	0,14322	0,12694	0,05593	0,15473
995,08887	0,16312	0,14275	0,12684	0,05561	0,15404
993,1604	0,16245	0,14241	0,12672	0,05534	0,15335
991,23193	0,16166	0,14206	0,12644	0,05493	0,1526
989,30347	0,16144	0,14182	0,12631	0,0546	0,15189
987,375	0,16122	0,14171	0,12625	0,05426	0,15134
985,44653	0,16085	0,14154	0,12608	0,05388	0,15087
983,51807	0,1608	0,14144	0,12614	0,05378	0,15059
981,5896	0,16023	0,14114	0,12632	0,05373	0,15057
979,66113	0,15931	0,14067	0,12639	0,05358	0,15057
977,73267	0,1591	0,14067	0,12619	0,0534	0,15045
975,8042	0,15885	0,14067	0,12577	0,05309	0,14995
973,87573	0,15829	0,14055	0,12557	0,05285	0,14946
971,94727	0,15821	0,14062	0,12557	0,0527	0,14932
970,0188	0,15802	0,14045	0,12528	0,05255	0,1492
968,09033	0,15764	0,14035	0,12488	0,05243	0,14931
966,16187	0,15766	0,14036	0,12479	0,05223	0,14952
964,2334	0,15774	0,14015	0,12469	0,05212	0,14942
962,30493	0,15767	0,13992	0,12443	0,05226	0,14928
960,37646	0,15754	0,13965	0,12429	0,05242	0,14951

958,448	0,15737	0,13974	0,12421	0,0524	0,14987
956,51953	0,15716	0,14001	0,12412	0,0524	0,15016
954,59106	0,15686	0,1399	0,12419	0,05259	0,15069
952,6626	0,15664	0,13988	0,12432	0,05255	0,1509
950,73413	0,15655	0,13972	0,12413	0,0523	0,15047
948,80566	0,1564	0,13932	0,12402	0,0521	0,15015
946,8772	0,15644	0,13948	0,12417	0,05171	0,14994
944,94873	0,15663	0,1395	0,12393	0,05143	0,14976
943,02026	0,15651	0,139	0,12364	0,05139	0,14958
941,0918	0,15629	0,13903	0,12378	0,05122	0,1489
939,16333	0,1562	0,13924	0,1239	0,05114	0,14844
937,23486	0,15602	0,13918	0,12383	0,0511	0,14845
935,3064	0,15586	0,13919	0,12377	0,05092	0,14809
933,37793	0,15586	0,13946	0,12376	0,05083	0,148
931,44946	0,15614	0,13989	0,12369	0,05079	0,1482
929,521	0,15637	0,1398	0,1235	0,05064	0,14797
927,59253	0,15622	0,1395	0,12352	0,05073	0,14791
925,66406	0,15639	0,13967	0,12356	0,05093	0,14797
923,7356	0,15688	0,14004	0,12337	0,05081	0,14832
921,80713	0,15681	0,14021	0,12338	0,05085	0,14886
919,87866	0,15665	0,14002	0,12346	0,05079	0,14861
917,9502	0,15679	0,14	0,12354	0,0504	0,14842
916,02173	0,15687	0,14012	0,12364	0,05047	0,14849
914,09326	0,15689	0,14013	0,12342	0,05035	0,14779
912,16479	0,15676	0,14014	0,12336	0,04996	0,14733
910,23633	0,15685	0,14004	0,12361	0,05007	0,14777
908,30786	0,1572	0,13998	0,12361	0,04984	0,14792
906,37939	0,15703	0,13985	0,12351	0,04958	0,1475
904,45093	0,15674	0,13971	0,12351	0,04975	0,14719
902,52246	0,15702	0,13969	0,12337	0,04942	0,14707
900,59399	0,15742	0,13961	0,12334	0,04906	0,14681
898,66553	0,15745	0,13975	0,1238	0,04913	0,14664
896,73706	0,15723	0,14005	0,12405	0,04914	0,14659
894,80859	0,15714	0,14007	0,12402	0,04926	0,14659
892,88013	0,1574	0,13985	0,12423	0,04948	0,14698
890,95166	0,15755	0,13956	0,12419	0,04944	0,14701
889,02319	0,1574	0,13936	0,12422	0,04924	0,14659
887,09473	0,15755	0,13933	0,1243	0,04907	0,14698
885,16626	0,15801	0,1394	0,124	0,049	0,14766
883,23779	0,15826	0,13949	0,1241	0,04922	0,14787
881,30933	0,15858	0,14	0,12447	0,04949	0,14794
879,38086	0,15951	0,14086	0,12471	0,04964	0,14825
877,45239	0,16065	0,1415	0,1252	0,05001	0,14924
875,52393	0,16189	0,14256	0,12589	0,05071	0,15071
873,59546	0,16411	0,14421	0,12695	0,05162	0,15266
871,66699	0,16728	0,14643	0,12869	0,05276	0,15545
869,73853	0,17032	0,14935	0,13084	0,05391	0,15859
867,81006	0,17283	0,15158	0,13273	0,05494	0,16119

865,88159	0,17505	0,1529	0,13414	0,05595	0,16275
863,95313	0,17657	0,15388	0,13491	0,05656	0,16376
862,02466	0,17725	0,15429	0,13508	0,05664	0,16468
860,09619	0,17723	0,15441	0,13502	0,05669	0,16474
858,16772	0,17618	0,15393	0,13452	0,05657	0,1636
856,23926	0,17462	0,15266	0,13361	0,05602	0,16214
854,31079	0,17315	0,15154	0,13261	0,05524	0,16052
852,38232	0,17225	0,15098	0,132	0,05474	0,15932
850,45386	0,17265	0,15118	0,13244	0,05497	0,16002
848,52539	0,17527	0,15365	0,13447	0,05624	0,16308
846,59692	0,18091	0,15881	0,13836	0,05902	0,16827
844,66846	0,18671	0,16361	0,1419	0,0617	0,17311
842,73999	0,19227	0,16846	0,14485	0,06384	0,17766
840,81152	0,20306	0,17768	0,15122	0,06863	0,1871
838,88306	0,21686	0,1892	0,15952	0,07488	0,19963
836,95459	0,2291	0,19993	0,16675	0,08036	0,21072
835,02612	0,2406	0,20969	0,17345	0,08573	0,22046
833,09766	0,24581	0,21356	0,17612	0,08786	0,22438
831,16919	0,24504	0,21276	0,17531	0,08714	0,22348
829,24072	0,24482	0,21249	0,17513	0,087	0,22305
827,31226	0,24408	0,21193	0,1747	0,08673	0,22207
825,38379	0,24926	0,21664	0,17756	0,08938	0,22627
823,45532	0,26013	0,22567	0,18359	0,09454	0,23545
821,52686	0,26324	0,22807	0,1854	0,09594	0,23846
819,59839	0,26244	0,22744	0,18517	0,09564	0,23809
817,66992	0,26475	0,2296	0,18683	0,09682	0,24014
815,74146	0,26782	0,23274	0,18921	0,09851	0,24328
813,81299	0,27232	0,2367	0,19201	0,10079	0,24749
811,88452	0,27527	0,2388	0,19332	0,10198	0,24963
809,95605	0,27448	0,23796	0,19258	0,10133	0,24855
808,02759	0,27455	0,2381	0,19275	0,10134	0,24858
806,09912	0,27736	0,24041	0,19477	0,10284	0,25097
804,17065	0,28052	0,24288	0,19676	0,1043	0,25353
802,24219	0,28259	0,24465	0,1979	0,10518	0,25512
800,31372	0,28588	0,24744	0,19984	0,10694	0,25767
798,38525	0,29078	0,25119	0,20264	0,10947	0,2615
796,45679	0,29431	0,2537	0,20433	0,11109	0,26401
794,52832	0,29568	0,25464	0,20453	0,11144	0,26472
792,59985	0,29444	0,25356	0,20342	0,11042	0,26345
790,67139	0,29049	0,2503	0,20112	0,10849	0,25999
788,74292	0,28691	0,24768	0,19902	0,10713	0,25701
786,81445	0,28517	0,24666	0,19776	0,1063	0,25563
784,88599	0,28202	0,2438	0,19584	0,10429	0,25289
782,95752	0,27702	0,2391	0,19324	0,10165	0,2487
781,02905	0,27438	0,23666	0,19187	0,10021	0,24649
779,10059	0,27463	0,23662	0,19189	0,09987	0,24657
777,17212	0,27705	0,23865	0,19309	0,10089	0,24883
775,24365	0,28224	0,24343	0,19575	0,10343	0,25378



773,31519	0,28786	0,24817	0,19861	0,10582	0,25834
771,38672	0,29134	0,25094	0,20036	0,10733	0,2606
769,45825	0,29297	0,25228	0,20121	0,10817	0,2618
767,52979	0,29453	0,25345	0,2019	0,10888	0,26277
765,60132	0,29632	0,255	0,20283	0,10984	0,26416
763,67285	0,29682	0,25545	0,2035	0,11007	0,26517
761,74438	0,29485	0,25397	0,20272	0,10894	0,26369
759,81592	0,2916	0,25165	0,20087	0,10725	0,2609
757,88745	0,29018	0,25049	0,20028	0,10641	0,2596
755,95898	0,2902	0,25024	0,2008	0,10662	0,25946
754,03052	0,28937	0,24933	0,20025	0,10628	0,25921
752,10205	0,28749	0,24821	0,19886	0,10504	0,25817
750,17358	0,28667	0,24834	0,19873	0,1048	0,25755
748,24512	0,28879	0,25038	0,19979	0,10597	0,25921
746,31665	0,29092	0,25234	0,20045	0,10717	0,26102
744,38818	0,29176	0,25299	0,20101	0,10802	0,26177
742,45972	0,29316	0,25357	0,20168	0,10836	0,26283
740,53125	0,29441	0,25458	0,20181	0,10817	0,26362
738,60278	0,29555	0,25618	0,20204	0,10853	0,26436
736,67432	0,29751	0,25791	0,20299	0,10973	0,26601
734,74585	0,29869	0,25883	0,20392	0,1106	0,26692
732,81738	0,29759	0,25822	0,2036	0,11023	0,26598
730,88892	0,29651	0,2575	0,20323	0,11013	0,26571
728,96045	0,29753	0,25864	0,20427	0,11128	0,26735
727,03198	0,29972	0,26017	0,20552	0,11259	0,26924
725,10352	0,3027	0,26263	0,20702	0,11409	0,27154
723,17505	0,30545	0,26544	0,20859	0,1153	0,27351
721,24658	0,30688	0,26583	0,20915	0,1157	0,27398
719,31812	0,30824	0,26748	0,21011	0,11688	0,27537
717,38965	0,3107	0,27098	0,21188	0,11874	0,2779
715,46118	0,31327	0,27265	0,21302	0,11976	0,27949
713,53271	0,31392	0,27325	0,21317	0,11988	0,27985
711,60425	0,31275	0,27265	0,2121	0,11907	0,27873
709,67578	0,31226	0,27173	0,21142	0,11854	0,27799
707,74731	0,31281	0,27224	0,21241	0,11948	0,27894
705,81885	0,31215	0,272	0,21215	0,11971	0,27853
703,89038	0,31013	0,27051	0,21049	0,11876	0,27638
701,96191	0,30841	0,26912	0,20965	0,11808	0,27491
700,03345	0,30774	0,26829	0,20889	0,11767	0,27424
698,10498	0,30744	0,26846	0,20882	0,11794	0,27421
696,17651	0,30708	0,26851	0,20937	0,11822	0,27427
694,24805	0,30774	0,2685	0,20944	0,11822	0,27441
692,31958	0,30936	0,26954	0,21019	0,11902	0,27592
690,39111	0,31119	0,27046	0,21098	0,11997	0,27759
688,46265	0,31368	0,27222	0,21186	0,12105	0,27945
686,53418	0,31667	0,27492	0,21371	0,12277	0,28194
684,60571	0,31787	0,27601	0,21401	0,12312	0,28234
682,67725	0,31926	0,27694	0,21397	0,12332	0,28289

680,74878	0,32248	0,27871	0,21603	0,12555	0,28533
678,82031	0,32423	0,28093	0,21721	0,12694	0,28645
676,89185	0,32689	0,28298	0,21777	0,12755	0,28732
674,96338	0,32916	0,28574	0,21918	0,12876	0,28935
673,03491	0,32978	0,28787	0,21969	0,12906	0,29072
671,10645	0,33028	0,28806	0,22022	0,12954	0,29118
669,17798	0,33078	0,28826	0,22076	0,13002	0,29191
667,24951	0,33128	0,28845	0,2213	0,1305	0,29209
665,32104	0,33178	0,28864	0,22183	0,13098	0,29223
663,39258	0,33228	0,28884	0,22237	0,13146	0,29257
661,46411	0,33278	0,28903	0,22238	0,13159	0,2929
659,53564	0,33328	0,28923	0,22239	0,13171	0,29323
657,60718	0,33378	0,28942	0,2224	0,13183	0,29356
655,67871	0,33364	0,28962	0,22226	0,13205	0,29348
653,75024	0,33182	0,28719	0,22212	0,13228	0,29341
651,82178	0,33238	0,28791	0,22198	0,1325	0,29334
649,89331	0,33399	0,28926	0,22184	0,13272	0,29326
647,96484	0,33577	0,291	0,22218	0,13294	0,29451
646,03638	0,33787	0,29333	0,22253	0,13317	0,29649
644,10791	0,33791	0,2936	0,22287	0,1324	0,29671
642,17944	0,33758	0,29293	0,22322	0,13203	0,29661
640,25098	0,33776	0,29357	0,22356	0,13224	0,29715
638,32251	0,33742	0,29466	0,22342	0,13198	0,2977
636,39404	0,33706	0,29574	0,22346	0,13213	0,29845
634,46558	0,3361	0,29609	0,2233	0,13216	0,29803
632,53711	0,33512	0,29546	0,22328	0,13127	0,29644
630,60864	0,33387	0,29453	0,22225	0,12989	0,29466
628,68018	0,33304	0,2936	0,22083	0,12912	0,29342
626,75171	0,33238	0,29277	0,22054	0,12898	0,29385
624,82324	0,33155	0,29236	0,22055	0,12891	0,2948
622,89478	0,332	0,2926	0,22077	0,12885	0,29521
620,96631	0,3326	0,29238	0,22109	0,12837	0,29559
619,03784	0,33354	0,29208	0,22159	0,12836	0,29628
617,10938	0,33541	0,29318	0,22269	0,12947	0,29754
615,18091	0,3361	0,29444	0,22327	0,13026	0,29827
613,25244	0,33614	0,29466	0,22343	0,13012	0,29799
611,32397	0,33712	0,2947	0,22414	0,13004	0,29821
609,39551	0,33791	0,29503	0,22439	0,13026	0,29924
607,46704	0,33775	0,29528	0,22429	0,13006	0,29975
605,53857	0,33794	0,29525	0,2244	0,12963	0,29921
603,61011	0,3381	0,29476	0,22346	0,129	0,29801
601,68164	0,33716	0,29415	0,2225	0,1281	0,29739
599,75317	0,33638	0,29321	0,22225	0,12766	0,29755
597,82471	0,33648	0,29193	0,22164	0,12728	0,29714
595,89624	0,33606	0,29147	0,22122	0,12672	0,29649
593,96777	0,33509	0,29131	0,2206	0,12594	0,2961
592,03931	0,3344	0,29127	0,22	0,12481	0,29577
590,11084	0,33391	0,2918	0,22049	0,12457	0,29606

588,18237	0,33316	0,29179	0,22072	0,12452	0,29641
586,25391	0,33262	0,29106	0,22049	0,12375	0,29633
584,32544	0,33295	0,2909	0,22073	0,12368	0,29613
582,39697	0,33261	0,2916	0,22069	0,12362	0,29576
580,46851	0,33119	0,29132	0,2202	0,12306	0,2956
578,54004	0,32995	0,29037	0,22017	0,12302	0,29584
576,61157	0,32889	0,29032	0,22009	0,12277	0,29516
574,68311	0,32891	0,29044	0,21966	0,1223	0,2941
572,75464	0,33022	0,29114	0,22001	0,12291	0,29519
570,82617	0,33148	0,29272	0,22088	0,12428	0,29694
568,89771	0,33292	0,29494	0,22188	0,12578	0,29803
566,96924	0,33494	0,29742	0,22346	0,12754	0,30004
565,04077	0,3355	0,29757	0,22423	0,12859	0,30165
563,1123	0,33456	0,2969	0,22402	0,12851	0,30142
561,18384	0,33439	0,29739	0,22433	0,12885	0,30114
559,25537	0,3341	0,29676	0,22447	0,12952	0,30187
557,3269	0,33373	0,29614	0,22419	0,12954	0,3025
555,39844	0,33381	0,29614	0,22471	0,12977	0,3023
553,46997	0,33245	0,29658	0,22529	0,13045	0,30217
551,5415	0,33088	0,29807	0,22472	0,13043	0,30219
549,61304	0,3302	0,2972	0,22398	0,12973	0,30176
547,68457	0,3277	0,29549	0,2237	0,1286	0,30114
545,7561	0,32561	0,29525	0,22353	0,12836	0,30083
543,82764	0,32631	0,29344	0,22397	0,12971	0,30085
541,89917	0,32559	0,29311	0,22446	0,12984	0,30116
539,9707	0,32472	0,29535	0,22499	0,12956	0,30183
538,04224	0,32453	0,29554	0,22637	0,13061	0,30282
536,11377	0,32354	0,29535	0,22738	0,13142	0,30485
534,1853	0,32488	0,29599	0,22846	0,13322	0,3072
532,25684	0,32337	0,29496	0,23019	0,13411	0,30875
530,32837	0,32133	0,29259	0,23141	0,13386	0,31009
528,3999	0,31886	0,29071	0,22967	0,13252	0,30995
526,47144	0,30979	0,28932	0,22576	0,1289	0,30992
524,54297	0,30775	0,28705	0,2261	0,12946	0,31088
522,6145	0,30911	0,28482	0,22924	0,13162	0,31061
520,68604	0,30147	0,28234	0,22816	0,12945	0,31165
518,75757	0,29516	0,27965	0,22532	0,12656	0,31384
516,8291	0,29371	0,27861	0,22581	0,12539	0,31345
514,90063	0,29197	0,27584	0,22635	0,12645	0,31256
512,97217	0,28859	0,27174	0,22593	0,12705	0,31328
511,0437	0,2839	0,26895	0,22616	0,1249	0,31352
509,11523	0,27769	0,26512	0,22434	0,12231	0,31337
507,18677	0,27272	0,26224	0,22288	0,12162	0,31284
505,2583	0,27209	0,26089	0,22276	0,12183	0,31268
503,32983	0,26945	0,2582	0,22059	0,12005	0,31462
501,40137	0,26624	0,25544	0,22064	0,11873	0,31365
499,4729	0,26481	0,25279	0,22178	0,11903	0,31066

Figure 3.2 C						
n°spectre	Vd310	VD317	VD68	VD62	VD63	VD64
cm-1	crushed-F1	pHnat-F1	$\Theta=1,6-F1$	$\Theta=3.2-F1$	$\Theta=7.9-F1$	$\Theta=15.9-F1$
4001,5686	0,22336	0,18486	0,16047	0,17855	0,21328	0,26553
3999,64014	0,22313	0,18478	0,16036	0,17834	0,21314	0,26527
3997,71167	0,22308	0,18472	0,16038	0,1783	0,21305	0,26508
3995,7832	0,22305	0,18449	0,16026	0,17824	0,21295	0,26491
3993,85474	0,22264	0,18425	0,16008	0,17804	0,21275	0,26472
3991,92627	0,22251	0,18408	0,15994	0,17805	0,21277	0,26457
3989,9978	0,22243	0,1841	0,15976	0,17802	0,21282	0,26443
3988,06934	0,22204	0,18411	0,15958	0,17777	0,21261	0,26432
3986,14087	0,22201	0,18391	0,15954	0,17775	0,21249	0,26409
3984,2124	0,222	0,18375	0,15951	0,17771	0,21236	0,26392
3982,28394	0,22175	0,18369	0,15939	0,17754	0,21225	0,26385
3980,35547	0,22161	0,1836	0,15927	0,17753	0,21219	0,26352
3978,427	0,22149	0,18346	0,15907	0,1775	0,21202	0,26341
3976,49854	0,22144	0,18325	0,15891	0,17743	0,21203	0,2635
3974,57007	0,22123	0,18307	0,1589	0,17734	0,21197	0,26325
3972,6416	0,22102	0,18302	0,15884	0,17722	0,21179	0,26311
3970,71313	0,22094	0,18289	0,15868	0,17714	0,21175	0,26299
3968,78467	0,22078	0,18278	0,15848	0,17703	0,21155	0,26278
3966,8562	0,22052	0,18287	0,15844	0,17694	0,21126	0,26267
3964,92773	0,22045	0,18271	0,15851	0,17693	0,21124	0,26247
3962,99927	0,22057	0,18246	0,15835	0,17692	0,21136	0,26238
3961,0708	0,22004	0,1824	0,15811	0,17675	0,21113	0,26219
3959,14233	0,21989	0,18234	0,1581	0,17669	0,21095	0,26198
3957,21387	0,21998	0,18218	0,15794	0,17664	0,21089	0,26178
3955,2854	0,21959	0,18199	0,15776	0,17651	0,21082	0,26154
3953,35693	0,21977	0,18212	0,15791	0,17664	0,21099	0,26178
3951,42847	0,21926	0,18169	0,15771	0,17635	0,21056	0,26133
3949,5	0,21879	0,18093	0,15723	0,17593	0,21034	0,26049
3947,57153	0,21894	0,18143	0,15714	0,17613	0,21043	0,26076
3945,64307	0,21878	0,18163	0,15727	0,17621	0,21012	0,26095
3943,7146	0,21947	0,18119	0,15733	0,17635	0,21065	0,26087
3941,78613	0,21902	0,18125	0,15695	0,1762	0,21049	0,26069
3939,85767	0,21813	0,18121	0,1567	0,17586	0,20973	0,26037
3937,9292	0,21848	0,18128	0,15696	0,17613	0,21006	0,26042
3936,00073	0,21823	0,18125	0,15689	0,17608	0,20992	0,26027
3934,07227	0,21846	0,18085	0,15673	0,17583	0,21001	0,26016
3932,1438	0,21878	0,18068	0,15655	0,17589	0,2105	0,26
3930,21533	0,21766	0,18062	0,15592	0,17564	0,2096	0,25944
3928,28687	0,21723	0,18058	0,15594	0,17544	0,20911	0,25941
3926,3584	0,21794	0,18041	0,15636	0,17559	0,20984	0,25965
3924,42993	0,21794	0,18019	0,15601	0,17557	0,20977	0,25934
3922,50146	0,21705	0,18014	0,15559	0,1752	0,20891	0,25887
3920,573	0,21734	0,18012	0,15583	0,17528	0,20923	0,25903
3918,64453	0,21771	0,17992	0,15582	0,17546	0,20971	0,2591

3916,71606	0,21677	0,1796	0,15531	0,17508	0,20903	0,25857
3914,7876	0,21588	0,17961	0,15513	0,17477	0,20825	0,25812
3912,85913	0,21628	0,1797	0,15543	0,17487	0,20844	0,25826
3910,93066	0,21661	0,17989	0,1557	0,17511	0,20883	0,25854
3909,0022	0,21594	0,1799	0,15548	0,17497	0,20843	0,2581
3907,07373	0,2167	0,17922	0,15537	0,17482	0,20878	0,25802
3905,14526	0,21772	0,17895	0,15537	0,17501	0,20972	0,25829
3903,2168	0,21587	0,17895	0,15438	0,17455	0,20885	0,25735
3901,28833	0,21492	0,17829	0,15354	0,174	0,20797	0,25664
3899,35986	0,21552	0,17814	0,15351	0,174	0,20809	0,25664
3897,4314	0,21441	0,17853	0,15361	0,17393	0,20738	0,2564
3895,50293	0,21432	0,17855	0,15391	0,17396	0,20704	0,25654
3893,57446	0,21642	0,17824	0,15465	0,17437	0,20859	0,25732
3891,646	0,21659	0,17855	0,1547	0,17489	0,2095	0,25746
3889,71753	0,21247	0,17857	0,15317	0,17364	0,20612	0,25554
3887,78906	0,21481	0,17763	0,15381	0,17346	0,20723	0,25622
3885,8606	0,21657	0,17824	0,15481	0,17492	0,20995	0,25753
3883,93213	0,21155	0,1783	0,15256	0,1733	0,20585	0,25489
3882,00366	0,21497	0,17683	0,153	0,17293	0,20713	0,25546
3880,0752	0,21627	0,17752	0,15362	0,17435	0,20917	0,25639
3878,14673	0,21136	0,1777	0,15216	0,17292	0,20523	0,2546
3876,21826	0,21453	0,17717	0,15349	0,1733	0,2072	0,25592
3874,28979	0,21505	0,17773	0,15354	0,17398	0,20812	0,25578
3872,36133	0,2134	0,1768	0,15237	0,17276	0,2064	0,25464
3870,43286	0,21503	0,17687	0,15354	0,17376	0,20866	0,25598
3868,50439	0,21122	0,17744	0,15191	0,1731	0,2059	0,25399
3866,57593	0,21192	0,17621	0,15168	0,17222	0,20535	0,25387
3864,64746	0,21421	0,1766	0,1531	0,17362	0,20802	0,25542
3862,71899	0,21194	0,17686	0,15164	0,17283	0,20585	0,2537
3860,79053	0,21206	0,17645	0,15191	0,17249	0,20567	0,2539
3858,86206	0,2123	0,17694	0,15268	0,17329	0,20633	0,25451
3856,93359	0,21356	0,17607	0,1521	0,17273	0,20628	0,25408
3855,00513	0,21424	0,17656	0,15416	0,17393	0,20935	0,25612
3853,07666	0,20955	0,17919	0,15318	0,17492	0,20887	0,25526
3851,14819	0,20614	0,17568	0,14877	0,17087	0,20228	0,25062
3849,21973	0,21083	0,17525	0,15046	0,1716	0,20439	0,2525
3847,29126	0,21147	0,17654	0,15228	0,17296	0,20567	0,25392
3845,36279	0,21238	0,17622	0,15223	0,1729	0,20619	0,2539
3843,43433	0,21228	0,17609	0,15204	0,173	0,2065	0,25383
3841,50586	0,21167	0,17561	0,15116	0,17252	0,20569	0,25294
3839,57739	0,2124	0,17488	0,15122	0,17243	0,20643	0,25309
3837,64893	0,21017	0,17583	0,15138	0,17291	0,2063	0,25305
3835,72046	0,20764	0,17565	0,14998	0,17161	0,20363	0,2513
3833,79199	0,2105	0,1747	0,15032	0,17139	0,20466	0,25185
3831,86353	0,21066	0,1754	0,15111	0,17236	0,2056	0,25259
3829,93506	0,20885	0,17539	0,15049	0,1719	0,20393	0,25169
3828,00659	0,21107	0,17474	0,15107	0,17201	0,20526	0,25245

3826,07813	0,21022	0,17545	0,15104	0,17241	0,20513	0,25223
3824,14966	0,20975	0,17465	0,15039	0,1715	0,20389	0,25139
3822,22119	0,21269	0,17437	0,15174	0,17252	0,20732	0,25305
3820,29272	0,20834	0,17525	0,14956	0,17195	0,20467	0,25059
3818,36426	0,20793	0,17336	0,14879	0,17029	0,20252	0,24978
3816,43579	0,2102	0,17413	0,15099	0,17206	0,20586	0,2522
3814,50732	0,20595	0,17526	0,14958	0,17153	0,20303	0,25026
3812,57886	0,20754	0,17396	0,14919	0,1707	0,20266	0,25016
3810,65039	0,20927	0,17436	0,15041	0,17161	0,20421	0,25135
3808,72192	0,21006	0,17415	0,15089	0,17182	0,20512	0,25165
3806,79346	0,20848	0,17461	0,15055	0,17204	0,20504	0,25127
3804,86499	0,20607	0,174	0,14872	0,17055	0,20187	0,24924
3802,93652	0,21046	0,17264	0,14976	0,17094	0,20474	0,25074
3801,00806	0,20817	0,17443	0,15015	0,17214	0,20539	0,25082
3799,07959	0,20432	0,17342	0,14785	0,16985	0,20083	0,2481
3797,15112	0,20952	0,17235	0,14893	0,17043	0,20374	0,24984
3795,22266	0,20763	0,17375	0,14933	0,17128	0,20362	0,25
3793,29419	0,20614	0,17343	0,14877	0,1705	0,20205	0,2493
3791,36572	0,20817	0,17334	0,14975	0,17102	0,20368	0,25032
3789,43726	0,20706	0,17378	0,14967	0,17103	0,20316	0,24984
3787,50879	0,20711	0,1733	0,14936	0,17066	0,20289	0,24959
3785,58032	0,20806	0,17307	0,14943	0,17088	0,20366	0,24984
3783,65186	0,2065	0,17305	0,14887	0,17046	0,20243	0,24903
3781,72339	0,20685	0,17276	0,14897	0,1704	0,20275	0,24919
3779,79492	0,2078	0,17254	0,14886	0,17069	0,20375	0,24934
3777,86646	0,20578	0,17249	0,14809	0,17017	0,20213	0,24833
3775,93799	0,2057	0,17249	0,14837	0,1701	0,20196	0,24839
3774,00952	0,20625	0,17255	0,14876	0,17031	0,20232	0,24868
3772,08105	0,20693	0,17222	0,14876	0,17031	0,20274	0,24885
3770,15259	0,20681	0,17219	0,14852	0,17046	0,20324	0,24858
3768,22412	0,20442	0,17202	0,14759	0,16964	0,20145	0,24733
3766,29565	0,20573	0,1714	0,14755	0,16945	0,20195	0,24769
3764,36719	0,2053	0,17181	0,1477	0,16977	0,20205	0,24781
3762,43872	0,20452	0,17166	0,14753	0,16933	0,20116	0,24732
3760,51025	0,20669	0,17124	0,14803	0,16973	0,20284	0,24802
3758,58179	0,20543	0,1713	0,14736	0,16959	0,20222	0,24726
3756,65332	0,20421	0,17076	0,14664	0,16879	0,20083	0,2464
3754,72485	0,20508	0,17083	0,14722	0,16913	0,20172	0,24701
3752,79639	0,20542	0,17061	0,14754	0,16925	0,20266	0,24732
3750,86792	0,20477	0,1708	0,14732	0,16958	0,20353	0,24722
3748,93945	0,19936	0,17084	0,14498	0,1681	0,19906	0,2445
3747,01099	0,20326	0,16898	0,14504	0,16734	0,19982	0,24495
3745,08252	0,20596	0,16977	0,14752	0,16931	0,20417	0,24768
3743,15405	0,19889	0,17138	0,1452	0,16864	0,19999	0,24493
3741,22559	0,20191	0,1688	0,14363	0,16662	0,1983	0,2436
3739,29712	0,20605	0,16864	0,14555	0,16767	0,20127	0,24566
3737,36865	0,20536	0,16936	0,14605	0,16848	0,20238	0,24621
3735,44019	0,20502	0,16804	0,14375	0,16709	0,20149	0,24458

3733,51172	0,2043	0,16766	0,1431	0,16642	0,20078	0,24399
3731,58325	0,20196	0,16856	0,14347	0,16653	0,19953	0,24388
3729,65479	0,20295	0,16822	0,14354	0,16622	0,19921	0,24382
3727,72632	0,20536	0,16779	0,14414	0,1665	0,20075	0,24461
3725,79785	0,2048	0,1681	0,14408	0,16673	0,20104	0,24458
3723,86938	0,20393	0,16777	0,14338	0,16623	0,20006	0,24374
3721,94092	0,20386	0,16782	0,14381	0,16649	0,20016	0,24384
3720,01245	0,20274	0,16818	0,14405	0,16664	0,19966	0,24378
3718,08398	0,20226	0,16834	0,14429	0,16676	0,19943	0,24396
3716,15552	0,20158	0,16869	0,14484	0,16707	0,1992	0,24398
3714,22705	0,20233	0,16825	0,14528	0,16712	0,1999	0,24425
3712,29858	0,20269	0,16799	0,14504	0,16735	0,20101	0,24437
3710,37012	0,20064	0,16724	0,1429	0,16606	0,19898	0,2424
3708,44165	0,20081	0,1665	0,142	0,16483	0,19797	0,24194
3706,51318	0,20007	0,167	0,14237	0,16494	0,19743	0,24216
3704,58472	0,20083	0,16671	0,14308	0,16541	0,19807	0,24251
3702,65625	0,20248	0,16647	0,14354	0,16594	0,19972	0,24306
3700,72778	0,19996	0,16664	0,14279	0,16555	0,19828	0,24205
3698,79932	0,19929	0,16615	0,14272	0,16509	0,19748	0,24179
3696,87085	0,20042	0,16579	0,14304	0,16523	0,19825	0,24204
3694,94238	0,19904	0,16554	0,14301	0,16513	0,19776	0,2417
3693,01392	0,1985	0,16466	0,14267	0,1647	0,19747	0,24138
3691,08545	0,19919	0,16308	0,14201	0,16434	0,19818	0,24082
3689,15698	0,19568	0,16273	0,14161	0,16418	0,19729	0,24006
3687,22852	0,19174	0,16287	0,14087	0,16339	0,19455	0,23884
3685,30005	0,19398	0,16221	0,1407	0,16313	0,19463	0,23874
3683,37158	0,19576	0,16269	0,14202	0,16391	0,19604	0,24009
3681,44312	0,19584	0,1636	0,14289	0,16471	0,19697	0,24089
3679,51465	0,19609	0,1634	0,14216	0,16436	0,19645	0,24013
3677,58618	0,19745	0,16271	0,14282	0,16443	0,1977	0,24085
3675,65771	0,19782	0,16388	0,143	0,16553	0,19973	0,24119
3673,72925	0,19236	0,16416	0,14046	0,16361	0,19441	0,23809
3671,80078	0,19566	0,163	0,14189	0,1639	0,19614	0,23984
3669,87231	0,19709	0,1642	0,14317	0,16568	0,19902	0,24123
3667,94385	0,19343	0,16461	0,14119	0,16426	0,19526	0,23886
3666,01538	0,1954	0,16419	0,14217	0,16449	0,19601	0,23998
3664,08691	0,19637	0,16486	0,14349	0,1656	0,19732	0,24118
3662,15845	0,1962	0,16496	0,1433	0,16555	0,19707	0,24094
3660,22998	0,19573	0,16482	0,14325	0,16544	0,19694	0,24075
3658,30151	0,19679	0,16418	0,14349	0,1655	0,19785	0,24103
3656,37305	0,19646	0,16428	0,14337	0,16574	0,19827	0,24094
3654,44458	0,19337	0,16446	0,14222	0,16489	0,19584	0,23963
3652,51611	0,19626	0,1631	0,14235	0,16469	0,19716	0,24026
3650,58765	0,19831	0,1628	0,14306	0,16557	0,19974	0,24109
3648,65918	0,19433	0,16313	0,14132	0,16481	0,19744	0,23908
3646,73071	0,19306	0,1622	0,14025	0,16365	0,19553	0,23814
3644,80225	0,19378	0,16244	0,14133	0,16401	0,19586	0,23901
3642,87378	0,19439	0,16274	0,14237	0,16446	0,19659	0,23982

3640,94531	0,19499	0,16252	0,14255	0,16455	0,19719	0,24002
3639,01685	0,19411	0,16244	0,14222	0,16441	0,19673	0,23971
3637,08838	0,19438	0,16186	0,14197	0,16411	0,19682	0,23969
3635,15991	0,19489	0,16143	0,14189	0,1641	0,19751	0,23985
3633,23145	0,194	0,16109	0,141	0,16359	0,19661	0,23908
3631,30298	0,19501	0,15989	0,14111	0,16322	0,19726	0,23932
3629,37451	0,19584	0,15966	0,14163	0,164	0,19957	0,24007
3627,44604	0,1905	0,15982	0,13892	0,16258	0,19547	0,23723
3625,51758	0,19174	0,15877	0,13912	0,16186	0,19497	0,23744
3623,58911	0,19347	0,15885	0,1406	0,1626	0,19668	0,23885
3621,66064	0,19317	0,15874	0,14079	0,16269	0,19678	0,23888
3619,73218	0,19332	0,15808	0,14079	0,16287	0,19761	0,23894
3617,80371	0,19075	0,15818	0,1398	0,16224	0,1959	0,23774
3615,87524	0,19108	0,15777	0,13976	0,16192	0,19542	0,23793
3613,94678	0,19246	0,15755	0,14069	0,16269	0,19706	0,23896
3612,01831	0,19013	0,15731	0,14024	0,16201	0,1959	0,23797
3610,08984	0,18956	0,15648	0,14004	0,16143	0,19571	0,23783
3608,16138	0,19028	0,15596	0,13973	0,16128	0,19633	0,23783
3606,23291	0,18924	0,15555	0,13895	0,16029	0,19503	0,23687
3604,30444	0,1894	0,15535	0,13938	0,16036	0,19518	0,23725
3602,37598	0,19036	0,15516	0,13988	0,16065	0,1962	0,23776
3600,44751	0,19043	0,15475	0,1395	0,16003	0,19613	0,23739
3598,51904	0,1895	0,15464	0,13893	0,15969	0,19544	0,237
3596,59058	0,18963	0,15426	0,13904	0,15985	0,19581	0,23718
3594,66211	0,19006	0,15383	0,13915	0,15974	0,19624	0,23721
3592,73364	0,18894	0,15426	0,13897	0,15951	0,19534	0,23677
3590,80518	0,18878	0,15423	0,13957	0,15958	0,19542	0,23711
3588,87671	0,19001	0,15359	0,14006	0,15992	0,19692	0,23772
3586,94824	0,1892	0,15356	0,13901	0,15977	0,19649	0,23693
3585,01978	0,18732	0,15374	0,13878	0,15918	0,19478	0,23634
3583,09131	0,18797	0,15373	0,13975	0,15936	0,19533	0,23704
3581,16284	0,18823	0,15389	0,14026	0,15976	0,196	0,23747
3579,23438	0,18793	0,15387	0,14023	0,15979	0,19583	0,23738
3577,30591	0,18783	0,15379	0,1403	0,15975	0,19574	0,23733
3575,37744	0,1877	0,15364	0,14039	0,15971	0,19583	0,23746
3573,44897	0,18749	0,15353	0,1403	0,15966	0,19584	0,23744
3571,52051	0,18722	0,15352	0,14025	0,15953	0,19566	0,23729
3569,59204	0,1881	0,15299	0,14053	0,15957	0,1964	0,23768
3567,66357	0,18917	0,15225	0,14	0,15974	0,19743	0,23755
3565,73511	0,18722	0,15224	0,13886	0,15914	0,19604	0,23632
3563,80664	0,18626	0,15244	0,13935	0,15885	0,19531	0,23648
3561,87817	0,18678	0,1525	0,14022	0,15931	0,19601	0,23721
3559,94971	0,18664	0,15254	0,1403	0,15941	0,19611	0,23718
3558,02124	0,1863	0,15251	0,14024	0,15924	0,19603	0,23707
3556,09277	0,18596	0,1524	0,14042	0,15931	0,1961	0,23721
3554,16431	0,18623	0,1521	0,14042	0,15943	0,19646	0,23735
3552,23584	0,18633	0,15193	0,14014	0,15937	0,19654	0,23713
3550,30737	0,18543	0,15198	0,14014	0,15908	0,19592	0,23683



3548,37891	0,18578	0,15159	0,14034	0,15915	0,19637	0,23707
3546,45044	0,18637	0,15118	0,14002	0,15931	0,19682	0,23694
3544,52197	0,18545	0,1512	0,13974	0,15902	0,19612	0,23632
3542,59351	0,18489	0,15114	0,13996	0,15894	0,19596	0,23642
3540,66504	0,18479	0,15102	0,14013	0,15906	0,19605	0,23675
3538,73657	0,18475	0,15085	0,14025	0,159	0,19614	0,23668
3536,80811	0,18469	0,15065	0,14022	0,15883	0,19623	0,23653
3534,87964	0,18416	0,15049	0,14001	0,15867	0,19589	0,23631
3532,95117	0,18378	0,1502	0,13998	0,1586	0,19568	0,23614
3531,02271	0,18386	0,14993	0,14001	0,15854	0,19587	0,23617
3529,09424	0,18382	0,14967	0,13982	0,15852	0,19601	0,23601
3527,16577	0,18339	0,1493	0,13954	0,15836	0,1957	0,23579
3525,2373	0,18321	0,14905	0,13945	0,15816	0,19559	0,23573
3523,30884	0,18303	0,14895	0,13937	0,15813	0,19563	0,23547
3521,38037	0,18234	0,14878	0,13927	0,15799	0,19531	0,23531
3519,4519	0,182	0,14863	0,13942	0,15792	0,19529	0,23542
3517,52344	0,18183	0,1485	0,13943	0,15785	0,1953	0,23525
3515,59497	0,18139	0,14816	0,13932	0,15767	0,19509	0,23505
3513,6665	0,18108	0,14788	0,13938	0,15761	0,19509	0,23506
3511,73804	0,18109	0,14763	0,13934	0,15746	0,19518	0,23497
3509,80957	0,18114	0,14729	0,13916	0,15731	0,1952	0,23476
3507,8811	0,18055	0,14715	0,13897	0,15724	0,19485	0,23455
3505,95264	0,18035	0,14692	0,13894	0,15716	0,19476	0,23459
3504,02417	0,18077	0,14651	0,13896	0,15723	0,1952	0,23462
3502,0957	0,18025	0,14638	0,13877	0,15714	0,19498	0,23435
3500,16724	0,17963	0,14643	0,13875	0,15703	0,19464	0,23435
3498,23877	0,1798	0,14637	0,13892	0,15701	0,19481	0,23439
3496,3103	0,17974	0,14621	0,13897	0,15692	0,19483	0,23424
3494,38184	0,17942	0,14612	0,13898	0,15696	0,19472	0,23424
3492,45337	0,17925	0,14618	0,13898	0,15689	0,19466	0,23414
3490,5249	0,17924	0,14611	0,13903	0,15681	0,19479	0,23409
3488,59644	0,17925	0,14584	0,13904	0,15685	0,19503	0,23409
3486,66797	0,17904	0,14571	0,13888	0,15675	0,19491	0,23399
3484,7395	0,17886	0,14563	0,13891	0,15684	0,19488	0,23405
3482,81104	0,17898	0,1454	0,13908	0,1569	0,19508	0,23403
3480,88257	0,1789	0,14538	0,13894	0,15674	0,195	0,2338
3478,9541	0,17858	0,14554	0,13884	0,15672	0,19488	0,23379
3477,02563	0,17852	0,14545	0,13898	0,15672	0,19499	0,23383
3475,09717	0,17842	0,14533	0,13904	0,15666	0,19499	0,23371
3473,1687	0,17819	0,14525	0,1389	0,15656	0,1949	0,23367
3471,24023	0,17805	0,14513	0,13879	0,15655	0,19488	0,23372
3469,31177	0,17803	0,14516	0,13893	0,15665	0,19496	0,23373
3467,3833	0,17798	0,14514	0,13906	0,1566	0,19503	0,23368
3465,45483	0,1778	0,14492	0,13888	0,15657	0,19497	0,23361
3463,52637	0,17775	0,14474	0,13877	0,15654	0,19498	0,23352
3461,5979	0,17751	0,14474	0,13884	0,1564	0,19487	0,23339
3459,66943	0,17724	0,14467	0,13875	0,15637	0,19472	0,23332
3457,74097	0,17731	0,14444	0,13867	0,15639	0,19482	0,23328

3455,8125	0,17708	0,14434	0,13877	0,15633	0,19486	0,23322
3453,88403	0,17696	0,1443	0,13876	0,15635	0,19487	0,2332
3451,95557	0,17695	0,14429	0,13874	0,15634	0,19485	0,23314
3450,0271	0,17682	0,14424	0,13882	0,15632	0,1949	0,23319
3448,09863	0,17718	0,14398	0,13868	0,1564	0,19512	0,23324
3446,17017	0,17705	0,14393	0,13847	0,15623	0,19497	0,23305
3444,2417	0,17671	0,144	0,13858	0,15618	0,19499	0,23316
3442,31323	0,17694	0,14394	0,13874	0,15641	0,19529	0,23338
3440,38477	0,17667	0,14403	0,13877	0,15627	0,19514	0,23319
3438,4563	0,17652	0,14409	0,13881	0,15622	0,19518	0,2333
3436,52783	0,17685	0,14407	0,13881	0,15644	0,19547	0,23354
3434,59937	0,17686	0,14409	0,1389	0,15647	0,19547	0,23336
3432,6709	0,17694	0,14412	0,13895	0,15649	0,1955	0,23333
3430,74243	0,17698	0,14426	0,13886	0,15649	0,19566	0,23352
3428,81396	0,17701	0,14438	0,13893	0,1565	0,19585	0,23361
3426,8855	0,17728	0,14436	0,139	0,1566	0,19593	0,23369
3424,95703	0,17727	0,14444	0,13903	0,1566	0,19597	0,2337
3423,02856	0,17732	0,14449	0,13907	0,1566	0,19611	0,23372
3421,1001	0,1777	0,14453	0,13904	0,1567	0,19626	0,23391
3419,17163	0,17767	0,14476	0,13914	0,1568	0,19633	0,23399
3417,24316	0,17757	0,14493	0,13922	0,15687	0,19638	0,23402
3415,3147	0,1778	0,14494	0,13917	0,15701	0,1965	0,23423
3413,38623	0,17796	0,14512	0,13923	0,15708	0,19669	0,23433
3411,45776	0,17808	0,14545	0,13941	0,15707	0,19683	0,23426
3409,5293	0,17829	0,14562	0,13949	0,15725	0,19688	0,23438
3407,60083	0,17845	0,14565	0,13946	0,15736	0,19687	0,23455
3405,67236	0,17852	0,14577	0,13953	0,15728	0,19695	0,2345
3403,7439	0,17871	0,14586	0,13952	0,1573	0,19711	0,2345
3401,81543	0,17891	0,14602	0,13944	0,15736	0,19724	0,23462
3399,88696	0,17909	0,14617	0,13951	0,15739	0,19722	0,23467
3397,9585	0,1793	0,14618	0,13965	0,15745	0,19722	0,23475
3396,03003	0,17925	0,1463	0,13974	0,15748	0,19735	0,23479
3394,10156	0,17935	0,14649	0,13971	0,15754	0,19737	0,23471
3392,1731	0,17963	0,14673	0,1397	0,15759	0,19734	0,23466
3390,24463	0,17962	0,14695	0,13978	0,15764	0,19743	0,23475
3388,31616	0,17973	0,14691	0,13985	0,15775	0,19751	0,23479
3386,3877	0,17995	0,14698	0,13986	0,15785	0,19753	0,23476
3384,45923	0,18011	0,14724	0,13987	0,15787	0,19758	0,23477
3382,53076	0,18031	0,1474	0,13991	0,15792	0,19763	0,23481
3380,60229	0,18047	0,14764	0,13995	0,15806	0,19767	0,23492
3378,67383	0,18062	0,14782	0,13993	0,15802	0,19771	0,23493
3376,74536	0,18081	0,14796	0,13987	0,15794	0,1977	0,2349
3374,81689	0,18111	0,14829	0,13997	0,15808	0,19771	0,23501
3372,88843	0,18138	0,14851	0,14016	0,15821	0,19779	0,23503
3370,95996	0,18156	0,14865	0,14006	0,15832	0,19792	0,23516
3369,03149	0,18187	0,14889	0,13995	0,15842	0,19802	0,23535
3367,10303	0,1822	0,14898	0,14004	0,15832	0,19804	0,23526
3365,17456	0,18244	0,14914	0,14007	0,15834	0,19793	0,23518

3363,24609	0,18274	0,1494	0,13998	0,15849	0,1979	0,23521
3361,31763	0,18289	0,14949	0,13998	0,15852	0,19805	0,23536
3359,38916	0,18296	0,14979	0,14012	0,15861	0,19807	0,23551
3357,46069	0,18329	0,15013	0,14009	0,15872	0,19811	0,23551
3355,53223	0,18354	0,15018	0,13997	0,15872	0,19816	0,23558
3353,60376	0,18366	0,15038	0,14004	0,15873	0,19813	0,23557
3351,67529	0,18402	0,1507	0,14013	0,15878	0,19815	0,23555
3349,74683	0,1843	0,1509	0,14017	0,15884	0,19815	0,23566
3347,81836	0,18439	0,15105	0,14019	0,15889	0,19811	0,23558
3345,88989	0,18452	0,15123	0,1401	0,15896	0,19814	0,2356
3343,96143	0,18467	0,15141	0,1401	0,15911	0,19823	0,23579
3342,03296	0,18483	0,15156	0,14012	0,15904	0,19827	0,23571
3340,10449	0,18505	0,15174	0,14009	0,15892	0,19823	0,23567
3338,17603	0,18532	0,15185	0,14012	0,15904	0,19825	0,23584
3336,24756	0,18548	0,15192	0,1401	0,15906	0,19827	0,23581
3334,31909	0,18544	0,15208	0,14013	0,15897	0,19817	0,2357
3332,39063	0,1855	0,1522	0,14016	0,15903	0,19822	0,2358
3330,46216	0,1857	0,15237	0,14004	0,15904	0,19836	0,23577
3328,53369	0,18584	0,15259	0,13992	0,159	0,19835	0,23559
3326,60522	0,18595	0,15272	0,13988	0,15897	0,19836	0,23559
3324,67676	0,18615	0,15271	0,13993	0,15892	0,19839	0,23556
3322,74829	0,18614	0,15272	0,13991	0,15891	0,19826	0,23544
3320,81982	0,18613	0,15288	0,13982	0,15894	0,19819	0,23542
3318,89136	0,18638	0,15298	0,13983	0,15902	0,1982	0,23547
3316,96289	0,18643	0,15301	0,13981	0,15899	0,19818	0,23552
3315,03442	0,18646	0,15308	0,13972	0,15884	0,19812	0,23547
3313,10596	0,18656	0,15318	0,13976	0,15884	0,19803	0,23534
3311,17749	0,18657	0,15329	0,13979	0,15892	0,19803	0,23521
3309,24902	0,18676	0,15335	0,13969	0,15883	0,19802	0,2352
3307,32056	0,18685	0,15348	0,13958	0,15881	0,19787	0,23527
3305,39209	0,18684	0,1536	0,13952	0,15889	0,19783	0,23525
3303,46362	0,18693	0,15355	0,13942	0,15877	0,19775	0,23509
3301,53516	0,1869	0,15348	0,1394	0,15863	0,19753	0,23497
3299,60669	0,18684	0,1535	0,13948	0,15867	0,19752	0,23491
3297,67822	0,18688	0,1535	0,13937	0,15861	0,19749	0,23478
3295,74976	0,18689	0,15347	0,13917	0,15848	0,19727	0,23471
3293,82129	0,18685	0,15355	0,13912	0,1585	0,1972	0,23473
3291,89282	0,18687	0,15358	0,13904	0,15842	0,1972	0,23459
3289,96436	0,18685	0,15347	0,13888	0,15823	0,19699	0,2344
3288,03589	0,18677	0,15351	0,1388	0,15809	0,19673	0,2343
3286,10742	0,1868	0,15353	0,13872	0,15796	0,19666	0,23417
3284,17896	0,18679	0,15345	0,13858	0,1579	0,1966	0,23401
3282,25049	0,18673	0,15343	0,13843	0,15789	0,19644	0,23388
3280,32202	0,18674	0,15337	0,13839	0,15783	0,19634	0,23383
3278,39355	0,1867	0,15329	0,13836	0,15769	0,19617	0,23378
3276,46509	0,18667	0,15328	0,13828	0,1576	0,19604	0,23364
3274,53662	0,18662	0,15322	0,13821	0,15756	0,196	0,23357
3272,60815	0,18659	0,15314	0,13809	0,15745	0,19583	0,23348

3270,67969	0,1866	0,15315	0,138	0,15734	0,1957	0,23328
3268,75122	0,18647	0,1531	0,13807	0,15724	0,19561	0,23315
3266,82275	0,18639	0,15302	0,13796	0,15715	0,19545	0,23309
3264,89429	0,18633	0,15305	0,13769	0,1571	0,19533	0,23304
3262,96582	0,18622	0,15302	0,13766	0,157	0,19522	0,23296
3261,03735	0,1862	0,15299	0,13761	0,15689	0,19513	0,23279
3259,10889	0,18612	0,15301	0,1374	0,15677	0,19504	0,23266
3257,18042	0,18611	0,15285	0,13731	0,1567	0,19488	0,23259
3255,25195	0,18612	0,15276	0,13723	0,1566	0,19469	0,23234
3253,32349	0,18593	0,15281	0,13712	0,15639	0,19453	0,23214
3251,39502	0,18583	0,15272	0,13712	0,15633	0,19448	0,23215
3249,46655	0,1859	0,1527	0,1371	0,15631	0,19444	0,23209
3247,53809	0,18599	0,15277	0,13698	0,1562	0,19431	0,23202
3245,60962	0,18597	0,15266	0,13692	0,15607	0,19409	0,23192
3243,68115	0,18582	0,15261	0,13683	0,15594	0,19398	0,23173
3241,75269	0,18582	0,15267	0,13662	0,15594	0,19398	0,23165
3239,82422	0,18582	0,15267	0,13661	0,15591	0,19383	0,23155
3237,89575	0,18575	0,1527	0,13666	0,15575	0,19367	0,23134
3235,96729	0,18578	0,15266	0,13649	0,15562	0,19352	0,23128
3234,03882	0,18583	0,15256	0,13638	0,15559	0,19337	0,2313
3232,11035	0,18579	0,15263	0,13628	0,15556	0,1933	0,23118
3230,18188	0,18566	0,15258	0,13613	0,15536	0,19307	0,23099
3228,25342	0,1856	0,15241	0,13612	0,15522	0,19292	0,23092
3226,32495	0,18563	0,15247	0,13598	0,15523	0,19295	0,23092
3224,39648	0,18555	0,15246	0,13583	0,15512	0,19278	0,23076
3222,46802	0,18552	0,1523	0,13582	0,15504	0,19264	0,23056
3220,53955	0,1856	0,15232	0,13571	0,15498	0,19258	0,23046
3218,61108	0,18538	0,15241	0,13562	0,15485	0,19238	0,23031
3216,68262	0,18525	0,15227	0,13555	0,15473	0,19223	0,23015
3214,75415	0,18539	0,15212	0,13536	0,15462	0,19218	0,23004
3212,82568	0,18526	0,15224	0,13521	0,1546	0,19199	0,22991
3210,89722	0,18513	0,15227	0,13514	0,15453	0,19183	0,22985
3208,96875	0,1851	0,15214	0,13502	0,1544	0,19177	0,22976
3207,04028	0,18499	0,15213	0,13493	0,15433	0,19164	0,22959
3205,11182	0,18507	0,15212	0,13489	0,1542	0,19148	0,22957
3203,18335	0,18505	0,15213	0,13482	0,1541	0,19135	0,22955
3201,25488	0,18498	0,1522	0,13474	0,1541	0,19128	0,22944
3199,32642	0,18506	0,15211	0,13464	0,15402	0,19124	0,22936
3197,39795	0,18491	0,15201	0,13445	0,15387	0,19108	0,22922
3195,46948	0,18478	0,15206	0,13433	0,15381	0,19092	0,22902
3193,54102	0,18483	0,1521	0,13428	0,15373	0,19086	0,22894
3191,61255	0,1848	0,15211	0,13422	0,15356	0,19075	0,22888
3189,68408	0,18476	0,15211	0,1342	0,15354	0,19068	0,22873
3187,75562	0,1847	0,15206	0,13419	0,15347	0,19065	0,22865
3185,82715	0,18469	0,15195	0,13414	0,15328	0,1905	0,22858
3183,89868	0,18468	0,15191	0,13401	0,15323	0,1903	0,22839
3181,97021	0,1845	0,152	0,13385	0,15313	0,19017	0,22826
3180,04175	0,18447	0,15205	0,13373	0,15307	0,19012	0,22825

3178,11328	0,1845	0,15202	0,13362	0,15305	0,19002	0,22814
3176,18481	0,18439	0,15197	0,13352	0,15287	0,18986	0,228
3174,25635	0,18433	0,15189	0,1334	0,15281	0,18985	0,2279
3172,32788	0,18432	0,15183	0,13333	0,15273	0,1898	0,22768
3170,39941	0,18429	0,15187	0,13332	0,15254	0,18961	0,22756
3168,47095	0,18421	0,15192	0,13314	0,15256	0,18945	0,22755
3166,54248	0,1841	0,15191	0,13299	0,15253	0,18929	0,22744
3164,61401	0,18404	0,15182	0,133	0,15236	0,18915	0,22725
3162,68555	0,184	0,15176	0,13291	0,15228	0,18906	0,22715
3160,75708	0,1839	0,15173	0,13281	0,15216	0,18894	0,22712
3158,82861	0,18376	0,15167	0,13274	0,15204	0,18878	0,22693
3156,90015	0,18369	0,15172	0,13259	0,15193	0,18865	0,22672
3154,97168	0,18366	0,15173	0,13253	0,15185	0,18853	0,22665
3153,04321	0,18363	0,15167	0,13248	0,15178	0,18847	0,22659
3151,11475	0,18367	0,15173	0,13227	0,15163	0,18838	0,22653
3149,18628	0,18351	0,15155	0,13212	0,15151	0,18814	0,22638
3147,25781	0,18333	0,1513	0,13202	0,15141	0,18795	0,22619
3145,32935	0,18338	0,15136	0,13191	0,15127	0,18782	0,22615
3143,40088	0,18321	0,15135	0,13185	0,15115	0,18768	0,22607
3141,47241	0,18306	0,15128	0,13172	0,15109	0,18763	0,22591
3139,54395	0,18316	0,15131	0,13161	0,15101	0,18756	0,22587
3137,61548	0,18302	0,15124	0,13154	0,1509	0,18738	0,22574
3135,68701	0,1829	0,15109	0,13138	0,15085	0,18722	0,2255
3133,75854	0,18292	0,15103	0,13123	0,15076	0,18708	0,22542
3131,83008	0,18265	0,15113	0,13109	0,15065	0,18696	0,2253
3129,90161	0,18251	0,15112	0,13098	0,15052	0,18685	0,22512
3127,97314	0,1825	0,15096	0,13089	0,15039	0,18672	0,2251
3126,04468	0,18238	0,15091	0,13074	0,15034	0,18661	0,22505
3124,11621	0,18229	0,15083	0,13062	0,15022	0,18653	0,22486
3122,18774	0,18216	0,15077	0,13049	0,15003	0,18637	0,2247
3120,25928	0,18216	0,15082	0,13036	0,14985	0,18614	0,2246
3118,33081	0,18218	0,15071	0,1303	0,14974	0,18608	0,22439
3116,40234	0,182	0,15061	0,13026	0,14975	0,18607	0,22427
3114,47388	0,18184	0,15066	0,13014	0,14964	0,18591	0,22424
3112,54541	0,1817	0,15055	0,12997	0,14947	0,18573	0,22401
3110,61694	0,18162	0,15044	0,12993	0,14939	0,18559	0,22384
3108,68848	0,18159	0,15045	0,12988	0,14923	0,1855	0,22382
3106,76001	0,18145	0,15038	0,12968	0,14913	0,1854	0,2237
3104,83154	0,18124	0,15029	0,12955	0,14911	0,18518	0,2235
3102,90308	0,18117	0,15024	0,12947	0,14894	0,185	0,22331
3100,97461	0,18121	0,15021	0,12928	0,14881	0,18489	0,22323
3099,04614	0,18111	0,15016	0,12924	0,14872	0,18477	0,22319
3097,11768	0,18102	0,15011	0,1292	0,14859	0,18468	0,22306
3095,18921	0,18096	0,15013	0,12903	0,14855	0,18459	0,22295
3093,26074	0,18073	0,15009	0,12898	0,14846	0,18442	0,22283
3091,33228	0,18066	0,15003	0,12893	0,14834	0,18428	0,22265
3089,40381	0,18071	0,15	0,12879	0,14824	0,18426	0,22258
3087,47534	0,18053	0,15	0,12871	0,14817	0,18422	0,22258

3085,54688	0,18038	0,15006	0,12861	0,14815	0,18413	0,22246
3083,61841	0,18043	0,14995	0,12848	0,14807	0,18404	0,22226
3081,68994	0,18038	0,14973	0,12835	0,14787	0,18384	0,22203
3079,76147	0,18028	0,14969	0,12824	0,14769	0,18365	0,2219
3077,83301	0,18017	0,14978	0,12815	0,14766	0,18359	0,22197
3075,90454	0,17997	0,1497	0,12805	0,14758	0,1834	0,22182
3073,97607	0,17989	0,14954	0,12796	0,14738	0,18323	0,22151
3072,04761	0,17984	0,14951	0,12786	0,14727	0,18318	0,22136
3070,11914	0,17963	0,14944	0,12773	0,14719	0,18306	0,22126
3068,19067	0,17961	0,14941	0,12763	0,14713	0,18299	0,22114
3066,26221	0,17966	0,1494	0,12755	0,14702	0,18286	0,22105
3064,33374	0,17944	0,14919	0,12739	0,14682	0,18266	0,22098
3062,40527	0,17921	0,14912	0,1273	0,14674	0,18256	0,22081
3060,47681	0,17913	0,14915	0,12723	0,14664	0,18243	0,22067
3058,54834	0,1791	0,14907	0,1271	0,14657	0,18232	0,22066
3056,61987	0,17902	0,14899	0,12706	0,1465	0,18217	0,22051
3054,69141	0,17879	0,14898	0,12692	0,14633	0,18202	0,22035
3052,76294	0,17867	0,14894	0,12677	0,14628	0,18199	0,22031
3050,83447	0,17873	0,14888	0,12675	0,1462	0,18194	0,2202
3048,90601	0,17863	0,1488	0,12663	0,14601	0,18182	0,22003
3046,97754	0,17846	0,14875	0,12651	0,14589	0,18164	0,21989
3045,04907	0,17837	0,14876	0,12642	0,14582	0,1815	0,21981
3043,12061	0,17829	0,14871	0,12632	0,14578	0,18144	0,21972
3041,19214	0,17818	0,1486	0,12624	0,14563	0,18133	0,2196
3039,26367	0,17802	0,1485	0,12613	0,14538	0,18109	0,21945
3037,33521	0,17795	0,1484	0,12601	0,14528	0,18092	0,21924
3035,40674	0,17794	0,14834	0,12594	0,14523	0,18089	0,21912
3033,47827	0,17784	0,14824	0,12584	0,14515	0,18085	0,2191
3031,5498	0,17769	0,14813	0,1257	0,14511	0,18076	0,21903
3029,62134	0,17746	0,14811	0,12555	0,14501	0,18064	0,21891
3027,69287	0,17737	0,14803	0,12546	0,14491	0,18052	0,21877
3025,7644	0,17735	0,14796	0,1254	0,14495	0,18049	0,21871
3023,83594	0,17718	0,14805	0,1253	0,14494	0,18041	0,21867
3021,90747	0,17709	0,14792	0,1252	0,14477	0,18027	0,21849
3019,979	0,17704	0,14782	0,12515	0,14472	0,18015	0,21845
3018,05054	0,17681	0,14808	0,12505	0,14482	0,18011	0,21855
3016,12207	0,17664	0,14809	0,1249	0,14473	0,18002	0,21843
3014,1936	0,17663	0,14782	0,12483	0,14456	0,17986	0,21828
3012,26514	0,1766	0,14763	0,12481	0,14443	0,17978	0,21817
3010,33667	0,17653	0,14745	0,12461	0,14428	0,17974	0,21804
3008,4082	0,17638	0,14737	0,12446	0,1442	0,17958	0,21801
3006,47974	0,17616	0,14728	0,12445	0,14408	0,17942	0,21794
3004,55127	0,17606	0,14714	0,12431	0,14395	0,17934	0,21781
3002,6228	0,17588	0,14707	0,12422	0,1439	0,17925	0,21772
3000,69434	0,17567	0,14705	0,12419	0,1438	0,1792	0,21779
2998,76587	0,17577	0,14708	0,12407	0,14372	0,17923	0,21788
2996,8374	0,17574	0,14699	0,12403	0,14361	0,17912	0,21774
2994,90894	0,17549	0,14681	0,12394	0,14346	0,17907	0,21769

2992,98047	0,17544	0,14681	0,12382	0,14337	0,17913	0,2178
2991,052	0,1754	0,14679	0,12381	0,14331	0,17893	0,21774
2989,12354	0,17516	0,14666	0,12369	0,14325	0,17879	0,21769
2987,19507	0,17504	0,14659	0,12355	0,14315	0,17885	0,21778
2985,2666	0,17494	0,14646	0,12352	0,14307	0,17879	0,21793
2983,33813	0,17485	0,14636	0,12344	0,14304	0,17881	0,21809
2981,40967	0,17491	0,14639	0,1234	0,14299	0,17896	0,21826
2979,4812	0,17477	0,14633	0,12338	0,14298	0,17911	0,2185
2977,55273	0,17461	0,14613	0,12332	0,14301	0,17928	0,21889
2975,62427	0,17466	0,14598	0,12337	0,14305	0,17953	0,21943
2973,6958	0,1746	0,14597	0,1234	0,14319	0,17999	0,2202
2971,76733	0,17455	0,1459	0,12348	0,14347	0,18071	0,22139
2969,83887	0,17458	0,14572	0,12376	0,14386	0,18159	0,22292
2967,9104	0,1746	0,1457	0,12391	0,14418	0,18261	0,22458
2965,98193	0,1746	0,1457	0,12397	0,14453	0,18355	0,22624
2964,05347	0,1745	0,14561	0,1241	0,14496	0,18431	0,22771
2962,125	0,17445	0,14556	0,12415	0,1452	0,18497	0,2289
2960,19653	0,17442	0,14555	0,12415	0,14535	0,18541	0,22985
2958,26807	0,17437	0,14553	0,1241	0,14549	0,1855	0,2303
2956,3396	0,17429	0,14546	0,12399	0,14542	0,18537	0,2302
2954,41113	0,17414	0,14545	0,12389	0,14532	0,18519	0,22982
2952,48267	0,17407	0,14541	0,12379	0,14519	0,18485	0,2291
2950,5542	0,17401	0,14527	0,12366	0,14487	0,18431	0,22816
2948,62573	0,1739	0,14534	0,1235	0,14459	0,18377	0,22726
2946,69727	0,17385	0,14543	0,12342	0,14449	0,18351	0,2266
2944,7688	0,17389	0,14536	0,12351	0,14459	0,18365	0,2265
2942,84033	0,17398	0,14535	0,12359	0,14472	0,18383	0,2268
2940,91187	0,17398	0,14527	0,12361	0,14478	0,18403	0,22731
2938,9834	0,1739	0,14522	0,12361	0,14487	0,18441	0,22802
2937,05493	0,174	0,14532	0,12357	0,145	0,18483	0,22879
2935,12646	0,17419	0,14533	0,12369	0,14523	0,18533	0,22967
2933,198	0,17422	0,14531	0,12383	0,14546	0,18569	0,23039
2931,26953	0,17423	0,1453	0,12377	0,14553	0,1858	0,23078
2929,34106	0,17431	0,14533	0,12384	0,14566	0,18594	0,23094
2927,4126	0,17422	0,14531	0,12384	0,14571	0,18583	0,23064
2925,48413	0,17421	0,14518	0,12367	0,14559	0,18547	0,23001
2923,55566	0,17418	0,14508	0,12357	0,14542	0,18515	0,22932
2921,6272	0,17393	0,14495	0,12333	0,14511	0,18463	0,22852
2919,69873	0,1737	0,1448	0,12301	0,14474	0,18395	0,22758
2917,77026	0,17332	0,14472	0,12272	0,14435	0,18325	0,22641
2915,8418	0,17295	0,1446	0,12239	0,14386	0,18245	0,22518
2913,91333	0,17284	0,14452	0,12211	0,14333	0,18165	0,22401
2911,98486	0,1726	0,14445	0,12176	0,14276	0,18085	0,22284
2910,0564	0,17233	0,14426	0,1214	0,14231	0,18011	0,22183
2908,12793	0,17212	0,14415	0,12118	0,14197	0,17956	0,22097
2906,19946	0,1719	0,14413	0,12095	0,14161	0,17902	0,22017
2904,271	0,17178	0,14406	0,12073	0,14134	0,17852	0,21953
2902,34253	0,17161	0,14401	0,12072	0,14113	0,17816	0,21893

2900,41406	0,17143	0,14392	0,12066	0,14085	0,1778	0,21838
2898,4856	0,17136	0,1438	0,12045	0,14066	0,17746	0,21801
2896,55713	0,17127	0,14381	0,12025	0,14052	0,17718	0,21757
2894,62866	0,17118	0,14376	0,12002	0,1402	0,17686	0,21705
2892,7002	0,17103	0,14361	0,11989	0,13988	0,17654	0,21674
2890,77173	0,17088	0,1436	0,11983	0,13977	0,17633	0,21646
2888,84326	0,17079	0,14356	0,11961	0,13963	0,1761	0,2161
2886,91479	0,17069	0,14342	0,11948	0,13944	0,17591	0,21591
2884,98633	0,17064	0,14338	0,11955	0,13935	0,17591	0,21579
2883,05786	0,17059	0,14332	0,11946	0,13929	0,17593	0,2157
2881,12939	0,17047	0,14319	0,11936	0,13922	0,17591	0,21574
2879,20093	0,17041	0,14313	0,11941	0,13927	0,176	0,21592
2877,27246	0,1703	0,14308	0,11939	0,13937	0,17615	0,2163
2875,34399	0,17019	0,14304	0,1194	0,13936	0,17641	0,21689
2873,41553	0,17025	0,143	0,11947	0,13938	0,17677	0,21761
2871,48706	0,17024	0,14298	0,11938	0,13939	0,17691	0,21807
2869,55859	0,17007	0,14296	0,11927	0,13927	0,17684	0,21803
2867,63013	0,17002	0,14289	0,11922	0,13915	0,1768	0,2179
2865,70166	0,17	0,14285	0,11915	0,13917	0,17682	0,21795
2863,77319	0,16992	0,1428	0,11915	0,13926	0,17692	0,21823
2861,84473	0,16996	0,14271	0,1192	0,13931	0,17712	0,21872
2859,91626	0,17008	0,14272	0,11921	0,13941	0,17734	0,21918
2857,98779	0,17013	0,14276	0,1192	0,13953	0,17744	0,21933
2856,05933	0,17012	0,14273	0,11915	0,1395	0,17723	0,219
2854,13086	0,17003	0,14268	0,1191	0,13935	0,1768	0,2183
2852,20239	0,16986	0,14263	0,11898	0,13908	0,17628	0,21742
2850,27393	0,16967	0,14254	0,11872	0,13866	0,1756	0,2164
2848,34546	0,16947	0,1424	0,11842	0,13814	0,17484	0,21525
2846,41699	0,16916	0,14224	0,1181	0,13768	0,17413	0,21417
2844,48853	0,16886	0,14212	0,1178	0,13724	0,17348	0,21323
2842,56006	0,16869	0,14199	0,11752	0,13686	0,1729	0,21236
2840,63159	0,16855	0,14191	0,11727	0,13661	0,17247	0,2117
2838,70313	0,16842	0,14192	0,11706	0,13644	0,17217	0,21123
2836,77466	0,16829	0,14186	0,1169	0,13623	0,1718	0,21069
2834,84619	0,16812	0,14178	0,11684	0,13598	0,17144	0,21027
2832,91772	0,16799	0,14174	0,11672	0,13577	0,17126	0,20999
2830,98926	0,16792	0,14168	0,11653	0,13562	0,17112	0,20972
2829,06079	0,1678	0,1416	0,11648	0,13549	0,17087	0,2095
2827,13232	0,1677	0,14152	0,11643	0,13538	0,17074	0,20928
2825,20386	0,16768	0,14144	0,11628	0,13527	0,17068	0,20911
2823,27539	0,16764	0,14143	0,11614	0,13519	0,17051	0,20893
2821,34692	0,16757	0,14137	0,11605	0,13516	0,17038	0,20866
2819,41846	0,16752	0,1413	0,11591	0,13509	0,17026	0,20846
2817,48999	0,16749	0,14125	0,11584	0,13496	0,17013	0,20831
2815,56152	0,16742	0,14115	0,11587	0,13486	0,17	0,20815
2813,63306	0,16731	0,14111	0,1157	0,13477	0,16987	0,20804
2811,70459	0,16725	0,14111	0,11554	0,13469	0,16982	0,20794
2809,77612	0,16717	0,14101	0,11555	0,13464	0,16975	0,20789



2807,84766	0,16703	0,14093	0,11549	0,13454	0,16958	0,20781
2805,91919	0,16694	0,14096	0,11542	0,13443	0,16947	0,2076
2803,99072	0,1669	0,14098	0,11537	0,1344	0,16941	0,20747
2802,06226	0,16685	0,1409	0,11527	0,13427	0,16928	0,20737
2800,13379	0,16681	0,14083	0,11519	0,13417	0,16917	0,20727
2798,20532	0,16674	0,14085	0,11518	0,13415	0,16913	0,20722
2796,27686	0,16659	0,14088	0,11512	0,13406	0,16902	0,20706
2794,34839	0,16651	0,14089	0,11503	0,13398	0,16888	0,20695
2792,41992	0,16647	0,14083	0,11498	0,13396	0,16886	0,20688
2790,49146	0,16642	0,14084	0,11497	0,13391	0,16884	0,20672
2788,56299	0,16641	0,14086	0,11495	0,13388	0,16876	0,20667
2786,63452	0,16638	0,14075	0,11488	0,13383	0,16871	0,2066
2784,70605	0,16625	0,14064	0,11485	0,13372	0,16861	0,20645
2782,77759	0,16615	0,14063	0,11483	0,13361	0,16848	0,20639
2780,84912	0,16611	0,14065	0,11473	0,13351	0,16845	0,20634
2778,92065	0,16607	0,14062	0,11466	0,13345	0,16844	0,20629
2776,99219	0,166	0,14057	0,11462	0,13343	0,16836	0,20621
2775,06372	0,16596	0,14055	0,11457	0,13337	0,16821	0,20612
2773,13525	0,16594	0,14049	0,11455	0,13328	0,16812	0,20608
2771,20679	0,16593	0,14044	0,11446	0,13322	0,16804	0,20603
2769,27832	0,16589	0,14049	0,1144	0,13315	0,16794	0,20591
2767,34985	0,16582	0,14046	0,11436	0,13309	0,16794	0,20578
2765,42139	0,16576	0,14046	0,11426	0,13303	0,1679	0,20575
2763,49292	0,16569	0,14048	0,11418	0,13294	0,16777	0,20571
2761,56445	0,16562	0,14033	0,1141	0,13278	0,16766	0,20555
2759,63599	0,16561	0,14028	0,11402	0,13269	0,16758	0,2055
2757,70752	0,16562	0,14036	0,11398	0,13265	0,16753	0,20549
2755,77905	0,16559	0,14029	0,11393	0,13256	0,16747	0,20535
2753,85059	0,16556	0,1402	0,11391	0,13258	0,16743	0,20529
2751,92212	0,16552	0,1402	0,11382	0,13257	0,16738	0,20527
2749,99365	0,16545	0,14022	0,11368	0,13248	0,16728	0,20521
2748,06519	0,1654	0,14024	0,11367	0,13248	0,16718	0,20517
2746,13672	0,16544	0,14018	0,11361	0,13237	0,16707	0,20506
2744,20825	0,16545	0,14014	0,11351	0,13223	0,16698	0,20497
2742,27979	0,16536	0,14014	0,1135	0,13225	0,16692	0,20499
2740,35132	0,16527	0,1401	0,11349	0,13223	0,1669	0,20494
2738,42285	0,16523	0,14007	0,11341	0,13215	0,16689	0,20487
2736,49438	0,16515	0,14005	0,11328	0,13216	0,16683	0,20478
2734,56592	0,16505	0,14002	0,11321	0,13209	0,16678	0,20465
2732,63745	0,16503	0,14001	0,11324	0,13193	0,16672	0,20458
2730,70898	0,16505	0,13997	0,11317	0,13187	0,1666	0,20456
2728,78052	0,16502	0,13992	0,11308	0,13185	0,16652	0,20447
2726,85205	0,16491	0,13993	0,11305	0,13175	0,16651	0,20439
2724,92358	0,16482	0,13993	0,11298	0,13166	0,16645	0,20431
2722,99512	0,16484	0,13991	0,11291	0,13163	0,16631	0,20419
2721,06665	0,16484	0,13987	0,11287	0,13162	0,16621	0,20414
2719,13818	0,16482	0,13978	0,11278	0,13156	0,16617	0,20417
2717,20972	0,16477	0,13972	0,1127	0,13143	0,16614	0,20415

2715,28125	0,16467	0,1397	0,11269	0,13139	0,16609	0,2041
2713,35278	0,16462	0,13968	0,11266	0,13138	0,16602	0,20401
2711,42432	0,16459	0,1397	0,1126	0,13131	0,16595	0,2039
2709,49585	0,16449	0,13975	0,11259	0,13133	0,16589	0,20382
2707,56738	0,16445	0,13975	0,1125	0,13134	0,16585	0,20371
2705,63892	0,16449	0,13967	0,11243	0,13121	0,1658	0,20363
2703,71045	0,1645	0,13964	0,11243	0,13119	0,16574	0,20362
2701,78198	0,16441	0,13969	0,11234	0,13118	0,16567	0,20355
2699,85352	0,16431	0,13966	0,11226	0,13107	0,16555	0,20348
2697,92505	0,16435	0,13964	0,11229	0,13103	0,16546	0,20345
2695,99658	0,16441	0,13973	0,11228	0,13102	0,16541	0,20336
2694,06812	0,16436	0,1397	0,11218	0,13095	0,16536	0,20332
2692,13965	0,16433	0,13962	0,11215	0,13092	0,16534	0,20336
2690,21118	0,16437	0,13966	0,1122	0,13087	0,1653	0,20335
2688,28271	0,16436	0,13969	0,11218	0,13079	0,1653	0,2033
2686,35425	0,16427	0,13965	0,11216	0,13079	0,16529	0,20326
2684,42578	0,16431	0,13972	0,11215	0,13075	0,1652	0,20322
2682,49731	0,16437	0,13978	0,11208	0,13067	0,16515	0,20319
2680,56885	0,1643	0,13971	0,11207	0,13068	0,16509	0,20311
2678,64038	0,16431	0,13967	0,11206	0,13067	0,16502	0,20307
2676,71191	0,16432	0,13971	0,11196	0,13058	0,16494	0,2031
2674,78345	0,16431	0,13977	0,11194	0,13054	0,16487	0,20304
2672,85498	0,16437	0,13982	0,11194	0,13056	0,16489	0,203
2670,92651	0,16442	0,13987	0,11188	0,13049	0,16484	0,20307
2668,99805	0,16447	0,13989	0,11183	0,13045	0,16473	0,20305
2667,06958	0,16449	0,13991	0,11179	0,13053	0,16472	0,20297
2665,14111	0,16447	0,13991	0,11179	0,1305	0,16465	0,20294
2663,21265	0,16443	0,13998	0,11184	0,13043	0,16458	0,20297
2661,28418	0,1644	0,14009	0,11183	0,1304	0,16461	0,20298
2659,35571	0,16447	0,14005	0,11178	0,13033	0,16458	0,20293
2657,42725	0,16456	0,14003	0,11177	0,13033	0,16455	0,20283
2655,49878	0,16454	0,14018	0,11179	0,13036	0,16453	0,20281
2653,57031	0,16457	0,1402	0,11172	0,13031	0,16446	0,20286
2651,64185	0,16467	0,14019	0,11166	0,13031	0,16443	0,20287
2649,71338	0,1647	0,14033	0,11165	0,13032	0,1644	0,20285
2647,78491	0,16473	0,14037	0,11157	0,1303	0,16432	0,2028
2645,85645	0,16483	0,14034	0,11154	0,1303	0,16434	0,20277
2643,92798	0,16487	0,14045	0,11155	0,13029	0,16436	0,20278
2641,99951	0,1648	0,1405	0,11149	0,13024	0,1643	0,20274
2640,07104	0,16481	0,14046	0,11146	0,13023	0,16424	0,20267
2638,14258	0,16485	0,14049	0,11149	0,13019	0,16419	0,20265
2636,21411	0,16479	0,14055	0,11147	0,13012	0,16413	0,20256
2634,28564	0,16485	0,14054	0,11143	0,1301	0,16411	0,20247
2632,35718	0,16486	0,14053	0,11141	0,1301	0,16409	0,20244
2630,42871	0,16479	0,14053	0,11134	0,13002	0,16399	0,20237
2628,50024	0,1648	0,14054	0,11128	0,12996	0,16389	0,20233
2626,57178	0,16472	0,14054	0,11128	0,12995	0,16384	0,20232
2624,64331	0,16468	0,1405	0,11125	0,12983	0,16375	0,2022

2622,71484	0,16469	0,14047	0,11119	0,12978	0,16367	0,20211
2620,78638	0,1645	0,1404	0,1111	0,12986	0,16363	0,2021
2618,85791	0,16441	0,14033	0,11101	0,12981	0,16356	0,202
2616,92944	0,16444	0,14031	0,11093	0,12972	0,16346	0,2019
2615,00098	0,16429	0,14023	0,11086	0,1297	0,1634	0,20188
2613,07251	0,16414	0,14013	0,11077	0,12961	0,16334	0,20185
2611,14404	0,16407	0,14008	0,1107	0,12954	0,16329	0,20172
2609,21558	0,16393	0,13996	0,1107	0,12945	0,16321	0,20157
2607,28711	0,1638	0,13985	0,11066	0,12934	0,16305	0,20148
2605,35864	0,16367	0,13983	0,11054	0,1293	0,16298	0,20141
2603,43018	0,16351	0,13975	0,11045	0,12921	0,16298	0,20127
2601,50171	0,16339	0,13959	0,1104	0,12906	0,16283	0,20109
2599,57324	0,16324	0,13947	0,11032	0,12897	0,16272	0,201
2597,64478	0,16311	0,13935	0,11022	0,12886	0,16267	0,20091
2595,71631	0,16295	0,13923	0,11008	0,12874	0,16252	0,20076
2593,78784	0,1628	0,13917	0,10994	0,1287	0,16248	0,20066
2591,85938	0,16277	0,13908	0,10986	0,12857	0,16243	0,20048
2589,93091	0,16264	0,1389	0,10974	0,1284	0,16225	0,2003
2588,00244	0,16241	0,13874	0,1096	0,12836	0,16216	0,20024
2586,07397	0,16223	0,13862	0,10953	0,12829	0,16208	0,20011
2584,14551	0,16207	0,1385	0,10942	0,12816	0,16196	0,1999
2582,21704	0,16193	0,13839	0,10929	0,1281	0,16189	0,19975
2580,28857	0,16183	0,1383	0,10922	0,12805	0,16185	0,19966
2578,36011	0,16172	0,1382	0,1091	0,12793	0,16175	0,19956
2576,43164	0,16152	0,13804	0,10897	0,1278	0,16161	0,19944
2574,50317	0,16135	0,13791	0,10892	0,12773	0,16151	0,19932
2572,57471	0,16125	0,13779	0,10885	0,12765	0,1614	0,19916
2570,64624	0,1611	0,13764	0,10874	0,12753	0,16127	0,19901
2568,71777	0,161	0,13755	0,10861	0,12745	0,16123	0,1989
2566,78931	0,16097	0,1375	0,10853	0,12731	0,16114	0,19879
2564,86084	0,16078	0,1374	0,10844	0,12714	0,16103	0,19868
2562,93237	0,16061	0,13725	0,10826	0,12703	0,16097	0,19859
2561,00391	0,16057	0,13715	0,10817	0,127	0,16084	0,19846
2559,07544	0,16043	0,1371	0,10811	0,12697	0,16073	0,19831
2557,14697	0,16032	0,13703	0,10801	0,12683	0,1607	0,19829
2555,21851	0,16021	0,13687	0,10796	0,12666	0,16059	0,19824
2553,29004	0,15998	0,13675	0,10787	0,12662	0,16044	0,1981
2551,36157	0,15987	0,13678	0,10777	0,12662	0,16036	0,1981
2549,43311	0,15982	0,13672	0,10769	0,12658	0,16031	0,19803
2547,50464	0,15968	0,13659	0,10757	0,1265	0,16019	0,19783
2545,57617	0,15958	0,13659	0,10744	0,12643	0,16008	0,19776
2543,64771	0,15946	0,13655	0,10733	0,12633	0,16006	0,19768
2541,71924	0,15932	0,1365	0,10728	0,12628	0,16005	0,19754
2539,79077	0,15929	0,13646	0,10727	0,12626	0,16	0,19745
2537,8623	0,15926	0,13634	0,10719	0,12619	0,15997	0,19741
2535,93384	0,15907	0,13627	0,1071	0,12611	0,15991	0,19742
2534,00537	0,15894	0,13624	0,10708	0,12604	0,15976	0,19741
2532,0769	0,1589	0,13614	0,10706	0,12599	0,15969	0,19733

2530,14844	0,15881	0,13607	0,10697	0,12598	0,15969	0,19719
2528,21997	0,15871	0,13603	0,10686	0,12597	0,15961	0,19702
2526,2915	0,15864	0,13594	0,10677	0,12592	0,15949	0,19694
2524,36304	0,1586	0,13592	0,10676	0,12585	0,15938	0,19691
2522,43457	0,15858	0,13594	0,10671	0,12583	0,15939	0,19688
2520,5061	0,15847	0,1359	0,10659	0,12578	0,1594	0,19683
2518,57764	0,15836	0,13587	0,10652	0,12573	0,1593	0,19673
2516,64917	0,15829	0,13586	0,10647	0,12572	0,15922	0,19665
2514,7207	0,15825	0,13585	0,1064	0,12567	0,15911	0,19658
2512,79224	0,15825	0,13578	0,1063	0,12558	0,15904	0,19648
2510,86377	0,15819	0,13566	0,10625	0,1255	0,15903	0,19645
2508,9353	0,1581	0,13564	0,10624	0,12549	0,15896	0,19644
2507,00684	0,15801	0,1357	0,10616	0,12546	0,15887	0,19636
2505,07837	0,15801	0,13569	0,10609	0,12538	0,1588	0,19619
2503,1499	0,15802	0,1356	0,10613	0,12539	0,15877	0,19612
2501,22144	0,15793	0,13557	0,10608	0,12538	0,15874	0,19613
2499,29297	0,15782	0,13557	0,10593	0,12532	0,15869	0,1961
2497,3645	0,15779	0,13551	0,10591	0,12532	0,15868	0,19605
2495,43604	0,15782	0,13549	0,10591	0,12529	0,15867	0,196
2493,50757	0,15777	0,13548	0,10579	0,12523	0,15855	0,19595
2491,5791	0,15762	0,1354	0,10571	0,12525	0,15843	0,19587
2489,65063	0,15761	0,13535	0,10568	0,12519	0,15834	0,19577
2487,72217	0,15763	0,13533	0,10558	0,12509	0,15826	0,19575
2485,7937	0,15753	0,13526	0,10547	0,12511	0,15826	0,1957
2483,86523	0,1575	0,13529	0,10549	0,12511	0,15827	0,19565
2481,93677	0,15749	0,13531	0,1055	0,12506	0,15818	0,19561
2480,0083	0,15735	0,1352	0,10541	0,12506	0,15818	0,19554
2478,07983	0,15729	0,1352	0,10538	0,12503	0,15818	0,19551
2476,15137	0,15723	0,1352	0,10539	0,12498	0,15809	0,1954
2474,2229	0,15714	0,13517	0,10535	0,12498	0,15808	0,19527
2472,29443	0,15718	0,13524	0,1053	0,12499	0,15806	0,1952
2470,36597	0,15717	0,13523	0,10524	0,12491	0,15792	0,19507
2468,4375	0,15703	0,13515	0,10516	0,12485	0,15786	0,195
2466,50903	0,15695	0,1351	0,10506	0,12493	0,15787	0,19504
2464,58057	0,1569	0,13508	0,10502	0,12499	0,15785	0,19499
2462,6521	0,15689	0,13507	0,10504	0,12492	0,15782	0,19491
2460,72363	0,15685	0,13501	0,10498	0,1249	0,15773	0,1949
2458,79517	0,15678	0,13497	0,10491	0,12484	0,15763	0,19481
2456,8667	0,15676	0,13495	0,10489	0,12476	0,15757	0,19464
2454,93823	0,1567	0,13491	0,10481	0,12474	0,15749	0,19459
2453,00977	0,15664	0,13494	0,10475	0,12464	0,15743	0,19454
2451,0813	0,15659	0,1349	0,10476	0,12452	0,15739	0,19443
2449,15283	0,15648	0,13482	0,10476	0,12446	0,15731	0,19439
2447,22437	0,15646	0,1348	0,10471	0,12441	0,15726	0,19436
2445,2959	0,15647	0,13475	0,10464	0,12439	0,15722	0,19431
2443,36743	0,15639	0,13476	0,10455	0,12434	0,15715	0,19424
2441,43896	0,15633	0,13482	0,10452	0,12431	0,15713	0,19418
2439,5105	0,15631	0,1347	0,10448	0,12426	0,15708	0,19412

2437,58203	0,15625	0,13459	0,10438	0,12417	0,15698	0,19405
2435,65356	0,15623	0,13463	0,10432	0,12416	0,15697	0,19397
2433,7251	0,15627	0,13461	0,10427	0,12416	0,15694	0,19391
2431,79663	0,15622	0,13455	0,10418	0,12411	0,15689	0,19389
2429,86816	0,15608	0,13455	0,10411	0,12411	0,15687	0,19377
2427,9397	0,15603	0,13453	0,10413	0,12403	0,15678	0,19364
2426,01123	0,15599	0,13448	0,10415	0,12397	0,15671	0,19365
2424,08276	0,15582	0,13453	0,10413	0,124	0,15665	0,19361
2422,1543	0,15575	0,13458	0,10415	0,12399	0,1566	0,19357
2420,22583	0,15579	0,1346	0,10415	0,12401	0,15657	0,19361
2418,29736	0,15578	0,13463	0,10409	0,12404	0,15653	0,19353
2416,3689	0,15566	0,13463	0,10406	0,12402	0,15643	0,19342
2414,44043	0,15552	0,13465	0,10407	0,12401	0,15634	0,19337
2412,51196	0,15561	0,13464	0,10401	0,12404	0,15636	0,1933
2410,5835	0,15568	0,13455	0,10394	0,12405	0,15635	0,19329
2408,65503	0,15558	0,13457	0,10389	0,12406	0,15631	0,19331
2406,72656	0,15553	0,13463	0,10385	0,12402	0,15633	0,19324
2404,7981	0,15549	0,13464	0,10381	0,12398	0,15629	0,19314
2402,86963	0,15545	0,13469	0,10371	0,12399	0,15624	0,19311
2400,94116	0,15542	0,13469	0,10366	0,12396	0,1562	0,19304
2399,0127	0,15538	0,13466	0,10362	0,12398	0,15616	0,19302
2397,08423	0,15534	0,13468	0,10357	0,124	0,15612	0,19301
2395,15576	0,1553	0,1346	0,10352	0,12397	0,15607	0,19289
2393,22729	0,15526	0,13458	0,10347	0,12394	0,15603	0,19285
2391,29883	0,15523	0,13455	0,10342	0,1239	0,15599	0,19286
2389,37036	0,15519	0,13453	0,10337	0,12387	0,15595	0,19271
2387,44189	0,15515	0,1345	0,10332	0,12384	0,15591	0,19256
2385,51343	0,15511	0,13448	0,10328	0,1238	0,15586	0,1926
2383,58496	0,15508	0,13445	0,10323	0,12377	0,15582	0,19251
2381,65649	0,15504	0,13442	0,10318	0,12374	0,15578	0,19245
2379,72803	0,155	0,1344	0,10313	0,1237	0,15574	0,1924
2377,79956	0,15496	0,13437	0,10308	0,12367	0,15569	0,19234
2375,87109	0,15492	0,13435	0,10303	0,12363	0,15565	0,19229
2373,94263	0,15489	0,13432	0,10298	0,1236	0,15561	0,19223
2372,01416	0,15485	0,1343	0,10294	0,12357	0,15557	0,19217
2370,08569	0,15481	0,13427	0,10289	0,12353	0,15553	0,19212
2368,15723	0,15477	0,13424	0,10284	0,1235	0,15548	0,19206
2366,22876	0,15474	0,13422	0,10279	0,12347	0,15544	0,19201
2364,30029	0,1547	0,13419	0,10274	0,12343	0,1554	0,19195
2362,37183	0,15466	0,13417	0,10269	0,1234	0,15536	0,1919
2360,44336	0,15462	0,13414	0,10264	0,12337	0,15531	0,19184
2358,51489	0,15459	0,13412	0,1026	0,12333	0,15527	0,19179
2356,58643	0,15455	0,13409	0,10255	0,1233	0,15523	0,19173
2354,65796	0,15451	0,13406	0,1025	0,12326	0,15519	0,19168
2352,72949	0,15447	0,13404	0,10245	0,12323	0,15515	0,19162
2350,80103	0,15443	0,13401	0,1024	0,1232	0,1551	0,19157
2348,87256	0,1544	0,13399	0,10235	0,12316	0,15506	0,19151
2346,94409	0,15436	0,13396	0,1023	0,12313	0,15502	0,19145

2345,01563	0,15432	0,13394	0,10226	0,1231	0,15498	0,1914
2343,08716	0,15428	0,13391	0,10221	0,12306	0,15493	0,19134
2341,15869	0,15425	0,13388	0,10216	0,12303	0,15489	0,19129
2339,23022	0,15421	0,13386	0,10211	0,12299	0,15485	0,19123
2337,30176	0,15417	0,13383	0,10206	0,12296	0,15481	0,19118
2335,37329	0,15413	0,13381	0,10201	0,12293	0,15477	0,19112
2333,44482	0,15409	0,13378	0,10196	0,12289	0,15472	0,19107
2331,51636	0,15406	0,13376	0,10191	0,12286	0,15468	0,19101
2329,58789	0,15402	0,13373	0,10187	0,12283	0,15464	0,19096
2327,65942	0,15398	0,1337	0,10182	0,12279	0,1546	0,1909
2325,73096	0,15394	0,13368	0,10177	0,12276	0,15455	0,19085
2323,80249	0,15391	0,13365	0,10172	0,12273	0,15451	0,19079
2321,87402	0,15387	0,13363	0,10167	0,12269	0,15447	0,19073
2319,94556	0,15383	0,1336	0,10162	0,12266	0,15443	0,19068
2318,01709	0,15379	0,13358	0,10157	0,12262	0,15439	0,19062
2316,08862	0,15376	0,13355	0,10153	0,12259	0,15434	0,19057
2314,16016	0,15372	0,13352	0,10148	0,12256	0,1543	0,19051
2312,23169	0,15368	0,1335	0,10143	0,12252	0,15426	0,19046
2310,30322	0,15364	0,13347	0,10138	0,12249	0,15422	0,1904
2308,37476	0,1536	0,13345	0,10133	0,12246	0,15417	0,19035
2306,44629	0,15357	0,13342	0,10128	0,12242	0,15413	0,19029
2304,51782	0,15353	0,13339	0,10123	0,12239	0,15409	0,19024
2302,58936	0,15349	0,13337	0,10119	0,12236	0,15405	0,19018
2300,66089	0,15345	0,13334	0,10114	0,12232	0,15401	0,19013
2298,73242	0,15342	0,13332	0,10109	0,12229	0,15396	0,19007
2296,80396	0,15338	0,13329	0,10104	0,12225	0,15392	0,19001
2294,87549	0,15334	0,13327	0,10099	0,12222	0,15388	0,18996
2292,94702	0,1533	0,13324	0,10094	0,12219	0,15384	0,1899
2291,01855	0,15327	0,13321	0,10089	0,12215	0,15379	0,18985
2289,09009	0,15323	0,13319	0,10085	0,12212	0,15375	0,18979
2287,16162	0,15319	0,13316	0,1008	0,12209	0,15371	0,18974
2285,23315	0,15315	0,13314	0,10075	0,12205	0,15367	0,18978
2283,30469	0,15311	0,13311	0,1007	0,12202	0,15363	0,18965
2281,37622	0,15308	0,13309	0,10065	0,12199	0,15358	0,18936
2279,44775	0,15304	0,13306	0,1006	0,12195	0,15354	0,18943
2277,51929	0,153	0,13303	0,10055	0,12192	0,1535	0,18951
2275,59082	0,15296	0,13301	0,10051	0,1218	0,15346	0,1894
2273,66235	0,15293	0,13298	0,10046	0,12177	0,15341	0,18938
2271,73389	0,15289	0,13296	0,10041	0,12177	0,15337	0,18931
2269,80542	0,15285	0,13293	0,10036	0,12171	0,15333	0,18921
2267,87695	0,1528	0,13291	0,10031	0,12169	0,15329	0,18919
2265,94849	0,15275	0,13289	0,10026	0,1217	0,15325	0,18918
2264,02002	0,1527	0,13295	0,10021	0,12171	0,15326	0,18914
2262,09155	0,15255	0,13294	0,10017	0,12171	0,15321	0,18903
2260,16309	0,15239	0,13289	0,10012	0,12174	0,1531	0,18895
2258,23462	0,15236	0,1329	0,10007	0,12175	0,15296	0,18896
2256,30615	0,15227	0,13294	0,10009	0,12179	0,15296	0,18898
2254,37769	0,15211	0,13296	0,10008	0,12181	0,153	0,18896

2252,44922	0,1521	0,13294	0,10009	0,12174	0,15287	0,18883
2250,52075	0,15208	0,13299	0,10016	0,12169	0,15281	0,18872
2248,59229	0,15196	0,13298	0,10008	0,12168	0,15277	0,18864
2246,66382	0,15186	0,13294	0,1	0,12164	0,15268	0,18852
2244,73535	0,1518	0,13302	0,10002	0,1216	0,15269	0,18851
2242,80688	0,15173	0,13302	0,09999	0,12159	0,15266	0,18853
2240,87842	0,15167	0,13294	0,09996	0,12156	0,15258	0,18848
2238,94995	0,15165	0,13294	0,0999	0,12153	0,15251	0,18838
2237,02148	0,1516	0,13288	0,09983	0,12147	0,15244	0,18833
2235,09302	0,15156	0,13286	0,0998	0,12138	0,1524	0,18835
2233,16455	0,15157	0,13293	0,09976	0,12128	0,15234	0,18831
2231,23608	0,15155	0,13287	0,09971	0,12122	0,15229	0,18831
2229,30762	0,15143	0,1328	0,09968	0,12119	0,15225	0,18829
2227,37915	0,15128	0,13279	0,09968	0,12119	0,15217	0,1882
2225,45068	0,15114	0,13272	0,09964	0,12116	0,1521	0,18818
2223,52222	0,15103	0,13272	0,09955	0,12106	0,15203	0,18815
2221,59375	0,15099	0,13279	0,09948	0,12101	0,15193	0,18805
2219,66528	0,15096	0,13281	0,09941	0,12102	0,15187	0,18795
2217,73682	0,15098	0,13282	0,09936	0,12102	0,15185	0,18791
2215,80835	0,15108	0,13283	0,09935	0,12103	0,15183	0,18796
2213,87988	0,15105	0,13278	0,09927	0,1211	0,1518	0,1879
2211,95142	0,15092	0,13271	0,09912	0,12117	0,15179	0,18776
2210,02295	0,15081	0,13272	0,09904	0,12113	0,15178	0,18764
2208,09448	0,15075	0,13269	0,09903	0,12108	0,15166	0,18757
2206,16602	0,15079	0,13258	0,09899	0,12103	0,15153	0,18755
2204,23755	0,15072	0,13252	0,09888	0,12089	0,15143	0,18739
2202,30908	0,1506	0,1325	0,09875	0,12078	0,15134	0,18729
2200,38062	0,15057	0,13247	0,09865	0,1207	0,15126	0,18727
2198,45215	0,15045	0,13244	0,09859	0,12059	0,15121	0,18717
2196,52368	0,15029	0,13241	0,09851	0,12057	0,15119	0,18721
2194,59521	0,15018	0,13244	0,09842	0,12053	0,15109	0,18726
2192,66675	0,15013	0,13238	0,09841	0,12042	0,15096	0,18714
2190,73828	0,15013	0,13225	0,09839	0,12038	0,15089	0,18708
2188,80981	0,15009	0,13224	0,09832	0,12036	0,15089	0,18707
2186,88135	0,14997	0,13223	0,09826	0,12032	0,15085	0,18697
2184,95288	0,1499	0,13217	0,09816	0,12028	0,15076	0,18692
2183,02441	0,14991	0,13218	0,09807	0,12028	0,15069	0,18687
2181,09595	0,14985	0,13216	0,09807	0,12027	0,15058	0,18681
2179,16748	0,14975	0,13214	0,09799	0,12026	0,1505	0,18681
2177,23901	0,1497	0,13216	0,09792	0,1202	0,1504	0,18674
2175,31055	0,14967	0,13209	0,09794	0,12011	0,15025	0,18665
2173,38208	0,14969	0,13202	0,09792	0,12012	0,15028	0,1867
2171,45361	0,14949	0,13183	0,09779	0,12003	0,15024	0,18656
2169,52515	0,14916	0,13158	0,09762	0,11981	0,15001	0,18632
2167,59668	0,14931	0,13169	0,09762	0,11985	0,15007	0,18637
2165,66821	0,14946	0,13184	0,09768	0,11993	0,15016	0,18637
2163,73975	0,14921	0,13173	0,0976	0,11984	0,15004	0,18628
2161,81128	0,14915	0,13168	0,09753	0,11981	0,15001	0,18631

2159,88281	0,14919	0,13169	0,09752	0,11972	0,14995	0,18621
2157,95435	0,14905	0,13163	0,09745	0,11958	0,14982	0,18616
2156,02588	0,14898	0,13151	0,09736	0,11953	0,14982	0,18619
2154,09741	0,14896	0,13144	0,09728	0,11945	0,14977	0,18607
2152,16895	0,14888	0,13144	0,09725	0,11938	0,14966	0,18605
2150,24048	0,14885	0,13135	0,09721	0,11934	0,14964	0,18607
2148,31201	0,14882	0,13121	0,09712	0,11924	0,1496	0,18595
2146,38354	0,14872	0,13116	0,09707	0,11915	0,14958	0,18584
2144,45508	0,1486	0,13115	0,09707	0,11908	0,14956	0,18575
2142,52661	0,14847	0,13106	0,09702	0,11898	0,1495	0,1857
2140,59814	0,14842	0,13093	0,09691	0,11888	0,14942	0,18566
2138,66968	0,14842	0,13088	0,09682	0,11875	0,14937	0,1856
2136,74121	0,14838	0,13085	0,09672	0,11868	0,14929	0,18556
2134,81274	0,14832	0,13082	0,09665	0,11864	0,14915	0,18539
2132,88428	0,14824	0,13081	0,09662	0,11856	0,14903	0,18527
2130,95581	0,14818	0,13073	0,09656	0,11852	0,14898	0,18524
2129,02734	0,14812	0,13067	0,0965	0,11845	0,14892	0,18517
2127,09888	0,14803	0,13064	0,09643	0,1183	0,14885	0,1852
2125,17041	0,14795	0,13053	0,09634	0,11818	0,1488	0,18517
2123,24194	0,14788	0,13048	0,09624	0,1181	0,14866	0,18504
2121,31348	0,14784	0,13052	0,09615	0,11804	0,14857	0,18505
2119,38501	0,1478	0,13044	0,09613	0,118	0,14855	0,18502
2117,45654	0,1478	0,13034	0,09612	0,11797	0,14849	0,18495
2115,52808	0,14778	0,13033	0,09613	0,11789	0,14841	0,18502
2113,59961	0,14763	0,13025	0,09602	0,11779	0,14831	0,18499
2111,67114	0,14751	0,13014	0,09586	0,11772	0,14819	0,18485
2109,74268	0,14743	0,13009	0,09581	0,11759	0,14806	0,1847
2107,81421	0,14739	0,13	0,09575	0,1174	0,14789	0,1845
2105,88574	0,14739	0,12993	0,09567	0,11718	0,14784	0,18447
2103,95728	0,1473	0,12988	0,09559	0,11704	0,14779	0,18448
2102,02881	0,1472	0,12974	0,09541	0,11697	0,14762	0,18429
2100,10034	0,14706	0,12959	0,0952	0,11683	0,1475	0,18409
2098,17188	0,14688	0,1295	0,09507	0,11658	0,14739	0,18399
2096,24341	0,14683	0,12937	0,09502	0,11635	0,14721	0,18391
2094,31494	0,1467	0,12921	0,09492	0,11622	0,14715	0,18384
2092,38647	0,14664	0,12911	0,09481	0,11612	0,14712	0,18376
2090,45801	0,1467	0,12903	0,09473	0,11597	0,147	0,18365
2088,52954	0,14655	0,12892	0,0946	0,11586	0,14689	0,1836
2086,60107	0,14642	0,12886	0,09455	0,11577	0,1468	0,18356
2084,67261	0,14642	0,12882	0,09455	0,11563	0,14668	0,18341
2082,74414	0,14631	0,12876	0,09445	0,11551	0,14662	0,18331
2080,81567	0,14621	0,12866	0,09433	0,11543	0,14655	0,18329
2078,88721	0,14617	0,12858	0,09429	0,11533	0,14644	0,1833
2076,95874	0,14613	0,1285	0,09428	0,11525	0,14631	0,18325
2075,03027	0,1461	0,12842	0,09425	0,1151	0,14621	0,18312
2073,10181	0,14604	0,12846	0,0942	0,115	0,14624	0,18316
2071,17334	0,14597	0,12847	0,09411	0,11506	0,14627	0,18314
2069,24487	0,14583	0,12844	0,09402	0,11504	0,14618	0,18299



2067,31641	0,14581	0,12846	0,0941	0,11507	0,14622	0,1831
2065,38794	0,14586	0,12845	0,09421	0,11511	0,14629	0,18317
2063,45947	0,14563	0,12837	0,09414	0,11511	0,14621	0,18305
2061,53101	0,14553	0,12838	0,09403	0,11519	0,14617	0,18305
2059,60254	0,1456	0,12847	0,09406	0,11524	0,1462	0,18303
2057,67407	0,14551	0,12843	0,0942	0,11527	0,14622	0,18297
2055,74561	0,14545	0,12843	0,09419	0,11531	0,14622	0,18296
2053,81714	0,14542	0,12853	0,0942	0,11531	0,14629	0,18297
2051,88867	0,14542	0,12844	0,09425	0,11537	0,14632	0,18301
2049,96021	0,14542	0,12837	0,09421	0,11539	0,14627	0,18303
2048,03174	0,14533	0,12844	0,09431	0,11545	0,14633	0,18299
2046,10327	0,14528	0,12847	0,09444	0,11548	0,1464	0,18297
2044,1748	0,14533	0,12852	0,09444	0,11541	0,14646	0,18308
2042,24634	0,14544	0,12853	0,09449	0,11548	0,14658	0,18315
2040,31787	0,14541	0,12849	0,09457	0,11548	0,14658	0,18305
2038,3894	0,14533	0,12848	0,09461	0,11536	0,14661	0,18298
2036,46094	0,14531	0,12836	0,09469	0,11537	0,14667	0,18289
2034,53247	0,14528	0,12824	0,09477	0,11533	0,14671	0,18278
2032,604	0,14525	0,12827	0,09479	0,11517	0,14674	0,18278
2030,67554	0,14512	0,12824	0,09478	0,11508	0,14658	0,18269
2028,74707	0,14511	0,12817	0,09472	0,11495	0,14651	0,1825
2026,8186	0,14511	0,12814	0,09468	0,11474	0,14651	0,18234
2024,89014	0,14497	0,12805	0,0947	0,11469	0,14642	0,18231
2022,96167	0,14495	0,12794	0,09472	0,11474	0,14644	0,18236
2021,0332	0,14494	0,1279	0,09474	0,1147	0,14646	0,18226
2019,10474	0,14503	0,12789	0,09473	0,11468	0,14654	0,18226
2017,17627	0,14512	0,12783	0,09469	0,11467	0,14661	0,1823
2015,2478	0,14489	0,12789	0,09476	0,11459	0,14646	0,18211
2013,31934	0,14481	0,12801	0,09489	0,11466	0,14656	0,18212
2011,39087	0,14481	0,128	0,09498	0,11478	0,14674	0,18223
2009,4624	0,14472	0,12799	0,09509	0,11479	0,1467	0,18222
2007,53394	0,14475	0,12807	0,09517	0,11481	0,14676	0,18225
2005,60547	0,14475	0,12809	0,09519	0,11481	0,14689	0,18216
2003,677	0,14479	0,12803	0,0952	0,11477	0,14693	0,18215
2001,74854	0,14467	0,12798	0,09522	0,11476	0,14691	0,18225
1999,82007	0,14459	0,12795	0,09521	0,11478	0,14696	0,18229
1997,8916	0,14463	0,12794	0,09509	0,11477	0,14694	0,18226
1995,96313	0,14442	0,12796	0,09504	0,11478	0,14686	0,18217
1994,03467	0,14464	0,12789	0,09513	0,11482	0,147	0,18222
1992,1062	0,14482	0,12772	0,09502	0,1147	0,14685	0,18211
1990,17773	0,14441	0,12771	0,09487	0,11459	0,14652	0,18189
1988,24927	0,14439	0,1278	0,09489	0,11461	0,14658	0,18204
1986,3208	0,14432	0,12776	0,09486	0,11449	0,14647	0,18204
1984,39233	0,14416	0,12772	0,09487	0,11441	0,14637	0,18189
1982,46387	0,14417	0,12771	0,0949	0,11439	0,14641	0,18182
1980,5354	0,1441	0,1277	0,09484	0,11436	0,14631	0,18173
1978,60693	0,14414	0,1277	0,09479	0,11443	0,14636	0,18177
1976,67847	0,14405	0,12763	0,0947	0,11436	0,1463	0,18169

1974,75	0,14393	0,1276	0,09461	0,11423	0,14615	0,18149
1972,82153	0,14396	0,12767	0,0945	0,11424	0,14607	0,18143
1970,89307	0,14384	0,12767	0,09439	0,11421	0,14594	0,18141
1968,9646	0,14403	0,12759	0,09439	0,11418	0,14604	0,18151
1967,03613	0,14417	0,12753	0,09425	0,11412	0,14599	0,18147
1965,10767	0,14371	0,12756	0,09407	0,11398	0,14561	0,18127
1963,1792	0,14363	0,12764	0,09405	0,114	0,14556	0,1813
1961,25073	0,14375	0,12764	0,0939	0,11403	0,14557	0,18126
1959,32227	0,14352	0,1276	0,09377	0,1139	0,14536	0,18103
1957,3938	0,14344	0,12754	0,09374	0,1138	0,14529	0,18087
1955,46533	0,14342	0,12742	0,0936	0,11368	0,14524	0,18075
1953,53687	0,14333	0,12737	0,09351	0,11353	0,14507	0,18063
1951,6084	0,14322	0,12738	0,09347	0,11349	0,14484	0,18047
1949,67993	0,14326	0,12732	0,09337	0,11346	0,14479	0,18044
1947,75146	0,14321	0,1272	0,09319	0,11331	0,14478	0,18043
1945,823	0,14317	0,12712	0,09307	0,1132	0,14464	0,18031
1943,89453	0,14373	0,12705	0,09301	0,11319	0,14475	0,18033
1941,96606	0,14351	0,12695	0,09267	0,11301	0,14459	0,18005
1940,0376	0,14274	0,12694	0,09254	0,11291	0,14426	0,17983
1938,10913	0,14291	0,12708	0,09273	0,11294	0,14435	0,17998
1936,18066	0,14291	0,12711	0,09275	0,1128	0,14425	0,17981
1934,2522	0,1428	0,12699	0,09263	0,11277	0,14418	0,17971
1932,32373	0,14278	0,12696	0,09248	0,11272	0,14416	0,17971
1930,39526	0,14279	0,12693	0,09243	0,11259	0,14406	0,17961
1928,4668	0,1428	0,1269	0,09226	0,11251	0,14395	0,17952
1926,53833	0,14266	0,12681	0,0921	0,11232	0,1438	0,17941
1924,60986	0,14317	0,12661	0,09227	0,11233	0,14402	0,17958
1922,6814	0,14316	0,12652	0,09189	0,11211	0,1437	0,17929
1920,75293	0,14274	0,12643	0,09175	0,11191	0,1434	0,179
1918,82446	0,14304	0,1264	0,09213	0,1121	0,14381	0,17938
1916,896	0,14249	0,12647	0,0918	0,11183	0,14342	0,17914
1914,96753	0,14222	0,1264	0,09177	0,11153	0,14321	0,17883
1913,03906	0,14264	0,12628	0,09216	0,11153	0,14367	0,17905
1911,1106	0,14268	0,12607	0,09213	0,11136	0,14376	0,17905
1909,18213	0,14271	0,12586	0,09216	0,11123	0,14379	0,17904
1907,25366	0,14241	0,12584	0,09236	0,11116	0,14385	0,17907
1905,3252	0,14219	0,12583	0,09246	0,11104	0,1439	0,17899
1903,39673	0,14231	0,12572	0,09255	0,11091	0,14401	0,17907
1901,46826	0,14236	0,12557	0,09268	0,11078	0,14411	0,17916
1899,53979	0,14219	0,12541	0,09271	0,11056	0,14406	0,17899
1897,61133	0,1423	0,12518	0,09276	0,11037	0,14413	0,17903
1895,68286	0,14257	0,12499	0,09278	0,11028	0,14435	0,17912
1893,75439	0,14194	0,12496	0,0926	0,11005	0,1441	0,17886
1891,82593	0,14216	0,12486	0,09287	0,11006	0,14429	0,17908
1889,89746	0,14279	0,12466	0,09302	0,11005	0,14457	0,17911
1887,96899	0,14193	0,12465	0,09264	0,1097	0,144	0,17856
1886,04053	0,14199	0,12469	0,09285	0,10977	0,14406	0,1787
1884,11206	0,14228	0,12463	0,09303	0,10991	0,14418	0,1788

1882,18359	0,14185	0,12456	0,09291	0,10983	0,14401	0,17863
1880,25513	0,14187	0,12453	0,09309	0,10992	0,1442	0,17875
1878,32666	0,14183	0,12458	0,09312	0,10995	0,14416	0,17868
1876,39819	0,14184	0,12476	0,09303	0,11	0,14418	0,17869
1874,46973	0,14176	0,1249	0,09292	0,11008	0,14419	0,17875
1872,54126	0,14167	0,12482	0,09287	0,11003	0,14411	0,17869
1870,61279	0,14241	0,12471	0,09308	0,11018	0,14457	0,17898
1868,68433	0,14276	0,12453	0,09262	0,11011	0,14455	0,17872
1866,75586	0,14168	0,12448	0,0921	0,10981	0,14372	0,17801
1864,82739	0,14156	0,12475	0,09254	0,11005	0,14376	0,17822
1862,89893	0,14166	0,12499	0,09266	0,11029	0,14376	0,1784
1860,97046	0,14164	0,12507	0,09239	0,11029	0,14347	0,17828
1859,04199	0,14164	0,12522	0,09236	0,11033	0,14328	0,17815
1857,11353	0,14147	0,12527	0,09217	0,11026	0,14302	0,17794
1855,18506	0,14134	0,12538	0,09198	0,11021	0,1428	0,17802
1853,25659	0,1412	0,12539	0,09165	0,1101	0,14241	0,17775
1851,32813	0,14122	0,1254	0,09155	0,11005	0,14227	0,17758
1849,39966	0,14118	0,12544	0,09122	0,10997	0,14203	0,17752
1847,47119	0,1416	0,12517	0,0908	0,10989	0,1418	0,17729
1845,54272	0,14196	0,12529	0,0911	0,11016	0,14213	0,17782
1843,61426	0,14067	0,12537	0,09015	0,10972	0,14118	0,17724
1841,68579	0,14018	0,12502	0,08956	0,10928	0,14042	0,17642
1839,75732	0,14098	0,12522	0,09012	0,10963	0,1409	0,17691
1837,82886	0,14094	0,12533	0,09005	0,10969	0,14079	0,177
1835,90039	0,14085	0,12515	0,08971	0,10958	0,14056	0,1767
1833,97192	0,1405	0,12528	0,08968	0,10955	0,14032	0,1766
1832,04346	0,14125	0,12518	0,08995	0,1097	0,14086	0,17708
1830,11499	0,14168	0,12496	0,08956	0,10961	0,14098	0,17698
1828,18652	0,14025	0,12504	0,08898	0,1091	0,13995	0,17607
1826,25806	0,1409	0,12512	0,08947	0,10925	0,14061	0,17661
1824,32959	0,14098	0,12519	0,08938	0,10918	0,14063	0,17672
1822,40112	0,14004	0,12515	0,08928	0,10893	0,13992	0,1762
1820,47266	0,14036	0,12505	0,08975	0,10909	0,1404	0,17658
1818,54419	0,1405	0,12484	0,08966	0,10902	0,14054	0,17664
1816,61572	0,14034	0,12481	0,08958	0,10884	0,14034	0,1763
1814,68726	0,14023	0,12491	0,08975	0,10873	0,14035	0,17625
1812,75879	0,14066	0,12476	0,08983	0,10875	0,14057	0,17647
1810,83032	0,14084	0,12466	0,08974	0,10866	0,14053	0,17641
1808,90186	0,14024	0,12464	0,08957	0,10851	0,14024	0,1762
1806,97339	0,14019	0,12454	0,08965	0,10854	0,14027	0,17619
1805,04492	0,1401	0,12442	0,08969	0,10829	0,14022	0,17601
1803,11646	0,14028	0,12399	0,08964	0,10795	0,1404	0,17615
1801,18799	0,14067	0,12342	0,08937	0,10744	0,14031	0,17609
1799,25952	0,13988	0,12338	0,08912	0,10682	0,1396	0,17555
1797,33105	0,13975	0,12326	0,08906	0,10667	0,13944	0,17537
1795,40259	0,14042	0,12304	0,08926	0,10669	0,13973	0,17554
1793,47412	0,14042	0,12333	0,08966	0,10682	0,14002	0,176
1791,54565	0,13982	0,12342	0,08868	0,10671	0,13944	0,17537

1789,61719	0,13907	0,12364	0,0883	0,10668	0,13887	0,17472
1787,68872	0,13978	0,12413	0,0892	0,10726	0,13964	0,17546
1785,76025	0,13986	0,12421	0,08929	0,10738	0,13975	0,17564
1783,83179	0,13914	0,12406	0,0889	0,10707	0,13916	0,17515
1781,90332	0,13981	0,12393	0,08891	0,10706	0,13931	0,17519
1779,97485	0,14009	0,12376	0,08879	0,1069	0,13924	0,17524
1778,04639	0,1391	0,12388	0,0886	0,10662	0,13866	0,175
1776,11792	0,1398	0,12357	0,08838	0,10641	0,13876	0,17484
1774,18945	0,14034	0,12354	0,089	0,10664	0,1393	0,1756
1772,26099	0,13887	0,12367	0,08816	0,10624	0,13827	0,1751
1770,33252	0,13832	0,123	0,0869	0,10547	0,13725	0,17391
1768,40405	0,13925	0,12302	0,08757	0,10587	0,13809	0,17468
1766,47559	0,13782	0,12333	0,08711	0,1055	0,13702	0,17408
1764,54712	0,13893	0,123	0,08724	0,10535	0,13726	0,17413
1762,61865	0,13976	0,12312	0,08793	0,1057	0,13808	0,17518
1760,69019	0,13782	0,12297	0,08647	0,10483	0,13635	0,1739
1758,76172	0,13893	0,12271	0,08682	0,105	0,13691	0,17429
1756,83325	0,13914	0,12301	0,08704	0,1052	0,13731	0,17494
1754,90479	0,13788	0,12297	0,08623	0,1045	0,13617	0,17388
1752,97632	0,13885	0,12291	0,08722	0,10498	0,13717	0,17476
1751,04785	0,13909	0,12291	0,08719	0,10525	0,13765	0,1755
1749,11938	0,13865	0,12228	0,08571	0,10443	0,13656	0,1745
1747,19092	0,13936	0,12228	0,0863	0,10466	0,13712	0,17506
1745,26245	0,13879	0,12269	0,08673	0,10496	0,13735	0,17561
1743,33398	0,1389	0,12251	0,08651	0,1048	0,13731	0,17536
1741,40552	0,13934	0,12276	0,08742	0,10517	0,13799	0,1762
1739,47705	0,1377	0,12317	0,08705	0,105	0,13721	0,17572
1737,54858	0,13819	0,1226	0,08663	0,10467	0,13701	0,17484
1735,62012	0,13927	0,12299	0,08868	0,10568	0,13879	0,17678
1733,69165	0,13688	0,12352	0,08753	0,10528	0,13752	0,17594
1731,76318	0,13641	0,12247	0,08593	0,10409	0,13578	0,17372
1729,83472	0,13952	0,1224	0,08712	0,10499	0,13784	0,17492
1727,90625	0,13725	0,12313	0,08728	0,10495	0,13688	0,17434
1725,97778	0,13803	0,12293	0,08732	0,10481	0,13702	0,17424
1724,04932	0,13859	0,12301	0,08761	0,10509	0,1375	0,17487
1722,12085	0,13754	0,12298	0,08689	0,10461	0,13658	0,17412
1720,19238	0,13912	0,1228	0,08753	0,10489	0,13761	0,1749
1718,26392	0,13919	0,12304	0,08796	0,10522	0,13807	0,17597
1716,33545	0,13657	0,1228	0,08629	0,10424	0,13595	0,17454
1714,40698	0,13786	0,12233	0,08623	0,10412	0,13623	0,17402
1712,47852	0,13852	0,12265	0,08715	0,10459	0,13698	0,17455
1710,55005	0,13773	0,12288	0,08722	0,10457	0,13678	0,17435
1708,62158	0,13899	0,12258	0,08748	0,10469	0,13747	0,17457
1706,69312	0,13931	0,12294	0,08814	0,10508	0,13805	0,17531
1704,76465	0,13809	0,12253	0,08664	0,10412	0,13649	0,17359
1702,83618	0,13933	0,12231	0,08778	0,10453	0,13764	0,17462
1700,90771	0,13877	0,12338	0,08905	0,10545	0,13904	0,17646
1698,97925	0,13472	0,12198	0,08545	0,10296	0,13475	0,17223

1697,05078	0,13817	0,12151	0,08721	0,10383	0,13682	0,17399
1695,12231	0,13675	0,12307	0,08783	0,10469	0,13728	0,17501
1693,19385	0,13645	0,12256	0,08691	0,10373	0,13613	0,17312
1691,26538	0,13966	0,12241	0,08892	0,10464	0,13852	0,17501
1689,33691	0,13853	0,12255	0,08863	0,10429	0,13802	0,17473
1687,40845	0,13936	0,12186	0,08838	0,10396	0,13811	0,17452
1685,47998	0,13932	0,1227	0,09075	0,10512	0,13986	0,17719
1683,55151	0,13713	0,12247	0,08771	0,1037	0,13758	0,17472
1681,62305	0,13819	0,12171	0,08773	0,10339	0,13748	0,17391
1679,69458	0,13892	0,12209	0,08905	0,10398	0,13834	0,17483
1677,76611	0,13852	0,12224	0,08943	0,10392	0,13818	0,17494
1675,83765	0,13861	0,12228	0,08979	0,10405	0,13862	0,17558
1673,90918	0,13685	0,12229	0,08859	0,10339	0,13706	0,17441
1671,98071	0,13872	0,12181	0,08891	0,10354	0,13763	0,1746
1670,05225	0,14028	0,1218	0,08967	0,10419	0,13895	0,17586
1668,12378	0,13702	0,12206	0,088	0,10325	0,13651	0,17384
1666,19531	0,13821	0,12195	0,08856	0,1035	0,13697	0,174
1664,26685	0,13912	0,12246	0,08988	0,10434	0,13812	0,17544
1662,33838	0,13826	0,12229	0,08887	0,10381	0,1371	0,17438
1660,40991	0,13821	0,12198	0,08898	0,10388	0,13717	0,17423
1658,48145	0,13785	0,1223	0,08955	0,10431	0,1374	0,17469
1656,55298	0,13955	0,12147	0,08919	0,10399	0,1378	0,17465
1654,62451	0,1403	0,12132	0,09089	0,10479	0,1396	0,17704
1652,69604	0,13636	0,12213	0,08825	0,10431	0,1379	0,17604
1650,76758	0,13375	0,12073	0,08728	0,1023	0,13455	0,17255
1648,83911	0,14038	0,1194	0,08906	0,10353	0,13845	0,17482
1646,91064	0,13932	0,11949	0,08938	0,10406	0,13866	0,17575
1644,98218	0,13452	0,11979	0,08782	0,1026	0,13542	0,17314
1643,05371	0,13721	0,11928	0,08894	0,10308	0,13725	0,17413
1641,12524	0,13647	0,11951	0,08949	0,10325	0,13745	0,17455
1639,19678	0,13701	0,11896	0,08906	0,10283	0,13741	0,17407
1637,26831	0,1381	0,11837	0,08996	0,1031	0,13856	0,17514
1635,33984	0,13613	0,1187	0,08882	0,10251	0,13741	0,1743
1633,41138	0,13384	0,11853	0,08777	0,10146	0,13552	0,17232
1631,48291	0,13565	0,11786	0,08883	0,10187	0,13704	0,17306
1629,55444	0,13539	0,11769	0,08944	0,10209	0,13752	0,17348
1627,62598	0,1346	0,11716	0,08861	0,10159	0,13684	0,17268
1625,69751	0,13433	0,11656	0,08891	0,10162	0,13725	0,17302
1623,76904	0,13442	0,11607	0,08917	0,10182	0,13779	0,17368
1621,84058	0,13273	0,11584	0,08796	0,10102	0,13654	0,17246
1619,91211	0,13368	0,11576	0,08841	0,10105	0,13728	0,1725
1617,98364	0,13394	0,11632	0,08988	0,10176	0,13821	0,17385
1616,05518	0,13228	0,11726	0,08862	0,10125	0,13656	0,1729
1614,12671	0,13378	0,11738	0,08835	0,10109	0,13682	0,17242
1612,19824	0,13568	0,11804	0,08954	0,10176	0,13806	0,17335
1610,26978	0,13572	0,11874	0,08967	0,10178	0,13779	0,1733
1608,34131	0,13624	0,11882	0,08944	0,10165	0,13771	0,1732
1606,41284	0,13606	0,11943	0,08966	0,10176	0,13766	0,17343

1604,48438	0,13633	0,11978	0,08948	0,10173	0,13759	0,17324
1602,55591	0,13687	0,11979	0,08932	0,10171	0,1376	0,17319
1600,62744	0,13658	0,11996	0,08921	0,10167	0,13726	0,17324
1598,69897	0,13656	0,12009	0,08924	0,10171	0,13719	0,17333
1596,77051	0,13687	0,1202	0,08919	0,10186	0,13718	0,17346
1594,84204	0,13712	0,12032	0,08886	0,10188	0,13695	0,17345
1592,91357	0,13697	0,12059	0,08876	0,10185	0,13667	0,17337
1590,98511	0,13692	0,12072	0,08856	0,10179	0,13636	0,17323
1589,05664	0,13711	0,1207	0,08834	0,10174	0,13614	0,17325
1587,12817	0,13668	0,12086	0,08832	0,1016	0,13582	0,17316
1585,19971	0,13678	0,12089	0,08807	0,10132	0,13558	0,1729
1583,27124	0,13689	0,12096	0,08814	0,10126	0,13547	0,17307
1581,34277	0,13605	0,121	0,08764	0,10106	0,13493	0,17283
1579,41431	0,13683	0,12069	0,08726	0,10087	0,13514	0,17277
1577,48584	0,13694	0,12104	0,08846	0,10127	0,13565	0,17397
1575,55737	0,13422	0,12123	0,08679	0,10054	0,13362	0,17276
1573,62891	0,13459	0,12065	0,08579	0,09994	0,13308	0,17151
1571,70044	0,13744	0,1208	0,08757	0,10088	0,13509	0,1732
1569,77197	0,13667	0,12102	0,08693	0,10072	0,1344	0,17304
1567,84351	0,13518	0,12073	0,0857	0,09982	0,13299	0,17171
1565,91504	0,13636	0,12102	0,08693	0,10047	0,13416	0,17275
1563,98657	0,13553	0,12109	0,08616	0,10014	0,13335	0,17185
1562,05811	0,13664	0,12095	0,08672	0,10024	0,13399	0,17236
1560,12964	0,13833	0,12158	0,08868	0,10147	0,13647	0,17529
1558,20117	0,13332	0,1206	0,08294	0,09905	0,13179	0,17116
1556,27271	0,13424	0,12043	0,08451	0,09933	0,13194	0,17112
1554,34424	0,13558	0,12105	0,08594	0,10023	0,13333	0,17236
1552,41577	0,13452	0,1213	0,08573	0,09994	0,1326	0,17175
1550,4873	0,13696	0,12076	0,08593	0,1003	0,13376	0,17217
1548,55884	0,13585	0,12103	0,08596	0,10017	0,13334	0,17197
1546,63037	0,13555	0,12144	0,08655	0,10019	0,13331	0,17237
1544,7019	0,13735	0,12111	0,08641	0,10033	0,13404	0,17283
1542,77344	0,1365	0,12079	0,08584	0,09985	0,13362	0,17229
1540,84497	0,13613	0,12117	0,08693	0,10026	0,13444	0,17363
1538,9165	0,13341	0,12089	0,08434	0,0989	0,13185	0,17122
1536,98804	0,13424	0,12089	0,08509	0,09898	0,13213	0,17077
1535,05957	0,13726	0,12108	0,08714	0,10019	0,13469	0,1729
1533,1311	0,1369	0,12082	0,08627	0,09971	0,13426	0,17225
1531,20264	0,135	0,12091	0,08573	0,09906	0,13292	0,17088
1529,27417	0,13676	0,12108	0,08715	0,09981	0,1343	0,17204
1527,3457	0,13678	0,12093	0,08705	0,0998	0,13432	0,1721
1525,41724	0,1352	0,12063	0,08604	0,09911	0,13301	0,17096
1523,48877	0,13646	0,12051	0,0869	0,09946	0,13401	0,17193
1521,5603	0,13519	0,12053	0,0861	0,09898	0,13325	0,17156
1519,63184	0,13325	0,12047	0,08506	0,09822	0,13149	0,17003
1517,70337	0,13637	0,1202	0,08563	0,09878	0,13313	0,17084
1515,7749	0,13552	0,12027	0,08495	0,09845	0,13241	0,17025
1513,84644	0,13459	0,12055	0,08538	0,09846	0,13196	0,17009

1511,91797	0,1349	0,1207	0,08586	0,09864	0,13219	0,17045
1509,9895	0,13622	0,11998	0,085	0,09812	0,13209	0,17012
1508,06104	0,13748	0,11976	0,08589	0,09844	0,13327	0,17156
1506,13257	0,13363	0,12011	0,08327	0,09733	0,13089	0,16997
1504,2041	0,13127	0,12032	0,08311	0,09669	0,12893	0,16832
1502,27563	0,13501	0,12042	0,08499	0,09769	0,13126	0,16988
1500,34717	0,13462	0,12083	0,08532	0,09773	0,13124	0,16997
1498,4187	0,1348	0,1206	0,08493	0,09742	0,13116	0,16964
1496,49023	0,13359	0,12062	0,08481	0,09721	0,13059	0,16958
1494,56177	0,13226	0,12071	0,08438	0,09693	0,12959	0,16877
1492,6333	0,13465	0,12065	0,08534	0,09747	0,13102	0,16954
1490,70483	0,1357	0,12047	0,08543	0,09761	0,13163	0,17002
1488,77637	0,13482	0,12006	0,0841	0,09713	0,13069	0,16911
1486,8479	0,13396	0,12039	0,08438	0,09713	0,13041	0,16892
1484,91943	0,13344	0,12088	0,08477	0,0973	0,13042	0,16905
1482,99097	0,13376	0,12088	0,08485	0,09763	0,13077	0,16946
1481,0625	0,13374	0,12064	0,0847	0,09778	0,13067	0,16956
1479,13403	0,13338	0,12076	0,08486	0,09791	0,13049	0,16959
1477,20557	0,13401	0,12072	0,08478	0,09814	0,13102	0,17008
1475,2771	0,13428	0,12048	0,08453	0,09814	0,13146	0,17073
1473,34863	0,13347	0,12054	0,08477	0,09806	0,13162	0,17158
1471,42017	0,13269	0,12043	0,08364	0,09771	0,13115	0,1719
1469,4917	0,13324	0,12073	0,08391	0,09816	0,13198	0,17328
1467,56323	0,13407	0,12114	0,08523	0,09903	0,13369	0,17572
1465,63477	0,13434	0,12091	0,08508	0,09907	0,1341	0,1764
1463,7063	0,1327	0,12116	0,08431	0,09868	0,1329	0,17517
1461,77783	0,1329	0,12136	0,08437	0,09877	0,13307	0,17534
1459,84937	0,13542	0,12076	0,08481	0,09903	0,13439	0,17642
1457,9209	0,13501	0,1206	0,08458	0,09887	0,13454	0,17691
1455,99243	0,13027	0,12089	0,08286	0,09756	0,13139	0,17423
1454,06396	0,13329	0,12044	0,08345	0,09783	0,13222	0,17392
1452,1355	0,13396	0,12088	0,08415	0,09838	0,13267	0,17403
1450,20703	0,13321	0,12117	0,08406	0,09838	0,13193	0,17335
1448,27856	0,13426	0,12092	0,08376	0,09822	0,13183	0,17294
1446,3501	0,1331	0,12118	0,08326	0,09793	0,13083	0,17173
1444,42163	0,13306	0,12121	0,0837	0,09817	0,13087	0,17141
1442,49316	0,13314	0,12132	0,08391	0,09828	0,13088	0,17118
1440,5647	0,13312	0,1213	0,08342	0,09789	0,13039	0,17035
1438,63623	0,13366	0,12107	0,0842	0,09798	0,131	0,17088
1436,70776	0,1329	0,12089	0,08356	0,09748	0,13061	0,17053
1434,7793	0,13164	0,12103	0,08235	0,09675	0,12919	0,16913
1432,85083	0,1334	0,12105	0,08322	0,09725	0,13028	0,16984
1430,92236	0,13361	0,12102	0,08346	0,09743	0,13054	0,17036
1428,9939	0,13261	0,12092	0,08262	0,09694	0,12937	0,16927
1427,06543	0,13264	0,12102	0,08288	0,09693	0,12935	0,16916
1425,13696	0,13314	0,12091	0,08274	0,09682	0,12955	0,16924
1423,2085	0,13303	0,12073	0,08216	0,09646	0,129	0,16833
1421,28003	0,13247	0,12091	0,08297	0,09677	0,12918	0,16877

1419,35156	0,13198	0,12055	0,08271	0,09663	0,12924	0,16878
1417,4231	0,13146	0,12004	0,08143	0,09585	0,12819	0,16733
1415,49463	0,13201	0,12036	0,08213	0,09621	0,12854	0,16766
1413,56616	0,13154	0,12063	0,08256	0,0963	0,12859	0,16774
1411,6377	0,13191	0,12019	0,08221	0,09606	0,12861	0,16742
1409,70923	0,13175	0,12002	0,08216	0,096	0,1284	0,16732
1407,78076	0,13119	0,12023	0,08231	0,09593	0,12817	0,16727
1405,85229	0,13181	0,11997	0,08213	0,09594	0,12854	0,16763
1403,92383	0,13109	0,11985	0,08148	0,09562	0,12797	0,16725
1401,99536	0,13082	0,12006	0,08182	0,09558	0,12807	0,16721
1400,06689	0,13154	0,11974	0,08213	0,09563	0,12874	0,16781
1398,13843	0,13142	0,11941	0,08157	0,0952	0,12842	0,16789
1396,20996	0,13155	0,11949	0,08168	0,09523	0,12864	0,16851
1394,28149	0,13114	0,11947	0,08145	0,0953	0,12859	0,16922
1392,35303	0,13004	0,11968	0,08122	0,09515	0,12813	0,16938
1390,42456	0,1307	0,11972	0,08178	0,09537	0,12892	0,17015
1388,49609	0,13081	0,11952	0,08196	0,09542	0,12931	0,17089
1386,56763	0,12971	0,11905	0,08102	0,09464	0,12841	0,17019
1384,63916	0,12901	0,11875	0,08046	0,09405	0,12785	0,16925
1382,71069	0,12928	0,11911	0,08105	0,09455	0,12841	0,16951
1380,78223	0,13011	0,11956	0,08185	0,09534	0,12913	0,17034
1378,85376	0,13028	0,11978	0,08201	0,09543	0,12893	0,17029
1376,92529	0,13044	0,11979	0,0823	0,09541	0,12881	0,16977
1374,99683	0,13107	0,1194	0,08225	0,09536	0,1288	0,16924
1373,06836	0,13023	0,1195	0,08171	0,09507	0,12785	0,16831
1371,13989	0,12974	0,11982	0,08217	0,09511	0,12759	0,16797
1369,21143	0,13021	0,11961	0,08244	0,09511	0,12779	0,16781
1367,28296	0,12953	0,11959	0,0821	0,09488	0,12738	0,16728
1365,35449	0,12961	0,11958	0,08235	0,09483	0,12753	0,16742
1363,42603	0,13056	0,11917	0,08221	0,09456	0,1278	0,16758
1361,49756	0,12986	0,11905	0,08173	0,09416	0,12731	0,16723
1359,56909	0,12926	0,11925	0,08211	0,0942	0,12716	0,1672
1357,64063	0,12952	0,1193	0,08237	0,09419	0,12713	0,16709
1355,71216	0,12944	0,11904	0,08216	0,09405	0,12687	0,16683
1353,78369	0,12918	0,11886	0,08203	0,09404	0,12676	0,16683
1351,85522	0,12928	0,11886	0,08216	0,09406	0,12681	0,16677
1349,92676	0,12941	0,11876	0,08214	0,09408	0,12677	0,16663
1347,99829	0,12921	0,11879	0,0821	0,09413	0,1266	0,16664
1346,06982	0,12912	0,11859	0,08222	0,09417	0,12659	0,16666
1344,14136	0,12898	0,11837	0,08209	0,09412	0,12659	0,16656
1342,21289	0,12919	0,11846	0,082	0,09403	0,12659	0,16659
1340,28442	0,12977	0,11812	0,08188	0,09385	0,12666	0,16655
1338,35596	0,12929	0,11772	0,08149	0,09365	0,12641	0,16638
1336,42749	0,12873	0,11788	0,08164	0,09377	0,12622	0,16644
1334,49902	0,12878	0,11818	0,08205	0,09397	0,12629	0,16659
1332,57056	0,12872	0,11836	0,08215	0,09392	0,12637	0,16692
1330,64209	0,12892	0,11842	0,08218	0,09392	0,12657	0,16737
1328,71362	0,12911	0,11857	0,08213	0,094	0,1267	0,16761



1326,78516	0,12909	0,11861	0,08209	0,09392	0,12677	0,16778
1324,85669	0,12915	0,11852	0,08222	0,09374	0,12698	0,168
1322,92822	0,1293	0,11865	0,08229	0,09357	0,12711	0,1682
1320,99976	0,12969	0,11868	0,08233	0,0936	0,12725	0,16854
1319,07129	0,12993	0,11856	0,08237	0,09376	0,1274	0,16891
1317,14282	0,1297	0,11867	0,08246	0,09394	0,12734	0,16905
1315,21436	0,12964	0,1187	0,08264	0,09412	0,12733	0,16896
1313,28589	0,12982	0,11869	0,08263	0,09414	0,1274	0,16894
1311,35742	0,12994	0,11907	0,08268	0,09417	0,12744	0,16919
1309,42896	0,13013	0,11922	0,08288	0,09429	0,12745	0,16945
1307,50049	0,13036	0,1193	0,08294	0,09444	0,12763	0,16998
1305,57202	0,13049	0,1196	0,08302	0,09472	0,12811	0,17086
1303,64355	0,13064	0,11948	0,08317	0,09492	0,12851	0,17161
1301,71509	0,13082	0,11933	0,08329	0,0951	0,12897	0,17241
1299,78662	0,13097	0,11953	0,0835	0,09532	0,12953	0,17326
1297,85815	0,13104	0,11974	0,08374	0,09537	0,12984	0,17395
1295,92969	0,13115	0,11994	0,08397	0,09553	0,13015	0,17444
1294,00122	0,13126	0,12005	0,08404	0,09575	0,13056	0,17493
1292,07275	0,13134	0,1201	0,08413	0,09593	0,13103	0,17595
1290,14429	0,1315	0,12011	0,08445	0,09636	0,13188	0,17741
1288,21582	0,13168	0,12009	0,08466	0,09676	0,13301	0,17914
1286,28735	0,13193	0,12013	0,08471	0,09693	0,13421	0,1813
1284,35889	0,13223	0,1202	0,08488	0,09731	0,13558	0,18383
1282,43042	0,13229	0,12036	0,08514	0,09795	0,13709	0,18669
1280,50195	0,13251	0,12037	0,08537	0,09851	0,13867	0,18968
1278,57349	0,13314	0,12046	0,08554	0,09902	0,14033	0,19286
1276,64502	0,1337	0,12091	0,0857	0,09963	0,1421	0,19649
1274,71655	0,13421	0,1212	0,08588	0,10024	0,14387	0,19991
1272,78809	0,13481	0,12132	0,08609	0,10069	0,14541	0,20285
1270,85962	0,13521	0,12152	0,08645	0,10101	0,14653	0,2053
1268,93115	0,13552	0,12167	0,08673	0,10137	0,14738	0,20688
1267,00269	0,13579	0,12183	0,08672	0,10155	0,14793	0,20777
1265,07422	0,13589	0,12199	0,08688	0,10144	0,14781	0,20781
1263,14575	0,13623	0,1221	0,0871	0,10132	0,14737	0,20677
1261,21729	0,13667	0,12229	0,08702	0,10106	0,14681	0,20522
1259,28882	0,13694	0,12243	0,08706	0,10073	0,14601	0,20368
1257,36035	0,13739	0,1223	0,08726	0,10074	0,14545	0,20264
1255,43188	0,13791	0,12216	0,08743	0,10088	0,1451	0,20188
1253,50342	0,13826	0,12238	0,08769	0,10101	0,14479	0,2011
1251,57495	0,13873	0,12256	0,08795	0,10128	0,14461	0,20062
1249,64648	0,13932	0,12263	0,08826	0,10156	0,14433	0,19993
1247,71802	0,14012	0,12294	0,0886	0,10183	0,14402	0,19887
1245,78955	0,14109	0,1233	0,08894	0,10199	0,14361	0,19759
1243,86108	0,14204	0,12355	0,08952	0,10196	0,14295	0,19591
1241,93262	0,1429	0,12372	0,09013	0,1022	0,1423	0,19443
1240,00415	0,14358	0,12404	0,09057	0,10269	0,1418	0,19278
1238,07568	0,14446	0,1245	0,091	0,103	0,14139	0,19083
1236,14722	0,14555	0,12472	0,09142	0,10325	0,14112	0,18967

1234,21875	0,1464	0,1249	0,09186	0,10352	0,14108	0,18894
1232,29028	0,14747	0,12535	0,09233	0,1038	0,14123	0,18848
1230,36182	0,14849	0,12584	0,09276	0,10422	0,14148	0,18865
1228,43335	0,14911	0,12617	0,09331	0,10458	0,14181	0,18899
1226,50488	0,14992	0,12631	0,09401	0,10497	0,14244	0,18943
1224,57642	0,15082	0,12648	0,09453	0,10562	0,14325	0,18996
1222,64795	0,15173	0,12686	0,09508	0,10616	0,14392	0,1905
1220,71948	0,15246	0,12724	0,09602	0,10679	0,14466	0,19112
1218,79102	0,15289	0,12754	0,097	0,10763	0,14552	0,19147
1216,86255	0,15365	0,12778	0,09789	0,10826	0,14619	0,19153
1214,93408	0,15469	0,12809	0,09874	0,10903	0,14686	0,19179
1213,00562	0,15581	0,12869	0,09955	0,11003	0,14762	0,19208
1211,07715	0,15681	0,12927	0,10049	0,11095	0,14861	0,19226
1209,14868	0,15758	0,12979	0,10159	0,11203	0,14999	0,19289
1207,22021	0,15825	0,13045	0,1027	0,11329	0,15165	0,19386
1205,29175	0,15876	0,13091	0,10373	0,1146	0,15372	0,19502
1203,36328	0,15935	0,13136	0,10477	0,11571	0,1557	0,19634
1201,43481	0,16008	0,13202	0,10579	0,11633	0,15671	0,19725
1199,50635	0,16074	0,13248	0,10649	0,11689	0,15713	0,19803
1197,57788	0,16121	0,13293	0,10722	0,11769	0,15755	0,19882
1195,64941	0,1616	0,13352	0,10816	0,11831	0,15782	0,19925
1193,72095	0,16208	0,13393	0,10885	0,11855	0,15795	0,19956
1191,79248	0,16259	0,13436	0,10949	0,11865	0,1581	0,19977
1189,86401	0,16313	0,13491	0,11017	0,11881	0,1582	0,19984
1187,93555	0,16348	0,13534	0,11076	0,11919	0,15849	0,20011
1186,00708	0,16378	0,13585	0,11147	0,11951	0,15891	0,20058
1184,07861	0,16435	0,13657	0,11213	0,11961	0,15916	0,20093
1182,15015	0,16483	0,13727	0,11265	0,12004	0,15963	0,20146
1180,22168	0,16527	0,13794	0,11321	0,12056	0,16052	0,20245
1178,29321	0,1658	0,13865	0,11383	0,12088	0,16142	0,20338
1176,36475	0,16633	0,13945	0,11448	0,12144	0,16223	0,20426
1174,43628	0,16695	0,14032	0,11509	0,12205	0,16313	0,20499
1172,50781	0,16739	0,14096	0,11585	0,12239	0,1641	0,20559
1170,57935	0,16773	0,14133	0,11666	0,12272	0,16509	0,20654
1168,65088	0,16809	0,14177	0,11713	0,12318	0,16589	0,20729
1166,72241	0,16847	0,14232	0,11773	0,12367	0,16651	0,20778
1164,79395	0,16893	0,14278	0,11854	0,12411	0,16731	0,20858
1162,86548	0,16948	0,14319	0,11927	0,12451	0,16819	0,20926
1160,93701	0,17032	0,14378	0,12002	0,12476	0,1687	0,20974
1159,00854	0,17091	0,14431	0,12039	0,12475	0,16886	0,21034
1157,08008	0,17099	0,14464	0,12042	0,12487	0,16882	0,21085
1155,15161	0,17125	0,14517	0,12044	0,12527	0,16862	0,21116
1153,22314	0,17172	0,14576	0,12028	0,12553	0,1686	0,21147
1151,29468	0,17208	0,14607	0,12049	0,12578	0,16906	0,21188
1149,36621	0,17256	0,14645	0,12112	0,12622	0,16973	0,21235
1147,43774	0,17324	0,14697	0,12155	0,12654	0,17047	0,21292
1145,50928	0,17374	0,1474	0,12193	0,12697	0,17134	0,21372
1143,58081	0,17417	0,1477	0,12223	0,12752	0,17213	0,21449

1141,65234	0,17485	0,14803	0,12252	0,128	0,17287	0,21499
1139,72388	0,17539	0,14841	0,12314	0,1287	0,17378	0,21552
1137,79541	0,17582	0,14866	0,12365	0,12929	0,17481	0,21589
1135,86694	0,17637	0,14908	0,12402	0,12946	0,17582	0,21601
1133,93848	0,17678	0,14969	0,12456	0,12994	0,17653	0,21629
1132,01001	0,17724	0,14982	0,12478	0,13074	0,1766	0,21653
1130,08154	0,17785	0,14989	0,12474	0,13115	0,17653	0,2167
1128,15308	0,17808	0,15035	0,12503	0,13149	0,17707	0,21728
1126,22461	0,17795	0,15067	0,1254	0,13203	0,17801	0,21784
1124,29614	0,17811	0,15077	0,12551	0,13253	0,1788	0,21789
1122,36768	0,17833	0,15097	0,12551	0,13283	0,17872	0,21762
1120,43921	0,17846	0,15125	0,1255	0,13292	0,17779	0,21741
1118,51074	0,17909	0,15135	0,12563	0,13324	0,17681	0,21731
1116,58228	0,17944	0,15155	0,12585	0,13368	0,17621	0,21715
1114,65381	0,17929	0,15196	0,12598	0,13386	0,17597	0,21693
1112,72534	0,1797	0,15213	0,12617	0,13406	0,17585	0,21661
1110,79688	0,1802	0,15227	0,12633	0,13431	0,17586	0,21626
1108,86841	0,18026	0,15261	0,12638	0,13446	0,17591	0,21607
1106,93994	0,18034	0,15267	0,12642	0,13463	0,17593	0,216
1105,01147	0,18033	0,15251	0,12648	0,13476	0,17615	0,21599
1103,08301	0,1803	0,15254	0,12671	0,13494	0,17646	0,21589
1101,15454	0,18029	0,1524	0,12693	0,13534	0,17677	0,21557
1099,22607	0,18009	0,15222	0,12686	0,13549	0,17709	0,21542
1097,29761	0,18017	0,15239	0,1268	0,13548	0,17746	0,21564
1095,36914	0,18029	0,15254	0,12689	0,13561	0,17781	0,21565
1093,44067	0,18003	0,15266	0,12689	0,13548	0,17786	0,21556
1091,51221	0,18018	0,15268	0,12682	0,13543	0,17779	0,21575
1089,58374	0,18035	0,15243	0,12664	0,13552	0,17754	0,21562
1087,65527	0,17983	0,1524	0,12621	0,13535	0,17701	0,21529
1085,72681	0,17939	0,15247	0,12571	0,13528	0,17661	0,21519
1083,79834	0,17914	0,15227	0,1253	0,13524	0,17623	0,21529
1081,86987	0,17865	0,15196	0,12499	0,13502	0,17558	0,21561
1079,94141	0,1782	0,15178	0,12472	0,13458	0,17492	0,21553
1078,01294	0,17781	0,15169	0,12422	0,13393	0,17432	0,21502
1076,08447	0,17717	0,1515	0,12379	0,13344	0,1735	0,21481
1074,15601	0,17645	0,15131	0,1235	0,13295	0,1728	0,21475
1072,22754	0,17609	0,15128	0,123	0,13236	0,17232	0,21458
1070,29907	0,17589	0,15129	0,12275	0,13194	0,17169	0,21438
1068,37061	0,17553	0,15093	0,12276	0,13175	0,17137	0,21438
1066,44214	0,17514	0,15052	0,12246	0,13157	0,17151	0,21469
1064,51367	0,1747	0,15036	0,12231	0,13134	0,17164	0,2151
1062,58521	0,1743	0,15025	0,12254	0,13128	0,17172	0,21559
1060,65674	0,17374	0,15013	0,12255	0,13111	0,17165	0,21593
1058,72827	0,17292	0,14974	0,12206	0,13081	0,17159	0,21634
1056,7998	0,17244	0,14925	0,12156	0,13063	0,17174	0,21714
1054,87134	0,17233	0,14911	0,12134	0,13027	0,17204	0,21824
1052,94287	0,1721	0,14879	0,12103	0,12987	0,17264	0,21992
1051,0144	0,17169	0,14832	0,12066	0,12974	0,17358	0,22181

1049,08594	0,17137	0,1481	0,12051	0,12976	0,17459	0,2238
1047,15747	0,17106	0,14795	0,12027	0,12979	0,17549	0,22572
1045,229	0,17045	0,14781	0,11977	0,12952	0,17606	0,2263
1043,30054	0,1699	0,14767	0,11952	0,12926	0,1762	0,22619
1041,37207	0,1695	0,1475	0,11954	0,12927	0,17618	0,22642
1039,4436	0,16905	0,1476	0,11911	0,12921	0,17604	0,2265
1037,51514	0,16868	0,148	0,11854	0,12912	0,17585	0,22672
1035,58667	0,16838	0,14808	0,11846	0,12908	0,17609	0,22755
1033,6582	0,16802	0,14773	0,11825	0,12888	0,17654	0,22881
1031,72974	0,16783	0,14748	0,11781	0,12868	0,1771	0,2305
1029,80127	0,16806	0,14726	0,11753	0,12854	0,17787	0,23227
1027,8728	0,1681	0,14691	0,11701	0,12834	0,17833	0,23372
1025,94434	0,16772	0,14677	0,11658	0,12807	0,17844	0,23479
1024,01587	0,1677	0,1468	0,11633	0,12765	0,17833	0,23513
1022,0874	0,1677	0,1467	0,11572	0,12717	0,17764	0,23421
1020,15894	0,16704	0,14662	0,11527	0,12666	0,17636	0,23229
1018,23047	0,16642	0,14645	0,11498	0,12588	0,17483	0,22977
1016,302	0,16605	0,14601	0,11442	0,12484	0,17308	0,22658
1014,37354	0,16555	0,14572	0,114	0,12381	0,17098	0,22327
1012,44507	0,16533	0,14559	0,11372	0,12295	0,16857	0,22001
1010,5166	0,16535	0,14536	0,11328	0,12206	0,16627	0,21667
1008,58813	0,16497	0,14507	0,11267	0,12115	0,1645	0,2142
1006,65967	0,16464	0,14478	0,11194	0,12049	0,16307	0,2123
1004,7312	0,16445	0,14443	0,11122	0,11979	0,1617	0,21019
1002,80273	0,16399	0,14383	0,11072	0,11882	0,16037	0,20832
1000,87427	0,16391	0,14342	0,11032	0,11791	0,15899	0,20686
998,9458	0,16403	0,14345	0,10993	0,11712	0,15771	0,20553
997,01733	0,16362	0,14322	0,10964	0,11629	0,15663	0,20411
995,08887	0,16312	0,14275	0,10918	0,1156	0,15572	0,2029
993,1604	0,16245	0,14241	0,10865	0,1151	0,15487	0,20217
991,23193	0,16166	0,14206	0,10829	0,1146	0,15397	0,20147
989,30347	0,16144	0,14182	0,10788	0,11409	0,15303	0,20089
987,375	0,16122	0,14171	0,10761	0,11349	0,1523	0,20033
985,44653	0,16085	0,14154	0,10733	0,11278	0,1517	0,19972
983,51807	0,1608	0,14144	0,10681	0,11227	0,15098	0,19949
981,5896	0,16023	0,14114	0,10648	0,11178	0,15054	0,19937
979,66113	0,15931	0,14067	0,10628	0,11119	0,15028	0,19917
977,73267	0,1591	0,14067	0,10598	0,11085	0,14987	0,19906
975,8042	0,15885	0,14067	0,10566	0,11061	0,14954	0,19902
973,87573	0,15829	0,14055	0,1053	0,11031	0,149	0,19901
971,94727	0,15821	0,14062	0,10506	0,11015	0,1483	0,19868
970,0188	0,15802	0,14045	0,10503	0,11008	0,14779	0,19786
968,09033	0,15764	0,14035	0,10489	0,10991	0,14737	0,19719
966,16187	0,15766	0,14036	0,1043	0,10933	0,14689	0,19641
964,2334	0,15774	0,14015	0,10376	0,10861	0,14626	0,19523
962,30493	0,15767	0,13992	0,10351	0,10809	0,14566	0,19446
960,37646	0,15754	0,13965	0,10306	0,10756	0,14498	0,19402
958,448	0,15737	0,13974	0,10267	0,1073	0,14429	0,19373

956,51953	0,15716	0,14001	0,10242	0,10726	0,14388	0,19361
954,59106	0,15686	0,1399	0,10202	0,10701	0,14364	0,1934
952,6626	0,15664	0,13988	0,10178	0,10678	0,14349	0,19348
950,73413	0,15655	0,13972	0,10156	0,10657	0,14299	0,19339
948,80566	0,1564	0,13932	0,10139	0,10629	0,1424	0,19292
946,8772	0,15644	0,13948	0,10128	0,10588	0,14225	0,1928
944,94873	0,15663	0,1395	0,10085	0,10549	0,1421	0,19277
943,02026	0,15651	0,139	0,10056	0,10531	0,14181	0,19257
941,0918	0,15629	0,13903	0,1005	0,10534	0,14166	0,19246
939,16333	0,1562	0,13924	0,10033	0,10554	0,14168	0,19243
937,23486	0,15602	0,13918	0,10032	0,10549	0,14149	0,19238
935,3064	0,15586	0,13919	0,10018	0,10531	0,14131	0,19252
933,37793	0,15586	0,13946	0,09978	0,10533	0,14143	0,1929
931,44946	0,15614	0,13989	0,09934	0,10513	0,1411	0,19296
929,521	0,15637	0,1398	0,09902	0,10501	0,14063	0,19255
927,59253	0,15622	0,1395	0,0991	0,10511	0,14072	0,19246
925,66406	0,15639	0,13967	0,09916	0,10503	0,14085	0,19285
923,7356	0,15688	0,14004	0,09923	0,10487	0,14069	0,19324
921,80713	0,15681	0,14021	0,09922	0,10457	0,1403	0,1934
919,87866	0,15665	0,14002	0,0987	0,10421	0,13993	0,19318
917,9502	0,15679	0,14	0,09863	0,10424	0,13991	0,19303
916,02173	0,15687	0,14012	0,09885	0,10432	0,13999	0,19332
914,09326	0,15689	0,14013	0,09866	0,10418	0,13997	0,19337
912,16479	0,15676	0,14014	0,09866	0,10421	0,14013	0,19331
910,23633	0,15685	0,14004	0,09887	0,10429	0,14034	0,19367
908,30786	0,1572	0,13998	0,09867	0,10417	0,14026	0,19389
906,37939	0,15703	0,13985	0,09825	0,10421	0,14007	0,19374
904,45093	0,15674	0,13971	0,09815	0,10429	0,14003	0,19336
902,52246	0,15702	0,13969	0,09803	0,10415	0,14007	0,1928
900,59399	0,15742	0,13961	0,09784	0,10413	0,14003	0,19228
898,66553	0,15745	0,13975	0,09795	0,10408	0,13978	0,19203
896,73706	0,15723	0,14005	0,09796	0,10399	0,13951	0,19217
894,80859	0,15714	0,14007	0,09769	0,10419	0,13945	0,19249
892,88013	0,1574	0,13985	0,0974	0,10421	0,13949	0,19268
890,95166	0,15755	0,13956	0,09711	0,10395	0,13945	0,19285
889,02319	0,1574	0,13936	0,09695	0,10396	0,13952	0,193
887,09473	0,15755	0,13933	0,09709	0,10412	0,13976	0,19289
885,16626	0,15801	0,1394	0,09725	0,10403	0,13962	0,19265
883,23779	0,15826	0,13949	0,09729	0,10387	0,13915	0,19275
881,30933	0,15858	0,14	0,09764	0,10399	0,13934	0,19314
879,38086	0,15951	0,14086	0,09822	0,10443	0,13988	0,1935
877,45239	0,16065	0,1415	0,09883	0,10498	0,14007	0,19416
875,52393	0,16189	0,14256	0,09981	0,1058	0,14063	0,19572
873,59546	0,16411	0,14421	0,10105	0,10691	0,14198	0,19775
871,66699	0,16728	0,14643	0,1025	0,10818	0,14369	0,20032
869,73853	0,17032	0,14935	0,10429	0,10969	0,14554	0,20325
867,81006	0,17283	0,15158	0,10601	0,11081	0,14691	0,20511
865,88159	0,17505	0,1529	0,10729	0,11169	0,14782	0,20677

863,95313	0,17657	0,15388	0,10831	0,11291	0,14876	0,20857
862,02466	0,17725	0,15429	0,10914	0,11348	0,14924	0,20905
860,09619	0,17723	0,15441	0,10918	0,11323	0,14887	0,20885
858,16772	0,17618	0,15393	0,10838	0,11299	0,14804	0,20794
856,23926	0,17462	0,15266	0,10739	0,11238	0,14721	0,2061
854,31079	0,17315	0,15154	0,10637	0,11137	0,14652	0,20456
852,38232	0,17225	0,15098	0,10601	0,11089	0,14626	0,20381
850,45386	0,17265	0,15118	0,10679	0,111	0,14651	0,20409
848,52539	0,17527	0,15365	0,10883	0,11243	0,14821	0,20675
846,59692	0,18091	0,15881	0,11284	0,11594	0,15213	0,21284
844,66846	0,18671	0,16361	0,11695	0,11896	0,15568	0,21875
842,73999	0,19227	0,16846	0,12064	0,12158	0,15863	0,22346
840,81152	0,20306	0,17768	0,12764	0,12771	0,16525	0,23372
838,88306	0,21686	0,1892	0,13714	0,1354	0,17435	0,24821
836,95459	0,2291	0,19993	0,14615	0,14232	0,18297	0,26146
835,02612	0,2406	0,20969	0,15488	0,14961	0,19145	0,27405
833,09766	0,24581	0,21356	0,15934	0,15305	0,1955	0,27991
831,16919	0,24504	0,21276	0,15909	0,1524	0,19486	0,27879
829,24072	0,24482	0,21249	0,15891	0,15214	0,1945	0,27839
827,31226	0,24408	0,21193	0,15848	0,15162	0,19401	0,27785
825,38379	0,24926	0,21664	0,16224	0,15468	0,19796	0,28364
823,45532	0,26013	0,22567	0,17071	0,16164	0,20653	0,29596
821,52686	0,26324	0,22807	0,17389	0,16423	0,20954	0,29996
819,59839	0,26244	0,22744	0,17357	0,16423	0,20918	0,29948
817,66992	0,26475	0,2296	0,17557	0,16582	0,21124	0,30256
815,74146	0,26782	0,23274	0,1786	0,16796	0,21443	0,30627
813,81299	0,27232	0,2367	0,18249	0,17097	0,21849	0,3113
811,88452	0,27527	0,2388	0,18485	0,17284	0,22071	0,3147
809,95605	0,27448	0,23796	0,1843	0,17252	0,22023	0,31368
808,02759	0,27455	0,2381	0,18467	0,17279	0,22094	0,31356
806,09912	0,27736	0,24041	0,18763	0,17489	0,22387	0,31664
804,17065	0,28052	0,24288	0,19074	0,17732	0,2269	0,31993
802,24219	0,28259	0,24465	0,19286	0,17888	0,22878	0,32233
800,31372	0,28588	0,24744	0,19632	0,18156	0,23189	0,32668
798,38525	0,29078	0,25119	0,20057	0,18547	0,23648	0,33239
796,45679	0,29431	0,2537	0,20291	0,18789	0,2394	0,33594
794,52832	0,29568	0,25464	0,20382	0,18853	0,24024	0,33716
792,59985	0,29444	0,25356	0,20241	0,18704	0,2385	0,33529
790,67139	0,29049	0,2503	0,19808	0,18352	0,23417	0,33048
788,74292	0,28691	0,24768	0,1944	0,18061	0,23069	0,32635
786,81445	0,28517	0,24666	0,19259	0,17914	0,22908	0,3242
784,88599	0,28202	0,2438	0,18963	0,17678	0,22594	0,32041
782,95752	0,27702	0,2391	0,1851	0,17308	0,22121	0,3141
781,02905	0,27438	0,23666	0,18263	0,17104	0,21879	0,31065
779,10059	0,27463	0,23662	0,18279	0,17145	0,21873	0,31129
777,17212	0,27705	0,23865	0,18457	0,17299	0,22028	0,31391
775,24365	0,28224	0,24343	0,18878	0,17572	0,22464	0,31955
773,31519	0,28786	0,24817	0,1936	0,1793	0,22981	0,32652

771,38672	0,29134	0,25094	0,19641	0,1821	0,23288	0,33114
769,45825	0,29297	0,25228	0,19743	0,18344	0,23415	0,33358
767,52979	0,29453	0,25345	0,19847	0,18502	0,2355	0,33588
765,60132	0,29632	0,255	0,20019	0,18688	0,23708	0,33818
763,67285	0,29682	0,25545	0,201	0,18714	0,23758	0,33907
761,74438	0,29485	0,25397	0,19959	0,18586	0,23615	0,33715
759,81592	0,2916	0,25165	0,19683	0,18382	0,23334	0,33348
757,88745	0,29018	0,25049	0,1951	0,18222	0,23144	0,33133
755,95898	0,2902	0,25024	0,19461	0,18182	0,2309	0,33074
754,03052	0,28937	0,24933	0,19361	0,18102	0,23025	0,3294
752,10205	0,28749	0,24821	0,19191	0,17903	0,22864	0,32679
750,17358	0,28667	0,24834	0,19105	0,17833	0,22774	0,32551
748,24512	0,28879	0,25038	0,19269	0,1803	0,22938	0,32807
746,31665	0,29092	0,25234	0,19487	0,18196	0,23095	0,33076
744,38818	0,29176	0,25299	0,19575	0,1824	0,23133	0,33116
742,45972	0,29316	0,25357	0,19654	0,18329	0,23235	0,33204
740,53125	0,29441	0,25458	0,19732	0,1841	0,23343	0,3335
738,60278	0,29555	0,25618	0,19821	0,18498	0,2344	0,33482
736,67432	0,29751	0,25791	0,19976	0,18681	0,23608	0,33691
734,74585	0,29869	0,25883	0,20091	0,18833	0,23731	0,33852
732,81738	0,29759	0,25822	0,20052	0,18794	0,23665	0,33731
730,88892	0,29651	0,2575	0,20026	0,18736	0,23608	0,33622
728,96045	0,29753	0,25864	0,20181	0,18867	0,23723	0,33812
727,03198	0,29972	0,26017	0,20354	0,19017	0,23883	0,34062
725,10352	0,3027	0,26263	0,20618	0,19232	0,24153	0,34447
723,17505	0,30545	0,26544	0,2089	0,19487	0,24425	0,34833
721,24658	0,30688	0,26583	0,20884	0,19546	0,24493	0,34857
719,31812	0,30824	0,26748	0,21026	0,19692	0,24656	0,34986
717,38965	0,3107	0,27098	0,21418	0,19992	0,24979	0,35395
715,46118	0,31327	0,27265	0,21659	0,20192	0,25211	0,35695
713,53271	0,31392	0,27325	0,21767	0,2026	0,25289	0,35784
711,60425	0,31275	0,27265	0,21725	0,20122	0,25171	0,35637
709,67578	0,31226	0,27173	0,21662	0,20014	0,25085	0,3552
707,74731	0,31281	0,27224	0,2175	0,20099	0,252	0,35621
705,81885	0,31215	0,272	0,21738	0,20057	0,25164	0,35595
703,89038	0,31013	0,27051	0,21552	0,19866	0,24934	0,35342
701,96191	0,30841	0,26912	0,21437	0,19741	0,24785	0,3513
700,03345	0,30774	0,26829	0,21472	0,197	0,24741	0,35052
698,10498	0,30744	0,26846	0,21536	0,19707	0,24774	0,35066
696,17651	0,30708	0,26851	0,21563	0,19725	0,24801	0,35101
694,24805	0,30774	0,2685	0,21617	0,19765	0,24836	0,35158
692,31958	0,30936	0,26954	0,21736	0,19873	0,24981	0,35333
690,39111	0,31119	0,27046	0,21844	0,19983	0,25121	0,35524
688,46265	0,31368	0,27222	0,2203	0,20129	0,25264	0,35737
686,53418	0,31667	0,27492	0,22273	0,2029	0,25423	0,36006
684,60571	0,31787	0,27601	0,22334	0,20292	0,25426	0,36102
682,67725	0,31926	0,27694	0,22448	0,20338	0,25521	0,36266
680,74878	0,32248	0,27871	0,22695	0,20554	0,25795	0,36582

678,82031	0,32423	0,28093	0,22913	0,20782	0,2598	0,36807
676,89185	0,32689	0,28298	0,23089	0,20933	0,26192	0,37072
674,96338	0,32916	0,28574	0,23337	0,21149	0,26453	0,37414
673,03491	0,32978	0,28787	0,23612	0,21394	0,26595	0,37594
671,10645	0,33028	0,28806	0,23692	0,2148	0,26693	0,3776
669,17798	0,33078	0,28826	0,23772	0,21567	0,26916	0,37926
667,24951	0,33128	0,28845	0,23852	0,21653	0,26935	0,38092
665,32104	0,33178	0,28864	0,23838	0,21675	0,26954	0,38112
663,39258	0,33228	0,28884	0,23823	0,21697	0,26973	0,38132
661,46411	0,33278	0,28903	0,23808	0,21719	0,26976	0,38151
659,53564	0,33328	0,28923	0,23794	0,21717	0,26979	0,38138
657,60718	0,33378	0,28942	0,23779	0,21715	0,26982	0,38125
655,67871	0,33364	0,28962	0,23764	0,21715	0,2694	0,38112
653,75024	0,33182	0,28719	0,23264	0,21413	0,26606	0,37721
651,82178	0,33238	0,28791	0,23601	0,21561	0,26744	0,37875
649,89331	0,33399	0,28926	0,2384	0,21623	0,26848	0,38063
647,96484	0,33577	0,291	0,24008	0,2179	0,27031	0,38324
646,03638	0,33787	0,29333	0,2434	0,22072	0,27354	0,38692
644,10791	0,33791	0,2936	0,24355	0,2207	0,27315	0,38716
642,17944	0,33758	0,29293	0,24286	0,22065	0,27226	0,38643
640,25098	0,33776	0,29357	0,24343	0,22198	0,27374	0,38775
638,32251	0,33742	0,29466	0,24322	0,22248	0,27446	0,3882
636,39404	0,33706	0,29574	0,24423	0,22319	0,27463	0,38888
634,46558	0,3361	0,29609	0,24404	0,22311	0,27395	0,38902
632,53711	0,33512	0,29546	0,24216	0,22164	0,27266	0,38752
630,60864	0,33387	0,29453	0,24082	0,22025	0,27141	0,38609
628,68018	0,33304	0,2936	0,23928	0,21884	0,26959	0,38479
626,75171	0,33238	0,29277	0,23863	0,21823	0,2686	0,38439
624,82324	0,33155	0,29236	0,2385	0,21784	0,26864	0,38411
622,89478	0,332	0,2926	0,23787	0,21731	0,26858	0,38375
620,96631	0,3326	0,29238	0,23782	0,21729	0,26878	0,38401
619,03784	0,33354	0,29208	0,23801	0,21723	0,26946	0,38461
617,10938	0,33541	0,29318	0,23888	0,21876	0,27068	0,3867
615,18091	0,3361	0,29444	0,24055	0,22062	0,27201	0,38819
613,25244	0,33614	0,29466	0,24098	0,22013	0,27242	0,38813
611,32397	0,33712	0,2947	0,24075	0,22019	0,2729	0,38926
609,39551	0,33791	0,29503	0,24081	0,22127	0,2745	0,39079
607,46704	0,33775	0,29528	0,24036	0,22127	0,27523	0,39103
605,53857	0,33794	0,29525	0,23975	0,22084	0,27441	0,39049
603,61011	0,3381	0,29476	0,23904	0,22016	0,27356	0,38995
601,68164	0,33716	0,29415	0,23816	0,21937	0,27252	0,3895
599,75317	0,33638	0,29321	0,23698	0,21876	0,27097	0,38882
597,82471	0,33648	0,29193	0,23553	0,218	0,26992	0,38824
595,89624	0,33606	0,29147	0,23491	0,21713	0,2694	0,38793
593,96777	0,33509	0,29131	0,23481	0,21623	0,26823	0,38732
592,03931	0,3344	0,29127	0,23457	0,21566	0,26688	0,38675
590,11084	0,33391	0,2918	0,23351	0,21488	0,26626	0,38644
588,18237	0,33316	0,29179	0,23207	0,21364	0,26539	0,38538



586,25391	0,33262	0,29106	0,2318	0,21278	0,26415	0,38417
584,32544	0,33295	0,2909	0,23169	0,21181	0,26331	0,38381
582,39697	0,33261	0,2916	0,23162	0,21109	0,26252	0,38339
580,46851	0,33119	0,29132	0,23148	0,21109	0,26138	0,38256
578,54004	0,32995	0,29037	0,23077	0,21147	0,26054	0,3819
576,61157	0,32889	0,29032	0,23091	0,21214	0,26064	0,38147
574,68311	0,32891	0,29044	0,23032	0,21167	0,26085	0,38146
572,75464	0,33022	0,29114	0,2308	0,21184	0,2615	0,38291
570,82617	0,33148	0,29272	0,23432	0,21426	0,26313	0,38516
568,89771	0,33292	0,29494	0,23746	0,21621	0,26501	0,38743
566,96924	0,33494	0,29742	0,23966	0,21793	0,26779	0,39048
565,04077	0,3355	0,29757	0,23999	0,21935	0,26933	0,39201
563,1123	0,33456	0,2969	0,23899	0,21917	0,26844	0,39162
561,18384	0,33439	0,29739	0,23941	0,21951	0,26851	0,39216
559,25537	0,3341	0,29676	0,24038	0,22034	0,26931	0,39216
557,3269	0,33373	0,29614	0,24182	0,22068	0,26997	0,39172
555,39844	0,33381	0,29614	0,2423	0,22118	0,27051	0,39195
553,46997	0,33245	0,29658	0,24114	0,22116	0,26974	0,39072
551,5415	0,33088	0,29807	0,24065	0,22103	0,26929	0,38987
549,61304	0,3302	0,2972	0,24039	0,22142	0,26969	0,39008
547,68457	0,3277	0,29549	0,23994	0,22172	0,26895	0,38838
545,7561	0,32561	0,29525	0,23868	0,22167	0,26825	0,38631
543,82764	0,32631	0,29344	0,23727	0,22147	0,26907	0,38567
541,89917	0,32559	0,29311	0,23741	0,22246	0,27049	0,38596
539,9707	0,32472	0,29535	0,23805	0,22474	0,27279	0,38745
538,04224	0,32453	0,29554	0,23983	0,22714	0,27585	0,38921
536,11377	0,32354	0,29535	0,24162	0,22956	0,27848	0,39066
534,1853	0,32488	0,29599	0,2417	0,23176	0,28139	0,39127
532,25684	0,32337	0,29496	0,24237	0,23364	0,28395	0,39039
530,32837	0,32133	0,29259	0,24088	0,23498	0,28636	0,39007
528,3999	0,31886	0,29071	0,23939	0,23792	0,28821	0,38997
526,47144	0,30979	0,28932	0,24119	0,24221	0,28909	0,38928
524,54297	0,30775	0,28705	0,23902	0,24328	0,29196	0,3892
522,6145	0,30911	0,28482	0,23489	0,24375	0,29492	0,38821
520,68604	0,30147	0,28234	0,23366	0,24722	0,29712	0,38688
518,75757	0,29516	0,27965	0,23298	0,25125	0,30005	0,38591
516,8291	0,29371	0,27861	0,23154	0,25378	0,30248	0,38501
514,90063	0,29197	0,27584	0,22733	0,25532	0,30428	0,38443
512,97217	0,28859	0,27174	0,22361	0,25657	0,30515	0,38208
511,0437	0,2839	0,26895	0,22169	0,25754	0,30772	0,38078
509,11523	0,27769	0,26512	0,217	0,25963	0,31138	0,37978
507,18677	0,27272	0,26224	0,21364	0,26352	0,31297	0,37732
505,2583	0,27209	0,26089	0,21342	0,26597	0,31488	0,37858
503,32983	0,26945	0,2582	0,21102	0,26662	0,31626	0,37755
501,40137	0,26624	0,25544	0,20832	0,26757	0,31651	0,37231
499,4729	0,26481	0,25279	0,20665	0,26733	0,31809	0,37263

Figure 3.2 D							
n°spectre	Vd310	VD317	VD130	Vd131	Vd132	Vd134	(Vd135)
cm-1	cr.	cd.	$\theta=2.4$	$\theta=12.9$	$\theta=25.7$	$\theta=64.6$	$(\theta=128)$
4001,5686	0,22336	0,18486	0,23945	0,16855	0,25966	0,28068	0,19836
3999,64014	0,22313	0,18478	0,23939	0,16836	0,25947	0,28045	0,19821
3997,71167	0,22308	0,18472	0,2393	0,16839	0,25952	0,28041	0,19823
3995,7832	0,22305	0,18449	0,23914	0,1684	0,25946	0,28037	0,19816
3993,85474	0,22264	0,18425	0,23897	0,16814	0,25916	0,28012	0,19798
3991,92627	0,22251	0,18408	0,23898	0,16812	0,25908	0,27996	0,19792
3989,9978	0,22243	0,1841	0,23895	0,16815	0,25903	0,27988	0,19779
3988,06934	0,22204	0,18411	0,2387	0,16779	0,25862	0,27952	0,19745
3986,14087	0,22201	0,18391	0,23852	0,16763	0,25838	0,2793	0,19735
3984,2124	0,222	0,18375	0,23833	0,16766	0,25841	0,27935	0,19733
3982,28394	0,22175	0,18369	0,23823	0,16764	0,2584	0,27926	0,19725
3980,35547	0,22161	0,1836	0,2382	0,16749	0,25814	0,27898	0,1971
3978,427	0,22149	0,18346	0,23799	0,1672	0,2579	0,27881	0,19687
3976,49854	0,22144	0,18325	0,23786	0,16742	0,25798	0,27895	0,19704
3974,57007	0,22123	0,18307	0,23782	0,16743	0,25785	0,27878	0,19704
3972,6416	0,22102	0,18302	0,23761	0,16705	0,25755	0,27848	0,19672
3970,71313	0,22094	0,18289	0,23743	0,16704	0,25744	0,27836	0,19666
3968,78467	0,22078	0,18278	0,23743	0,16699	0,25736	0,27814	0,19663
3966,8562	0,22052	0,18287	0,23717	0,16668	0,25699	0,27792	0,19626
3964,92773	0,22045	0,18271	0,23703	0,16657	0,25679	0,27785	0,19617
3962,99927	0,22057	0,18246	0,23717	0,16702	0,25714	0,278	0,1966
3961,0708	0,22004	0,1824	0,23674	0,16691	0,25686	0,27773	0,19629
3959,14233	0,21989	0,18234	0,23649	0,16654	0,25648	0,27744	0,19592
3957,21387	0,21998	0,18218	0,23657	0,1666	0,25643	0,27734	0,19594
3955,2854	0,21959	0,18199	0,23626	0,16639	0,25618	0,2771	0,19574
3953,35693	0,21977	0,18212	0,23611	0,16621	0,25616	0,27698	0,19566
3951,42847	0,21926	0,18169	0,23609	0,16641	0,25598	0,27693	0,19578
3949,5	0,21879	0,18093	0,23608	0,16739	0,25626	0,27755	0,19666
3947,57153	0,21894	0,18143	0,23558	0,16662	0,25567	0,27684	0,19554
3945,64307	0,21878	0,18163	0,23535	0,16555	0,25505	0,27599	0,19462
3943,7146	0,21947	0,18119	0,23591	0,16728	0,2563	0,27742	0,19673
3941,78613	0,21902	0,18125	0,23526	0,16668	0,25558	0,27677	0,19572
3939,85767	0,21813	0,18121	0,23482	0,16503	0,25445	0,2754	0,19405
3937,9292	0,21848	0,18128	0,23521	0,16569	0,25497	0,27595	0,1949
3936,00073	0,21823	0,18125	0,23484	0,16546	0,25464	0,27566	0,19453
3934,07227	0,21846	0,18085	0,2351	0,16602	0,25515	0,27615	0,19531
3932,1438	0,21878	0,18068	0,23529	0,16732	0,25584	0,2771	0,19646
3930,21533	0,21766	0,18062	0,23412	0,16576	0,25427	0,27555	0,1944
3928,28687	0,21723	0,18058	0,23402	0,16452	0,25354	0,27458	0,1935
3926,3584	0,21794	0,18041	0,23483	0,16595	0,25472	0,27584	0,19524
3924,42993	0,21794	0,18019	0,23442	0,16643	0,25484	0,27616	0,19529
3922,50146	0,21705	0,18014	0,23371	0,16479	0,25353	0,27477	0,19357
3920,573	0,21734	0,18012	0,23419	0,16508	0,25382	0,27496	0,19423
3918,64453	0,21771	0,17992	0,23436	0,16586	0,25427	0,2757	0,19509
3916,71606	0,21677	0,1796	0,23366	0,16508	0,25347	0,27512	0,19395
3914,7876	0,21588	0,17961	0,23302	0,16368	0,25249	0,27372	0,19234

3912,85913	0,21628	0,1797	0,2332	0,16385	0,25279	0,2737	0,19287
3910,93066	0,21661	0,17989	0,23355	0,16443	0,25325	0,27415	0,19368
3909,0022	0,21594	0,1799	0,233	0,16373	0,25248	0,27337	0,19268
3907,07373	0,2167	0,17922	0,23355	0,16506	0,25352	0,2746	0,19437
3905,14526	0,21772	0,17895	0,23442	0,16721	0,25508	0,27668	0,19683
3903,2168	0,21587	0,17895	0,23278	0,1652	0,25284	0,27482	0,19407
3901,28833	0,21492	0,17829	0,23196	0,16372	0,2517	0,27355	0,19242
3899,35986	0,21552	0,17814	0,2322	0,16453	0,25253	0,27416	0,19318
3897,4314	0,21441	0,17853	0,23127	0,16263	0,25082	0,27222	0,19097
3895,50293	0,21432	0,17855	0,23146	0,16252	0,25085	0,27184	0,19088
3893,57446	0,21642	0,17824	0,23343	0,16551	0,2537	0,27474	0,19493
3891,646	0,21659	0,17855	0,2335	0,16634	0,25378	0,27567	0,19565
3889,71753	0,21247	0,17857	0,22977	0,1605	0,24839	0,26988	0,18821
3887,78906	0,21481	0,17763	0,23205	0,16329	0,25173	0,27267	0,19279
3885,8606	0,21657	0,17824	0,23394	0,16633	0,25418	0,27606	0,19648
3883,93213	0,21155	0,1783	0,22901	0,15987	0,2477	0,26914	0,18735
3882,00366	0,21497	0,17683	0,23195	0,16457	0,25237	0,27331	0,19393
3880,0752	0,21627	0,17752	0,23295	0,16782	0,25428	0,2762	0,19661
3878,14673	0,21136	0,1777	0,22866	0,15984	0,24762	0,2688	0,18717
3876,21826	0,21453	0,17717	0,23197	0,1633	0,25171	0,27256	0,19303
3874,28979	0,21505	0,17773	0,23162	0,16553	0,25248	0,27398	0,19419
3872,36133	0,2134	0,1768	0,23005	0,16291	0,25023	0,27154	0,19143
3870,43286	0,21503	0,17687	0,23265	0,16446	0,25208	0,27417	0,19478
3868,50439	0,21122	0,17744	0,22857	0,16046	0,24726	0,26941	0,18776
3866,57593	0,21192	0,17621	0,22933	0,16103	0,24862	0,26977	0,18945
3864,64746	0,21421	0,1766	0,23195	0,16461	0,25171	0,27346	0,19407
3862,71899	0,21194	0,17686	0,2288	0,16262	0,24869	0,27054	0,18969
3860,79053	0,21206	0,17645	0,22949	0,16123	0,24871	0,26995	0,18965
3858,86206	0,2123	0,17694	0,22988	0,16169	0,24898	0,27011	0,19001
3856,93359	0,21356	0,17607	0,23006	0,16479	0,25091	0,27187	0,19286
3855,00513	0,21424	0,17656	0,23338	0,16324	0,25167	0,27398	0,1956
3853,07666	0,20955	0,17919	0,22982	0,15854	0,24622	0,27078	0,18813
3851,14819	0,20614	0,17568	0,22431	0,15513	0,24171	0,26388	0,18136
3849,21973	0,21083	0,17525	0,22807	0,16077	0,24749	0,26849	0,18849
3847,29126	0,21147	0,17654	0,22903	0,16082	0,24798	0,26907	0,18917
3845,36279	0,21238	0,17622	0,22953	0,16282	0,24941	0,27057	0,19127
3843,43433	0,21228	0,17609	0,22958	0,16291	0,24929	0,27081	0,19156
3841,50586	0,21167	0,17561	0,22842	0,16302	0,24863	0,27041	0,19082
3839,57739	0,2124	0,17488	0,22948	0,16399	0,24979	0,27159	0,19283
3837,64893	0,21017	0,17583	0,22857	0,16011	0,24668	0,26916	0,18923
3835,72046	0,20764	0,17565	0,22561	0,157	0,24344	0,26558	0,18437
3833,79199	0,2105	0,1747	0,22771	0,16128	0,24749	0,26898	0,18947
3831,86353	0,21066	0,1754	0,22824	0,16127	0,24752	0,26942	0,18973
3829,93506	0,20885	0,17539	0,22636	0,15875	0,24504	0,26645	0,18617
3828,00659	0,21107	0,17474	0,22851	0,16198	0,24821	0,2694	0,19062
3826,07813	0,21022	0,17545	0,22753	0,16182	0,24728	0,26895	0,18933
3824,14966	0,20975	0,17465	0,22679	0,16068	0,24653	0,26761	0,18833
3822,22119	0,21269	0,17437	0,23039	0,16416	0,2504	0,27245	0,19474
3820,29272	0,20834	0,17525	0,22566	0,16101	0,24541	0,26827	0,18742
3818,36426	0,20793	0,17336	0,22542	0,15869	0,24452	0,26587	0,1861

3816,43579	0,2102	0,17413	0,22882	0,16043	0,24711	0,2691	0,19059
3814,50732	0,20595	0,17526	0,22446	0,15576	0,24188	0,26397	0,18294
3812,57886	0,20754	0,17396	0,22529	0,15805	0,24422	0,2652	0,18535
3810,65039	0,20927	0,17436	0,22696	0,16016	0,24631	0,26712	0,18819
3808,72192	0,21006	0,17415	0,22798	0,16118	0,24731	0,26859	0,1903
3806,79346	0,20848	0,17461	0,22686	0,15934	0,24533	0,26742	0,18813
3804,86499	0,20607	0,174	0,22376	0,15647	0,24213	0,2635	0,18333
3802,93652	0,21046	0,17264	0,22798	0,16237	0,24786	0,2695	0,19177
3801,00806	0,20817	0,17443	0,22652	0,16014	0,2452	0,26812	0,18847
3799,07959	0,20432	0,17342	0,2224	0,15463	0,24034	0,26185	0,1811
3797,15112	0,20952	0,17235	0,22665	0,16193	0,24699	0,26837	0,19016
3795,22266	0,20763	0,17375	0,2252	0,15917	0,24426	0,26602	0,18649
3793,29419	0,20614	0,17343	0,22413	0,15692	0,24269	0,26361	0,18414
3791,36572	0,20817	0,17334	0,2261	0,15962	0,24535	0,2663	0,18791
3789,43726	0,20706	0,17378	0,22491	0,15823	0,24377	0,26499	0,18569
3787,50879	0,20711	0,1733	0,2252	0,15842	0,24414	0,2651	0,18629
3785,58032	0,20806	0,17307	0,22582	0,16043	0,24559	0,26676	0,18855
3783,65186	0,2065	0,17305	0,22423	0,15837	0,24352	0,26461	0,18559
3781,72339	0,20685	0,17276	0,22502	0,15838	0,24403	0,26494	0,18642
3779,79492	0,2078	0,17254	0,2255	0,16059	0,24534	0,26689	0,18862
3777,86646	0,20578	0,17249	0,2236	0,15787	0,24258	0,26416	0,18488
3775,93799	0,2057	0,17249	0,22394	0,15702	0,2425	0,26357	0,1846
3774,00952	0,20625	0,17255	0,22428	0,15764	0,24323	0,26411	0,18559
3772,08105	0,20693	0,17222	0,22484	0,15877	0,24423	0,26511	0,18719
3770,15259	0,20681	0,17219	0,22492	0,15964	0,24446	0,26595	0,18782
3768,22412	0,20442	0,17202	0,22276	0,15647	0,24141	0,26294	0,18369
3766,29565	0,20573	0,1714	0,22377	0,15828	0,24317	0,26446	0,18606
3764,36719	0,2053	0,17181	0,22339	0,158	0,24263	0,26407	0,18522
3762,43872	0,20452	0,17166	0,22285	0,15641	0,24159	0,26262	0,18375
3760,51025	0,20669	0,17124	0,22495	0,15969	0,24455	0,26591	0,18825
3758,58179	0,20543	0,1713	0,22322	0,15929	0,24304	0,26494	0,18643
3756,65332	0,20421	0,17076	0,22214	0,15712	0,24149	0,26277	0,18414
3754,72485	0,20508	0,17083	0,22348	0,15798	0,24284	0,26397	0,18604
3752,79639	0,20542	0,17061	0,22428	0,15872	0,24351	0,26524	0,18775
3750,86792	0,20477	0,1708	0,22444	0,1584	0,24275	0,26589	0,1875
3748,93945	0,19936	0,17084	0,21883	0,15038	0,23512	0,2577	0,17662
3747,01099	0,20326	0,16898	0,22132	0,15627	0,24059	0,26203	0,18372
3745,08252	0,20596	0,16977	0,22572	0,15893	0,24417	0,26717	0,18943
3743,15405	0,19889	0,17138	0,21861	0,14941	0,23447	0,25797	0,17575
3741,22559	0,20191	0,1688	0,2188	0,15482	0,23846	0,25984	0,18049
3739,29712	0,20605	0,16864	0,22286	0,1593	0,24333	0,26472	0,18727
3737,36865	0,20536	0,16936	0,22271	0,15773	0,24196	0,26452	0,18608
3735,44019	0,20502	0,16804	0,22096	0,15949	0,24184	0,26501	0,18603
3733,51172	0,2043	0,16766	0,2205	0,15823	0,24099	0,26418	0,18486
3731,58325	0,20196	0,16856	0,21896	0,15286	0,23733	0,26	0,17968
3729,65479	0,20295	0,16822	0,21887	0,15322	0,23783	0,25985	0,17994
3727,72632	0,20536	0,16779	0,22088	0,15671	0,2409	0,263	0,18411
3725,79785	0,2048	0,1681	0,22068	0,15688	0,24057	0,26307	0,18395
3723,86938	0,20393	0,16777	0,21969	0,15615	0,23969	0,26205	0,18277
3721,94092	0,20386	0,16782	0,22003	0,15637	0,24005	0,26214	0,18323

3720,01245	0,20274	0,16818	0,21968	0,15533	0,23929	0,26092	0,18213
3718,08398	0,20226	0,16834	0,2199	0,15483	0,2391	0,26052	0,18182
3716,15552	0,20158	0,16869	0,22005	0,15466	0,23893	0,26013	0,18156
3714,22705	0,20233	0,16825	0,22138	0,15602	0,24048	0,26158	0,18396
3712,29858	0,20269	0,16799	0,22146	0,15684	0,24057	0,26288	0,18494
3710,37012	0,20064	0,16724	0,21854	0,15435	0,2375	0,26013	0,18064
3708,44165	0,20081	0,1665	0,21887	0,15357	0,23811	0,25952	0,18029
3706,51318	0,20007	0,167	0,21805	0,15186	0,23675	0,25781	0,17835
3704,58472	0,20083	0,16671	0,21857	0,153	0,23746	0,25871	0,18001
3702,65625	0,20248	0,16647	0,22011	0,15583	0,23981	0,26152	0,18357
3700,72778	0,19996	0,16664	0,21787	0,15327	0,23696	0,25879	0,17964
3698,79932	0,19929	0,16615	0,21765	0,15163	0,23601	0,25739	0,17825
3696,87085	0,20042	0,16579	0,2188	0,15351	0,23776	0,259	0,18064
3694,94238	0,19904	0,16554	0,21825	0,15274	0,23685	0,25802	0,17965
3693,01392	0,1985	0,16466	0,21817	0,15263	0,23673	0,25794	0,17974
3691,08545	0,19919	0,16308	0,21876	0,1555	0,23866	0,26037	0,18293
3689,15698	0,19568	0,16273	0,21722	0,15215	0,23545	0,25766	0,17934
3687,22852	0,19174	0,16287	0,21431	0,14579	0,23027	0,25206	0,17217
3685,30005	0,19398	0,16221	0,21506	0,14948	0,23333	0,25427	0,17533
3683,37158	0,19576	0,16269	0,21717	0,15151	0,23583	0,25624	0,17845
3681,44312	0,19584	0,1636	0,2178	0,15119	0,23573	0,25645	0,17864
3679,51465	0,19609	0,1634	0,21692	0,15288	0,23614	0,25701	0,17902
3677,58618	0,19745	0,16271	0,21907	0,15405	0,23806	0,25904	0,18249
3675,65771	0,19782	0,16388	0,21958	0,15626	0,23904	0,26179	0,18445
3673,72925	0,19236	0,16416	0,21363	0,14794	0,23118	0,25308	0,17269
3671,80078	0,19566	0,163	0,21765	0,15087	0,23553	0,25632	0,17867
3669,87231	0,19709	0,1642	0,21925	0,15383	0,23759	0,25957	0,18197
3667,94385	0,19343	0,16461	0,21445	0,14898	0,23242	0,25384	0,17412
3666,01538	0,1954	0,16419	0,21667	0,15061	0,23504	0,25543	0,17724
3664,08691	0,19637	0,16486	0,21803	0,15155	0,23611	0,25668	0,1789
3662,15845	0,1962	0,16496	0,21751	0,15168	0,23573	0,25648	0,17855
3660,22998	0,19573	0,16482	0,21719	0,15114	0,23533	0,25593	0,17791
3658,30151	0,19679	0,16418	0,21836	0,15273	0,23695	0,25755	0,18024
3656,37305	0,19646	0,16428	0,2181	0,15247	0,23641	0,25767	0,18
3654,44458	0,19337	0,16446	0,21518	0,14814	0,23248	0,2535	0,17434
3652,51611	0,19626	0,1631	0,21773	0,15285	0,23683	0,25754	0,18016
3650,58765	0,19831	0,1628	0,21984	0,15686	0,23979	0,26183	0,18518
3648,65918	0,19433	0,16313	0,21586	0,15273	0,23491	0,25764	0,17855
3646,73071	0,19306	0,1622	0,21446	0,15048	0,23341	0,25491	0,17587
3644,80225	0,19378	0,16244	0,21533	0,15005	0,23395	0,25485	0,17621
3642,87378	0,19439	0,16274	0,21631	0,15011	0,23453	0,25521	0,17694
3640,94531	0,19499	0,16252	0,21686	0,15127	0,2355	0,25616	0,17832
3639,01685	0,19411	0,16244	0,21591	0,14995	0,23432	0,25512	0,17677
3637,08838	0,19438	0,16186	0,21605	0,15009	0,23458	0,25541	0,17712
3635,15991	0,19489	0,16143	0,21671	0,1508	0,23531	0,25635	0,17813
3633,23145	0,194	0,16109	0,21524	0,14996	0,23412	0,25517	0,17626
3631,30298	0,19501	0,15989	0,21639	0,1509	0,23541	0,25659	0,17851
3629,37451	0,19584	0,15966	0,21805	0,15268	0,23679	0,25955	0,18132
3627,44604	0,1905	0,15982	0,21218	0,14633	0,22977	0,25249	0,17136
3625,51758	0,19174	0,15877	0,21319	0,14727	0,23161	0,25281	0,17327

3623,58911	0,19347	0,15885	0,21541	0,14899	0,23399	0,2549	0,17622
3621,66064	0,19317	0,15874	0,21548	0,14913	0,23422	0,2551	0,17648
3619,73218	0,19332	0,15808	0,21637	0,15121	0,23578	0,25715	0,17906
3617,80371	0,19075	0,15818	0,21415	0,14827	0,23264	0,25416	0,17458
3615,87524	0,19108	0,15777	0,21496	0,14768	0,23301	0,25402	0,17457
3613,94678	0,19246	0,15755	0,21722	0,15073	0,23605	0,25724	0,17838
3612,01831	0,19013	0,15731	0,2152	0,14822	0,23371	0,2545	0,17498
3610,08984	0,18956	0,15648	0,21499	0,14618	0,23269	0,2531	0,17399
3608,16138	0,19028	0,15596	0,21502	0,14789	0,23371	0,25442	0,17536
3606,23291	0,18924	0,15555	0,21335	0,14647	0,23234	0,25266	0,17291
3604,30444	0,1894	0,15535	0,21396	0,14536	0,23231	0,2522	0,17283
3602,37598	0,19036	0,15516	0,21493	0,14683	0,23362	0,25354	0,17479
3600,44751	0,19043	0,15475	0,21475	0,14749	0,23401	0,25381	0,17498
3598,51904	0,1895	0,15464	0,21386	0,14562	0,23264	0,2523	0,17308
3596,59058	0,18963	0,15426	0,21412	0,14606	0,23306	0,25283	0,17403
3594,66211	0,19006	0,15383	0,21449	0,14727	0,23397	0,25385	0,17526
3592,73364	0,18894	0,15426	0,21343	0,14528	0,23239	0,25201	0,17263
3590,80518	0,18878	0,15423	0,21401	0,14458	0,23249	0,25179	0,17262
3588,87671	0,19001	0,15359	0,21554	0,14709	0,2347	0,25423	0,17591
3586,94824	0,1892	0,15356	0,21415	0,14763	0,23396	0,25389	0,17488
3585,01978	0,18732	0,15374	0,21285	0,14387	0,2314	0,25075	0,17112
3583,09131	0,18797	0,15373	0,21394	0,14411	0,23245	0,25121	0,17234
3581,16284	0,18823	0,15389	0,2143	0,14484	0,23296	0,25177	0,17305
3579,23438	0,18793	0,15387	0,21411	0,14454	0,23269	0,25143	0,17272
3577,30591	0,18783	0,15379	0,21411	0,14432	0,23257	0,25119	0,17258
3575,37744	0,1877	0,15364	0,21422	0,14437	0,23254	0,25137	0,17261
3573,44897	0,18749	0,15353	0,21416	0,14424	0,23244	0,25122	0,17243
3571,52051	0,18722	0,15352	0,21391	0,1437	0,23204	0,25057	0,17183
3569,59204	0,1881	0,15299	0,21472	0,14512	0,23338	0,25207	0,17388
3567,66357	0,18917	0,15225	0,21517	0,14859	0,23541	0,25466	0,17677
3565,73511	0,18722	0,15224	0,21332	0,14627	0,23285	0,25219	0,17311
3563,80664	0,18626	0,15244	0,21301	0,14337	0,23143	0,25011	0,17108
3561,87817	0,18678	0,1525	0,21381	0,14391	0,23226	0,25064	0,17221
3559,94971	0,18664	0,15254	0,21377	0,14398	0,23216	0,25062	0,17207
3558,02124	0,1863	0,15251	0,21355	0,14322	0,23174	0,25014	0,17144
3556,09277	0,18596	0,1524	0,21351	0,1428	0,2315	0,24979	0,17104
3554,16431	0,18623	0,1521	0,21386	0,14376	0,23217	0,25046	0,172
3552,23584	0,18633	0,15193	0,21381	0,14434	0,23237	0,25086	0,17253
3550,30737	0,18543	0,15198	0,2132	0,14257	0,23109	0,24959	0,17079
3548,37891	0,18578	0,15159	0,21364	0,14316	0,23178	0,25014	0,1716
3546,45044	0,18637	0,15118	0,21379	0,14488	0,23275	0,25128	0,17304
3544,52197	0,18545	0,1512	0,21301	0,14355	0,23161	0,25019	0,17152
3542,59351	0,18489	0,15114	0,21299	0,14243	0,2311	0,24936	0,17072
3540,66504	0,18479	0,15102	0,21307	0,14203	0,23091	0,24904	0,17049
3538,73657	0,18475	0,15085	0,21311	0,14206	0,23094	0,24925	0,17057
3536,80811	0,18469	0,15065	0,21318	0,14258	0,2313	0,24968	0,17111
3534,87964	0,18416	0,15049	0,21278	0,14193	0,23072	0,249	0,17042
3532,95117	0,18378	0,1502	0,21257	0,14133	0,23029	0,24843	0,16975
3531,02271	0,18386	0,14993	0,21279	0,14192	0,23076	0,24884	0,17043
3529,09424	0,18382	0,14967	0,21279	0,14252	0,23105	0,24922	0,17096

3527,16577	0,18339	0,1493	0,21237	0,14198	0,23054	0,24875	0,1702
3525,2373	0,18321	0,14905	0,21225	0,14182	0,2306	0,24868	0,17013
3523,30884	0,18303	0,14895	0,21221	0,14203	0,23064	0,24868	0,17025
3521,38037	0,18234	0,14878	0,21187	0,14095	0,22971	0,24778	0,16923
3519,4519	0,182	0,14863	0,21176	0,14039	0,22955	0,24752	0,16897
3517,52344	0,18183	0,1485	0,21168	0,1405	0,22956	0,24746	0,16896
3515,59497	0,18139	0,14816	0,21155	0,14021	0,22918	0,2472	0,1686
3513,6665	0,18108	0,14788	0,21143	0,13998	0,22911	0,24715	0,16849
3511,73804	0,18109	0,14763	0,21144	0,14019	0,22921	0,24716	0,16867
3509,80957	0,18114	0,14729	0,21142	0,14072	0,22942	0,2474	0,16902
3507,8811	0,18055	0,14715	0,211	0,13984	0,2288	0,24672	0,16812
3505,95264	0,18035	0,14692	0,21107	0,13938	0,22853	0,24643	0,16786
3504,02417	0,18077	0,14651	0,2113	0,14078	0,22933	0,24739	0,1691
3502,0957	0,18025	0,14638	0,21074	0,14041	0,22886	0,24688	0,16845
3500,16724	0,17963	0,14643	0,21054	0,13904	0,22805	0,24586	0,16729
3498,23877	0,1798	0,14637	0,21078	0,1393	0,22826	0,24603	0,16768
3496,3103	0,17974	0,14621	0,21071	0,13942	0,22821	0,24622	0,16773
3494,38184	0,17942	0,14612	0,21058	0,13902	0,22802	0,24605	0,16737
3492,45337	0,17925	0,14618	0,21051	0,13883	0,22797	0,24576	0,16723
3490,5249	0,17924	0,14611	0,21058	0,13882	0,22803	0,24574	0,16721
3488,59644	0,17925	0,14584	0,21057	0,13912	0,22816	0,24595	0,16753
3486,66797	0,17904	0,14571	0,21037	0,139	0,22787	0,2457	0,16736
3484,7395	0,17886	0,14563	0,21048	0,13865	0,22774	0,24554	0,16703
3482,81104	0,17898	0,1454	0,21053	0,13906	0,22804	0,24585	0,16758
3480,88257	0,1789	0,14538	0,21025	0,13911	0,22779	0,24567	0,16744
3478,9541	0,17858	0,14554	0,21021	0,13836	0,2274	0,24514	0,16663
3477,02563	0,17852	0,14545	0,21026	0,1382	0,22745	0,24506	0,16677
3475,09717	0,17842	0,14533	0,21007	0,13829	0,22743	0,24506	0,16686
3473,1687	0,17819	0,14525	0,2099	0,1381	0,22743	0,24495	0,16655
3471,24023	0,17805	0,14513	0,20991	0,13796	0,22742	0,24476	0,16649
3469,31177	0,17803	0,14516	0,21007	0,13803	0,22736	0,24485	0,16659
3467,3833	0,17798	0,14514	0,21009	0,13811	0,22736	0,24504	0,16651
3465,45483	0,1778	0,14492	0,2099	0,13794	0,22721	0,24481	0,1663
3463,52637	0,17775	0,14474	0,20987	0,138	0,22726	0,24479	0,16653
3461,5979	0,17751	0,14474	0,20997	0,13804	0,2273	0,24482	0,16651
3459,66943	0,17724	0,14467	0,20989	0,13772	0,22701	0,24445	0,16617
3457,74097	0,17731	0,14444	0,20973	0,13752	0,22683	0,2443	0,16612
3455,8125	0,17708	0,14434	0,20971	0,13737	0,22674	0,24436	0,16597
3453,88403	0,17696	0,1443	0,20974	0,13747	0,22681	0,24442	0,16602
3451,95557	0,17695	0,14429	0,20955	0,13731	0,22675	0,24421	0,16576
3450,0271	0,17682	0,14424	0,20956	0,13721	0,22671	0,24429	0,16579
3448,09863	0,17718	0,14398	0,20966	0,13797	0,22712	0,2448	0,16661
3446,17017	0,17705	0,14393	0,20931	0,13777	0,22689	0,24444	0,16615
3444,2417	0,17671	0,144	0,20929	0,13724	0,22656	0,24412	0,16571
3442,31323	0,17694	0,14394	0,20954	0,13761	0,22689	0,24454	0,16614
3440,38477	0,17667	0,14403	0,20948	0,1373	0,2268	0,24441	0,16574
3438,4563	0,17652	0,14409	0,2095	0,13711	0,22668	0,24424	0,16567
3436,52783	0,17685	0,14407	0,20946	0,13738	0,22676	0,2444	0,16595
3434,59937	0,17686	0,14409	0,20941	0,13729	0,22667	0,24435	0,16586
3432,6709	0,17694	0,14412	0,20957	0,13738	0,22675	0,24439	0,16603

3430,74243	0,17698	0,14426	0,20955	0,13739	0,22675	0,24448	0,16609
3428,81396	0,17701	0,14438	0,20956	0,13736	0,2268	0,24455	0,16612
3426,8855	0,17728	0,14436	0,20963	0,1375	0,22699	0,24466	0,16615
3424,95703	0,17727	0,14444	0,20963	0,13741	0,22691	0,24461	0,166
3423,02856	0,17732	0,14449	0,2098	0,13761	0,22702	0,24476	0,16642
3421,1001	0,1777	0,14453	0,20999	0,13808	0,22739	0,24512	0,16687
3419,17163	0,17767	0,14476	0,20993	0,13801	0,2273	0,24508	0,16656
3417,24316	0,17757	0,14493	0,20998	0,13775	0,22714	0,24497	0,1664
3415,3147	0,1778	0,14494	0,21017	0,13785	0,22733	0,24512	0,16667
3413,38623	0,17796	0,14512	0,21023	0,13799	0,22739	0,24524	0,16683
3411,45776	0,17808	0,14545	0,21016	0,13806	0,22741	0,24535	0,16696
3409,5293	0,17829	0,14562	0,21019	0,13816	0,22762	0,24546	0,16713
3407,60083	0,17845	0,14565	0,21037	0,1382	0,22768	0,24556	0,16717
3405,67236	0,17852	0,14577	0,21049	0,13823	0,22778	0,24573	0,16726
3403,7439	0,17871	0,14586	0,21056	0,13843	0,228	0,24589	0,16742
3401,81543	0,17891	0,14602	0,21069	0,13853	0,22806	0,24599	0,16745
3399,88696	0,17909	0,14617	0,21078	0,13858	0,22826	0,24625	0,16767
3397,9585	0,1793	0,14618	0,21079	0,13887	0,22846	0,24636	0,16789
3396,03003	0,17925	0,1463	0,21081	0,1389	0,22838	0,24627	0,16779
3394,10156	0,17935	0,14649	0,21095	0,13898	0,22853	0,2466	0,16804
3392,1731	0,17963	0,14673	0,21108	0,13928	0,22878	0,24686	0,16834
3390,24463	0,17962	0,14695	0,21112	0,13907	0,22875	0,24671	0,16814
3388,31616	0,17973	0,14691	0,2111	0,139	0,22889	0,24682	0,16828
3386,3877	0,17995	0,14698	0,21117	0,13936	0,22914	0,24718	0,16867
3384,45923	0,18011	0,14724	0,21127	0,13946	0,22918	0,24733	0,16858
3382,53076	0,18031	0,1474	0,21121	0,13932	0,22917	0,24731	0,16841
3380,60229	0,18047	0,14764	0,21136	0,13936	0,22932	0,24752	0,16874
3378,67383	0,18062	0,14782	0,21167	0,13961	0,22951	0,24768	0,16896
3376,74536	0,18081	0,14796	0,21171	0,13982	0,22963	0,24777	0,16894
3374,81689	0,18111	0,14829	0,21179	0,13994	0,22977	0,24807	0,16919
3372,88843	0,18138	0,14851	0,21192	0,13999	0,22986	0,24817	0,16936
3370,95996	0,18156	0,14865	0,21211	0,14007	0,22999	0,24831	0,16949
3369,03149	0,18187	0,14889	0,21236	0,14038	0,2303	0,24866	0,1699
3367,10303	0,1822	0,14898	0,21249	0,14072	0,23059	0,24887	0,17014
3365,17456	0,18244	0,14914	0,21261	0,14073	0,23066	0,24895	0,17005
3363,24609	0,18274	0,1494	0,21266	0,14064	0,23071	0,24903	0,17009
3361,31763	0,18289	0,14949	0,21272	0,14086	0,23095	0,24923	0,1704
3359,38916	0,18296	0,14979	0,21287	0,14098	0,23107	0,24938	0,17061
3357,46069	0,18329	0,15013	0,21295	0,14102	0,23122	0,24953	0,17069
3355,53223	0,18354	0,15018	0,213	0,14128	0,23143	0,24971	0,17076
3353,60376	0,18366	0,15038	0,21305	0,14131	0,23146	0,2497	0,17081
3351,67529	0,18402	0,1507	0,21321	0,14132	0,23157	0,24988	0,17096
3349,74683	0,1843	0,1509	0,2134	0,14152	0,23165	0,2502	0,17118
3347,81836	0,18439	0,15105	0,21332	0,14158	0,23177	0,2503	0,17136
3345,88989	0,18452	0,15123	0,21332	0,14165	0,23197	0,25028	0,17137
3343,96143	0,18467	0,15141	0,21358	0,14174	0,23207	0,25038	0,17144
3342,03296	0,18483	0,15156	0,2137	0,14183	0,2322	0,2506	0,17164
3340,10449	0,18505	0,15174	0,21373	0,14204	0,23229	0,25071	0,1718
3338,17603	0,18532	0,15185	0,21382	0,14223	0,23243	0,25087	0,17203
3336,24756	0,18548	0,15192	0,21383	0,14223	0,23261	0,2511	0,17207



3334,31909	0,18544	0,15208	0,2139	0,14218	0,23263	0,25113	0,17197
3332,39063	0,1855	0,1522	0,21399	0,14221	0,23264	0,25112	0,17206
3330,46216	0,1857	0,15237	0,21394	0,14226	0,2327	0,25115	0,17216
3328,53369	0,18584	0,15259	0,21391	0,14236	0,23277	0,25115	0,1723
3326,60522	0,18595	0,15272	0,21402	0,14239	0,23296	0,2513	0,17248
3324,67676	0,18615	0,15271	0,21411	0,14245	0,2331	0,25139	0,17249
3322,74829	0,18614	0,15272	0,21407	0,14257	0,23303	0,25134	0,17241
3320,81982	0,18613	0,15288	0,21405	0,14254	0,233	0,25149	0,17244
3318,89136	0,18638	0,15298	0,21412	0,14254	0,23307	0,25156	0,17253
3316,96289	0,18643	0,15301	0,2142	0,14259	0,23319	0,25155	0,17255
3315,03442	0,18646	0,15308	0,21427	0,14262	0,23334	0,25171	0,17262
3313,10596	0,18656	0,15318	0,21428	0,14271	0,23323	0,25172	0,17269
3311,17749	0,18657	0,15329	0,21424	0,14277	0,23317	0,2517	0,17276
3309,24902	0,18676	0,15335	0,21428	0,14281	0,23333	0,25188	0,17286
3307,32056	0,18685	0,15348	0,21438	0,14276	0,23326	0,25188	0,17281
3305,39209	0,18684	0,1536	0,21435	0,14277	0,23335	0,25184	0,17282
3303,46362	0,18693	0,15355	0,21426	0,14273	0,23343	0,25181	0,1728
3301,53516	0,1869	0,15348	0,21418	0,1425	0,23313	0,25176	0,17259
3299,60669	0,18684	0,1535	0,21414	0,14261	0,23316	0,25185	0,17268
3297,67822	0,18688	0,1535	0,2141	0,14272	0,23332	0,25182	0,17279
3295,74976	0,18689	0,15347	0,21407	0,14253	0,23318	0,25174	0,17269
3293,82129	0,18685	0,15355	0,21408	0,14261	0,23315	0,25175	0,17268
3291,89282	0,18687	0,15358	0,21397	0,14263	0,23319	0,25159	0,17261
3289,96436	0,18685	0,15347	0,21393	0,14255	0,23314	0,25168	0,17259
3288,03589	0,18677	0,15351	0,21393	0,14253	0,23306	0,25172	0,17255
3286,10742	0,1868	0,15353	0,21377	0,14235	0,23293	0,25148	0,1724
3284,17896	0,18679	0,15345	0,21367	0,14244	0,23297	0,25157	0,17246
3282,25049	0,18673	0,15343	0,21357	0,14251	0,23294	0,25156	0,17241
3280,32202	0,18674	0,15337	0,2135	0,14227	0,23277	0,25137	0,17226
3278,39355	0,1867	0,15329	0,21361	0,14223	0,23275	0,25149	0,17231
3276,46509	0,18667	0,15328	0,21355	0,14232	0,23277	0,25143	0,17231
3274,53662	0,18662	0,15322	0,21331	0,14233	0,23279	0,25125	0,17223
3272,60815	0,18659	0,15314	0,21328	0,14229	0,23276	0,25129	0,17221
3270,67969	0,1866	0,15315	0,2133	0,14217	0,23269	0,25118	0,17224
3268,75122	0,18647	0,1531	0,21319	0,14204	0,23263	0,25106	0,17217
3266,82275	0,18639	0,15302	0,21323	0,14204	0,23252	0,25119	0,17215
3264,89429	0,18633	0,15305	0,21321	0,14205	0,23245	0,25108	0,17217
3262,96582	0,18622	0,15302	0,21297	0,14188	0,23243	0,25091	0,17208
3261,03735	0,1862	0,15299	0,21295	0,14181	0,23239	0,25104	0,17203
3259,10889	0,18612	0,15301	0,21293	0,14174	0,23227	0,25086	0,1719
3257,18042	0,18611	0,15285	0,21279	0,14163	0,23215	0,25072	0,17181
3255,25195	0,18612	0,15276	0,21277	0,14166	0,23219	0,25096	0,17199
3253,32349	0,18593	0,15281	0,21266	0,14166	0,23209	0,25088	0,17198
3251,39502	0,18583	0,15272	0,2125	0,14156	0,23196	0,25064	0,17178
3249,46655	0,1859	0,1527	0,21252	0,14142	0,23199	0,25063	0,17169
3247,53809	0,18599	0,15277	0,2126	0,14142	0,23198	0,25067	0,17178
3245,60962	0,18597	0,15266	0,21252	0,14148	0,23193	0,25062	0,17186
3243,68115	0,18582	0,15261	0,21239	0,14132	0,23179	0,25055	0,17168
3241,75269	0,18582	0,15267	0,21238	0,14119	0,23169	0,25049	0,1716
3239,82422	0,18582	0,15267	0,21243	0,14119	0,23175	0,25048	0,17168

3237,89575	0,18575	0,1527	0,2124	0,14113	0,23166	0,25046	0,17158
3235,96729	0,18578	0,15266	0,21225	0,14105	0,23153	0,25026	0,17146
3234,03882	0,18583	0,15256	0,21214	0,14109	0,23156	0,25025	0,17154
3232,11035	0,18579	0,15263	0,21216	0,14108	0,23158	0,25042	0,1716
3230,18188	0,18566	0,15258	0,21212	0,14092	0,23148	0,25031	0,17146
3228,25342	0,1856	0,15241	0,21199	0,14088	0,23138	0,25017	0,17137
3226,32495	0,18563	0,15247	0,21195	0,14094	0,23138	0,25019	0,17143
3224,39648	0,18555	0,15246	0,21191	0,14077	0,23127	0,25001	0,17131
3222,46802	0,18552	0,1523	0,21185	0,14064	0,2312	0,24991	0,17119
3220,53955	0,1856	0,15232	0,2119	0,14081	0,23129	0,25009	0,17134
3218,61108	0,18538	0,15241	0,2118	0,14076	0,23117	0,24991	0,17117
3216,68262	0,18525	0,15227	0,21165	0,14059	0,23106	0,24977	0,17104
3214,75415	0,18539	0,15212	0,21162	0,14066	0,23115	0,24994	0,17121
3212,82568	0,18526	0,15224	0,21151	0,14052	0,23102	0,24975	0,17109
3210,89722	0,18513	0,15227	0,21146	0,14047	0,23087	0,24969	0,17108
3208,96875	0,1851	0,15214	0,2114	0,14056	0,23087	0,24978	0,17106
3207,04028	0,18499	0,15213	0,21125	0,1403	0,23077	0,24954	0,17075
3205,11182	0,18507	0,15212	0,21121	0,1402	0,23069	0,24948	0,17075
3203,18335	0,18505	0,15213	0,21115	0,14024	0,23075	0,24946	0,17073
3201,25488	0,18498	0,1522	0,21117	0,14015	0,23075	0,24934	0,17064
3199,32642	0,18506	0,15211	0,21121	0,14027	0,23072	0,24946	0,17084
3197,39795	0,18491	0,15201	0,21105	0,14035	0,2307	0,2494	0,1708
3195,46948	0,18478	0,15206	0,21096	0,14019	0,23066	0,24927	0,1706
3193,54102	0,18483	0,1521	0,21086	0,14007	0,23057	0,24933	0,17059
3191,61255	0,1848	0,15211	0,21074	0,14007	0,23048	0,24926	0,17063
3189,68408	0,18476	0,15211	0,21082	0,14002	0,23043	0,24918	0,17061
3187,75562	0,1847	0,15206	0,21076	0,13992	0,23039	0,24921	0,17056
3185,82715	0,18469	0,15195	0,21066	0,13997	0,23041	0,2492	0,1706
3183,89868	0,18468	0,15191	0,21069	0,1399	0,2303	0,24914	0,1705
3181,97021	0,1845	0,152	0,21059	0,1397	0,23005	0,24902	0,17034
3180,04175	0,18447	0,15205	0,21051	0,1398	0,23011	0,24898	0,17043
3178,11328	0,1845	0,15202	0,21047	0,13986	0,23016	0,24897	0,17043
3176,18481	0,18439	0,15197	0,21037	0,13972	0,22994	0,24882	0,17032
3174,25635	0,18433	0,15189	0,2104	0,1397	0,22986	0,24875	0,1703
3172,32788	0,18432	0,15183	0,2104	0,1397	0,22977	0,24872	0,17024
3170,39941	0,18429	0,15187	0,21029	0,13965	0,22965	0,24862	0,17022
3168,47095	0,18421	0,15192	0,21014	0,13955	0,22966	0,24857	0,17019
3166,54248	0,1841	0,15191	0,21002	0,13938	0,22954	0,24844	0,17003
3164,61401	0,18404	0,15182	0,20999	0,13927	0,22941	0,24828	0,16996
3162,68555	0,184	0,15176	0,20993	0,1393	0,22942	0,24826	0,16997
3160,75708	0,1839	0,15173	0,20978	0,1393	0,22931	0,24824	0,16991
3158,82861	0,18376	0,15167	0,2097	0,13921	0,22914	0,24813	0,16986
3156,90015	0,18369	0,15172	0,20963	0,13916	0,22911	0,248	0,16973
3154,97168	0,18366	0,15173	0,20951	0,13912	0,22909	0,24795	0,16958
3153,04321	0,18363	0,15167	0,2095	0,13906	0,22905	0,24793	0,16965
3151,11475	0,18367	0,15173	0,20947	0,13901	0,22903	0,24786	0,16959
3149,18628	0,18351	0,15155	0,2094	0,13894	0,22892	0,24774	0,16933
3147,25781	0,18333	0,1513	0,20934	0,13883	0,22881	0,24759	0,16926
3145,32935	0,18338	0,15136	0,20923	0,13882	0,22877	0,24751	0,16924
3143,40088	0,18321	0,15135	0,20914	0,13875	0,22864	0,24742	0,16907

3141,47241	0,18306	0,15128	0,20906	0,13862	0,22857	0,24729	0,16903
3139,54395	0,18316	0,15131	0,20897	0,13866	0,2286	0,2473	0,16911
3137,61548	0,18302	0,15124	0,20875	0,1385	0,22835	0,24709	0,16889
3135,68701	0,1829	0,15109	0,2087	0,13834	0,22816	0,24697	0,16879
3133,75854	0,18292	0,15103	0,20876	0,13854	0,22828	0,24715	0,16893
3131,83008	0,18265	0,15113	0,20848	0,13838	0,22808	0,24686	0,16869
3129,90161	0,18251	0,15112	0,20839	0,13813	0,22786	0,24665	0,16858
3127,97314	0,1825	0,15096	0,20848	0,13821	0,22793	0,2468	0,16867
3126,04468	0,18238	0,15091	0,20829	0,13821	0,22781	0,24664	0,16859
3124,11621	0,18229	0,15083	0,20817	0,13815	0,22776	0,24649	0,16859
3122,18774	0,18216	0,15077	0,20817	0,13803	0,22778	0,24643	0,16842
3120,25928	0,18216	0,15082	0,20816	0,13795	0,22761	0,24626	0,16835
3118,33081	0,18218	0,15071	0,20806	0,13797	0,22752	0,2462	0,16848
3116,40234	0,182	0,15061	0,20794	0,13788	0,2274	0,24611	0,1683
3114,47388	0,18184	0,15066	0,2079	0,13775	0,22716	0,24592	0,1681
3112,54541	0,1817	0,15055	0,20771	0,13757	0,22701	0,24582	0,16794
3110,61694	0,18162	0,15044	0,20756	0,13744	0,22686	0,24572	0,16776
3108,68848	0,18159	0,15045	0,2076	0,13743	0,22676	0,24563	0,16781
3106,76001	0,18145	0,15038	0,2075	0,13732	0,22675	0,24548	0,16768
3104,83154	0,18124	0,15029	0,20732	0,13712	0,22661	0,24525	0,16742
3102,90308	0,18117	0,15024	0,20725	0,13718	0,22652	0,24525	0,16746
3100,97461	0,18121	0,15021	0,20719	0,13722	0,22648	0,24522	0,16743
3099,04614	0,18111	0,15016	0,20709	0,13697	0,22631	0,24497	0,16731
3097,11768	0,18102	0,15011	0,20703	0,13696	0,22632	0,24494	0,16737
3095,18921	0,18096	0,15013	0,20693	0,13699	0,2263	0,2449	0,16723
3093,26074	0,18073	0,15009	0,20677	0,1367	0,22605	0,24468	0,16697
3091,33228	0,18066	0,15003	0,20669	0,1366	0,22601	0,24459	0,16691
3089,40381	0,18071	0,15	0,20664	0,13661	0,22601	0,24452	0,16688
3087,47534	0,18053	0,15	0,20658	0,13655	0,22592	0,24446	0,16685
3085,54688	0,18038	0,15006	0,20652	0,13646	0,22579	0,24438	0,16675
3083,61841	0,18043	0,14995	0,20641	0,13643	0,22562	0,24425	0,16669
3081,68994	0,18038	0,14973	0,20632	0,13646	0,22566	0,24423	0,16668
3079,76147	0,18028	0,14969	0,20626	0,13643	0,22564	0,24415	0,16674
3077,83301	0,18017	0,14978	0,2062	0,1364	0,22548	0,24401	0,16652
3075,90454	0,17997	0,1497	0,20608	0,13618	0,2254	0,24389	0,16642
3073,97607	0,17989	0,14954	0,20595	0,1359	0,2253	0,24369	0,16628
3072,04761	0,17984	0,14951	0,20586	0,13585	0,22518	0,24358	0,1661
3070,11914	0,17963	0,14944	0,20575	0,13579	0,22505	0,24348	0,16601
3068,19067	0,17961	0,14941	0,20573	0,13587	0,22502	0,24341	0,16602
3066,26221	0,17966	0,1494	0,20569	0,13601	0,2251	0,24353	0,16608
3064,33374	0,17944	0,14919	0,20554	0,13582	0,22492	0,24338	0,16594
3062,40527	0,17921	0,14912	0,20537	0,13556	0,22468	0,24307	0,16568
3060,47681	0,17913	0,14915	0,20527	0,13542	0,22461	0,243	0,16562
3058,54834	0,1791	0,14907	0,20533	0,13536	0,22456	0,24299	0,16562
3056,61987	0,17902	0,14899	0,20528	0,13533	0,22446	0,24297	0,16559
3054,69141	0,17879	0,14898	0,20506	0,13521	0,22427	0,24278	0,16539
3052,76294	0,17867	0,14894	0,20503	0,13513	0,22417	0,24256	0,16521
3050,83447	0,17873	0,14888	0,205	0,13513	0,22417	0,24258	0,16531
3048,90601	0,17863	0,1488	0,20481	0,13503	0,224	0,24244	0,16524
3046,97754	0,17846	0,14875	0,20472	0,1349	0,22381	0,24225	0,16505

3045,04907	0,17837	0,14876	0,20476	0,13483	0,22378	0,24227	0,16506
3043,12061	0,17829	0,14871	0,20473	0,13479	0,22377	0,24224	0,16506
3041,19214	0,17818	0,1486	0,20456	0,13473	0,22365	0,24214	0,16502
3039,26367	0,17802	0,1485	0,20446	0,13458	0,22348	0,24206	0,16493
3037,33521	0,17795	0,1484	0,20436	0,13454	0,2234	0,242	0,16481
3035,40674	0,17794	0,14834	0,20427	0,13457	0,22339	0,24195	0,16479
3033,47827	0,17784	0,14824	0,20428	0,13461	0,22335	0,2419	0,16491
3031,5498	0,17769	0,14813	0,20409	0,13461	0,22325	0,24178	0,16482
3029,62134	0,17746	0,14811	0,20388	0,13437	0,22309	0,24156	0,1645
3027,69287	0,17737	0,14803	0,20389	0,1342	0,22296	0,2415	0,16448
3025,7644	0,17735	0,14796	0,20384	0,13421	0,22291	0,24154	0,16461
3023,83594	0,17718	0,14805	0,20367	0,1342	0,2229	0,24144	0,16456
3021,90747	0,17709	0,14792	0,20353	0,13413	0,22276	0,24139	0,16454
3019,979	0,17704	0,14782	0,20356	0,13404	0,22265	0,2414	0,16452
3018,05054	0,17681	0,14808	0,20354	0,13403	0,22265	0,24133	0,16448
3016,12207	0,17664	0,14809	0,20331	0,13401	0,22253	0,24123	0,16449
3014,1936	0,17663	0,14782	0,20329	0,13394	0,2225	0,2412	0,1646
3012,26514	0,1766	0,14763	0,20329	0,13393	0,22253	0,24124	0,16472
3010,33667	0,17653	0,14745	0,20309	0,13381	0,22243	0,24112	0,16471
3008,4082	0,17638	0,14737	0,20296	0,13359	0,2223	0,24094	0,16469
3006,47974	0,17616	0,14728	0,20281	0,13348	0,22216	0,24095	0,16487
3004,55127	0,17606	0,14714	0,20281	0,13349	0,22217	0,24108	0,16505
3002,6228	0,17588	0,14707	0,20281	0,13339	0,22216	0,24115	0,16516
3000,69434	0,17567	0,14705	0,20261	0,13326	0,22202	0,24114	0,16542
2998,76587	0,17577	0,14708	0,2026	0,13331	0,22207	0,2413	0,16584
2996,8374	0,17574	0,14699	0,20261	0,13329	0,22214	0,24162	0,16624
2994,90894	0,17549	0,14681	0,20242	0,13318	0,2221	0,24178	0,16672
2992,98047	0,17544	0,14681	0,2024	0,13315	0,22209	0,24193	0,16729
2991,052	0,1754	0,14679	0,20248	0,13311	0,22217	0,24219	0,16775
2989,12354	0,17516	0,14666	0,20236	0,13309	0,22234	0,24248	0,1683
2987,19507	0,17504	0,14659	0,20219	0,13304	0,22241	0,24284	0,16899
2985,2666	0,17494	0,14646	0,20216	0,13296	0,22249	0,24327	0,16974
2983,33813	0,17485	0,14636	0,2022	0,13303	0,22277	0,24383	0,17069
2981,40967	0,17491	0,14639	0,20218	0,13315	0,22301	0,24456	0,17181
2979,4812	0,17477	0,14633	0,20206	0,13313	0,22315	0,24531	0,17306
2977,55273	0,17461	0,14613	0,20201	0,13307	0,2234	0,24606	0,17447
2975,62427	0,17466	0,14598	0,2021	0,1332	0,2238	0,24711	0,17616
2973,6958	0,1746	0,14597	0,20204	0,13339	0,22413	0,24836	0,17817
2971,76733	0,17455	0,1459	0,20196	0,13355	0,22466	0,24974	0,18049
2969,83887	0,17458	0,14572	0,20214	0,13382	0,22553	0,2516	0,18333
2967,9104	0,1746	0,1457	0,2022	0,13416	0,22636	0,25378	0,18664
2965,98193	0,1746	0,1457	0,20218	0,13455	0,22732	0,25609	0,19018
2964,05347	0,1745	0,14561	0,20228	0,13499	0,22845	0,2586	0,19411
2962,125	0,17445	0,14556	0,20235	0,13547	0,2295	0,26119	0,19816
2960,19653	0,17442	0,14555	0,2024	0,1359	0,23054	0,26354	0,20158
2958,26807	0,17437	0,14553	0,20235	0,13608	0,23124	0,26511	0,20391
2956,3396	0,17429	0,14546	0,20214	0,1361	0,23139	0,26574	0,20504
2954,41113	0,17414	0,14545	0,20213	0,13609	0,23131	0,26561	0,20488
2952,48267	0,17407	0,14541	0,20216	0,13583	0,23083	0,26466	0,20355
2950,5542	0,17401	0,14527	0,20195	0,13545	0,22998	0,26311	0,20131

2948,62573	0,1739	0,14534	0,20191	0,13515	0,22923	0,26134	0,19861
2946,69727	0,17385	0,14543	0,20187	0,1348	0,22855	0,25946	0,19587
2944,7688	0,17389	0,14536	0,20169	0,13445	0,2278	0,25772	0,19336
2942,84033	0,17398	0,14535	0,20166	0,13419	0,22722	0,25639	0,19137
2940,91187	0,17398	0,14527	0,20157	0,13394	0,22675	0,25528	0,18989
2938,9834	0,1739	0,14522	0,20142	0,13372	0,22621	0,25437	0,18868
2937,05493	0,174	0,14532	0,20142	0,13351	0,2258	0,25358	0,18754
2935,12646	0,17419	0,14533	0,20136	0,13326	0,22538	0,2528	0,18642
2933,198	0,17422	0,14531	0,2013	0,13301	0,22492	0,25206	0,18533
2931,26953	0,17423	0,1453	0,20137	0,13287	0,22459	0,25131	0,18431
2929,34106	0,17431	0,14533	0,20141	0,13278	0,22428	0,25072	0,18333
2927,4126	0,17422	0,14531	0,20134	0,13258	0,2239	0,25004	0,18222
2925,48413	0,17421	0,14518	0,20119	0,13238	0,22357	0,24923	0,18113
2923,55566	0,17418	0,14508	0,20102	0,13222	0,22334	0,24876	0,18036
2921,6272	0,17393	0,14495	0,20088	0,13196	0,22309	0,24843	0,1797
2919,69873	0,1737	0,1448	0,20078	0,13177	0,22281	0,24808	0,17929
2917,77026	0,17332	0,14472	0,20068	0,13176	0,22268	0,24794	0,17922
2915,8418	0,17295	0,1446	0,20054	0,13178	0,2227	0,2479	0,17933
2913,91333	0,17284	0,14452	0,20039	0,13178	0,22277	0,24803	0,17967
2911,98486	0,1726	0,14445	0,20028	0,13175	0,22281	0,24822	0,18016
2910,0564	0,17233	0,14426	0,20013	0,1317	0,22276	0,24822	0,18049
2908,12793	0,17212	0,14415	0,19994	0,13168	0,22277	0,24832	0,18071
2906,19946	0,1719	0,14413	0,19987	0,13164	0,22277	0,2485	0,18097
2904,271	0,17178	0,14406	0,19984	0,13154	0,2227	0,24849	0,18111
2902,34253	0,17161	0,14401	0,19982	0,13149	0,22263	0,24842	0,18102
2900,41406	0,17143	0,14392	0,19969	0,13143	0,22248	0,24819	0,1808
2898,4856	0,17136	0,1438	0,1995	0,1313	0,22228	0,24774	0,1803
2896,55713	0,17127	0,14381	0,19943	0,13118	0,22208	0,24728	0,17956
2894,62866	0,17118	0,14376	0,19937	0,13108	0,22177	0,24671	0,1787
2892,7002	0,17103	0,14361	0,19924	0,1309	0,22145	0,24605	0,17762
2890,77173	0,17088	0,1436	0,1991	0,13067	0,22116	0,24544	0,17652
2888,84326	0,17079	0,14356	0,19902	0,13044	0,2209	0,24474	0,17558
2886,91479	0,17069	0,14342	0,19894	0,13029	0,22071	0,24413	0,17471
2884,98633	0,17064	0,14338	0,19882	0,13022	0,22053	0,24377	0,17396
2883,05786	0,17059	0,14332	0,19879	0,13008	0,22037	0,24337	0,17344
2881,12939	0,17047	0,14319	0,19882	0,12998	0,22033	0,24305	0,17313
2879,20093	0,17041	0,14313	0,19872	0,12992	0,22028	0,24302	0,173
2877,27246	0,1703	0,14308	0,19859	0,12985	0,22028	0,2431	0,17315
2875,34399	0,17019	0,14304	0,19858	0,1299	0,22045	0,24337	0,1737
2873,41553	0,17025	0,143	0,19855	0,12998	0,22055	0,24384	0,17454
2871,48706	0,17024	0,14298	0,19848	0,12996	0,22054	0,24424	0,17541
2869,55859	0,17007	0,14296	0,19838	0,12988	0,22048	0,24447	0,17605
2867,63013	0,17002	0,14289	0,19828	0,1298	0,22039	0,24448	0,17614
2865,70166	0,17	0,14285	0,19819	0,1297	0,22027	0,24417	0,17558
2863,77319	0,16992	0,1428	0,19814	0,12958	0,21994	0,24345	0,17445
2861,84473	0,16996	0,14271	0,19814	0,12942	0,21946	0,24242	0,17281
2859,91626	0,17008	0,14272	0,19811	0,12916	0,21897	0,24134	0,171
2857,98779	0,17013	0,14276	0,19802	0,1289	0,21846	0,24035	0,16942
2856,05933	0,17012	0,14273	0,19791	0,12878	0,21812	0,23955	0,16819
2854,13086	0,17003	0,14268	0,1978	0,12869	0,21787	0,239	0,16732

2852,20239	0,16986	0,14263	0,19771	0,12846	0,2176	0,2386	0,16678
2850,27393	0,16967	0,14254	0,19765	0,12832	0,2175	0,23845	0,16652
2848,34546	0,16947	0,1424	0,19753	0,12823	0,21738	0,23825	0,16624
2846,41699	0,16916	0,14224	0,19734	0,128	0,21709	0,23778	0,16572
2844,48853	0,16886	0,14212	0,19722	0,12785	0,21689	0,23737	0,16517
2842,56006	0,16869	0,14199	0,19706	0,12778	0,21672	0,23695	0,16456
2840,63159	0,16855	0,14191	0,19691	0,12762	0,21651	0,23648	0,1639
2838,70313	0,16842	0,14192	0,19683	0,12749	0,21632	0,23611	0,16333
2836,77466	0,16829	0,14186	0,19666	0,12741	0,21607	0,23564	0,16269
2834,84619	0,16812	0,14178	0,19661	0,12729	0,2159	0,23527	0,16208
2832,91772	0,16799	0,14174	0,19655	0,12715	0,21581	0,23503	0,16158
2830,98926	0,16792	0,14168	0,19639	0,12703	0,2156	0,23462	0,16109
2829,06079	0,1678	0,1416	0,19642	0,12689	0,21538	0,2343	0,16061
2827,13232	0,1677	0,14152	0,1964	0,12685	0,21525	0,23405	0,16018
2825,20386	0,16768	0,14144	0,19621	0,12686	0,21516	0,2337	0,15981
2823,27539	0,16764	0,14143	0,19607	0,12672	0,21506	0,23347	0,15942
2821,34692	0,16757	0,14137	0,19604	0,12659	0,21494	0,23331	0,15905
2819,41846	0,16752	0,1413	0,19601	0,12656	0,2148	0,23307	0,15879
2817,48999	0,16749	0,14125	0,19588	0,12651	0,21463	0,23289	0,15858
2815,56152	0,16742	0,14115	0,19586	0,12651	0,21456	0,23276	0,15845
2813,63306	0,16731	0,14111	0,19586	0,12649	0,21455	0,2326	0,15832
2811,70459	0,16725	0,14111	0,19574	0,12642	0,21447	0,23251	0,15814
2809,77612	0,16717	0,14101	0,19569	0,12638	0,21435	0,2324	0,15798
2807,84766	0,16703	0,14093	0,19557	0,12631	0,21426	0,23224	0,15783
2805,91919	0,16694	0,14096	0,19542	0,12623	0,21422	0,23213	0,15771
2803,99072	0,1669	0,14098	0,19544	0,12614	0,21409	0,23198	0,15756
2802,06226	0,16685	0,1409	0,19536	0,12609	0,21388	0,23185	0,15741
2800,13379	0,16681	0,14083	0,1952	0,12603	0,21377	0,23175	0,15727
2798,20532	0,16674	0,14085	0,19516	0,12593	0,21373	0,23161	0,15713
2796,27686	0,16659	0,14088	0,19515	0,12588	0,21366	0,23151	0,15701
2794,34839	0,16651	0,14089	0,19516	0,12584	0,2136	0,23143	0,15688
2792,41992	0,16647	0,14083	0,19516	0,1258	0,21358	0,23137	0,15679
2790,49146	0,16642	0,14084	0,1951	0,12584	0,21355	0,23136	0,15679
2788,56299	0,16641	0,14086	0,19498	0,12575	0,21342	0,23124	0,15669
2786,63452	0,16638	0,14075	0,19492	0,12562	0,2133	0,23109	0,15649
2784,70605	0,16625	0,14064	0,19492	0,12564	0,21325	0,23107	0,1564
2782,77759	0,16615	0,14063	0,19481	0,12564	0,21319	0,23099	0,1564
2780,84912	0,16611	0,14065	0,19476	0,12562	0,21319	0,23084	0,15639
2778,92065	0,16607	0,14062	0,1948	0,12564	0,2131	0,2308	0,15633
2776,99219	0,166	0,14057	0,19476	0,12557	0,21296	0,23075	0,15627
2775,06372	0,16596	0,14055	0,19465	0,12553	0,21293	0,23072	0,1562
2773,13525	0,16594	0,14049	0,19457	0,12553	0,21289	0,23066	0,15604
2771,20679	0,16593	0,14044	0,19452	0,12547	0,21285	0,23046	0,15597
2769,27832	0,16589	0,14049	0,19446	0,12542	0,21282	0,23037	0,15599
2767,34985	0,16582	0,14046	0,1944	0,12542	0,21275	0,23043	0,15593
2765,42139	0,16576	0,14046	0,19436	0,12545	0,21267	0,23034	0,15596
2763,49292	0,16569	0,14048	0,19434	0,12539	0,21257	0,23019	0,15599
2761,56445	0,16562	0,14033	0,19429	0,1253	0,21261	0,23017	0,15593
2759,63599	0,16561	0,14028	0,1942	0,12525	0,21263	0,23015	0,15592
2757,70752	0,16562	0,14036	0,19416	0,12518	0,21259	0,2301	0,15586

2755,77905	0,16559	0,14029	0,19415	0,12518	0,21265	0,23008	0,15584
2753,85059	0,16556	0,1402	0,19411	0,12516	0,2126	0,23002	0,15585
2751,92212	0,16552	0,1402	0,19407	0,12511	0,21251	0,23003	0,15587
2749,99365	0,16545	0,14022	0,19401	0,12512	0,21248	0,23005	0,15592
2748,06519	0,1654	0,14024	0,19389	0,1251	0,21242	0,23001	0,1559
2746,13672	0,16544	0,14018	0,19383	0,12506	0,21238	0,22996	0,15592
2744,20825	0,16545	0,14014	0,19383	0,125	0,21226	0,22985	0,15591
2742,27979	0,16536	0,14014	0,19382	0,1249	0,21214	0,22977	0,15581
2740,35132	0,16527	0,1401	0,19376	0,12484	0,21216	0,22972	0,15575
2738,42285	0,16523	0,14007	0,19373	0,1248	0,21213	0,22966	0,1557
2736,49438	0,16515	0,14005	0,19369	0,12484	0,21205	0,22962	0,15567
2734,56592	0,16505	0,14002	0,19361	0,12483	0,21203	0,2295	0,15556
2732,63745	0,16503	0,14001	0,19362	0,12469	0,21192	0,2294	0,15545
2730,70898	0,16505	0,13997	0,19353	0,12467	0,21175	0,22932	0,15544
2728,78052	0,16502	0,13992	0,19347	0,12469	0,21165	0,2293	0,15538
2726,85205	0,16491	0,13993	0,19346	0,12458	0,21149	0,2293	0,15529
2724,92358	0,16482	0,13993	0,19331	0,12449	0,21134	0,22919	0,15522
2722,99512	0,16484	0,13991	0,19323	0,12446	0,21132	0,22915	0,1552
2721,06665	0,16484	0,13987	0,1932	0,1244	0,21134	0,22919	0,15521
2719,13818	0,16482	0,13978	0,1931	0,12434	0,21125	0,22918	0,15518
2717,20972	0,16477	0,13972	0,19314	0,12436	0,21116	0,22909	0,15515
2715,28125	0,16467	0,1397	0,19313	0,12437	0,21116	0,22895	0,15513
2713,35278	0,16462	0,13968	0,19305	0,12428	0,2111	0,22891	0,15506
2711,42432	0,16459	0,1397	0,19304	0,12426	0,21102	0,22887	0,15499
2709,49585	0,16449	0,13975	0,19294	0,12428	0,21096	0,22877	0,15493
2707,56738	0,16445	0,13975	0,19287	0,12421	0,21089	0,22871	0,15488
2705,63892	0,16449	0,13967	0,19288	0,12412	0,21088	0,22869	0,15481
2703,71045	0,1645	0,13964	0,19275	0,12406	0,21085	0,22859	0,15474
2701,78198	0,16441	0,13969	0,1927	0,12402	0,21079	0,22844	0,15468
2699,85352	0,16431	0,13966	0,19271	0,12403	0,21076	0,22843	0,1546
2697,92505	0,16435	0,13964	0,19263	0,12401	0,21066	0,22838	0,15456
2695,99658	0,16441	0,13973	0,19263	0,12397	0,21057	0,22828	0,15453
2694,06812	0,16436	0,1397	0,19262	0,12395	0,21059	0,22832	0,1545
2692,13965	0,16433	0,13962	0,19258	0,12392	0,21053	0,22825	0,15449
2690,21118	0,16437	0,13966	0,19257	0,12388	0,21041	0,22813	0,15438
2688,28271	0,16436	0,13969	0,19251	0,12388	0,2104	0,22809	0,15435
2686,35425	0,16427	0,13965	0,19252	0,12386	0,21039	0,22805	0,15439
2684,42578	0,16431	0,13972	0,19252	0,1238	0,21033	0,22803	0,15431
2682,49731	0,16437	0,13978	0,19242	0,12381	0,21033	0,22797	0,15425
2680,56885	0,1643	0,13971	0,19235	0,12381	0,21031	0,22787	0,15422
2678,64038	0,16431	0,13967	0,19232	0,12381	0,21028	0,22789	0,15417
2676,71191	0,16432	0,13971	0,19232	0,12388	0,21027	0,22792	0,15417
2674,78345	0,16431	0,13977	0,19226	0,12386	0,21018	0,22784	0,15416
2672,85498	0,16437	0,13982	0,1922	0,12383	0,2102	0,2278	0,15418
2670,92651	0,16442	0,13987	0,19225	0,12386	0,21024	0,22778	0,15422
2668,99805	0,16447	0,13989	0,19223	0,12383	0,2101	0,22769	0,15416
2667,06958	0,16449	0,13991	0,19219	0,12383	0,21002	0,2276	0,1541
2665,14111	0,16447	0,13991	0,19221	0,12387	0,21003	0,22758	0,15415
2663,21265	0,16443	0,13998	0,1922	0,12383	0,20997	0,22759	0,15422
2661,28418	0,1644	0,14009	0,19215	0,12378	0,20993	0,22753	0,15424

2659,35571	0,16447	0,14005	0,19217	0,12377	0,20992	0,22745	0,15419
2657,42725	0,16456	0,14003	0,19218	0,12379	0,20987	0,22743	0,15416
2655,49878	0,16454	0,14018	0,19218	0,12382	0,20986	0,22745	0,15421
2653,57031	0,16457	0,1402	0,19216	0,12382	0,20986	0,22744	0,1542
2651,64185	0,16467	0,14019	0,19215	0,12383	0,20989	0,22743	0,15416
2649,71338	0,1647	0,14033	0,19216	0,12386	0,20994	0,2274	0,15423
2647,78491	0,16473	0,14037	0,19213	0,12385	0,20985	0,22734	0,15423
2645,85645	0,16483	0,14034	0,19209	0,12386	0,2098	0,22734	0,15416
2643,92798	0,16487	0,14045	0,19203	0,12389	0,20982	0,22734	0,15418
2641,99951	0,1648	0,1405	0,19198	0,12388	0,20977	0,22727	0,15417
2640,07104	0,16481	0,14046	0,19199	0,12387	0,2098	0,22726	0,15415
2638,14258	0,16485	0,14049	0,19204	0,12388	0,20977	0,22729	0,15415
2636,21411	0,16479	0,14055	0,19204	0,12391	0,20963	0,22731	0,15404
2634,28564	0,16485	0,14054	0,19195	0,1239	0,20965	0,22726	0,15396
2632,35718	0,16486	0,14053	0,19194	0,12383	0,20966	0,22719	0,15393
2630,42871	0,16479	0,14053	0,19197	0,12381	0,20961	0,22718	0,15383
2628,50024	0,1648	0,14054	0,19186	0,12377	0,2096	0,22707	0,15382
2626,57178	0,16472	0,14054	0,19179	0,12369	0,20957	0,227	0,15384
2624,64331	0,16468	0,1405	0,19182	0,12366	0,20955	0,22702	0,15377
2622,71484	0,16469	0,14047	0,19178	0,12369	0,20946	0,2269	0,1537
2620,78638	0,1645	0,1404	0,19165	0,12362	0,20936	0,22677	0,15365
2618,85791	0,16441	0,14033	0,19154	0,12353	0,20934	0,22667	0,15353
2616,92944	0,16444	0,14031	0,1915	0,12349	0,20927	0,22661	0,15345
2615,00098	0,16429	0,14023	0,19138	0,12336	0,20913	0,22655	0,15338
2613,07251	0,16414	0,14013	0,19134	0,12328	0,20905	0,22635	0,15326
2611,14404	0,16407	0,14008	0,19129	0,12327	0,20897	0,22625	0,15325
2609,21558	0,16393	0,13996	0,19109	0,12311	0,20888	0,2262	0,1532
2607,28711	0,1638	0,13985	0,19106	0,12303	0,20882	0,22611	0,15306
2605,35864	0,16367	0,13983	0,19106	0,123	0,20871	0,22607	0,15297
2603,43018	0,16351	0,13975	0,1909	0,12284	0,20855	0,22594	0,15288
2601,50171	0,16339	0,13959	0,1908	0,1227	0,20845	0,22585	0,15276
2599,57324	0,16324	0,13947	0,19077	0,12261	0,20832	0,22576	0,15272
2597,64478	0,16311	0,13935	0,1907	0,12251	0,20819	0,2256	0,15269
2595,71631	0,16295	0,13923	0,19058	0,12235	0,20813	0,22548	0,15257
2593,78784	0,1628	0,13917	0,19045	0,12219	0,20803	0,22531	0,15234
2591,85938	0,16277	0,13908	0,19039	0,12211	0,20791	0,22526	0,15225
2589,93091	0,16264	0,1389	0,19028	0,12202	0,20782	0,22523	0,15223
2588,00244	0,16241	0,13874	0,19016	0,12191	0,20766	0,22501	0,15213
2586,07397	0,16223	0,13862	0,19014	0,12184	0,2075	0,2249	0,15198
2584,14551	0,16207	0,1385	0,19004	0,12172	0,20741	0,22487	0,15184
2582,21704	0,16193	0,13839	0,18991	0,12161	0,20733	0,2247	0,15181
2580,28857	0,16183	0,1383	0,18988	0,12159	0,20728	0,22461	0,15178
2578,36011	0,16172	0,1382	0,18979	0,1215	0,20721	0,22454	0,15174
2576,43164	0,16152	0,13804	0,18965	0,12132	0,20708	0,22442	0,1517
2574,50317	0,16135	0,13791	0,18957	0,12125	0,207	0,22433	0,15156
2572,57471	0,16125	0,13779	0,18948	0,12118	0,2069	0,22423	0,15146
2570,64624	0,1611	0,13764	0,1894	0,12101	0,2068	0,22409	0,15142
2568,71777	0,161	0,13755	0,18935	0,12087	0,20675	0,22394	0,15127
2566,78931	0,16097	0,1375	0,18921	0,12076	0,20669	0,22385	0,15111
2564,86084	0,16078	0,1374	0,18911	0,12064	0,20665	0,22384	0,15104



2562,93237	0,16061	0,13725	0,18908	0,12053	0,20652	0,22383	0,15099
2561,00391	0,16057	0,13715	0,18894	0,12045	0,20637	0,22373	0,15087
2559,07544	0,16043	0,1371	0,18879	0,12036	0,2063	0,22355	0,15071
2557,14697	0,16032	0,13703	0,18865	0,12021	0,20618	0,22338	0,15058
2555,21851	0,16021	0,13687	0,18856	0,12012	0,20612	0,22334	0,15049
2553,29004	0,15998	0,13675	0,18857	0,1201	0,20609	0,22333	0,15041
2551,36157	0,15987	0,13678	0,18854	0,12004	0,20596	0,22327	0,1503
2549,43311	0,15982	0,13672	0,18848	0,1199	0,2059	0,22312	0,15024
2547,50464	0,15968	0,13659	0,18839	0,11978	0,20578	0,22295	0,15017
2545,57617	0,15958	0,13659	0,18828	0,11976	0,20568	0,2229	0,15005
2543,64771	0,15946	0,13655	0,18822	0,11976	0,20567	0,22286	0,14999
2541,71924	0,15932	0,1365	0,18813	0,11964	0,20552	0,22275	0,14992
2539,79077	0,15929	0,13646	0,18812	0,11953	0,20536	0,22264	0,14982
2537,8623	0,15926	0,13634	0,18817	0,11948	0,20529	0,2226	0,1498
2535,93384	0,15907	0,13627	0,18807	0,1194	0,20519	0,22255	0,14982
2534,00537	0,15894	0,13624	0,18798	0,11934	0,20514	0,22243	0,14982
2532,0769	0,1589	0,13614	0,18795	0,11931	0,20512	0,22235	0,14975
2530,14844	0,15881	0,13607	0,18788	0,11926	0,20508	0,22232	0,14971
2528,21997	0,15871	0,13603	0,18783	0,11924	0,20504	0,2222	0,14967
2526,2915	0,15864	0,13594	0,18775	0,11922	0,20495	0,22206	0,14962
2524,36304	0,1586	0,13592	0,18764	0,11913	0,20484	0,22197	0,14959
2522,43457	0,15858	0,13594	0,18754	0,11911	0,20475	0,22194	0,1495
2520,5061	0,15847	0,1359	0,18746	0,11905	0,20464	0,2219	0,14943
2518,57764	0,15836	0,13587	0,18738	0,11891	0,20457	0,22186	0,14941
2516,64917	0,15829	0,13586	0,18732	0,11889	0,20451	0,22189	0,14944
2514,7207	0,15825	0,13585	0,18733	0,11888	0,20446	0,22186	0,14951
2512,79224	0,15825	0,13578	0,18729	0,11876	0,20444	0,22175	0,14946
2510,86377	0,15819	0,13566	0,18729	0,11871	0,20441	0,22169	0,14939
2508,9353	0,1581	0,13564	0,18728	0,11867	0,20438	0,22164	0,14931
2507,00684	0,15801	0,1357	0,18713	0,11856	0,20432	0,22159	0,1492
2505,07837	0,15801	0,13569	0,18708	0,11856	0,20424	0,22156	0,14924
2503,1499	0,15802	0,1356	0,18709	0,11859	0,20419	0,22151	0,14924
2501,22144	0,15793	0,13557	0,187	0,11851	0,20413	0,22146	0,1492
2499,29297	0,15782	0,13557	0,18691	0,11847	0,20406	0,22143	0,14921
2497,3645	0,15779	0,13551	0,18683	0,11843	0,20395	0,22139	0,14915
2495,43604	0,15782	0,13549	0,18677	0,11834	0,20388	0,22128	0,149
2493,50757	0,15777	0,13548	0,18676	0,11829	0,20386	0,22122	0,14896
2491,5791	0,15762	0,1354	0,18669	0,1183	0,20381	0,22115	0,14899
2489,65063	0,15761	0,13535	0,18666	0,11839	0,20379	0,22107	0,14904
2487,72217	0,15763	0,13533	0,18664	0,11843	0,20378	0,22116	0,14904
2485,7937	0,15753	0,13526	0,18651	0,11831	0,2037	0,22116	0,14896
2483,86523	0,1575	0,13529	0,18642	0,11823	0,20358	0,22099	0,14893
2481,93677	0,15749	0,13531	0,18641	0,11821	0,20349	0,22093	0,14899
2480,0083	0,15735	0,1352	0,18633	0,11815	0,20345	0,22091	0,14892
2478,07983	0,15729	0,1352	0,18626	0,11811	0,20345	0,22084	0,14883
2476,15137	0,15723	0,1352	0,18623	0,11809	0,20346	0,22079	0,14884
2474,2229	0,15714	0,13517	0,18619	0,11805	0,20333	0,22069	0,14881
2472,29443	0,15718	0,13524	0,18615	0,11806	0,20321	0,22059	0,14874
2470,36597	0,15717	0,13523	0,18607	0,11803	0,20324	0,22053	0,14862
2468,4375	0,15703	0,13515	0,18603	0,11791	0,20314	0,22043	0,14854

2466,50903	0,15695	0,1351	0,18601	0,11786	0,20304	0,22045	0,14862
2464,58057	0,1569	0,13508	0,18592	0,11783	0,20313	0,22052	0,14862
2462,6521	0,15689	0,13507	0,1859	0,11776	0,20315	0,22044	0,14852
2460,72363	0,15685	0,13501	0,1859	0,11776	0,20304	0,22039	0,14855
2458,79517	0,15678	0,13497	0,18579	0,11777	0,20294	0,22039	0,14847
2456,8667	0,15676	0,13495	0,18573	0,11773	0,20287	0,22032	0,14835
2454,93823	0,1567	0,13491	0,18579	0,11771	0,20286	0,2202	0,14835
2453,00977	0,15664	0,13494	0,18576	0,11766	0,20287	0,22007	0,14824
2451,0813	0,15659	0,1349	0,18564	0,11762	0,2028	0,22004	0,14817
2449,15283	0,15648	0,13482	0,18556	0,11764	0,20271	0,22002	0,14822
2447,22437	0,15646	0,1348	0,18551	0,11758	0,20264	0,21996	0,14811
2445,2959	0,15647	0,13475	0,18542	0,1175	0,20258	0,21995	0,14802
2443,36743	0,15639	0,13476	0,18543	0,11747	0,20254	0,21985	0,14804
2441,43896	0,15633	0,13482	0,18542	0,1174	0,20247	0,21972	0,14799
2439,5105	0,15631	0,1347	0,18532	0,11735	0,20252	0,2197	0,14793
2437,58203	0,15625	0,13459	0,18538	0,11732	0,20259	0,21969	0,14792
2435,65356	0,15623	0,13463	0,18543	0,11726	0,20258	0,21966	0,14791
2433,7251	0,15627	0,13461	0,18533	0,11724	0,20263	0,21961	0,14784
2431,79663	0,15622	0,13455	0,18529	0,1172	0,20258	0,21953	0,14779
2429,86816	0,15608	0,13455	0,18525	0,11715	0,20251	0,21947	0,14777
2427,9397	0,15603	0,13453	0,18511	0,11709	0,20254	0,21945	0,14769
2426,01123	0,15599	0,13448	0,1851	0,11704	0,20249	0,21943	0,14766
2424,08276	0,15582	0,13453	0,18514	0,11708	0,20238	0,2193	0,14762
2422,1543	0,15575	0,13458	0,18505	0,11708	0,20233	0,21923	0,14755
2420,22583	0,15579	0,1346	0,18496	0,11705	0,20233	0,21926	0,14759
2418,29736	0,15578	0,13463	0,18495	0,11701	0,20227	0,21915	0,14759
2416,3689	0,15566	0,13463	0,18491	0,11702	0,20223	0,21913	0,14757
2414,44043	0,15552	0,13465	0,18492	0,11705	0,20223	0,21924	0,14758
2412,51196	0,15561	0,13464	0,18488	0,11702	0,20206	0,21918	0,14753
2410,5835	0,15568	0,13455	0,18473	0,11696	0,20184	0,21908	0,14751
2408,65503	0,15558	0,13457	0,18467	0,11696	0,20176	0,21896	0,14747
2406,72656	0,15553	0,13463	0,18467	0,11697	0,20172	0,21881	0,14747
2404,7981	0,15549	0,13464	0,18462	0,11693	0,20166	0,21882	0,14753
2402,86963	0,15545	0,13469	0,18469	0,11688	0,20161	0,21891	0,14745
2400,94116	0,15542	0,13469	0,18471	0,11683	0,20157	0,21883	0,14737
2399,0127	0,15538	0,13466	0,18451	0,11681	0,20149	0,21869	0,14732
2397,08423	0,15534	0,13468	0,18443	0,11681	0,20137	0,21863	0,14725
2395,15576	0,1553	0,1346	0,18441	0,11675	0,20135	0,21864	0,14725
2393,22729	0,15526	0,13458	0,18434	0,11675	0,2013	0,21862	0,14723
2391,29883	0,15523	0,13455	0,18437	0,11672	0,20126	0,21854	0,14722
2389,37036	0,15519	0,13453	0,18439	0,1167	0,20121	0,2185	0,14723
2387,44189	0,15515	0,1345	0,18434	0,11667	0,20117	0,21846	0,1472
2385,51343	0,15511	0,13448	0,18428	0,11665	0,20112	0,21842	0,14717
2383,58496	0,15508	0,13445	0,18422	0,11662	0,20108	0,21838	0,14714
2381,65649	0,15504	0,13442	0,18415	0,1166	0,20103	0,21833	0,14711
2379,72803	0,155	0,1344	0,18402	0,11657	0,20099	0,21829	0,14708
2377,79956	0,15496	0,13437	0,18398	0,11655	0,20094	0,21825	0,14704
2375,87109	0,15492	0,13435	0,18393	0,11652	0,2009	0,21821	0,14701
2373,94263	0,15489	0,13432	0,18389	0,1165	0,20085	0,21817	0,14698
2372,01416	0,15485	0,1343	0,18385	0,11647	0,20081	0,21813	0,14695

2370,08569	0,15481	0,13427	0,18381	0,11645	0,20077	0,21809	0,14692
2368,15723	0,15477	0,13424	0,18377	0,11642	0,20072	0,21805	0,14689
2366,22876	0,15474	0,13422	0,18372	0,1164	0,20068	0,21801	0,14686
2364,30029	0,1547	0,13419	0,18368	0,11637	0,20063	0,21797	0,14683
2362,37183	0,15466	0,13417	0,18364	0,11635	0,20059	0,21793	0,14679
2360,44336	0,15462	0,13414	0,1836	0,11632	0,20054	0,21789	0,14676
2358,51489	0,15459	0,13412	0,18356	0,1163	0,2005	0,21785	0,14673
2356,58643	0,15455	0,13409	0,18351	0,11627	0,20045	0,21781	0,1467
2354,65796	0,15451	0,13406	0,18347	0,11625	0,20041	0,21777	0,14667
2352,72949	0,15447	0,13404	0,18343	0,11622	0,20036	0,21772	0,14664
2350,80103	0,15443	0,13401	0,18339	0,1162	0,20032	0,21768	0,14661
2348,87256	0,1544	0,13399	0,18335	0,11617	0,20027	0,21764	0,14658
2346,94409	0,15436	0,13396	0,1833	0,11615	0,20023	0,2176	0,14654
2345,01563	0,15432	0,13394	0,18326	0,11612	0,20018	0,21756	0,14651
2343,08716	0,15428	0,13391	0,18322	0,1161	0,20014	0,21752	0,14648
2341,15869	0,15425	0,13388	0,18318	0,11607	0,20009	0,21748	0,14645
2339,23022	0,15421	0,13386	0,18314	0,11605	0,20005	0,21744	0,14642
2337,30176	0,15417	0,13383	0,18309	0,11602	0,20001	0,2174	0,14639
2335,37329	0,15413	0,13381	0,18305	0,116	0,19996	0,21736	0,14636
2333,44482	0,15409	0,13378	0,18301	0,11597	0,19992	0,21732	0,14633
2331,51636	0,15406	0,13376	0,18297	0,11595	0,19987	0,21728	0,14629
2329,58789	0,15402	0,13373	0,18293	0,11592	0,19983	0,21724	0,14626
2327,65942	0,15398	0,1337	0,18288	0,1159	0,19978	0,2172	0,14623
2325,73096	0,15394	0,13368	0,18284	0,11587	0,19974	0,21716	0,1462
2323,80249	0,15391	0,13365	0,1828	0,11585	0,19969	0,21711	0,14617
2321,87402	0,15387	0,13363	0,18276	0,11582	0,19965	0,21707	0,14614
2319,94556	0,15383	0,1336	0,18272	0,1158	0,1996	0,21703	0,14611
2318,01709	0,15379	0,13358	0,18267	0,11578	0,19956	0,21699	0,14607
2316,08862	0,15376	0,13355	0,18263	0,11575	0,19951	0,21695	0,14604
2314,16016	0,15372	0,13352	0,18259	0,11573	0,19947	0,21691	0,14601
2312,23169	0,15368	0,1335	0,18255	0,1157	0,19942	0,21687	0,14598
2310,30322	0,15364	0,13347	0,18251	0,11568	0,19938	0,21683	0,14595
2308,37476	0,1536	0,13345	0,18246	0,11565	0,19933	0,21679	0,14592
2306,44629	0,15357	0,13342	0,18242	0,11563	0,19929	0,21675	0,14589
2304,51782	0,15353	0,13339	0,18238	0,1156	0,19924	0,21671	0,14586
2302,58936	0,15349	0,13337	0,18234	0,11558	0,1992	0,21667	0,14582
2300,66089	0,15345	0,13334	0,1823	0,11555	0,19916	0,21663	0,14579
2298,73242	0,15342	0,13332	0,18225	0,11553	0,19911	0,21659	0,14576
2296,80396	0,15338	0,13329	0,18221	0,1155	0,19907	0,21655	0,14573
2294,87549	0,15334	0,13327	0,18217	0,11548	0,19902	0,2165	0,1457
2292,94702	0,1533	0,13324	0,18213	0,11545	0,19898	0,21646	0,14567
2291,01855	0,15327	0,13321	0,18209	0,11543	0,19893	0,21642	0,14564
2289,09009	0,15323	0,13319	0,18204	0,1154	0,19889	0,21638	0,14561
2287,16162	0,15319	0,13316	0,182	0,11538	0,19884	0,21634	0,14557
2285,23315	0,15315	0,13314	0,18196	0,11535	0,1988	0,2163	0,14554
2283,30469	0,15311	0,13311	0,18192	0,11533	0,19875	0,21626	0,14551
2281,37622	0,15308	0,13309	0,18188	0,1153	0,19871	0,21622	0,14548
2279,44775	0,15304	0,13306	0,18183	0,11528	0,19866	0,21618	0,14545
2277,51929	0,153	0,13303	0,18179	0,11525	0,19862	0,21614	0,14542
2275,59082	0,15296	0,13301	0,18175	0,11523	0,19857	0,2161	0,14539

2273,66235	0,15293	0,13298	0,18169	0,1152	0,19853	0,21606	0,14536
2271,73389	0,15289	0,13296	0,18165	0,11518	0,19848	0,21602	0,14532
2269,80542	0,15285	0,13293	0,18164	0,11515	0,19844	0,21598	0,14529
2267,87695	0,1528	0,13291	0,18165	0,11513	0,1984	0,21584	0,14526
2265,94849	0,15275	0,13289	0,1816	0,11507	0,19835	0,21568	0,14523
2264,02002	0,1527	0,13295	0,18161	0,11507	0,19831	0,2156	0,14529
2262,09155	0,15255	0,13294	0,18158	0,11504	0,19826	0,21552	0,14522
2260,16309	0,15239	0,13289	0,18153	0,11504	0,19821	0,21554	0,14518
2258,23462	0,15236	0,1329	0,18147	0,11503	0,19808	0,21554	0,14521
2256,30615	0,15227	0,13294	0,18136	0,11493	0,198	0,21539	0,14517
2254,37769	0,15211	0,13296	0,18138	0,11488	0,19798	0,21532	0,14516
2252,44922	0,1521	0,13294	0,1814	0,11486	0,19794	0,21537	0,14514
2250,52075	0,15208	0,13299	0,18122	0,11479	0,19789	0,21525	0,14506
2248,59229	0,15196	0,13298	0,18115	0,11476	0,19788	0,21505	0,14498
2246,66382	0,15186	0,13294	0,18124	0,11481	0,19788	0,21502	0,14497
2244,73535	0,1518	0,13302	0,18116	0,11474	0,19778	0,21497	0,14492
2242,80688	0,15173	0,13302	0,18109	0,11465	0,19763	0,21486	0,14482
2240,87842	0,15167	0,13294	0,1811	0,1147	0,19754	0,2149	0,14477
2238,94995	0,15165	0,13294	0,18101	0,11471	0,19752	0,2149	0,14477
2237,02148	0,1516	0,13288	0,18096	0,11462	0,19751	0,21477	0,14477
2235,09302	0,15156	0,13286	0,18101	0,11457	0,19751	0,21472	0,14479
2233,16455	0,15157	0,13293	0,18098	0,11457	0,19757	0,21471	0,14477
2231,23608	0,15155	0,13287	0,1809	0,11452	0,19753	0,21466	0,14463
2229,30762	0,15143	0,1328	0,18089	0,11442	0,19744	0,21461	0,14455
2227,37915	0,15128	0,13279	0,18087	0,11433	0,19736	0,21458	0,14455
2225,45068	0,15114	0,13272	0,18083	0,11432	0,1973	0,21459	0,14451
2223,52222	0,15103	0,13272	0,18088	0,11434	0,19733	0,21459	0,14449
2221,59375	0,15099	0,13279	0,18086	0,11433	0,1973	0,21453	0,14444
2219,66528	0,15096	0,13281	0,18078	0,11429	0,19719	0,21447	0,14431
2217,73682	0,15098	0,13282	0,18084	0,11433	0,19715	0,21455	0,14444
2215,80835	0,15108	0,13283	0,18084	0,11438	0,19718	0,21453	0,14447
2213,87988	0,15105	0,13278	0,18075	0,11432	0,1971	0,21431	0,14441
2211,95142	0,15092	0,13271	0,18075	0,11431	0,19692	0,2143	0,14436
2210,02295	0,15081	0,13272	0,18067	0,11429	0,19684	0,21435	0,14426
2208,09448	0,15075	0,13269	0,18058	0,1142	0,19686	0,21422	0,14417
2206,16602	0,15079	0,13258	0,18063	0,11423	0,19678	0,21417	0,14414
2204,23755	0,15072	0,13252	0,18048	0,11426	0,19669	0,21415	0,144
2202,30908	0,1506	0,1325	0,18025	0,11418	0,19661	0,21408	0,14394
2200,38062	0,15057	0,13247	0,18028	0,11413	0,19647	0,21411	0,14395
2198,45215	0,15045	0,13244	0,18034	0,11406	0,19643	0,21408	0,14393
2196,52368	0,15029	0,13241	0,18021	0,11395	0,19645	0,21397	0,14385
2194,59521	0,15018	0,13244	0,18012	0,11392	0,19638	0,21394	0,14377
2192,66675	0,15013	0,13238	0,18011	0,11394	0,19629	0,21392	0,14379
2190,73828	0,15013	0,13225	0,18001	0,11388	0,19625	0,21389	0,14377
2188,80981	0,15009	0,13224	0,17992	0,11387	0,19623	0,21387	0,14371
2186,88135	0,14997	0,13223	0,17988	0,11389	0,19616	0,2138	0,1437
2184,95288	0,1499	0,13217	0,17988	0,11385	0,19611	0,21375	0,14364
2183,02441	0,14991	0,13218	0,17987	0,11381	0,19616	0,21376	0,14359
2181,09595	0,14985	0,13216	0,17978	0,11374	0,19615	0,21371	0,14362
2179,16748	0,14975	0,13214	0,17975	0,11368	0,19606	0,21357	0,14355

2177,23901	0,1497	0,13216	0,17975	0,11368	0,19597	0,21347	0,14338
2175,31055	0,14967	0,13209	0,17965	0,11366	0,19593	0,21338	0,14335
2173,38208	0,14969	0,13202	0,17963	0,11372	0,19595	0,21337	0,1435
2171,45361	0,14949	0,13183	0,17963	0,11368	0,19582	0,21332	0,14344
2169,52515	0,14916	0,13158	0,17955	0,11352	0,19561	0,21317	0,14317
2167,59668	0,14931	0,13169	0,17958	0,11362	0,19564	0,21325	0,14318
2165,66821	0,14946	0,13184	0,17959	0,1137	0,19565	0,21323	0,14325
2163,73975	0,14921	0,13173	0,17953	0,11355	0,19557	0,21307	0,14315
2161,81128	0,14915	0,13168	0,1795	0,11351	0,19564	0,21317	0,1431
2159,88281	0,14919	0,13169	0,17933	0,11354	0,19561	0,21313	0,14304
2157,95435	0,14905	0,13163	0,17917	0,11344	0,19549	0,21296	0,1429
2156,02588	0,14898	0,13151	0,17918	0,1133	0,19544	0,21297	0,1429
2154,09741	0,14896	0,13144	0,17917	0,11329	0,19531	0,21295	0,14294
2152,16895	0,14888	0,13144	0,17915	0,11327	0,19528	0,21288	0,14287
2150,24048	0,14885	0,13135	0,17912	0,11313	0,19533	0,21284	0,1428
2148,31201	0,14882	0,13121	0,17908	0,11305	0,19532	0,21285	0,14285
2146,38354	0,14872	0,13116	0,17908	0,11297	0,19525	0,21285	0,14288
2144,45508	0,1486	0,13115	0,17911	0,11285	0,19513	0,21272	0,14272
2142,52661	0,14847	0,13106	0,17906	0,11277	0,19502	0,21266	0,14262
2140,59814	0,14842	0,13093	0,17901	0,11273	0,19498	0,21272	0,14266
2138,66968	0,14842	0,13088	0,17904	0,11269	0,19497	0,2127	0,14265
2136,74121	0,14838	0,13085	0,17909	0,11266	0,19497	0,21263	0,1426
2134,81274	0,14832	0,13082	0,17902	0,11259	0,19487	0,21255	0,14247
2132,88428	0,14824	0,13081	0,17889	0,11248	0,19477	0,21245	0,14235
2130,95581	0,14818	0,13073	0,1789	0,11245	0,19467	0,21247	0,14234
2129,02734	0,14812	0,13067	0,17897	0,11247	0,19468	0,21251	0,14229
2127,09888	0,14803	0,13064	0,17893	0,11235	0,19474	0,21248	0,14226
2125,17041	0,14795	0,13053	0,17879	0,11218	0,19461	0,21245	0,14218
2123,24194	0,14788	0,13048	0,17867	0,11214	0,19451	0,21241	0,1421
2121,31348	0,14784	0,13052	0,1787	0,11209	0,19452	0,21236	0,14213
2119,38501	0,1478	0,13044	0,17872	0,11196	0,19452	0,21234	0,14207
2117,45654	0,1478	0,13034	0,17862	0,11193	0,19452	0,2123	0,14203
2115,52808	0,14778	0,13033	0,17849	0,11197	0,19441	0,21228	0,14203
2113,59961	0,14763	0,13025	0,17841	0,1119	0,19432	0,21222	0,14192
2111,67114	0,14751	0,13014	0,17841	0,11182	0,19433	0,21202	0,14191
2109,74268	0,14743	0,13009	0,1784	0,11177	0,19434	0,21189	0,14194
2107,81421	0,14739	0,13	0,17842	0,11174	0,19434	0,2119	0,14187
2105,88574	0,14739	0,12993	0,17847	0,11169	0,19435	0,21181	0,14171
2103,95728	0,1473	0,12988	0,17842	0,11155	0,19429	0,21175	0,14156
2102,02881	0,1472	0,12974	0,17848	0,11143	0,19414	0,21183	0,14158
2100,10034	0,14706	0,12959	0,17852	0,11142	0,19412	0,21174	0,14157
2098,17188	0,14688	0,1295	0,17838	0,11131	0,1942	0,21162	0,14146
2096,24341	0,14683	0,12937	0,17843	0,1112	0,19424	0,21166	0,14146
2094,31494	0,1467	0,12921	0,17846	0,11116	0,19426	0,21159	0,14141
2092,38647	0,14664	0,12911	0,17841	0,11113	0,19425	0,21151	0,14132
2090,45801	0,1467	0,12903	0,17855	0,11115	0,19428	0,2115	0,14133
2088,52954	0,14655	0,12892	0,17855	0,11104	0,1942	0,21141	0,14123
2086,60107	0,14642	0,12886	0,17834	0,11089	0,19401	0,21131	0,14111
2084,67261	0,14642	0,12882	0,1783	0,11084	0,19398	0,21126	0,14105
2082,74414	0,14631	0,12876	0,17831	0,11072	0,194	0,21122	0,14097

2080,81567	0,14621	0,12866	0,17829	0,1106	0,19392	0,21114	0,14096
2078,88721	0,14617	0,12858	0,17826	0,1105	0,19384	0,21108	0,14095
2076,95874	0,14613	0,1285	0,17819	0,11042	0,19378	0,21113	0,14087
2075,03027	0,1461	0,12842	0,17813	0,11037	0,19367	0,21112	0,14073
2073,10181	0,14604	0,12846	0,17815	0,11033	0,19361	0,21115	0,14075
2071,17334	0,14597	0,12847	0,17813	0,1103	0,19363	0,2112	0,14084
2069,24487	0,14583	0,12844	0,17803	0,11008	0,19354	0,2111	0,14068
2067,31641	0,14581	0,12846	0,17799	0,1101	0,19362	0,21121	0,14083
2065,38794	0,14586	0,12845	0,17797	0,11038	0,19375	0,21133	0,141
2063,45947	0,14563	0,12837	0,1779	0,1102	0,19344	0,21111	0,14063
2061,53101	0,14553	0,12838	0,17784	0,11002	0,19325	0,21099	0,14051
2059,60254	0,1456	0,12847	0,17772	0,11007	0,19326	0,21096	0,14059
2057,67407	0,14551	0,12843	0,17762	0,10996	0,1931	0,21085	0,14059
2055,74561	0,14545	0,12843	0,1776	0,10997	0,19303	0,21076	0,14066
2053,81714	0,14542	0,12853	0,17755	0,11009	0,19306	0,21073	0,1406
2051,88867	0,14542	0,12844	0,17753	0,11008	0,193	0,21079	0,14057
2049,96021	0,14542	0,12837	0,17754	0,11004	0,19293	0,21075	0,14057
2048,03174	0,14533	0,12844	0,17751	0,11011	0,19298	0,21068	0,14051
2046,10327	0,14528	0,12847	0,17739	0,11014	0,19301	0,21069	0,14049
2044,1748	0,14533	0,12852	0,17732	0,11015	0,19301	0,21072	0,14057
2042,24634	0,14544	0,12853	0,17738	0,11034	0,19316	0,21081	0,14068
2040,31787	0,14541	0,12849	0,17735	0,11028	0,19314	0,21071	0,14043
2038,3894	0,14533	0,12848	0,17731	0,1101	0,19303	0,21063	0,1402
2036,46094	0,14531	0,12836	0,17742	0,11015	0,19301	0,21072	0,14029
2034,53247	0,14528	0,12824	0,17746	0,11019	0,19295	0,21067	0,14025
2032,604	0,14525	0,12827	0,17737	0,11005	0,193	0,21055	0,1401
2030,67554	0,14512	0,12824	0,17731	0,10979	0,19304	0,21041	0,14005
2028,74707	0,14511	0,12817	0,17731	0,10972	0,19304	0,21029	0,14008
2026,8186	0,14511	0,12814	0,17728	0,1097	0,19304	0,21021	0,13997
2024,89014	0,14497	0,12805	0,17725	0,10964	0,19303	0,21021	0,1398
2022,96167	0,14495	0,12794	0,17726	0,10966	0,19302	0,21024	0,13978
2021,0332	0,14494	0,1279	0,17728	0,10956	0,19288	0,21014	0,13971
2019,10474	0,14503	0,12789	0,17734	0,10982	0,19299	0,21032	0,14
2017,17627	0,14512	0,12783	0,17724	0,11016	0,19317	0,21049	0,14024
2015,2478	0,14489	0,12789	0,17702	0,10978	0,19273	0,21011	0,13976
2013,31934	0,14481	0,12801	0,17696	0,10963	0,19243	0,20993	0,13958
2011,39087	0,14481	0,128	0,17695	0,10987	0,19251	0,21004	0,13963
2009,4624	0,14472	0,12799	0,17696	0,10992	0,19252	0,20999	0,13955
2007,53394	0,14475	0,12807	0,17693	0,10989	0,19241	0,20989	0,13958
2005,60547	0,14475	0,12809	0,17684	0,10978	0,19227	0,20987	0,13954
2003,677	0,14479	0,12803	0,17684	0,10983	0,19234	0,20997	0,13958
2001,74854	0,14467	0,12798	0,17679	0,10983	0,1922	0,20994	0,13951
1999,82007	0,14459	0,12795	0,17674	0,10992	0,1921	0,21001	0,13956
1997,8916	0,14463	0,12794	0,17664	0,11001	0,1922	0,21002	0,13959
1995,96313	0,14442	0,12796	0,17654	0,10974	0,19194	0,20983	0,13924
1994,03467	0,14464	0,12789	0,1768	0,11022	0,19233	0,21031	0,13986
1992,1062	0,14482	0,12772	0,17678	0,11046	0,19266	0,21054	0,14024
1990,17773	0,14441	0,12771	0,17641	0,10958	0,19202	0,20995	0,13944
1988,24927	0,14439	0,1278	0,17639	0,10935	0,19196	0,20991	0,13948
1986,3208	0,14432	0,12776	0,17633	0,10914	0,19187	0,20979	0,13945

1984,39233	0,14416	0,12772	0,17627	0,10885	0,19163	0,20956	0,13926
1982,46387	0,14417	0,12771	0,17628	0,10889	0,19178	0,20964	0,13942
1980,5354	0,1441	0,1277	0,17619	0,1087	0,19166	0,20959	0,13916
1978,60693	0,14414	0,1277	0,17626	0,10872	0,19161	0,20957	0,13914
1976,67847	0,14405	0,12763	0,17628	0,10866	0,19166	0,20945	0,1391
1974,75	0,14393	0,1276	0,17631	0,10859	0,19164	0,20944	0,13894
1972,82153	0,14396	0,12767	0,17634	0,1087	0,19161	0,20951	0,13902
1970,89307	0,14384	0,12767	0,1762	0,10845	0,19147	0,20931	0,1389
1968,9646	0,14403	0,12759	0,17631	0,10884	0,19187	0,20968	0,13942
1967,03613	0,14417	0,12753	0,1762	0,10929	0,19204	0,20995	0,13986
1965,10767	0,14371	0,12756	0,17581	0,10849	0,1913	0,20924	0,13904
1963,1792	0,14363	0,12764	0,1759	0,1083	0,19121	0,20911	0,13888
1961,25073	0,14375	0,12764	0,1759	0,10856	0,19137	0,20924	0,13912
1959,32227	0,14352	0,1276	0,1757	0,10824	0,19108	0,20898	0,13889
1957,3938	0,14344	0,12754	0,17574	0,10819	0,19114	0,20905	0,13898
1955,46533	0,14342	0,12742	0,17582	0,10825	0,19118	0,2091	0,13904
1953,53687	0,14333	0,12737	0,17582	0,1081	0,19109	0,20892	0,13888
1951,6084	0,14322	0,12738	0,17569	0,10788	0,19098	0,20866	0,13867
1949,67993	0,14326	0,12732	0,17577	0,10792	0,19095	0,20857	0,13869
1947,75146	0,14321	0,1272	0,1758	0,10798	0,19098	0,20844	0,13866
1945,823	0,14317	0,12712	0,17568	0,10799	0,19097	0,20821	0,13858
1943,89453	0,14373	0,12705	0,176	0,10887	0,19176	0,20877	0,13957
1941,96606	0,14351	0,12695	0,17571	0,10873	0,19159	0,20853	0,13924
1940,0376	0,14274	0,12694	0,17526	0,10745	0,19021	0,20755	0,1378
1938,10913	0,14291	0,12708	0,17553	0,1075	0,19024	0,20765	0,13798
1936,18066	0,14291	0,12711	0,17555	0,10757	0,1905	0,20751	0,13802
1934,2522	0,1428	0,12699	0,1755	0,1075	0,19039	0,20745	0,13793
1932,32373	0,14278	0,12696	0,17544	0,10746	0,19023	0,20739	0,13785
1930,39526	0,14279	0,12693	0,17546	0,10746	0,19032	0,2073	0,13789
1928,4668	0,1428	0,1269	0,17541	0,10737	0,19028	0,20734	0,13789
1926,53833	0,14266	0,12681	0,1753	0,10708	0,18983	0,20708	0,13751
1924,60986	0,14317	0,12661	0,17573	0,10791	0,19072	0,20783	0,13862
1922,6814	0,14316	0,12652	0,17546	0,10802	0,19095	0,20778	0,13867
1920,75293	0,14274	0,12643	0,1753	0,10716	0,19021	0,2071	0,13782
1918,82446	0,14304	0,1264	0,17581	0,1073	0,19089	0,20772	0,13862
1916,896	0,14249	0,12647	0,17512	0,10658	0,19024	0,207	0,13762
1914,96753	0,14222	0,1264	0,17495	0,10623	0,1895	0,20642	0,13689
1913,03906	0,14264	0,12628	0,17554	0,10677	0,19021	0,20706	0,13771
1911,1106	0,14268	0,12607	0,17549	0,10697	0,19047	0,20716	0,13789
1909,18213	0,14271	0,12586	0,17542	0,1071	0,19056	0,20723	0,13798
1907,25366	0,14241	0,12584	0,17535	0,10661	0,19046	0,20701	0,1376
1905,3252	0,14219	0,12583	0,17536	0,10625	0,19031	0,20678	0,13725
1903,39673	0,14231	0,12572	0,17553	0,1063	0,19043	0,20688	0,1373
1901,46826	0,14236	0,12557	0,17555	0,10629	0,19051	0,20695	0,13733
1899,53979	0,14219	0,12541	0,17551	0,10594	0,19028	0,20679	0,137
1897,61133	0,1423	0,12518	0,17578	0,10604	0,19054	0,20702	0,13722
1895,68286	0,14257	0,12499	0,17592	0,10661	0,19127	0,20754	0,13792
1893,75439	0,14194	0,12496	0,17549	0,10572	0,19047	0,20674	0,13682
1891,82593	0,14216	0,12486	0,17585	0,10593	0,19074	0,20698	0,13711
1889,89746	0,14279	0,12466	0,17614	0,10684	0,19184	0,20783	0,1382

1887,96899	0,14193	0,12465	0,17541	0,10545	0,19047	0,20659	0,13652
1886,04053	0,14199	0,12469	0,17554	0,10541	0,19029	0,20655	0,13646
1884,11206	0,14228	0,12463	0,1757	0,10584	0,19082	0,20698	0,13696
1882,18359	0,14185	0,12456	0,17555	0,10538	0,19033	0,20645	0,13638
1880,25513	0,14187	0,12453	0,17572	0,10552	0,19043	0,20642	0,13664
1878,32666	0,14183	0,12458	0,17559	0,1055	0,19036	0,20634	0,13663
1876,39819	0,14184	0,12476	0,17557	0,10544	0,19028	0,20641	0,13664
1874,46973	0,14176	0,1249	0,17542	0,1054	0,19018	0,20634	0,13649
1872,54126	0,14167	0,12482	0,17534	0,10555	0,18995	0,20615	0,1364
1870,61279	0,14241	0,12471	0,176	0,10646	0,19101	0,20713	0,13794
1868,68433	0,14276	0,12453	0,17578	0,10717	0,19188	0,20779	0,1387
1866,75586	0,14168	0,12448	0,17475	0,10574	0,19018	0,20625	0,13653
1864,82739	0,14156	0,12475	0,17498	0,10539	0,18959	0,20597	0,13624
1862,89893	0,14166	0,12499	0,17506	0,10547	0,18965	0,20601	0,13644
1860,97046	0,14164	0,12507	0,17489	0,10564	0,18965	0,20593	0,13646
1859,04199	0,14164	0,12522	0,17485	0,10565	0,18953	0,20582	0,13641
1857,11353	0,14147	0,12527	0,17466	0,10561	0,18925	0,20559	0,13614
1855,18506	0,14134	0,12538	0,17452	0,10553	0,18922	0,20557	0,13612
1853,25659	0,1412	0,12539	0,17429	0,10556	0,18915	0,20542	0,13602
1851,32813	0,14122	0,1254	0,17447	0,10558	0,18922	0,20532	0,13615
1849,39966	0,14118	0,12544	0,17435	0,10555	0,18926	0,20516	0,13627
1847,47119	0,1416	0,12517	0,17438	0,10667	0,18975	0,20567	0,13707
1845,54272	0,14196	0,12529	0,17509	0,10642	0,19044	0,20628	0,13776
1843,61426	0,14067	0,12537	0,17399	0,10427	0,18915	0,20494	0,13565
1841,68579	0,14018	0,12502	0,17336	0,10447	0,18805	0,2041	0,13473
1839,75732	0,14098	0,12522	0,17425	0,10581	0,18877	0,20498	0,13617
1837,82886	0,14094	0,12533	0,17424	0,10562	0,18882	0,20502	0,13638
1835,90039	0,14085	0,12515	0,17389	0,10559	0,1888	0,20489	0,13616
1833,97192	0,1405	0,12528	0,17371	0,10498	0,18805	0,20428	0,13533
1832,04346	0,14125	0,12518	0,17441	0,10605	0,18913	0,20544	0,13706
1830,11499	0,14168	0,12496	0,17423	0,1068	0,19038	0,20625	0,13825
1828,18652	0,14025	0,12504	0,17303	0,10473	0,18833	0,20423	0,13548
1826,25806	0,1409	0,12512	0,17378	0,10569	0,18905	0,20518	0,13673
1824,32959	0,14098	0,12519	0,17359	0,10562	0,18934	0,20529	0,1369
1822,40112	0,14004	0,12515	0,17305	0,10428	0,18776	0,20385	0,13506
1820,47266	0,14036	0,12505	0,17369	0,10483	0,18811	0,20441	0,13582
1818,54419	0,1405	0,12484	0,17366	0,10507	0,18844	0,20463	0,13613
1816,61572	0,14034	0,12481	0,1734	0,1047	0,18806	0,20416	0,13563
1814,68726	0,14023	0,12491	0,17331	0,10433	0,18779	0,20401	0,13546
1812,75879	0,14066	0,12476	0,17354	0,10512	0,18843	0,20474	0,13646
1810,83032	0,14084	0,12466	0,1736	0,10553	0,18878	0,20507	0,13695
1808,90186	0,14024	0,12464	0,17325	0,10462	0,18796	0,20429	0,13596
1806,97339	0,14019	0,12454	0,17334	0,10441	0,18763	0,20416	0,13584
1805,04492	0,1401	0,12442	0,17351	0,10409	0,1875	0,20414	0,13584
1803,11646	0,14028	0,12399	0,17385	0,10439	0,18829	0,20456	0,13658
1801,18799	0,14067	0,12342	0,17404	0,10495	0,18932	0,20511	0,13731
1799,25952	0,13988	0,12338	0,17359	0,10338	0,18825	0,20414	0,13569
1797,33105	0,13975	0,12326	0,17342	0,10343	0,18787	0,20395	0,1354
1795,40259	0,14042	0,12304	0,17378	0,10451	0,18864	0,20456	0,13633
1793,47412	0,14042	0,12333	0,17419	0,10357	0,18902	0,20463	0,13644



1791,54565	0,13982	0,12342	0,1732	0,10328	0,18866	0,20423	0,13573
1789,61719	0,13907	0,12364	0,17238	0,10285	0,18675	0,20276	0,13399
1787,68872	0,13978	0,12413	0,17329	0,10383	0,18728	0,20358	0,13522
1785,76025	0,13986	0,12421	0,17334	0,10385	0,18777	0,20391	0,13561
1783,83179	0,13914	0,12406	0,17279	0,10282	0,18693	0,20295	0,13435
1781,90332	0,13981	0,12393	0,1732	0,10401	0,18781	0,20379	0,13556
1779,97485	0,14009	0,12376	0,1732	0,10448	0,18829	0,20412	0,13607
1778,04639	0,1391	0,12388	0,1725	0,1027	0,18673	0,20273	0,13425
1776,11792	0,1398	0,12357	0,17299	0,1042	0,18767	0,20374	0,13561
1774,18945	0,14034	0,12354	0,17403	0,10407	0,18898	0,20454	0,1369
1772,26099	0,13887	0,12367	0,17287	0,10133	0,1878	0,203	0,13467
1770,33252	0,13832	0,123	0,17209	0,10158	0,18671	0,20228	0,13374
1768,40405	0,13925	0,12302	0,17309	0,10286	0,18783	0,20353	0,13532
1766,47559	0,13782	0,12333	0,1719	0,10062	0,18575	0,20151	0,13277
1764,54712	0,13893	0,123	0,17277	0,10308	0,18706	0,20288	0,13499
1762,61865	0,13976	0,12312	0,17376	0,10316	0,1887	0,20411	0,13678
1760,69019	0,13782	0,12297	0,17175	0,10034	0,18608	0,20174	0,13377
1758,76172	0,13893	0,12271	0,17275	0,10275	0,18729	0,20328	0,13621
1756,83325	0,13914	0,12301	0,17305	0,10261	0,18805	0,20397	0,13742
1754,90479	0,13788	0,12297	0,17188	0,10126	0,18618	0,20253	0,13599
1752,97632	0,13885	0,12291	0,17322	0,10242	0,18747	0,20389	0,13861
1751,04785	0,13909	0,12291	0,17334	0,10218	0,1887	0,2049	0,14073
1749,11938	0,13865	0,12228	0,17201	0,10284	0,18817	0,2048	0,14068
1747,19092	0,13936	0,12228	0,17275	0,10404	0,18865	0,20571	0,14214
1745,26245	0,13879	0,12269	0,17265	0,10265	0,1877	0,20497	0,14154
1743,33398	0,1389	0,12251	0,17254	0,10365	0,18783	0,20508	0,14113
1741,40552	0,13934	0,12276	0,17351	0,10326	0,18861	0,20558	0,14131
1739,47705	0,1377	0,12317	0,17225	0,09995	0,18672	0,20322	0,13742
1737,54858	0,13819	0,1226	0,17219	0,10243	0,18709	0,20351	0,1371
1735,62012	0,13927	0,12299	0,17455	0,10212	0,18893	0,20492	0,13899
1733,69165	0,13688	0,12352	0,17253	0,09765	0,18724	0,20244	0,13458
1731,76318	0,13641	0,12247	0,1709	0,09906	0,18528	0,20093	0,1329
1729,83472	0,13952	0,1224	0,17322	0,10448	0,18919	0,20505	0,13823
1727,90625	0,13725	0,12313	0,1719	0,10009	0,18581	0,20193	0,13407
1725,97778	0,13803	0,12293	0,1724	0,10189	0,18651	0,20305	0,13558
1724,04932	0,13859	0,12301	0,17285	0,10216	0,18751	0,20385	0,13674
1722,12085	0,13754	0,12298	0,17177	0,10085	0,18604	0,20241	0,13513
1720,19238	0,13912	0,1228	0,17328	0,1031	0,18831	0,20475	0,13835
1718,26392	0,13919	0,12304	0,17374	0,10202	0,1897	0,20568	0,13954
1716,33545	0,13657	0,1228	0,17106	0,09826	0,1863	0,20207	0,13497
1714,40698	0,13786	0,12233	0,17145	0,1012	0,18695	0,20306	0,13635
1712,47852	0,13852	0,12265	0,17239	0,10182	0,18725	0,20363	0,13702
1710,55005	0,13773	0,12288	0,17196	0,10064	0,18596	0,20252	0,13513
1708,62158	0,13899	0,12258	0,17273	0,10326	0,18785	0,20434	0,13723
1706,69312	0,13931	0,12294	0,17343	0,10251	0,18883	0,20492	0,13805
1704,76465	0,13809	0,12253	0,17152	0,10146	0,1869	0,2028	0,13504
1702,83618	0,13933	0,12231	0,17323	0,10317	0,18848	0,20432	0,1372
1700,90771	0,13877	0,12338	0,17444	0,09949	0,18979	0,2051	0,13739
1698,97925	0,13472	0,12198	0,16938	0,09461	0,18325	0,19865	0,12927
1697,05078	0,13817	0,12151	0,17233	0,10059	0,18709	0,20246	0,1353

1695,12231	0,13675	0,12307	0,17177	0,09662	0,18579	0,20085	0,13233
1693,19385	0,13645	0,12256	0,17049	0,09814	0,1839	0,19977	0,13062
1691,26538	0,13966	0,12241	0,17359	0,10317	0,18814	0,20401	0,1364
1689,33691	0,13853	0,12255	0,17249	0,10073	0,18691	0,20256	0,13391
1687,40845	0,13936	0,12186	0,1729	0,10278	0,18756	0,2035	0,13521
1685,47998	0,13932	0,1227	0,17495	0,09973	0,18854	0,20388	0,13626
1683,55151	0,13713	0,12247	0,17138	0,09762	0,18682	0,2017	0,13229
1681,62305	0,13819	0,12171	0,17157	0,10023	0,18633	0,20175	0,13281
1679,69458	0,13892	0,12209	0,17275	0,10153	0,18668	0,20257	0,13385
1677,76611	0,13852	0,12224	0,17292	0,10045	0,1859	0,20205	0,13309
1675,83765	0,13861	0,12228	0,17339	0,09934	0,18662	0,20238	0,13353
1673,90918	0,13685	0,12229	0,17143	0,09707	0,18423	0,19999	0,13027
1671,98071	0,13872	0,12181	0,17257	0,10079	0,18605	0,20208	0,13318
1670,05225	0,14028	0,1218	0,17424	0,10227	0,18893	0,20461	0,13643
1668,12378	0,13702	0,12206	0,17149	0,09752	0,18422	0,20019	0,13054
1666,19531	0,13821	0,12195	0,17248	0,10029	0,1847	0,20126	0,13209
1664,26685	0,13912	0,12246	0,17408	0,10027	0,1861	0,20257	0,13378
1662,33838	0,13826	0,12229	0,17274	0,09932	0,18531	0,20151	0,13232
1660,40991	0,13821	0,12198	0,17265	0,09967	0,18481	0,20107	0,13189
1658,48145	0,13785	0,1223	0,17281	0,09872	0,18423	0,20047	0,13118
1656,55298	0,13955	0,12147	0,17346	0,10237	0,18658	0,20273	0,13436
1654,62451	0,1403	0,12132	0,17575	0,10112	0,18909	0,20445	0,13719
1652,69604	0,13636	0,12213	0,1725	0,0959	0,18769	0,20199	0,13236
1650,76758	0,13375	0,12073	0,16963	0,09248	0,17958	0,19508	0,12494
1648,83911	0,14038	0,1194	0,1744	0,10487	0,18862	0,20434	0,13704
1646,91064	0,13932	0,11949	0,17414	0,10234	0,18944	0,20406	0,13687
1644,98218	0,13452	0,11979	0,17035	0,09425	0,18131	0,19655	0,12722
1643,05371	0,13721	0,11928	0,1725	0,09986	0,18439	0,20022	0,13192
1641,12524	0,13647	0,11951	0,17242	0,09835	0,18376	0,19937	0,13086
1639,19678	0,13701	0,11896	0,17233	0,09999	0,18457	0,20013	0,13209
1637,26831	0,1381	0,11837	0,17378	0,1008	0,18686	0,20194	0,13499
1635,33984	0,13613	0,1187	0,17238	0,09741	0,18552	0,2	0,13209
1633,41138	0,13384	0,11853	0,17003	0,09463	0,18081	0,19589	0,12705
1631,48291	0,13565	0,11786	0,17157	0,09893	0,1832	0,19862	0,13077
1629,55444	0,13539	0,11769	0,17197	0,09805	0,1836	0,19879	0,13107
1627,62598	0,1346	0,11716	0,17089	0,09756	0,18276	0,19813	0,12998
1625,69751	0,13433	0,11656	0,1712	0,0977	0,18252	0,19825	0,1301
1623,76904	0,13442	0,11607	0,17161	0,09743	0,18336	0,19893	0,13104
1621,84058	0,13273	0,11584	0,16977	0,09555	0,1812	0,19666	0,12812
1619,91211	0,13368	0,11576	0,17065	0,09799	0,18212	0,19785	0,12971
1617,98364	0,13394	0,11632	0,17179	0,09615	0,18276	0,19814	0,13048
1616,05518	0,13228	0,11726	0,16978	0,09232	0,18029	0,19547	0,1266
1614,12671	0,13378	0,11738	0,17027	0,09587	0,18104	0,19677	0,12797
1612,19824	0,13568	0,11804	0,17185	0,09855	0,18309	0,19898	0,13091
1610,26978	0,13572	0,11874	0,17169	0,09767	0,1827	0,19866	0,13054
1608,34131	0,13624	0,11882	0,17181	0,0987	0,18318	0,19937	0,13132
1606,41284	0,13606	0,11943	0,17198	0,09808	0,18288	0,19909	0,1308
1604,48438	0,13633	0,11978	0,17202	0,09805	0,18286	0,19913	0,13065
1602,55591	0,13687	0,11979	0,17214	0,0988	0,1834	0,19978	0,13148
1600,62744	0,13658	0,11996	0,17202	0,09832	0,18303	0,1995	0,13101

1598,69897	0,13656	0,12009	0,17215	0,09828	0,18291	0,19947	0,13092
1596,77051	0,13687	0,1202	0,17219	0,0988	0,18337	0,19974	0,13157
1594,84204	0,13712	0,12032	0,17207	0,09906	0,1837	0,19982	0,13175
1592,91357	0,13697	0,12059	0,17193	0,09851	0,18327	0,19946	0,13127
1590,98511	0,13692	0,12072	0,1718	0,0984	0,18308	0,19934	0,13113
1589,05664	0,13711	0,1207	0,17188	0,09862	0,18332	0,19952	0,13137
1587,12817	0,13668	0,12086	0,17161	0,09773	0,18273	0,19879	0,1308
1585,19971	0,13678	0,12089	0,17152	0,09826	0,18275	0,19897	0,13101
1583,27124	0,13689	0,12096	0,17189	0,09842	0,18304	0,19934	0,13138
1581,34277	0,13605	0,121	0,17129	0,09729	0,18232	0,19837	0,13028
1579,41431	0,13683	0,12069	0,1716	0,09957	0,18351	0,19962	0,1319
1577,48584	0,13694	0,12104	0,17275	0,09828	0,18422	0,19994	0,13294
1575,55737	0,13422	0,12123	0,17037	0,09371	0,1817	0,19673	0,1288
1573,62891	0,13459	0,12065	0,16986	0,09646	0,18109	0,19695	0,12864
1571,70044	0,13744	0,1208	0,17251	0,10053	0,18476	0,20075	0,13375
1569,77197	0,13667	0,12102	0,17154	0,09852	0,18481	0,20024	0,13285
1567,84351	0,13518	0,12073	0,17016	0,09734	0,18211	0,19786	0,12996
1565,91504	0,13636	0,12102	0,17171	0,09903	0,18358	0,19932	0,13235
1563,98657	0,13553	0,12109	0,17061	0,09814	0,18268	0,19844	0,13089
1562,05811	0,13664	0,12095	0,17164	0,09972	0,18376	0,19967	0,13281
1560,12964	0,13833	0,12158	0,17444	0,09968	0,18839	0,20331	0,13787
1558,20117	0,13332	0,1206	0,16902	0,09501	0,18423	0,19911	0,13011
1556,27271	0,13424	0,12043	0,16966	0,09555	0,18165	0,1969	0,12903
1554,34424	0,13558	0,12105	0,17109	0,0974	0,18313	0,19832	0,13123
1552,41577	0,13452	0,1213	0,17054	0,0961	0,18137	0,19717	0,12945
1550,4873	0,13696	0,12076	0,17169	0,10094	0,1846	0,20051	0,13369
1548,55884	0,13585	0,12103	0,17096	0,09894	0,18296	0,19907	0,13166
1546,63037	0,13555	0,12144	0,17136	0,09816	0,18237	0,19874	0,13135
1544,7019	0,13735	0,12111	0,17229	0,10116	0,18548	0,20131	0,135
1542,77344	0,1365	0,12079	0,17179	0,09938	0,18446	0,20015	0,13361
1540,84497	0,13613	0,12117	0,17273	0,09724	0,18513	0,20052	0,13416
1538,9165	0,13341	0,12089	0,16936	0,09386	0,18206	0,19709	0,12957
1536,98804	0,13424	0,12089	0,16964	0,09601	0,1804	0,19645	0,12908
1535,05957	0,13726	0,12108	0,17229	0,1006	0,18455	0,20062	0,13464
1533,1311	0,1369	0,12082	0,17147	0,10024	0,18532	0,20098	0,13492
1531,20264	0,135	0,12091	0,17009	0,09739	0,18141	0,19771	0,13079
1529,27417	0,13676	0,12108	0,17169	0,10022	0,18351	0,19993	0,13393
1527,3457	0,13678	0,12093	0,17154	0,10025	0,18466	0,20047	0,13478
1525,41724	0,1352	0,12063	0,17027	0,09808	0,18245	0,19833	0,13218
1523,48877	0,13646	0,12051	0,17161	0,09957	0,18425	0,20009	0,13478
1521,5603	0,13519	0,12053	0,1707	0,09737	0,18386	0,19916	0,13349
1519,63184	0,13325	0,12047	0,16909	0,09432	0,18048	0,19583	0,12931
1517,70337	0,13637	0,1202	0,17093	0,1004	0,18485	0,20013	0,13492
1515,7749	0,13552	0,12027	0,17002	0,09944	0,18367	0,19909	0,13369
1513,84644	0,13459	0,12055	0,16977	0,09724	0,18139	0,19726	0,13143
1511,91797	0,1349	0,1207	0,17008	0,09702	0,18172	0,19759	0,13189
1509,9895	0,13622	0,11998	0,17028	0,10026	0,18376	0,19968	0,13468
1508,06104	0,13748	0,11976	0,17204	0,1021	0,18699	0,20228	0,13844
1506,13257	0,13363	0,12011	0,16903	0,09637	0,18417	0,19873	0,13326
1504,2041	0,13127	0,12032	0,16723	0,09155	0,17741	0,19313	0,12675

1502,27563	0,13501	0,12042	0,16991	0,09874	0,18185	0,19793	0,13306
1500,34717	0,13462	0,12083	0,16969	0,09752	0,18161	0,19741	0,13264
1498,4187	0,1348	0,1206	0,16973	0,09736	0,18195	0,19757	0,13321
1496,49023	0,13359	0,12062	0,16911	0,09481	0,18059	0,19604	0,13148
1494,56177	0,13226	0,12071	0,16798	0,09352	0,17837	0,19429	0,12915
1492,6333	0,13465	0,12065	0,16966	0,09782	0,18129	0,19739	0,13332
1490,70483	0,1357	0,12047	0,17025	0,0991	0,18343	0,1993	0,13606
1488,77637	0,13482	0,12006	0,16916	0,09857	0,183	0,19898	0,13554
1486,8479	0,13396	0,12039	0,16867	0,09691	0,18136	0,19773	0,13424
1484,91943	0,13344	0,12088	0,16859	0,09596	0,18039	0,19763	0,13447
1482,99097	0,13376	0,12088	0,16915	0,09722	0,18143	0,19934	0,13714
1481,0625	0,13374	0,12064	0,16916	0,09776	0,18239	0,20135	0,14086
1479,13403	0,13338	0,12076	0,16908	0,09706	0,18241	0,20318	0,14432
1477,20557	0,13401	0,12072	0,16956	0,09837	0,18401	0,20597	0,14851
1475,2771	0,13428	0,12048	0,16973	0,09894	0,18493	0,20679	0,14991
1473,34863	0,13347	0,12054	0,16975	0,09681	0,18426	0,2054	0,14815
1471,42017	0,13269	0,12043	0,16863	0,09569	0,18332	0,20472	0,14691
1469,4917	0,13324	0,12073	0,16869	0,09703	0,18285	0,20545	0,14824
1467,56323	0,13407	0,12114	0,16992	0,09814	0,18381	0,20672	0,15063
1465,63477	0,13434	0,12091	0,16995	0,09846	0,18498	0,20713	0,15102
1463,7063	0,1327	0,12116	0,16863	0,0959	0,18257	0,20404	0,14622
1461,77783	0,1329	0,12136	0,16889	0,09706	0,18204	0,20337	0,14503
1459,84937	0,13542	0,12076	0,1705	0,10128	0,18545	0,20614	0,1485
1457,9209	0,13501	0,1206	0,17056	0,10004	0,1867	0,20629	0,14871
1455,99243	0,13027	0,12089	0,1671	0,09139	0,17926	0,19877	0,13852
1454,06396	0,13329	0,12044	0,16847	0,09759	0,18165	0,20131	0,1415
1452,1355	0,13396	0,12088	0,16932	0,09842	0,18218	0,20121	0,14112
1450,20703	0,13321	0,12117	0,16892	0,09644	0,18087	0,19941	0,1384
1448,27856	0,13426	0,12092	0,16919	0,09772	0,18209	0,20028	0,13934
1446,3501	0,1331	0,12118	0,16853	0,0958	0,1802	0,19796	0,13606
1444,42163	0,13306	0,12121	0,16879	0,09604	0,17992	0,19754	0,13502
1442,49316	0,13314	0,12132	0,16877	0,09546	0,17983	0,19687	0,13394
1440,5647	0,13312	0,1213	0,16852	0,09565	0,17948	0,19601	0,13296
1438,63623	0,13366	0,12107	0,16948	0,096	0,18045	0,19677	0,13403
1436,70776	0,1329	0,12089	0,1689	0,09427	0,18045	0,19627	0,133
1434,7793	0,13164	0,12103	0,16734	0,09336	0,17822	0,19402	0,1303
1432,85083	0,1334	0,12105	0,1686	0,09699	0,18009	0,19628	0,13322
1430,92236	0,13361	0,12102	0,16892	0,09677	0,18066	0,19677	0,13405
1428,9939	0,13261	0,12092	0,16799	0,0957	0,17937	0,19525	0,13223
1427,06543	0,13264	0,12102	0,16823	0,09572	0,17893	0,1949	0,13142
1425,13696	0,13314	0,12091	0,1684	0,09618	0,17962	0,19524	0,13167
1423,2085	0,13303	0,12073	0,16777	0,09658	0,17915	0,19451	0,13073
1421,28003	0,13247	0,12091	0,16819	0,09475	0,17824	0,19359	0,12962
1419,35156	0,13198	0,12055	0,16819	0,0934	0,17897	0,19352	0,1295
1417,4231	0,13146	0,12004	0,16683	0,09361	0,17826	0,19256	0,12826
1415,49463	0,13201	0,12036	0,1674	0,09455	0,17809	0,19283	0,12872
1413,56616	0,13154	0,12063	0,16761	0,0932	0,17735	0,19224	0,12807
1411,6377	0,13191	0,12019	0,16757	0,09377	0,17768	0,19271	0,12878
1409,70923	0,13175	0,12002	0,16726	0,09338	0,17725	0,19238	0,12856
1407,78076	0,13119	0,12023	0,16707	0,09285	0,17692	0,19211	0,12837

1405,85229	0,13181	0,11997	0,1675	0,09407	0,17842	0,19339	0,13028
1403,92383	0,13109	0,11985	0,16685	0,09289	0,17762	0,19283	0,12962
1401,99536	0,13082	0,12006	0,16692	0,09257	0,17736	0,19295	0,12981
1400,06689	0,13154	0,11974	0,16738	0,09337	0,1788	0,19447	0,1322
1398,13843	0,13142	0,11941	0,16685	0,09344	0,17897	0,19562	0,13424
1396,20996	0,13155	0,11949	0,16718	0,09381	0,17972	0,19747	0,13764
1394,28149	0,13114	0,11947	0,16688	0,0931	0,17989	0,1988	0,14093
1392,35303	0,13004	0,11968	0,16603	0,092	0,17791	0,19735	0,13912
1390,42456	0,1307	0,11972	0,16685	0,09338	0,17847	0,19757	0,13879
1388,49609	0,13081	0,11952	0,16706	0,09277	0,17884	0,19752	0,13882
1386,56763	0,12971	0,11905	0,16586	0,09152	0,17762	0,19654	0,13809
1384,63916	0,12901	0,11875	0,16545	0,09135	0,17669	0,19639	0,13837
1382,71069	0,12928	0,11911	0,16606	0,09161	0,17701	0,19729	0,13978
1380,78223	0,13011	0,11956	0,16679	0,09275	0,17813	0,1985	0,1412
1378,85376	0,13028	0,11978	0,16677	0,09303	0,17811	0,19823	0,14038
1376,92529	0,13044	0,11979	0,16683	0,09296	0,1781	0,19747	0,13891
1374,99683	0,13107	0,1194	0,16711	0,09417	0,17943	0,19732	0,13806
1373,06836	0,13023	0,1195	0,16631	0,09287	0,17838	0,19547	0,13488
1371,13989	0,12974	0,11982	0,16623	0,09185	0,17733	0,19495	0,13405
1369,21143	0,13021	0,11961	0,16689	0,09332	0,17907	0,1974	0,13784
1367,28296	0,12953	0,11959	0,16683	0,0932	0,1802	0,20133	0,14508
1365,35449	0,12961	0,11958	0,16717	0,09345	0,18126	0,20552	0,1525
1363,42603	0,13056	0,11917	0,16746	0,09503	0,18267	0,20654	0,15363
1361,49756	0,12986	0,11905	0,1669	0,09359	0,18053	0,20161	0,14556
1359,56909	0,12926	0,11925	0,16674	0,092	0,17845	0,19825	0,14038
1357,64063	0,12952	0,1193	0,16671	0,09223	0,17816	0,19705	0,13807
1355,71216	0,12944	0,11904	0,16662	0,09211	0,1777	0,19587	0,13576
1353,78369	0,12918	0,11886	0,16665	0,09157	0,17717	0,19476	0,13388
1351,85522	0,12928	0,11886	0,16665	0,09158	0,17689	0,19388	0,13247
1349,92676	0,12941	0,11876	0,16656	0,09186	0,17658	0,19345	0,13169
1347,99829	0,12921	0,11879	0,16644	0,09157	0,17618	0,19297	0,13088
1346,06982	0,12912	0,11859	0,16639	0,09136	0,17616	0,19266	0,13035
1344,14136	0,12898	0,11837	0,16625	0,09116	0,1759	0,19235	0,1296
1342,21289	0,12919	0,11846	0,16633	0,0916	0,17618	0,19262	0,12959
1340,28442	0,12977	0,11812	0,16644	0,09311	0,17749	0,1936	0,13078
1338,35596	0,12929	0,11772	0,16615	0,09278	0,17715	0,19325	0,13034
1336,42749	0,12873	0,11788	0,16612	0,09153	0,17604	0,19238	0,12918
1334,49902	0,12878	0,11818	0,16625	0,09147	0,17591	0,19221	0,12899
1332,57056	0,12872	0,11836	0,16629	0,0916	0,17594	0,19223	0,12901
1330,64209	0,12892	0,11842	0,16643	0,09174	0,17613	0,19243	0,12911
1328,71362	0,12911	0,11857	0,16632	0,09176	0,17609	0,19246	0,12898
1326,78516	0,12909	0,11861	0,16614	0,09178	0,17602	0,19245	0,12897
1324,85669	0,12915	0,11852	0,16633	0,092	0,17632	0,19264	0,12946
1322,92822	0,1293	0,11865	0,16642	0,09209	0,17641	0,19274	0,12966
1320,99976	0,12969	0,11868	0,16623	0,09241	0,17658	0,19308	0,12999
1319,07129	0,12993	0,11856	0,16628	0,09281	0,17689	0,19351	0,13065
1317,14282	0,1297	0,11867	0,1663	0,09241	0,17686	0,19339	0,13053
1315,21436	0,12964	0,1187	0,16617	0,09226	0,17709	0,19354	0,13089
1313,28589	0,12982	0,11869	0,16633	0,09264	0,17743	0,19404	0,13169
1311,35742	0,12994	0,11907	0,16658	0,09233	0,17722	0,19403	0,13146

1309,42896	0,13013	0,11922	0,16682	0,09216	0,17728	0,19425	0,13154
1307,50049	0,13036	0,1193	0,16717	0,09259	0,1778	0,1947	0,13215
1305,57202	0,13049	0,1196	0,16737	0,09269	0,17821	0,19487	0,13256
1303,64355	0,13064	0,11948	0,16747	0,09282	0,17865	0,19555	0,13337
1301,71509	0,13082	0,11933	0,16766	0,09317	0,17899	0,1965	0,13425
1299,78662	0,13097	0,11953	0,16797	0,09333	0,17921	0,19726	0,13513
1297,85815	0,13104	0,11974	0,16817	0,09364	0,17952	0,19814	0,13636
1295,92969	0,13115	0,11994	0,16817	0,09411	0,17976	0,19887	0,13768
1294,00122	0,13126	0,12005	0,16824	0,09426	0,18023	0,19965	0,13909
1292,07275	0,13134	0,1201	0,16833	0,09429	0,18088	0,20055	0,14063
1290,14429	0,1315	0,12011	0,16825	0,09462	0,18145	0,20134	0,14242
1288,21582	0,13168	0,12009	0,16823	0,09494	0,18203	0,20247	0,14446
1286,28735	0,13193	0,12013	0,16836	0,09496	0,18239	0,20378	0,14647
1284,35889	0,13223	0,1202	0,16846	0,09509	0,18306	0,20523	0,14887
1282,43042	0,13229	0,12036	0,16848	0,09551	0,18405	0,20743	0,15259
1280,50195	0,13251	0,12037	0,16853	0,09594	0,18485	0,21059	0,15792
1278,57349	0,13314	0,12046	0,16886	0,09638	0,18605	0,21442	0,16436
1276,64502	0,1337	0,12091	0,16937	0,09685	0,18736	0,21854	0,1711
1274,71655	0,13421	0,1212	0,16964	0,09741	0,18862	0,22265	0,17767
1272,78809	0,13481	0,12132	0,16978	0,0981	0,19008	0,22635	0,18369
1270,85962	0,13521	0,12152	0,17006	0,09856	0,19091	0,22919	0,18832
1268,93115	0,13552	0,12167	0,17031	0,09879	0,19144	0,23118	0,19143
1267,00269	0,13579	0,12183	0,17044	0,09905	0,19195	0,23235	0,19345
1265,07422	0,13589	0,12199	0,17055	0,09895	0,19169	0,23234	0,1938
1263,14575	0,13623	0,1221	0,17074	0,09887	0,19129	0,23142	0,19255
1261,21729	0,13667	0,12229	0,17094	0,0991	0,19109	0,23001	0,19033
1259,28882	0,13694	0,12243	0,17101	0,0989	0,19046	0,22791	0,18695
1257,36035	0,13739	0,1223	0,17094	0,09865	0,18993	0,22556	0,18316
1255,43188	0,13791	0,12216	0,17094	0,09881	0,18977	0,22343	0,17984
1253,50342	0,13826	0,12238	0,17118	0,09884	0,18943	0,22187	0,17734
1251,57495	0,13873	0,12256	0,17127	0,09886	0,18944	0,22143	0,17649
1249,64648	0,13932	0,12263	0,17127	0,09906	0,18999	0,22157	0,17685
1247,71802	0,14012	0,12294	0,17164	0,09926	0,19032	0,22165	0,17657
1245,78955	0,14109	0,1233	0,17212	0,09951	0,19067	0,2213	0,17522
1243,86108	0,14204	0,12355	0,17242	0,09975	0,19104	0,2202	0,17292
1241,93262	0,1429	0,12372	0,17281	0,09986	0,19111	0,21886	0,16981
1240,00415	0,14358	0,12404	0,17332	0,10005	0,19119	0,21762	0,16719
1238,07568	0,14446	0,1245	0,1736	0,10045	0,19135	0,21673	0,16559
1236,14722	0,14555	0,12472	0,17385	0,10089	0,19149	0,2162	0,16428
1234,21875	0,1464	0,1249	0,17414	0,10126	0,19164	0,21535	0,16267
1232,29028	0,14747	0,12535	0,17437	0,10161	0,19189	0,21471	0,1611
1230,36182	0,14849	0,12584	0,17488	0,10185	0,19224	0,21449	0,16003
1228,43335	0,14911	0,12617	0,17529	0,10208	0,19259	0,21405	0,15907
1226,50488	0,14992	0,12631	0,17549	0,10243	0,19284	0,21398	0,15845
1224,57642	0,15082	0,12648	0,17591	0,10292	0,19318	0,21453	0,15887
1222,64795	0,15173	0,12686	0,17618	0,10346	0,19368	0,21525	0,15975
1220,71948	0,15246	0,12724	0,17632	0,10383	0,19419	0,21606	0,16057
1218,79102	0,15289	0,12754	0,1768	0,10409	0,19487	0,21692	0,16159
1216,86255	0,15365	0,12778	0,17744	0,10452	0,19549	0,2177	0,1625
1214,93408	0,15469	0,12809	0,17795	0,1052	0,19603	0,21817	0,1629

1213,00562	0,15581	0,12869	0,17855	0,10596	0,19684	0,21809	0,16256
1211,07715	0,15681	0,12927	0,17931	0,10655	0,19738	0,21777	0,1611
1209,14868	0,15758	0,12979	0,18011	0,10732	0,19797	0,21784	0,15957
1207,22021	0,15825	0,13045	0,18093	0,10845	0,1994	0,21824	0,1588
1205,29175	0,15876	0,13091	0,18169	0,10942	0,20073	0,21858	0,15841
1203,36328	0,15935	0,13136	0,18244	0,11018	0,20175	0,21927	0,15865
1201,43481	0,16008	0,13202	0,18309	0,11087	0,20291	0,22011	0,15912
1199,50635	0,16074	0,13248	0,18376	0,11157	0,20369	0,22082	0,15919
1197,57788	0,16121	0,13293	0,18464	0,11237	0,20456	0,22192	0,15933
1195,64941	0,1616	0,13352	0,18531	0,1131	0,20568	0,22282	0,15948
1193,72095	0,16208	0,13393	0,18589	0,1137	0,20625	0,22322	0,1595
1191,79248	0,16259	0,13436	0,18677	0,11436	0,20693	0,22385	0,15964
1189,86401	0,16313	0,13491	0,18753	0,11518	0,20795	0,22445	0,15983
1187,93555	0,16348	0,13534	0,18809	0,11594	0,2088	0,225	0,16016
1186,00708	0,16378	0,13585	0,18875	0,11651	0,20981	0,2256	0,16046
1184,07861	0,16435	0,13657	0,18936	0,1171	0,21067	0,22598	0,16036
1182,15015	0,16483	0,13727	0,18986	0,11774	0,21124	0,2266	0,16042
1180,22168	0,16527	0,13794	0,19047	0,11847	0,21209	0,22743	0,16089
1178,29321	0,1658	0,13865	0,19126	0,11917	0,21305	0,22813	0,16138
1176,36475	0,16633	0,13945	0,19212	0,11981	0,21381	0,22892	0,1618
1174,43628	0,16695	0,14032	0,19283	0,12043	0,2145	0,22961	0,1618
1172,50781	0,16739	0,14096	0,19342	0,12062	0,21502	0,22987	0,16178
1170,57935	0,16773	0,14133	0,1941	0,12055	0,21506	0,23008	0,16223
1168,65088	0,16809	0,14177	0,19451	0,12076	0,21504	0,23031	0,16231
1166,72241	0,16847	0,14232	0,19471	0,12099	0,21521	0,23009	0,16232
1164,79395	0,16893	0,14278	0,1953	0,12118	0,21519	0,22992	0,16271
1162,86548	0,16948	0,14319	0,196	0,12158	0,2151	0,23021	0,1628
1160,93701	0,17032	0,14378	0,19651	0,122	0,21535	0,2304	0,16288
1159,00854	0,17091	0,14431	0,19697	0,12221	0,21558	0,23052	0,16307
1157,08008	0,17099	0,14464	0,19734	0,12217	0,21559	0,23048	0,16312
1155,15161	0,17125	0,14517	0,19782	0,12219	0,21588	0,23041	0,16348
1153,22314	0,17172	0,14576	0,19835	0,12254	0,21641	0,23074	0,16403
1151,29468	0,17208	0,14607	0,1988	0,12301	0,21677	0,23099	0,16441
1149,36621	0,17256	0,14645	0,19938	0,12342	0,2172	0,23138	0,16516
1147,43774	0,17324	0,14697	0,19989	0,12369	0,21784	0,23215	0,16637
1145,50928	0,17374	0,1474	0,2003	0,12395	0,21832	0,23271	0,16724
1143,58081	0,17417	0,1477	0,20082	0,12425	0,21878	0,23339	0,16808
1141,65234	0,17485	0,14803	0,2013	0,1247	0,21963	0,2343	0,16923
1139,72388	0,17539	0,14841	0,20164	0,12547	0,22049	0,2348	0,16968
1137,79541	0,17582	0,14866	0,2019	0,12598	0,22082	0,2348	0,16937
1135,86694	0,17637	0,14908	0,20231	0,12604	0,22082	0,23465	0,16929
1133,93848	0,17678	0,14969	0,20291	0,12631	0,22121	0,2346	0,16956
1132,01001	0,17724	0,14982	0,20325	0,12658	0,22159	0,23445	0,16949
1130,08154	0,17785	0,14989	0,20318	0,12659	0,22143	0,2342	0,16905
1128,15308	0,17808	0,15035	0,2034	0,12691	0,22159	0,23424	0,16871
1126,22461	0,17795	0,15067	0,20383	0,12722	0,22211	0,23425	0,16832
1124,29614	0,17811	0,15077	0,2039	0,12728	0,22247	0,23419	0,16777
1122,36768	0,17833	0,15097	0,20424	0,12769	0,22258	0,23421	0,16717
1120,43921	0,17846	0,15125	0,20485	0,12814	0,2226	0,23394	0,16672
1118,51074	0,17909	0,15135	0,20499	0,12849	0,22309	0,23385	0,16653

1116,58228	0,17944	0,15155	0,20509	0,12883	0,22349	0,23392	0,16619
1114,65381	0,17929	0,15196	0,20525	0,12887	0,22358	0,23377	0,16598
1112,72534	0,1797	0,15213	0,2052	0,12903	0,22399	0,23389	0,16625
1110,79688	0,1802	0,15227	0,20524	0,12926	0,2245	0,23418	0,16672
1108,86841	0,18026	0,15261	0,20519	0,12925	0,22486	0,23439	0,16713
1106,93994	0,18034	0,15267	0,20509	0,12937	0,22506	0,23464	0,16719
1105,01147	0,18033	0,15251	0,20511	0,12953	0,22526	0,23483	0,16711
1103,08301	0,1803	0,15254	0,20507	0,1297	0,22538	0,23488	0,16704
1101,15454	0,18029	0,1524	0,20506	0,13004	0,2253	0,23468	0,16708
1099,22607	0,18009	0,15222	0,20529	0,13022	0,22534	0,23456	0,16735
1097,29761	0,18017	0,15239	0,20564	0,13018	0,22541	0,23479	0,16768
1095,36914	0,18029	0,15254	0,20564	0,13032	0,22533	0,23487	0,16788
1093,44067	0,18003	0,15266	0,20545	0,13053	0,22545	0,23469	0,16801
1091,51221	0,18018	0,15268	0,20571	0,13042	0,22572	0,23433	0,16778
1089,58374	0,18035	0,15243	0,2059	0,1302	0,22572	0,23382	0,16715
1087,65527	0,17983	0,1524	0,20566	0,13022	0,22563	0,23373	0,16711
1085,72681	0,17939	0,15247	0,20554	0,13013	0,22555	0,23382	0,16741
1083,79834	0,17914	0,15227	0,20545	0,12961	0,22525	0,23344	0,16713
1081,86987	0,17865	0,15196	0,20543	0,12923	0,22526	0,23306	0,16697
1079,94141	0,1782	0,15178	0,20559	0,12918	0,22542	0,23303	0,16667
1078,01294	0,17781	0,15169	0,2056	0,12918	0,22522	0,23301	0,16632
1076,08447	0,17717	0,1515	0,20561	0,12927	0,2254	0,233	0,16681
1074,15601	0,17645	0,15131	0,20568	0,12922	0,22581	0,23328	0,16722
1072,22754	0,17609	0,15128	0,20584	0,12899	0,22585	0,23386	0,16754
1070,29907	0,17589	0,15129	0,20614	0,12896	0,22603	0,23433	0,16828
1068,37061	0,17553	0,15093	0,20612	0,12894	0,22647	0,23496	0,16893
1066,44214	0,17514	0,15052	0,20592	0,12886	0,22665	0,2357	0,16997
1064,51367	0,1747	0,15036	0,20608	0,12886	0,22659	0,23602	0,17099
1062,58521	0,1743	0,15025	0,20623	0,1288	0,2268	0,23663	0,17151
1060,65674	0,17374	0,15013	0,20604	0,12871	0,22728	0,23745	0,1726
1058,72827	0,17292	0,14974	0,2059	0,12859	0,22762	0,23787	0,17412
1056,7998	0,17244	0,14925	0,20595	0,12853	0,22779	0,23874	0,17576
1054,87134	0,17233	0,14911	0,20577	0,12864	0,22801	0,2402	0,17833
1052,94287	0,1721	0,14879	0,20551	0,12865	0,22829	0,24204	0,18186
1051,0144	0,17169	0,14832	0,20549	0,12854	0,22862	0,2445	0,18597
1049,08594	0,17137	0,1481	0,2056	0,12855	0,22936	0,24703	0,19062
1047,15747	0,17106	0,14795	0,2057	0,12873	0,23024	0,24926	0,19487
1045,229	0,17045	0,14781	0,20553	0,12884	0,23099	0,25097	0,19765
1043,30054	0,1699	0,14767	0,20529	0,12885	0,23178	0,25169	0,19906
1041,37207	0,1695	0,1475	0,20533	0,12891	0,23232	0,25199	0,19935
1039,4436	0,16905	0,1476	0,2053	0,12913	0,23301	0,25271	0,19944
1037,51514	0,16868	0,148	0,20514	0,1294	0,23389	0,2536	0,20054
1035,58667	0,16838	0,14808	0,20526	0,12948	0,23416	0,25466	0,20242
1033,6582	0,16802	0,14773	0,2055	0,12951	0,23444	0,25642	0,20482
1031,72974	0,16783	0,14748	0,20556	0,12977	0,23508	0,25882	0,20799
1029,80127	0,16806	0,14726	0,2056	0,12984	0,23534	0,26113	0,21178
1027,8728	0,1681	0,14691	0,20536	0,12935	0,23517	0,26249	0,21531
1025,94434	0,16772	0,14677	0,20501	0,12886	0,23467	0,26311	0,21746
1024,01587	0,1677	0,1468	0,20505	0,12864	0,23377	0,26304	0,21769
1022,0874	0,1677	0,1467	0,20501	0,1283	0,23265	0,26128	0,21569



1020,15894	0,16704	0,14662	0,20518	0,12781	0,23168	0,25811	0,21122
1018,23047	0,16642	0,14645	0,20557	0,12742	0,23041	0,25441	0,20499
1016,302	0,16605	0,14601	0,20507	0,12708	0,22891	0,25087	0,19899
1014,37354	0,16555	0,14572	0,20441	0,12648	0,22791	0,24821	0,19437
1012,44507	0,16533	0,14559	0,20433	0,1259	0,2269	0,24591	0,19012
1010,5166	0,16535	0,14536	0,20393	0,12545	0,22557	0,2435	0,18606
1008,58813	0,16497	0,14507	0,20338	0,12466	0,22445	0,24115	0,18258
1006,65967	0,16464	0,14478	0,2033	0,12395	0,22387	0,23901	0,17935
1004,7312	0,16445	0,14443	0,20313	0,12361	0,22334	0,23738	0,17676
1002,80273	0,16399	0,14383	0,20266	0,12302	0,22239	0,23587	0,17453
1000,87427	0,16391	0,14342	0,20221	0,12235	0,22163	0,23442	0,17214
998,9458	0,16403	0,14345	0,2018	0,1218	0,22108	0,23328	0,17042
997,01733	0,16362	0,14322	0,20159	0,12125	0,22043	0,23243	0,16927
995,08887	0,16312	0,14275	0,20149	0,12099	0,22012	0,23182	0,1681
993,1604	0,16245	0,14241	0,20102	0,1209	0,22001	0,23106	0,16728
991,23193	0,16166	0,14206	0,20073	0,1207	0,21962	0,23061	0,16678
989,30347	0,16144	0,14182	0,201	0,1205	0,21877	0,23037	0,166
987,375	0,16122	0,14171	0,20082	0,12037	0,21816	0,22961	0,16506
985,44653	0,16085	0,14154	0,20022	0,12028	0,21826	0,22922	0,16434
983,51807	0,1608	0,14144	0,20021	0,12011	0,21825	0,2292	0,1636
981,5896	0,16023	0,14114	0,20018	0,11982	0,21798	0,22896	0,16279
979,66113	0,15931	0,14067	0,19982	0,11954	0,21779	0,22883	0,16229
977,73267	0,1591	0,14067	0,19991	0,11947	0,21783	0,22868	0,16191
975,8042	0,15885	0,14067	0,20014	0,11946	0,21789	0,22835	0,16135
973,87573	0,15829	0,14055	0,20007	0,11923	0,21769	0,22817	0,16095
971,94727	0,15821	0,14062	0,19992	0,11917	0,21762	0,22824	0,1606
970,0188	0,15802	0,14045	0,20002	0,11948	0,2177	0,22835	0,16035
968,09033	0,15764	0,14035	0,20029	0,11976	0,21761	0,22841	0,1605
966,16187	0,15766	0,14036	0,2001	0,11976	0,21724	0,22836	0,16051
964,2334	0,15774	0,14015	0,19981	0,11947	0,21697	0,22831	0,1605
962,30493	0,15767	0,13992	0,19978	0,11906	0,21702	0,22823	0,16071
960,37646	0,15754	0,13965	0,19949	0,1185	0,21679	0,22801	0,16082
958,448	0,15737	0,13974	0,19908	0,11813	0,21689	0,22819	0,16134
956,51953	0,15716	0,14001	0,19906	0,11802	0,21714	0,22836	0,16171
954,59106	0,15686	0,1399	0,19915	0,11772	0,21685	0,22812	0,16107
952,6626	0,15664	0,13988	0,19914	0,11749	0,21678	0,22799	0,16026
950,73413	0,15655	0,13972	0,19879	0,11725	0,21636	0,22769	0,15989
948,80566	0,1564	0,13932	0,19824	0,11686	0,21581	0,22737	0,16017
946,8772	0,15644	0,13948	0,19838	0,11696	0,21601	0,22757	0,16104
944,94873	0,15663	0,1395	0,19856	0,11703	0,21579	0,22756	0,16133
943,02026	0,15651	0,139	0,1982	0,11676	0,21512	0,22739	0,16089
941,0918	0,15629	0,13903	0,19823	0,11669	0,21486	0,22755	0,16083
939,16333	0,1562	0,13924	0,19818	0,11645	0,21482	0,22744	0,16083
937,23486	0,15602	0,13918	0,19779	0,11621	0,21475	0,22722	0,16067
935,3064	0,15586	0,13919	0,198	0,11631	0,21494	0,2275	0,16131
933,37793	0,15586	0,13946	0,19853	0,11634	0,21529	0,22777	0,16215
931,44946	0,15614	0,13989	0,19853	0,11633	0,21535	0,22818	0,16245
929,521	0,15637	0,1398	0,1982	0,11637	0,21587	0,22855	0,16315
927,59253	0,15622	0,1395	0,19815	0,11637	0,21633	0,22858	0,16449
925,66406	0,15639	0,13967	0,19831	0,11632	0,21597	0,22932	0,16528

923,7356	0,15688	0,14004	0,19882	0,11641	0,21621	0,23016	0,1654
921,80713	0,15681	0,14021	0,19917	0,11675	0,21673	0,23023	0,16591
919,87866	0,15665	0,14002	0,19865	0,11675	0,21684	0,23041	0,16682
917,9502	0,15679	0,14	0,1985	0,11641	0,21685	0,23063	0,16733
916,02173	0,15687	0,14012	0,19921	0,11661	0,21646	0,23061	0,16718
914,09326	0,15689	0,14013	0,19979	0,11698	0,2165	0,23032	0,16646
912,16479	0,15676	0,14014	0,19972	0,11677	0,21686	0,22983	0,16526
910,23633	0,15685	0,14004	0,19938	0,11659	0,2165	0,22961	0,16407
908,30786	0,1572	0,13998	0,19956	0,11656	0,21604	0,22921	0,16312
906,37939	0,15703	0,13985	0,2	0,11639	0,21559	0,22861	0,16229
904,45093	0,15674	0,13971	0,20017	0,11647	0,21504	0,22821	0,16174
902,52246	0,15702	0,13969	0,20025	0,11632	0,21524	0,22774	0,16108
900,59399	0,15742	0,13961	0,20004	0,11558	0,21538	0,22734	0,16028
898,66553	0,15745	0,13975	0,19974	0,11536	0,21479	0,22714	0,15977
896,73706	0,15723	0,14005	0,19992	0,11568	0,21474	0,22723	0,15926
894,80859	0,15714	0,14007	0,20028	0,11574	0,21502	0,22767	0,15916
892,88013	0,1574	0,13985	0,20051	0,11596	0,21508	0,228	0,1598
890,95166	0,15755	0,13956	0,20061	0,11616	0,21529	0,22806	0,16007
889,02319	0,1574	0,13936	0,20046	0,11606	0,2152	0,22796	0,1596
887,09473	0,15755	0,13933	0,20029	0,1163	0,215	0,22793	0,15922
885,16626	0,15801	0,1394	0,20058	0,11659	0,21579	0,2282	0,15941
883,23779	0,15826	0,13949	0,20099	0,11665	0,2168	0,22865	0,16002
881,30933	0,15858	0,14	0,20118	0,11698	0,21686	0,22902	0,16058
879,38086	0,15951	0,14086	0,20173	0,11743	0,21719	0,22938	0,16095
877,45239	0,16065	0,1415	0,20263	0,11777	0,21834	0,23043	0,16156
875,52393	0,16189	0,14256	0,20347	0,11851	0,21968	0,2323	0,16263
873,59546	0,16411	0,14421	0,20494	0,12027	0,22183	0,23437	0,16417
871,66699	0,16728	0,14643	0,2076	0,12281	0,22496	0,23715	0,16684
869,73853	0,17032	0,14935	0,21079	0,12557	0,22845	0,24069	0,17023
867,81006	0,17283	0,15158	0,2135	0,1282	0,23158	0,24375	0,17262
865,88159	0,17505	0,1529	0,21502	0,13018	0,23373	0,24613	0,17417
863,95313	0,17657	0,15388	0,21554	0,13122	0,23509	0,24756	0,17541
862,02466	0,17725	0,15429	0,216	0,13167	0,23616	0,24808	0,17581
860,09619	0,17723	0,15441	0,2161	0,13147	0,23635	0,24767	0,17548
858,16772	0,17618	0,15393	0,21507	0,13035	0,23524	0,24599	0,17443
856,23926	0,17462	0,15266	0,21365	0,12894	0,23393	0,2445	0,17316
854,31079	0,17315	0,15154	0,21213	0,12756	0,23197	0,2431	0,1718
852,38232	0,17225	0,15098	0,21109	0,12651	0,22985	0,24133	0,17051
850,45386	0,17265	0,15118	0,21157	0,1266	0,2301	0,24127	0,17049
848,52539	0,17527	0,15365	0,21367	0,12859	0,23317	0,24447	0,17267
846,59692	0,18091	0,15881	0,21844	0,13328	0,23959	0,25152	0,17816
844,66846	0,18671	0,16361	0,22399	0,13815	0,24672	0,25859	0,18411
842,73999	0,19227	0,16846	0,2289	0,14258	0,25286	0,26485	0,18899
840,81152	0,20306	0,17768	0,23837	0,15138	0,26476	0,27752	0,19915
838,88306	0,21686	0,1892	0,25099	0,16255	0,28116	0,29387	0,21338
836,95459	0,2291	0,19993	0,26198	0,17223	0,29527	0,3079	0,22561
835,02612	0,2406	0,20969	0,27255	0,18141	0,30794	0,32103	0,23643
833,09766	0,24581	0,21356	0,27753	0,18575	0,31419	0,32691	0,24147
831,16919	0,24504	0,21276	0,27657	0,18535	0,31338	0,32546	0,24071
829,24072	0,24482	0,21249	0,27642	0,18488	0,31256	0,32446	0,2404

827,31226	0,24408	0,21193	0,27562	0,18374	0,31134	0,32333	0,23945
825,38379	0,24926	0,21664	0,27971	0,18753	0,31701	0,32894	0,24385
823,45532	0,26013	0,22567	0,28968	0,19609	0,32947	0,34097	0,25439
821,52686	0,26324	0,22807	0,29288	0,19892	0,33325	0,34465	0,25796
819,59839	0,26244	0,22744	0,29216	0,19863	0,33225	0,34381	0,25725
817,66992	0,26475	0,2296	0,2946	0,20045	0,33486	0,34639	0,25976
815,74146	0,26782	0,23274	0,298	0,20287	0,3386	0,35005	0,26349
813,81299	0,27232	0,2367	0,30236	0,20632	0,34372	0,35511	0,26815
811,88452	0,27527	0,2388	0,30461	0,20824	0,34665	0,35775	0,27066
809,95605	0,27448	0,23796	0,30343	0,20726	0,34543	0,35607	0,2696
808,02759	0,27455	0,2381	0,30361	0,20723	0,34522	0,35589	0,26949
806,09912	0,27736	0,24041	0,30612	0,20948	0,34799	0,35866	0,27203
804,17065	0,28052	0,24288	0,30856	0,21214	0,3515	0,36159	0,27502
802,24219	0,28259	0,24465	0,31017	0,214	0,35405	0,36366	0,27684
800,31372	0,28588	0,24744	0,31304	0,21667	0,35787	0,36719	0,27997
798,38525	0,29078	0,25119	0,31746	0,22013	0,36303	0,37213	0,28449
796,45679	0,29431	0,2537	0,32048	0,2221	0,3663	0,37536	0,28717
794,52832	0,29568	0,25464	0,32121	0,22258	0,36744	0,37644	0,28822
792,59985	0,29444	0,25356	0,31996	0,2213	0,36624	0,375	0,2875
790,67139	0,29049	0,2503	0,31689	0,21841	0,36249	0,37095	0,28441
788,74292	0,28691	0,24768	0,31371	0,21625	0,35896	0,36718	0,28132
786,81445	0,28517	0,24666	0,31169	0,21511	0,35713	0,36518	0,27935
784,88599	0,28202	0,2438	0,30851	0,2122	0,35334	0,36138	0,27562
782,95752	0,27702	0,2391	0,30372	0,20782	0,34693	0,35516	0,27045
781,02905	0,27438	0,23666	0,30125	0,20592	0,34353	0,35188	0,26826
779,10059	0,27463	0,23662	0,30127	0,20615	0,34363	0,35185	0,26865
777,17212	0,27705	0,23865	0,303	0,20759	0,34576	0,35422	0,27088
775,24365	0,28224	0,24343	0,30761	0,21162	0,35155	0,36025	0,27612
773,31519	0,28786	0,24817	0,31299	0,21592	0,35852	0,36636	0,28186
771,38672	0,29134	0,25094	0,31632	0,2185	0,36303	0,36996	0,28588
769,45825	0,29297	0,25228	0,31756	0,22014	0,36524	0,37197	0,28828
767,52979	0,29453	0,25345	0,31912	0,22126	0,36717	0,37372	0,28995
765,60132	0,29632	0,255	0,3216	0,2226	0,36915	0,37572	0,29176
763,67285	0,29682	0,25545	0,32257	0,22346	0,36968	0,37621	0,29294
761,74438	0,29485	0,25397	0,3215	0,22217	0,36806	0,3744	0,29191
759,81592	0,2916	0,25165	0,31974	0,22006	0,36539	0,37172	0,28954
757,88745	0,29018	0,25049	0,31846	0,21907	0,36393	0,37036	0,28842
755,95898	0,2902	0,25024	0,31776	0,21853	0,36315	0,37016	0,28793
754,03052	0,28937	0,24933	0,31678	0,21788	0,36186	0,36923	0,28674
752,10205	0,28749	0,24821	0,31481	0,2169	0,36015	0,36726	0,28496
750,17358	0,28667	0,24834	0,31372	0,21621	0,35928	0,3665	0,28418
748,24512	0,28879	0,25038	0,31556	0,21745	0,36176	0,36905	0,28637
746,31665	0,29092	0,25234	0,31719	0,21905	0,36481	0,37138	0,2887
744,38818	0,29176	0,25299	0,31746	0,21993	0,36589	0,37162	0,28933
742,45972	0,29316	0,25357	0,31827	0,22086	0,36738	0,37261	0,2902
740,53125	0,29441	0,25458	0,31899	0,22152	0,36896	0,37398	0,29129
738,60278	0,29555	0,25618	0,32008	0,22236	0,3705	0,37547	0,29238
736,67432	0,29751	0,25791	0,32176	0,22356	0,37272	0,37772	0,29398
734,74585	0,29869	0,25883	0,32248	0,22422	0,37373	0,379	0,29481
732,81738	0,29759	0,25822	0,32173	0,22391	0,37281	0,37807	0,29357

730,88892	0,29651	0,2575	0,32122	0,22352	0,37217	0,37714	0,29269
728,96045	0,29753	0,25864	0,32242	0,22406	0,37329	0,37841	0,29397
727,03198	0,29972	0,26017	0,32398	0,22528	0,37505	0,38085	0,29581
725,10352	0,3027	0,26263	0,32677	0,22743	0,37794	0,38421	0,29873
723,17505	0,30545	0,26544	0,33011	0,22972	0,38104	0,38723	0,3018
721,24658	0,30688	0,26583	0,33062	0,23035	0,38143	0,38788	0,30239
719,31812	0,30824	0,26748	0,33132	0,23101	0,38202	0,38903	0,30312
717,38965	0,3107	0,27098	0,33391	0,23319	0,3852	0,39194	0,30603
715,46118	0,31327	0,27265	0,33587	0,23508	0,38796	0,39426	0,30871
713,53271	0,31392	0,27325	0,3366	0,23568	0,38892	0,39527	0,30904
711,60425	0,31275	0,27265	0,33512	0,23509	0,38833	0,3946	0,30705
709,67578	0,31226	0,27173	0,33351	0,23471	0,38765	0,3937	0,30577
707,74731	0,31281	0,27224	0,33398	0,23545	0,38818	0,3942	0,30667
705,81885	0,31215	0,272	0,33345	0,23528	0,38799	0,39382	0,30677
703,89038	0,31013	0,27051	0,33122	0,23354	0,38608	0,3916	0,30499
701,96191	0,30841	0,26912	0,32975	0,23213	0,38423	0,38989	0,30348
700,03345	0,30774	0,26829	0,32939	0,23207	0,38356	0,38968	0,3032
698,10498	0,30744	0,26846	0,32957	0,23262	0,38322	0,38987	0,30344
696,17651	0,30708	0,26851	0,3295	0,23283	0,38274	0,38965	0,30352
694,24805	0,30774	0,2685	0,32919	0,23298	0,38302	0,38995	0,30364
692,31958	0,30936	0,26954	0,33016	0,23377	0,38456	0,39185	0,30418
690,39111	0,31119	0,27046	0,33214	0,23575	0,38676	0,39417	0,30537
688,46265	0,31368	0,27222	0,33404	0,23795	0,38911	0,39603	0,3071
686,53418	0,31667	0,27492	0,33565	0,23908	0,39122	0,39823	0,30874
684,60571	0,31787	0,27601	0,33633	0,23924	0,39189	0,39935	0,30953
682,67725	0,31926	0,27694	0,33691	0,24034	0,39279	0,4003	0,31093
680,74878	0,32248	0,27871	0,33848	0,24286	0,39564	0,40268	0,31344
678,82031	0,32423	0,28093	0,34063	0,24455	0,39807	0,40467	0,31508
676,89185	0,32689	0,28298	0,34232	0,24654	0,4003	0,40752	0,31709
674,96338	0,32916	0,28574	0,34391	0,24825	0,40296	0,40981	0,31957
673,03491	0,32978	0,28787	0,34532	0,24815	0,40452	0,41035	0,32011
671,10645	0,33028	0,28806	0,34584	0,24981	0,40544	0,41226	0,32099
669,17798	0,33078	0,28826	0,34636	0,25023	0,40716	0,41397	0,3237
667,24951	0,33128	0,28845	0,34689	0,25065	0,40746	0,41417	0,32364
665,32104	0,33178	0,28864	0,34741	0,25107	0,40776	0,41437	0,32358
663,39258	0,33228	0,28884	0,34793	0,25148	0,40806	0,41457	0,32352
661,46411	0,33278	0,28903	0,34845	0,2519	0,40836	0,41477	0,32346
659,53564	0,33328	0,28923	0,34897	0,25232	0,40866	0,41497	0,3234
657,60718	0,33378	0,28942	0,34949	0,25274	0,40896	0,41517	0,32334
655,67871	0,33364	0,28962	0,35001	0,25316	0,40851	0,41537	0,32328
653,75024	0,33182	0,28719	0,35053	0,25358	0,40681	0,41557	0,32322
651,82178	0,33238	0,28791	0,35105	0,25399	0,40719	0,41576	0,32316
649,89331	0,33399	0,28926	0,35157	0,25441	0,40803	0,41596	0,3231
647,96484	0,33577	0,291	0,35209	0,25483	0,40957	0,41616	0,32445
646,03638	0,33787	0,29333	0,35261	0,25525	0,41208	0,41636	0,3272
644,10791	0,33791	0,2936	0,35314	0,2555	0,41283	0,41665	0,32801
642,17944	0,33758	0,29293	0,35277	0,25496	0,41248	0,41577	0,32759
640,25098	0,33776	0,29357	0,35296	0,25484	0,41283	0,41479	0,32747
638,32251	0,33742	0,29466	0,35355	0,25457	0,41371	0,41383	0,3272
636,39404	0,33706	0,29574	0,35461	0,25509	0,41531	0,41346	0,32754

634,46558	0,3361	0,29609	0,35442	0,25508	0,41548	0,41287	0,32791
632,53711	0,33512	0,29546	0,35322	0,25451	0,41429	0,41201	0,32755
630,60864	0,33387	0,29453	0,35257	0,25401	0,41332	0,41075	0,32639
628,68018	0,33304	0,2936	0,35134	0,25279	0,41213	0,40945	0,32518
626,75171	0,33238	0,29277	0,35035	0,252	0,41122	0,40888	0,32488
624,82324	0,33155	0,29236	0,35036	0,25143	0,41051	0,4085	0,32471
622,89478	0,332	0,2926	0,35045	0,25081	0,40972	0,40817	0,32465
620,96631	0,3326	0,29238	0,3511	0,25142	0,40963	0,40865	0,32501
619,03784	0,33354	0,29208	0,35207	0,25231	0,41098	0,40936	0,32574
617,10938	0,33541	0,29318	0,35309	0,25319	0,41339	0,40986	0,32725
615,18091	0,3361	0,29444	0,35383	0,25391	0,41461	0,41032	0,32845
613,25244	0,33614	0,29466	0,35385	0,2538	0,41488	0,41053	0,32855
611,32397	0,33712	0,2947	0,35431	0,25417	0,41583	0,41122	0,32847
609,39551	0,33791	0,29503	0,35534	0,25499	0,41645	0,41216	0,32879
607,46704	0,33775	0,29528	0,35614	0,25538	0,41683	0,4128	0,32923
605,53857	0,33794	0,29525	0,35602	0,25523	0,41725	0,41258	0,329
603,61011	0,3381	0,29476	0,35522	0,25502	0,41679	0,41087	0,32818
601,68164	0,33716	0,29415	0,35474	0,25505	0,41609	0,4095	0,32791
599,75317	0,33638	0,29321	0,35392	0,25419	0,41536	0,40818	0,32759
597,82471	0,33648	0,29193	0,35315	0,25299	0,41461	0,40672	0,32587
595,89624	0,33606	0,29147	0,35278	0,25197	0,41362	0,4066	0,32379
593,96777	0,33509	0,29131	0,35207	0,25157	0,41285	0,40647	0,32366
592,03931	0,3344	0,29127	0,35185	0,25216	0,41356	0,40618	0,32485
590,11084	0,33391	0,2918	0,35103	0,25098	0,4137	0,40566	0,32396
588,18237	0,33316	0,29179	0,3496	0,24932	0,41341	0,40426	0,32183
586,25391	0,33262	0,29106	0,34973	0,24935	0,41378	0,40366	0,32095
584,32544	0,33295	0,2909	0,35024	0,24902	0,41325	0,404	0,32032
582,39697	0,33261	0,2916	0,3501	0,24889	0,41284	0,40411	0,32026
580,46851	0,33119	0,29132	0,3495	0,24865	0,41211	0,40385	0,32091
578,54004	0,32995	0,29037	0,34877	0,24774	0,41069	0,40346	0,3209
576,61157	0,32889	0,29032	0,34852	0,24809	0,41043	0,40297	0,32077
574,68311	0,32891	0,29044	0,34781	0,2478	0,40979	0,40261	0,3201
572,75464	0,33022	0,29114	0,34819	0,24757	0,40981	0,40375	0,32004
570,82617	0,33148	0,29272	0,34999	0,24999	0,41239	0,40635	0,32192
568,89771	0,33292	0,29494	0,35131	0,25226	0,41539	0,40957	0,32381
566,96924	0,33494	0,29742	0,35305	0,2532	0,41797	0,4128	0,32539
565,04077	0,3355	0,29757	0,35378	0,25363	0,41907	0,41417	0,32545
563,1123	0,33456	0,2969	0,35261	0,25318	0,41843	0,41407	0,32396
561,18384	0,33439	0,29739	0,35208	0,2533	0,41823	0,4147	0,32352
559,25537	0,3341	0,29676	0,35221	0,25395	0,4182	0,41545	0,32267
557,3269	0,33373	0,29614	0,35288	0,25421	0,41816	0,41571	0,32219
555,39844	0,33381	0,29614	0,35361	0,25473	0,41817	0,41609	0,32325
553,46997	0,33245	0,29658	0,35243	0,25481	0,41681	0,41614	0,32201
551,5415	0,33088	0,29807	0,35087	0,25414	0,4147	0,41593	0,31969
549,61304	0,3302	0,2972	0,35109	0,25383	0,41302	0,4156	0,31913
547,68457	0,3277	0,29549	0,35094	0,25267	0,41075	0,41431	0,3175
545,7561	0,32561	0,29525	0,34969	0,2517	0,40904	0,41381	0,31564
543,82764	0,32631	0,29344	0,34914	0,25227	0,40871	0,41404	0,31537
541,89917	0,32559	0,29311	0,3496	0,25235	0,40696	0,41401	0,31448
539,9707	0,32472	0,29535	0,35149	0,25239	0,4056	0,41636	0,31378

538,04224	0,32453	0,29554	0,35344	0,25119	0,40553	0,41847	0,31303
536,11377	0,32354	0,29535	0,35513	0,25039	0,40494	0,41895	0,31191
534,1853	0,32488	0,29599	0,35677	0,25254	0,40501	0,42097	0,31183
532,25684	0,32337	0,29496	0,35731	0,25024	0,40276	0,42172	0,30916
530,32837	0,32133	0,29259	0,3585	0,24901	0,4015	0,42417	0,30795
528,3999	0,31886	0,29071	0,35867	0,24799	0,39971	0,42484	0,30613
526,47144	0,30979	0,28932	0,35793	0,23953	0,39163	0,4202	0,29837
524,54297	0,30775	0,28705	0,35921	0,23825	0,38895	0,42151	0,29631
522,6145	0,30911	0,28482	0,35958	0,24053	0,39064	0,42476	0,29672
520,68604	0,30147	0,28234	0,36009	0,2352	0,38643	0,42453	0,29154
518,75757	0,29516	0,27965	0,36205	0,2293	0,38017	0,4243	0,28718
516,8291	0,29371	0,27861	0,36174	0,22568	0,37597	0,42295	0,28355
514,90063	0,29197	0,27584	0,36139	0,22551	0,37479	0,42413	0,28154
512,97217	0,28859	0,27174	0,36248	0,22388	0,37127	0,42482	0,27995
511,0437	0,2839	0,26895	0,36252	0,21836	0,36537	0,42207	0,27449
509,11523	0,27769	0,26512	0,36364	0,21337	0,36249	0,42196	0,26908
507,18677	0,27272	0,26224	0,36307	0,20842	0,35824	0,42249	0,26543
505,2583	0,27209	0,26089	0,3613	0,20692	0,35379	0,42177	0,26276
503,32983	0,26945	0,2582	0,36447	0,20476	0,35032	0,42215	0,25892
501,40137	0,26624	0,25544	0,36572	0,20102	0,34858	0,42207	0,25685
499,4729	0,26481	0,25279	0,36478	0,20185	0,34969	0,42115	0,2582

Figure 3.3 A					
n°spectre	VD339	VD331	VD326	VD327	VD328
cm-1	crushedF2	pHnat-F2	$\theta=5,5$ -F2	$\theta=13,2$ -F2	$\theta=24,4$ -F2
4001,5686	0,03712	0,11956	0,10444	0,06773	0,14282
3999,64014	0,03704	0,11934	0,10442	0,06768	0,14273
3997,71167	0,03697	0,11925	0,10438	0,06764	0,14273
3995,7832	0,037	0,11933	0,10424	0,06762	0,14257
3993,85474	0,03696	0,11913	0,10415	0,06752	0,1424
3991,92627	0,0369	0,11918	0,10416	0,06744	0,14234
3989,9978	0,03691	0,11933	0,10405	0,06746	0,14229
3988,06934	0,03681	0,11902	0,10402	0,06738	0,14212
3986,14087	0,03668	0,11895	0,10413	0,0673	0,14197
3984,2124	0,03676	0,119	0,10404	0,06733	0,14194
3982,28394	0,03683	0,11875	0,10385	0,06726	0,1419
3980,35547	0,03664	0,11865	0,10381	0,06717	0,14166
3978,427	0,03652	0,11863	0,10375	0,06718	0,1415
3976,49854	0,03659	0,11858	0,10356	0,0671	0,14155
3974,57007	0,03648	0,11857	0,10345	0,06702	0,14129
3972,6416	0,03631	0,11846	0,10342	0,06699	0,14106
3970,71313	0,03636	0,11839	0,10347	0,06701	0,14111
3968,78467	0,03646	0,11846	0,10354	0,06707	0,141
3966,8562	0,03636	0,11811	0,10343	0,06702	0,14075
3964,92773	0,03636	0,11801	0,10339	0,06699	0,14073
3962,99927	0,03659	0,11853	0,10333	0,06705	0,14084
3961,0708	0,03646	0,11819	0,10321	0,06693	0,14047
3959,14233	0,03631	0,11787	0,10328	0,0669	0,14027
3957,21387	0,03635	0,11795	0,10322	0,06699	0,1403
3955,2854	0,0363	0,11782	0,10312	0,06694	0,14009
3953,35693	0,03638	0,11799	0,10344	0,06705	0,14013
3951,42847	0,03626	0,11774	0,10293	0,0668	0,1397
3949,5	0,0362	0,11773	0,10179	0,06642	0,13926
3947,57153	0,03612	0,11743	0,10254	0,06676	0,13919
3945,64307	0,03607	0,11729	0,1032	0,06682	0,13942
3943,7146	0,03661	0,11838	0,10239	0,06667	0,13998
3941,78613	0,03639	0,1176	0,10251	0,06681	0,13917
3939,85767	0,03583	0,11675	0,10295	0,06665	0,13874
3937,9292	0,03607	0,11738	0,10294	0,06673	0,13942
3936,00073	0,03608	0,11713	0,10298	0,06688	0,13904
3934,07227	0,03612	0,11755	0,1026	0,0667	0,13914
3932,1438	0,03636	0,11803	0,10213	0,06666	0,13933
3930,21533	0,03583	0,11671	0,10206	0,06649	0,13803
3928,28687	0,03555	0,11639	0,10244	0,06634	0,13801
3926,3584	0,03606	0,11753	0,10242	0,06639	0,13895
3924,42993	0,03612	0,1175	0,10188	0,06637	0,13845
3922,50146	0,03558	0,11634	0,10202	0,06626	0,13774
3920,573	0,03574	0,11672	0,10212	0,06619	0,13826

3918,64453	0,03597	0,11715	0,10191	0,0662	0,13839
3916,71606	0,0355	0,11626	0,10195	0,0661	0,13755
3914,7876	0,03495	0,11538	0,10215	0,06594	0,13695
3912,85913	0,0353	0,11595	0,10213	0,06598	0,1374
3910,93066	0,03574	0,11644	0,1024	0,06622	0,13788
3909,0022	0,0354	0,11587	0,10245	0,06629	0,13732
3907,07373	0,03569	0,11695	0,10171	0,06603	0,13791
3905,14526	0,03619	0,11806	0,10136	0,06606	0,13882
3903,2168	0,03513	0,11569	0,10141	0,0659	0,13701
3901,28833	0,03451	0,11445	0,10116	0,06525	0,13614
3899,35986	0,03485	0,11521	0,10087	0,06526	0,13645
3897,4314	0,03436	0,11417	0,10151	0,06551	0,1355
3895,50293	0,0347	0,11463	0,10142	0,06551	0,13556
3893,57446	0,03585	0,1173	0,10092	0,06562	0,13767
3891,646	0,0359	0,11737	0,10164	0,0662	0,13813
3889,71753	0,03373	0,11243	0,10214	0,06572	0,13411
3887,78906	0,0349	0,11555	0,10072	0,06493	0,13623
3885,8606	0,03604	0,11753	0,10208	0,066	0,13877
3883,93213	0,03332	0,11188	0,10219	0,06576	0,13355
3882,00366	0,03495	0,1162	0,09962	0,06453	0,13604
3880,0752	0,03613	0,11758	0,10031	0,06573	0,13725
3878,14673	0,03338	0,11186	0,10136	0,06537	0,13305
3876,21826	0,03488	0,1159	0,1008	0,06481	0,13661
3874,28979	0,0356	0,11647	0,10088	0,06584	0,1364
3872,36133	0,03435	0,1145	0,09996	0,06499	0,13446
3870,43286	0,03482	0,11639	0,10141	0,06504	0,13759
3868,50439	0,03315	0,11194	0,10187	0,06551	0,13329
3866,57593	0,03357	0,11324	0,10017	0,0644	0,13381
3864,64746	0,0351	0,11626	0,10102	0,06518	0,13691
3862,71899	0,03409	0,11351	0,1003	0,06548	0,13325
3860,79053	0,03384	0,11335	0,10056	0,06478	0,13383
3858,86206	0,03452	0,11403	0,10147	0,06549	0,13466
3856,93359	0,0355	0,11598	0,09904	0,06526	0,13444
3855,00513	0,03477	0,11672	0,10302	0,06563	0,13903
3853,07666	0,03254	0,11178	0,10708	0,06761	0,13675
3851,14819	0,03038	0,10771	0,10132	0,06467	0,12941
3849,21973	0,03346	0,11275	0,09929	0,0643	0,1323
3847,29126	0,03434	0,11368	0,10124	0,06539	0,13401
3845,36279	0,03508	0,11495	0,10053	0,06555	0,13461
3843,43433	0,03498	0,11476	0,10069	0,06557	0,13472
3841,50586	0,03475	0,11405	0,0996	0,06516	0,13325
3839,57739	0,03477	0,11521	0,09917	0,06486	0,13432
3837,64893	0,03315	0,11295	0,1021	0,06549	0,13435
3835,72046	0,03195	0,10977	0,10167	0,06492	0,13102
3833,79199	0,0338	0,11307	0,0994	0,06444	0,13257
3831,86353	0,03413	0,11324	0,10076	0,0653	0,13352
3829,93506	0,03339	0,11135	0,10066	0,06521	0,1314



3828,00659	0,03456	0,11427	0,09972	0,06483	0,13357
3826,07813	0,03433	0,11343	0,10042	0,06558	0,13285
3824,14966	0,03399	0,11298	0,09923	0,06483	0,13175
3822,22119	0,03526	0,1164	0,10043	0,06483	0,13634
3820,29272	0,0333	0,11148	0,10053	0,06582	0,13114
3818,36426	0,03255	0,11101	0,09875	0,06407	0,13014
3816,43579	0,03354	0,11395	0,10139	0,0647	0,13475
3814,50732	0,03165	0,109	0,10229	0,06549	0,13042
3812,57886	0,03276	0,11087	0,09961	0,06435	0,1303
3810,65039	0,0341	0,11292	0,09994	0,06478	0,13208
3808,72192	0,03438	0,11409	0,10016	0,06498	0,13356
3806,79346	0,03331	0,11227	0,10173	0,06555	0,13299
3804,86499	0,03207	0,10933	0,10003	0,06462	0,12919
3802,93652	0,03425	0,11455	0,09828	0,06378	0,13322
3801,00806	0,03328	0,11251	0,10152	0,06562	0,13281
3799,07959	0,03104	0,10789	0,10005	0,0643	0,12795
3797,15112	0,03396	0,11359	0,09774	0,06364	0,13164
3795,22266	0,03326	0,11124	0,10022	0,06499	0,1308
3793,29419	0,03265	0,11017	0,09968	0,06444	0,1295
3791,36572	0,03396	0,11256	0,09954	0,06441	0,1315
3789,43726	0,03351	0,1112	0,10027	0,06495	0,13055
3787,50879	0,03337	0,11161	0,09965	0,0646	0,13063
3785,58032	0,03396	0,11294	0,0992	0,06474	0,13138
3783,65186	0,0332	0,11099	0,09931	0,06472	0,12977
3781,72339	0,03326	0,11139	0,09934	0,06433	0,13045
3779,79492	0,03396	0,11272	0,099	0,06464	0,13115
3777,86646	0,03282	0,11021	0,09915	0,06454	0,12915
3775,93799	0,03273	0,11003	0,09932	0,06414	0,12934
3774,00952	0,03322	0,11089	0,09941	0,06437	0,12981
3772,08105	0,03348	0,11183	0,09907	0,06429	0,1305
3770,15259	0,03349	0,11186	0,09912	0,06441	0,13064
3768,22412	0,03214	0,10914	0,09922	0,06414	0,12835
3766,29565	0,0328	0,11061	0,09814	0,06357	0,12922
3764,36719	0,03283	0,11021	0,09868	0,06408	0,1289
3762,43872	0,03229	0,10962	0,09861	0,06385	0,12824
3760,51025	0,03345	0,11202	0,09816	0,06366	0,13036
3758,58179	0,03294	0,1106	0,09794	0,06401	0,12863
3756,65332	0,03204	0,10919	0,09746	0,06338	0,12733
3754,72485	0,03252	0,11044	0,09786	0,06338	0,12885
3752,79639	0,03244	0,1114	0,09818	0,06341	0,13006
3750,86792	0,0319	0,11072	0,09943	0,06363	0,13046
3748,93945	0,02871	0,10371	0,10036	0,06342	0,12481
3747,01099	0,03088	0,1088	0,09604	0,06203	0,1266
3745,08252	0,0322	0,11141	0,0992	0,06278	0,13193
3743,15405	0,02823	0,10258	0,1022	0,06388	0,12548
3741,22559	0,02988	0,10685	0,0952	0,06169	0,12379
3739,29712	0,03199	0,11124	0,09488	0,06173	0,12745
3737,36865	0,03124	0,11036	0,09743	0,06275	0,1285

3735,44019	0,03068	0,10987	0,09429	0,06166	0,12578
3733,51172	0,03002	0,10863	0,09404	0,06096	0,12485
3731,58325	0,02848	0,10566	0,09682	0,06156	0,12424
3729,65479	0,0286	0,10667	0,09579	0,06123	0,12388
3727,72632	0,02982	0,10947	0,09471	0,06105	0,12555
3725,79785	0,02992	0,10899	0,09514	0,06149	0,12542
3723,86938	0,02961	0,10809	0,09447	0,06115	0,12413
3721,94092	0,0298	0,10842	0,09465	0,06114	0,1247
3720,01245	0,02973	0,10752	0,09525	0,06138	0,12446
3718,08398	0,02986	0,10741	0,09557	0,06143	0,1247
3716,15552	0,03018	0,1073	0,096	0,06173	0,12487
3714,22705	0,03076	0,10843	0,09566	0,06146	0,12597
3712,29858	0,03056	0,10892	0,09596	0,06145	0,12671
3710,37012	0,02854	0,10541	0,09461	0,06063	0,12273
3708,44165	0,02774	0,10476	0,09337	0,0593	0,12198
3706,51318	0,02779	0,10502	0,09406	0,05958	0,1222
3704,58472	0,02848	0,10612	0,09407	0,05987	0,12274
3702,65625	0,02925	0,10743	0,09363	0,05992	0,12379
3700,72778	0,028	0,1048	0,0938	0,05978	0,12151
3698,79932	0,02734	0,10408	0,0936	0,05905	0,1209
3696,87085	0,02791	0,10528	0,0928	0,05886	0,12168
3694,94238	0,02747	0,10441	0,09281	0,05882	0,12106
3693,01392	0,02708	0,10422	0,09212	0,05808	0,12072
3691,08545	0,02737	0,10536	0,08995	0,05715	0,12095
3689,15698	0,02537	0,10224	0,09105	0,0569	0,11951
3687,22852	0,02306	0,09764	0,09279	0,05643	0,11667
3685,30005	0,025	0,10012	0,09002	0,05596	0,11656
3683,37158	0,02631	0,10237	0,09031	0,05646	0,11867
3681,44312	0,02643	0,1025	0,09211	0,05727	0,11998
3679,51465	0,02718	0,10298	0,09056	0,05748	0,11892
3677,58618	0,02751	0,10484	0,09084	0,05707	0,12149
3675,65771	0,0279	0,10558	0,09238	0,05818	0,1231
3673,72925	0,02507	0,0982	0,09261	0,05811	0,11637
3671,80078	0,02639	0,10256	0,09159	0,05698	0,12011
3669,87231	0,02729	0,10451	0,09323	0,05828	0,12267
3667,94385	0,02575	0,09948	0,09277	0,0585	0,11739
3666,01538	0,02696	0,102	0,09202	0,05786	0,11921
3664,08691	0,0276	0,10325	0,09318	0,0586	0,12091
3662,15845	0,02764	0,10285	0,09295	0,0588	0,12032
3660,22998	0,02748	0,10257	0,09279	0,05862	0,11991
3658,30151	0,02787	0,10384	0,09231	0,05831	0,12093
3656,37305	0,02748	0,103	0,09313	0,05858	0,12099
3654,44458	0,0258	0,09975	0,09342	0,05847	0,11808
3652,51611	0,02736	0,10325	0,09079	0,05736	0,11983
3650,58765	0,02844	0,10548	0,09052	0,05732	0,12217
3648,65918	0,02614	0,10119	0,09064	0,05742	0,11803
3646,73071	0,02516	0,09939	0,08968	0,05648	0,11595
3644,80225	0,02561	0,09998	0,09026	0,05653	0,11687

3642,87378	0,02582	0,10085	0,09079	0,05661	0,11789
3640,94531	0,02608	0,10145	0,09038	0,05663	0,11817
3639,01685	0,02547	0,1003	0,09049	0,05647	0,11728
3637,08838	0,02524	0,10046	0,08972	0,05579	0,11709
3635,15991	0,02521	0,10069	0,08951	0,05555	0,11742
3633,23145	0,02442	0,09949	0,08864	0,05515	0,11556
3631,30298	0,02419	0,10047	0,08762	0,05414	0,11644
3629,37451	0,02433	0,1011	0,08867	0,05416	0,11848
3627,44604	0,02144	0,09483	0,08848	0,05394	0,11229
3625,51758	0,02195	0,0968	0,08647	0,05285	0,11271
3623,58911	0,02281	0,09857	0,08677	0,05281	0,11451
3621,66064	0,02269	0,0984	0,08662	0,05262	0,11441
3619,73218	0,02301	0,09909	0,08585	0,05223	0,11522
3617,80371	0,02177	0,09578	0,08569	0,052	0,11228
3615,87524	0,0215	0,09607	0,08467	0,05097	0,11213
3613,94678	0,02243	0,09802	0,08414	0,05073	0,11378
3612,01831	0,02155	0,09549	0,08453	0,05072	0,11184
3610,08984	0,02053	0,09471	0,08481	0,04975	0,11206
3608,16138	0,0204	0,09545	0,08388	0,04924	0,11206
3606,23291	0,01964	0,094	0,08289	0,04876	0,1099
3604,30444	0,01942	0,09407	0,08301	0,04821	0,11047
3602,37598	0,01964	0,09514	0,08265	0,04795	0,11124
3600,44751	0,01937	0,09494	0,0815	0,0474	0,11044
3598,51904	0,01878	0,09385	0,08151	0,04711	0,10984
3596,59058	0,01887	0,09429	0,08136	0,04697	0,11012
3594,66211	0,01893	0,09454	0,08075	0,04663	0,10997
3592,73364	0,01836	0,09307	0,08123	0,04662	0,10888
3590,80518	0,01842	0,09325	0,08155	0,04641	0,10941
3588,87671	0,01915	0,09458	0,08088	0,04603	0,11081
3586,94824	0,01903	0,0936	0,07994	0,04594	0,10907
3585,01978	0,01791	0,09147	0,0808	0,04567	0,10772
3583,09131	0,01831	0,09238	0,08097	0,04556	0,10879
3581,16284	0,01867	0,09262	0,08093	0,04561	0,10894
3579,23438	0,01848	0,09231	0,08084	0,04546	0,10872
3577,30591	0,01841	0,09226	0,08082	0,04538	0,10864
3575,37744	0,01829	0,09215	0,08056	0,0451	0,1084
3573,44897	0,01809	0,0918	0,08045	0,04483	0,10819
3571,52051	0,01804	0,09146	0,08052	0,0447	0,10781
3569,59204	0,01824	0,09227	0,07972	0,04415	0,10842
3567,66357	0,01868	0,09343	0,07782	0,04381	0,10838
3565,73511	0,01776	0,09132	0,07776	0,04381	0,10605
3563,80664	0,01708	0,09028	0,07886	0,04354	0,10603
3561,87817	0,01743	0,09084	0,07922	0,04357	0,10693
3559,94971	0,0175	0,09061	0,0791	0,0436	0,10669
3558,02124	0,01722	0,09013	0,07905	0,04333	0,10628
3556,09277	0,01709	0,08983	0,07924	0,04316	0,10607
3554,16431	0,01717	0,09025	0,07868	0,04297	0,10623
3552,23584	0,01716	0,0903	0,07799	0,04278	0,10587

3550,30737	0,01659	0,08924	0,0784	0,04259	0,10507
3548,37891	0,01662	0,08962	0,07815	0,04227	0,10548
3546,45044	0,01705	0,09004	0,07709	0,04203	0,10535
3544,52197	0,01648	0,08901	0,07707	0,04186	0,10431
3542,59351	0,01606	0,0886	0,07751	0,04171	0,10432
3540,66504	0,01614	0,08828	0,07762	0,04154	0,10429
3538,73657	0,01608	0,0882	0,07734	0,04123	0,10403
3536,80811	0,01599	0,08837	0,07686	0,04104	0,10396
3534,87964	0,01572	0,08777	0,07671	0,04083	0,10348
3532,95117	0,0155	0,08725	0,07668	0,04053	0,103
3531,02271	0,01545	0,08739	0,07616	0,04025	0,10303
3529,09424	0,01528	0,08765	0,07551	0,03997	0,10284
3527,16577	0,01501	0,08715	0,07546	0,03979	0,10217
3525,2373	0,01492	0,08675	0,07511	0,03941	0,10192
3523,30884	0,01479	0,08669	0,07459	0,03906	0,10172
3521,38037	0,0144	0,086	0,07491	0,03902	0,10129
3519,4519	0,01419	0,08563	0,07492	0,03879	0,10114
3517,52344	0,01407	0,0856	0,07457	0,03851	0,10091
3515,59497	0,01384	0,08541	0,07455	0,03845	0,10064
3513,6665	0,01382	0,08512	0,07438	0,03817	0,10041
3511,73804	0,01378	0,08497	0,07382	0,03778	0,10018
3509,80957	0,01362	0,08507	0,07327	0,03767	0,09989
3507,8811	0,01327	0,08435	0,07334	0,03746	0,09922
3505,95264	0,01307	0,08403	0,07326	0,0371	0,09913
3504,02417	0,01333	0,08471	0,07247	0,03694	0,09931
3502,0957	0,0132	0,08424	0,07235	0,03684	0,09869
3500,16724	0,01277	0,08349	0,07276	0,03659	0,09842
3498,23877	0,01276	0,08363	0,07253	0,03641	0,0985
3496,3103	0,01276	0,08358	0,07234	0,03636	0,09826
3494,38184	0,01264	0,0833	0,07244	0,03627	0,09814
3492,45337	0,0125	0,0831	0,07241	0,0361	0,098
3490,5249	0,01245	0,08308	0,0722	0,036	0,09781
3488,59644	0,01259	0,08312	0,07188	0,03589	0,09771
3486,66797	0,01255	0,08283	0,07185	0,03578	0,09752
3484,7395	0,01232	0,08269	0,07194	0,03571	0,09747
3482,81104	0,01229	0,08286	0,07161	0,03557	0,09744
3480,88257	0,01231	0,08253	0,07141	0,03546	0,0971
3478,9541	0,01215	0,08214	0,0716	0,03533	0,09689
3477,02563	0,01205	0,08229	0,07152	0,03521	0,09692
3475,09717	0,01212	0,08218	0,07133	0,0352	0,09676
3473,1687	0,01208	0,08194	0,07134	0,03506	0,09661
3471,24023	0,01205	0,08198	0,07135	0,03499	0,09658
3469,31177	0,0121	0,08197	0,07122	0,03505	0,09653
3467,3833	0,01204	0,0818	0,07105	0,03489	0,09642
3465,45483	0,01193	0,08156	0,07098	0,03471	0,09624
3463,52637	0,0119	0,08154	0,07084	0,0346	0,09614
3461,5979	0,01183	0,08145	0,07077	0,03453	0,09598
3459,66943	0,01174	0,08124	0,07073	0,03448	0,09577

3457,74097	0,01171	0,08117	0,07056	0,03429	0,09566
3455,8125	0,01157	0,08106	0,07054	0,03421	0,09562
3453,88403	0,01155	0,08107	0,07057	0,03425	0,09568
3451,95557	0,0116	0,08095	0,07068	0,03416	0,09549
3450,0271	0,01145	0,08092	0,07057	0,03401	0,09537
3448,09863	0,01156	0,08132	0,06997	0,03396	0,09544
3446,17017	0,01152	0,08097	0,06995	0,03401	0,09511
3444,2417	0,01129	0,08064	0,07029	0,03397	0,09514
3442,31323	0,01144	0,08095	0,07022	0,03397	0,09539
3440,38477	0,01138	0,08074	0,07031	0,03401	0,09516
3438,4563	0,01126	0,08067	0,07041	0,03399	0,09521
3436,52783	0,01139	0,08083	0,07043	0,03404	0,09538
3434,59937	0,0114	0,08082	0,07053	0,03408	0,09529
3432,6709	0,01144	0,08103	0,07047	0,0341	0,09535
3430,74243	0,01151	0,08095	0,07049	0,03413	0,09539
3428,81396	0,01155	0,0809	0,07067	0,03419	0,09544
3426,8855	0,01162	0,08111	0,07075	0,03435	0,09558
3424,95703	0,01162	0,08107	0,07082	0,03444	0,09576
3423,02856	0,01168	0,08127	0,07078	0,03447	0,09594
3421,1001	0,01181	0,08158	0,0707	0,03454	0,09601
3419,17163	0,01188	0,08142	0,07092	0,0346	0,096
3417,24316	0,0119	0,0814	0,07122	0,03477	0,09609
3415,3147	0,01189	0,0817	0,07141	0,03496	0,09639
3413,38623	0,01199	0,08184	0,07155	0,03506	0,0966
3411,45776	0,01213	0,08185	0,07171	0,03519	0,09661
3409,5293	0,01217	0,08193	0,07187	0,03529	0,0967
3407,60083	0,01226	0,08207	0,0719	0,03539	0,09681
3405,67236	0,01229	0,08221	0,07198	0,03553	0,097
3403,7439	0,01223	0,08231	0,07213	0,03565	0,09726
3401,81543	0,0123	0,08234	0,07225	0,03585	0,09739
3399,88696	0,01246	0,08255	0,07238	0,03596	0,09755
3397,9585	0,0125	0,08284	0,07253	0,03605	0,09775
3396,03003	0,01249	0,08277	0,07269	0,03622	0,09784
3394,10156	0,01248	0,08283	0,07279	0,03634	0,09803
3392,1731	0,01253	0,08313	0,07298	0,03659	0,09834
3390,24463	0,01272	0,08303	0,07312	0,03674	0,09838
3388,31616	0,01265	0,08302	0,07318	0,03674	0,0984
3386,3877	0,01256	0,08335	0,07338	0,03706	0,09868
3384,45923	0,01276	0,08343	0,07351	0,03732	0,0988
3382,53076	0,01274	0,08349	0,07368	0,03742	0,09891
3380,60229	0,01278	0,08373	0,07391	0,03763	0,09928
3378,67383	0,01297	0,08378	0,07406	0,03778	0,09952
3376,74536	0,01287	0,0839	0,07427	0,03794	0,09968
3374,81689	0,01294	0,08416	0,07443	0,03813	0,09995
3372,88843	0,01313	0,08425	0,07458	0,03828	0,10014
3370,95996	0,01308	0,08435	0,07487	0,03856	0,10036
3369,03149	0,01311	0,08471	0,07515	0,03884	0,10075
3367,10303	0,01327	0,08507	0,07528	0,03905	0,10104

3365,17456	0,01329	0,08509	0,07535	0,03921	0,10113
3363,24609	0,01333	0,08514	0,07552	0,03941	0,10135
3361,31763	0,01354	0,08543	0,0758	0,03966	0,10167
3359,38916	0,0136	0,08554	0,07606	0,03985	0,10186
3357,46069	0,01363	0,0857	0,07616	0,04003	0,10211
3355,53223	0,01382	0,08592	0,07625	0,04024	0,10233
3353,60376	0,01389	0,08599	0,0765	0,04046	0,10248
3351,67529	0,01385	0,08628	0,07681	0,04074	0,10289
3349,74683	0,01395	0,08659	0,07704	0,04098	0,10325
3347,81836	0,01406	0,08664	0,07708	0,04105	0,10329
3345,88989	0,01402	0,08675	0,07729	0,04121	0,10349
3343,96143	0,01405	0,08708	0,07759	0,04151	0,10388
3342,03296	0,01415	0,08722	0,07766	0,04166	0,10397
3340,10449	0,01419	0,0871	0,07776	0,04175	0,10398
3338,17603	0,01431	0,08733	0,07791	0,04202	0,10423
3336,24756	0,01443	0,08765	0,078	0,04219	0,10449
3334,31909	0,01443	0,0876	0,07808	0,04214	0,10455
3332,39063	0,01444	0,0877	0,07827	0,04232	0,10471
3330,46216	0,01446	0,0879	0,07848	0,04257	0,10491
3328,53369	0,01448	0,08796	0,07851	0,0426	0,10494
3326,60522	0,01456	0,08817	0,07865	0,04278	0,10512
3324,67676	0,01468	0,08836	0,07883	0,04302	0,10535
3322,74829	0,01474	0,08835	0,07891	0,04309	0,10539
3320,81982	0,01464	0,08847	0,07908	0,04319	0,10557
3318,89136	0,01451	0,08867	0,07919	0,04324	0,10567
3316,96289	0,0146	0,08862	0,07915	0,04329	0,10562
3315,03442	0,01471	0,08863	0,0792	0,04339	0,1058
3313,10596	0,0147	0,0888	0,07941	0,04352	0,10603
3311,17749	0,01469	0,08891	0,07951	0,04368	0,10612
3309,24902	0,01471	0,08904	0,0795	0,0438	0,10624
3307,32056	0,01477	0,08905	0,07969	0,04391	0,10637
3305,39209	0,0149	0,08908	0,0798	0,04402	0,1065
3303,46362	0,01495	0,08913	0,07973	0,04401	0,10652
3301,53516	0,01483	0,08903	0,07979	0,04398	0,10645
3299,60669	0,01475	0,08915	0,07987	0,04409	0,10653
3297,67822	0,01485	0,08925	0,0799	0,04418	0,10656
3295,74976	0,01487	0,08919	0,07997	0,04417	0,10659
3293,82129	0,01474	0,08935	0,08	0,04428	0,10674
3291,89282	0,01475	0,08943	0,08001	0,04434	0,10675
3289,96436	0,01478	0,08937	0,08001	0,04429	0,1067
3288,03589	0,01472	0,08941	0,08005	0,04437	0,1067
3286,10742	0,01481	0,08939	0,08013	0,0444	0,1067
3284,17896	0,01489	0,08933	0,08006	0,04433	0,10671
3282,25049	0,01476	0,08935	0,07999	0,04433	0,10669
3280,32202	0,01471	0,0894	0,08002	0,04435	0,1066
3278,39355	0,0147	0,08932	0,07997	0,04439	0,10654
3276,46509	0,01464	0,08939	0,08	0,0445	0,10665
3274,53662	0,01458	0,08952	0,08005	0,04449	0,1067

3272,60815	0,01453	0,0894	0,08004	0,04441	0,10662
3270,67969	0,01453	0,08944	0,08012	0,04444	0,10664
3268,75122	0,0145	0,0895	0,08009	0,04446	0,10664
3266,82275	0,01448	0,08938	0,07998	0,04441	0,1066
3264,89429	0,01452	0,08937	0,07998	0,04442	0,10653
3262,96582	0,0145	0,08938	0,07996	0,04438	0,10648
3261,03735	0,01442	0,0894	0,07992	0,0444	0,10654
3259,10889	0,01443	0,08941	0,0799	0,04447	0,10647
3257,18042	0,01443	0,08939	0,07987	0,04441	0,10647
3255,25195	0,01435	0,08949	0,07988	0,04443	0,10658
3253,32349	0,01439	0,08943	0,07988	0,0445	0,1065
3251,39502	0,0144	0,08926	0,07984	0,04442	0,1064
3249,46655	0,01431	0,08928	0,07985	0,04442	0,10639
3247,53809	0,01427	0,08945	0,07989	0,04449	0,10652
3245,60962	0,01425	0,08952	0,07986	0,04451	0,10657
3243,68115	0,01424	0,08941	0,0798	0,0445	0,10641
3241,75269	0,01419	0,08937	0,07981	0,04447	0,10643
3239,82422	0,01419	0,08946	0,07983	0,04446	0,1065
3237,89575	0,01424	0,08947	0,07992	0,0445	0,10651
3235,96729	0,01417	0,08942	0,07997	0,04453	0,10659
3234,03882	0,01421	0,08948	0,07992	0,04457	0,10661
3232,11035	0,01423	0,08948	0,07994	0,04454	0,10662
3230,18188	0,01406	0,08943	0,07987	0,04446	0,10655
3228,25342	0,01403	0,08946	0,07981	0,04449	0,10649
3226,32495	0,01407	0,08946	0,07989	0,04462	0,10658
3224,39648	0,014	0,08942	0,07987	0,04464	0,10658
3222,46802	0,01397	0,08947	0,07985	0,04458	0,10657
3220,53955	0,01403	0,08959	0,07985	0,04462	0,10659
3218,61108	0,014	0,08953	0,07981	0,04463	0,10648
3216,68262	0,01392	0,08951	0,07985	0,04463	0,1065
3214,75415	0,01393	0,0896	0,07982	0,04461	0,10653
3212,82568	0,01387	0,08947	0,07976	0,04454	0,10642
3210,89722	0,01379	0,08951	0,07974	0,04456	0,10645
3208,96875	0,01376	0,08951	0,07971	0,04465	0,10647
3207,04028	0,01377	0,0894	0,07986	0,04469	0,10648
3205,11182	0,01379	0,08958	0,07996	0,04467	0,10654
3203,18335	0,01376	0,0896	0,07992	0,04464	0,10652
3201,25488	0,01374	0,08957	0,08001	0,04474	0,10661
3199,32642	0,01371	0,08981	0,08001	0,04484	0,10664
3197,39795	0,01367	0,08984	0,07997	0,04481	0,10658
3195,46948	0,01363	0,08972	0,08006	0,04482	0,10666
3193,54102	0,0136	0,08968	0,0801	0,04492	0,10667
3191,61255	0,01367	0,08974	0,08018	0,04496	0,10667
3189,68408	0,01366	0,08983	0,08025	0,04495	0,10674
3187,75562	0,01362	0,08986	0,08021	0,04499	0,10681
3185,82715	0,01368	0,08993	0,08021	0,04503	0,10687
3183,89868	0,01363	0,08997	0,08029	0,04506	0,10684
3181,97021	0,0136	0,08999	0,0804	0,04518	0,10686

3180,04175	0,01369	0,09006	0,08038	0,04521	0,10699
3178,11328	0,01366	0,09003	0,0803	0,04513	0,10693
3176,18481	0,01359	0,08997	0,08032	0,04515	0,10687
3174,25635	0,0136	0,09	0,08042	0,04525	0,10698
3172,32788	0,01357	0,09006	0,08051	0,04532	0,107
3170,39941	0,01359	0,09016	0,08049	0,04532	0,10703
3168,47095	0,0136	0,09016	0,0805	0,04533	0,10708
3166,54248	0,01351	0,09011	0,08054	0,04534	0,10702
3164,61401	0,01351	0,09018	0,08056	0,04535	0,10709
3162,68555	0,01354	0,09021	0,08065	0,04544	0,10716
3160,75708	0,01351	0,09017	0,08063	0,04547	0,1071
3158,82861	0,01346	0,09018	0,08061	0,04538	0,10715
3156,90015	0,01342	0,09016	0,08067	0,04533	0,1072
3154,97168	0,01343	0,09013	0,08059	0,04537	0,10708
3153,04321	0,01339	0,09023	0,08064	0,04545	0,10707
3151,11475	0,01334	0,09031	0,08072	0,04551	0,10713
3149,18628	0,01337	0,09025	0,08065	0,04547	0,10707
3147,25781	0,01332	0,09023	0,08062	0,04541	0,10705
3145,32935	0,01324	0,09023	0,0806	0,04539	0,10707
3143,40088	0,0132	0,09019	0,08065	0,04536	0,10702
3141,47241	0,01316	0,09023	0,08068	0,04538	0,10703
3139,54395	0,01323	0,09033	0,08064	0,04547	0,10707
3137,61548	0,0132	0,09024	0,08066	0,04542	0,10702
3135,68701	0,01315	0,09022	0,08064	0,04532	0,10704
3133,75854	0,01316	0,09035	0,08051	0,04537	0,10703
3131,83008	0,01308	0,09014	0,08049	0,04533	0,10687
3129,90161	0,01307	0,09009	0,08062	0,04527	0,10694
3127,97314	0,01306	0,09023	0,08065	0,04529	0,10703
3126,04468	0,01298	0,0901	0,08058	0,04531	0,10696
3124,11621	0,013	0,09016	0,08062	0,04536	0,10699
3122,18774	0,01302	0,09022	0,08067	0,04537	0,10693
3120,25928	0,01296	0,09015	0,08067	0,0454	0,10696
3118,33081	0,01294	0,09033	0,08074	0,04551	0,10709
3116,40234	0,01289	0,09042	0,0808	0,04553	0,10703
3114,47388	0,01281	0,09024	0,08075	0,04544	0,10695
3112,54541	0,01277	0,09009	0,08063	0,04533	0,10686
3110,61694	0,01269	0,09011	0,08068	0,04539	0,10687
3108,68848	0,01262	0,09023	0,08078	0,04546	0,10695
3106,76001	0,01264	0,0902	0,08074	0,04534	0,10685
3104,83154	0,01269	0,09009	0,08072	0,04534	0,10674
3102,90308	0,01265	0,09016	0,08064	0,04535	0,10678
3100,97461	0,01258	0,09019	0,08062	0,04528	0,1068
3099,04614	0,01256	0,09012	0,08073	0,04529	0,10679
3097,11768	0,01255	0,09024	0,08065	0,04528	0,10686
3095,18921	0,01243	0,09023	0,0806	0,04525	0,10673
3093,26074	0,01243	0,09006	0,08072	0,04526	0,10657
3091,33228	0,01245	0,09014	0,08081	0,04528	0,10671
3089,40381	0,01235	0,0902	0,08081	0,04528	0,10678



3087,47534	0,01237	0,09012	0,08079	0,04527	0,1067
3085,54688	0,01238	0,09012	0,08086	0,04532	0,1067
3083,61841	0,01224	0,09014	0,0808	0,04525	0,10672
3081,68994	0,01216	0,09014	0,0807	0,04523	0,1067
3079,76147	0,01216	0,09022	0,08071	0,0453	0,10667
3077,83301	0,01214	0,09022	0,0807	0,04526	0,10667
3075,90454	0,01206	0,09006	0,08076	0,04521	0,1066
3073,97607	0,01202	0,08998	0,08067	0,04517	0,10654
3072,04761	0,01196	0,08996	0,08052	0,04513	0,10653
3070,11914	0,01189	0,08998	0,08062	0,04514	0,10654
3068,19067	0,01196	0,09011	0,08065	0,04514	0,1066
3066,26221	0,0119	0,0901	0,08052	0,04509	0,10659
3064,33374	0,01177	0,08994	0,08048	0,04502	0,10644
3062,40527	0,01176	0,08982	0,08046	0,04495	0,10634
3060,47681	0,01168	0,08986	0,08044	0,04492	0,10638
3058,54834	0,01165	0,08995	0,08054	0,04497	0,10642
3056,61987	0,01167	0,08994	0,0805	0,04498	0,10633
3054,69141	0,01155	0,0899	0,08043	0,04497	0,10627
3052,76294	0,01151	0,08989	0,08056	0,04501	0,10631
3050,83447	0,01162	0,08989	0,08052	0,04498	0,10633
3048,90601	0,0116	0,08985	0,08034	0,04487	0,10623
3046,97754	0,01152	0,08974	0,0804	0,04483	0,10611
3045,04907	0,01149	0,08968	0,08045	0,04483	0,10617
3043,12061	0,01143	0,08974	0,08036	0,04484	0,10616
3041,19214	0,01139	0,08978	0,08038	0,04484	0,10605
3039,26367	0,01135	0,08968	0,08042	0,04473	0,10604
3037,33521	0,01128	0,08966	0,08034	0,04466	0,10604
3035,40674	0,0113	0,08982	0,0803	0,04475	0,10612
3033,47827	0,0113	0,08987	0,08024	0,04475	0,10617
3031,5498	0,01119	0,08974	0,08013	0,04465	0,106
3029,62134	0,01116	0,0896	0,08022	0,04461	0,10588
3027,69287	0,01116	0,08953	0,08027	0,04464	0,10591
3025,7644	0,01114	0,08955	0,08026	0,0447	0,10593
3023,83594	0,01116	0,08955	0,08034	0,04469	0,10586
3021,90747	0,01112	0,0895	0,08028	0,04467	0,10584
3019,979	0,01113	0,08955	0,08027	0,04476	0,10596
3018,05054	0,01118	0,08956	0,08043	0,04481	0,10592
3016,12207	0,01106	0,08952	0,08036	0,04471	0,10575
3014,1936	0,01099	0,08958	0,08024	0,04465	0,10582
3012,26514	0,01101	0,0896	0,08029	0,04465	0,1059
3010,33667	0,01087	0,08947	0,08026	0,04456	0,10584
3008,4082	0,01073	0,08938	0,08017	0,0445	0,10588
3006,47974	0,01061	0,08941	0,08014	0,04451	0,10593
3004,55127	0,01045	0,08936	0,08009	0,04448	0,10586
3002,6228	0,01036	0,08923	0,07998	0,0444	0,10576
3000,69434	0,01031	0,08924	0,07993	0,04439	0,10584
2998,76587	0,01018	0,08926	0,07999	0,04443	0,10606
2996,8374	0,01005	0,08922	0,07996	0,0444	0,10616

2994,90894	0,00995	0,08927	0,07985	0,04437	0,1062
2992,98047	0,00982	0,08923	0,07983	0,04442	0,10637
2991,052	0,00967	0,08914	0,07984	0,04442	0,10652
2989,12354	0,00945	0,08913	0,07979	0,04434	0,10657
2987,19507	0,00926	0,08907	0,07973	0,04435	0,10673
2985,2666	0,00906	0,08897	0,07969	0,04442	0,1069
2983,33813	0,00881	0,08892	0,07967	0,04449	0,10711
2981,40967	0,00867	0,08896	0,07966	0,04471	0,10753
2979,4812	0,00849	0,08893	0,07967	0,04469	0,10742
2977,55273	0,0083	0,0888	0,07962	0,0444	0,1069
2975,62427	0,00829	0,0888	0,07949	0,04438	0,10696
2973,6958	0,0082	0,08873	0,07938	0,04429	0,10681
2971,76733	0,00819	0,08855	0,07929	0,04392	0,10605
2969,83887	0,00817	0,08852	0,07927	0,04365	0,10563
2967,9104	0,00815	0,0885	0,07923	0,04345	0,10545
2965,98193	0,00814	0,08841	0,07913	0,0433	0,10524
2964,05347	0,00812	0,08842	0,07917	0,04326	0,10519
2962,125	0,0081	0,08843	0,07926	0,04328	0,10518
2960,19653	0,00809	0,08838	0,0793	0,04327	0,10517
2958,26807	0,00807	0,08836	0,07927	0,04329	0,10528
2956,3396	0,00805	0,08832	0,07916	0,04333	0,10534
2954,41113	0,00804	0,08827	0,07912	0,04333	0,10524
2952,48267	0,00802	0,08829	0,07917	0,04334	0,10519
2950,5542	0,008	0,08828	0,07922	0,04338	0,10526
2948,62573	0,00799	0,08825	0,07925	0,04343	0,10529
2946,69727	0,00797	0,08827	0,07921	0,04347	0,10527
2944,7688	0,00795	0,08833	0,07925	0,04347	0,10528
2942,84033	0,00792	0,08833	0,07932	0,04344	0,10526
2940,91187	0,0079	0,08824	0,07924	0,04336	0,10517
2938,9834	0,00786	0,08823	0,07925	0,04336	0,10521
2937,05493	0,00784	0,0883	0,07939	0,04347	0,10541
2935,12646	0,00783	0,08827	0,07938	0,04349	0,10548
2933,198	0,00782	0,08818	0,07935	0,04342	0,10538
2931,26953	0,00783	0,08823	0,07948	0,04338	0,10534
2929,34106	0,00786	0,08828	0,07956	0,04338	0,10534
2927,4126	0,00784	0,0882	0,0795	0,04329	0,10513
2925,48413	0,00782	0,08817	0,07947	0,04318	0,10492
2923,55566	0,0078	0,08806	0,07944	0,04309	0,1048
2921,6272	0,00778	0,08788	0,07931	0,0429	0,10454
2919,69873	0,00776	0,0878	0,0792	0,04277	0,10438
2917,77026	0,00774	0,08769	0,0791	0,04274	0,10433
2915,8418	0,00772	0,08769	0,07903	0,0427	0,10425
2913,91333	0,0077	0,08789	0,07902	0,04275	0,10436
2911,98486	0,00768	0,08799	0,07903	0,04285	0,10442
2910,0564	0,00766	0,08797	0,07896	0,04283	0,10434
2908,12793	0,0076	0,088	0,07887	0,04278	0,10435
2906,19946	0,00765	0,088	0,07883	0,04281	0,1043
2904,271	0,00764	0,08795	0,0788	0,04281	0,10426

2902,34253	0,0076	0,08791	0,07875	0,04278	0,1043
2900,41406	0,00765	0,08791	0,07872	0,04272	0,10429
2898,4856	0,00758	0,08797	0,07873	0,04272	0,10435
2896,55713	0,00748	0,08803	0,0788	0,04284	0,10444
2894,62866	0,00752	0,08797	0,07879	0,04283	0,10441
2892,7002	0,00745	0,08786	0,07868	0,04278	0,10438
2890,77173	0,00741	0,0878	0,07861	0,04279	0,10439
2888,84326	0,00747	0,08781	0,07861	0,04273	0,10435
2886,91479	0,00741	0,08782	0,07858	0,04271	0,10425
2884,98633	0,0074	0,08776	0,07854	0,04266	0,10415
2883,05786	0,00744	0,08773	0,07849	0,04252	0,10399
2881,12939	0,00734	0,08771	0,07843	0,04242	0,10384
2879,20093	0,00723	0,08766	0,07841	0,04236	0,10378
2877,27246	0,00722	0,08764	0,07841	0,04236	0,10372
2875,34399	0,00729	0,08766	0,07837	0,04235	0,10365
2873,41553	0,00736	0,08772	0,07837	0,04234	0,10364
2871,48706	0,00736	0,08776	0,07837	0,04233	0,10361
2869,55859	0,00729	0,08764	0,07824	0,04221	0,10349
2867,63013	0,00728	0,08763	0,07823	0,04218	0,10347
2865,70166	0,00729	0,08767	0,07831	0,04224	0,10351
2863,77319	0,00723	0,08753	0,07827	0,04222	0,10349
2861,84473	0,00722	0,08751	0,07832	0,0422	0,10351
2859,91626	0,00721	0,08757	0,07842	0,0422	0,1035
2857,98779	0,00711	0,08747	0,07834	0,04211	0,10332
2856,05933	0,00707	0,08745	0,07835	0,04205	0,10324
2854,13086	0,00716	0,08757	0,07842	0,04205	0,10327
2852,20239	0,00723	0,08763	0,0784	0,04207	0,10325
2850,27393	0,00728	0,08766	0,07839	0,04212	0,10326
2848,34546	0,00729	0,08761	0,07833	0,04209	0,10323
2846,41699	0,00725	0,0875	0,07815	0,04198	0,10306
2844,48853	0,00723	0,08748	0,07804	0,04194	0,10295
2842,56006	0,00717	0,08741	0,07799	0,0419	0,10291
2840,63159	0,00713	0,08736	0,07792	0,04189	0,10289
2838,70313	0,00715	0,0874	0,07791	0,0419	0,10292
2836,77466	0,00714	0,08738	0,07786	0,04183	0,10285
2834,84619	0,00715	0,0874	0,07781	0,04177	0,10279
2832,91772	0,00713	0,08738	0,07783	0,04173	0,10279
2830,98926	0,00711	0,08732	0,07783	0,0417	0,10271
2829,06079	0,00713	0,08732	0,07782	0,04171	0,10272
2827,13232	0,00715	0,08727	0,07781	0,04169	0,10272
2825,20386	0,00715	0,0873	0,07781	0,0417	0,10266
2823,27539	0,00711	0,08737	0,07782	0,04174	0,10269
2821,34692	0,0071	0,08733	0,07776	0,04174	0,10271
2819,41846	0,00711	0,0873	0,07771	0,04172	0,10266
2817,48999	0,00706	0,08732	0,0777	0,0417	0,1026
2815,56152	0,0071	0,08735	0,07773	0,0417	0,10261
2813,63306	0,00712	0,08737	0,07777	0,04171	0,10264
2811,70459	0,00706	0,0874	0,07779	0,04172	0,10262

2809,77612	0,00705	0,08744	0,0778	0,04167	0,10263
2807,84766	0,00703	0,0874	0,07773	0,04164	0,1026
2805,91919	0,00698	0,08734	0,07768	0,04163	0,1025
2803,99072	0,007	0,08735	0,07771	0,0416	0,10245
2802,06226	0,00706	0,08731	0,07767	0,0416	0,1024
2800,13379	0,00707	0,08729	0,07768	0,04163	0,10242
2798,20532	0,00709	0,08738	0,07773	0,04166	0,10249
2796,27686	0,00711	0,08743	0,0777	0,04168	0,10243
2794,34839	0,00709	0,08735	0,07767	0,04159	0,10236
2792,41992	0,00712	0,08734	0,07766	0,04153	0,10237
2790,49146	0,00715	0,08742	0,07769	0,04159	0,10239
2788,56299	0,00714	0,08745	0,07771	0,04156	0,10238
2786,63452	0,00709	0,08747	0,07768	0,04152	0,10237
2784,70605	0,00702	0,0875	0,07772	0,0416	0,1024
2782,77759	0,00704	0,08748	0,07775	0,04159	0,1024
2780,84912	0,0071	0,0875	0,0777	0,04153	0,1024
2778,92065	0,00711	0,08756	0,07771	0,04159	0,10245
2776,99219	0,0071	0,08759	0,07773	0,0416	0,10248
2775,06372	0,00709	0,0876	0,07775	0,0416	0,10253
2773,13525	0,00706	0,08758	0,07779	0,04165	0,10254
2771,20679	0,00706	0,08756	0,07773	0,04157	0,10247
2769,27832	0,00712	0,0876	0,07773	0,04153	0,10245
2767,34985	0,00711	0,08761	0,07777	0,04159	0,10245
2765,42139	0,0071	0,0876	0,07772	0,04154	0,10244
2763,49292	0,00712	0,08765	0,07772	0,04154	0,10255
2761,56445	0,00708	0,08768	0,07776	0,04158	0,10257
2759,63599	0,00709	0,08764	0,07771	0,0415	0,10246
2757,70752	0,0071	0,08762	0,07776	0,04148	0,10246
2755,77905	0,00701	0,08764	0,07779	0,04151	0,10249
2753,85059	0,007	0,08764	0,07771	0,04148	0,1024
2751,92212	0,00703	0,08768	0,07774	0,04147	0,10236
2749,99365	0,007	0,08771	0,07776	0,04145	0,10239
2748,06519	0,00708	0,08769	0,07774	0,04144	0,1024
2746,13672	0,00706	0,08772	0,07779	0,04147	0,10241
2744,20825	0,00698	0,08778	0,07776	0,04145	0,10238
2742,27979	0,00706	0,08772	0,0777	0,04138	0,10228
2740,35132	0,00701	0,08761	0,07766	0,04133	0,10224
2738,42285	0,00694	0,08764	0,07763	0,0413	0,1023
2736,49438	0,00701	0,08772	0,07768	0,04135	0,10232
2734,56592	0,00696	0,08771	0,07767	0,04137	0,10226
2732,63745	0,00688	0,08769	0,07758	0,04129	0,1022
2730,70898	0,00684	0,08769	0,07751	0,04124	0,10217
2728,78052	0,00681	0,08774	0,07754	0,04125	0,10219
2726,85205	0,00681	0,08781	0,07761	0,04123	0,1022
2724,92358	0,0068	0,08778	0,0776	0,04124	0,1022
2722,99512	0,00677	0,08778	0,07756	0,04129	0,1022
2721,06665	0,00682	0,0878	0,07757	0,04128	0,10215
2719,13818	0,00682	0,08778	0,07759	0,0412	0,10215

2717,20972	0,00677	0,08778	0,07759	0,04116	0,1022
2715,28125	0,00679	0,08777	0,07757	0,04116	0,10215
2713,35278	0,00684	0,08775	0,07758	0,04119	0,10213
2711,42432	0,00685	0,08776	0,07755	0,04122	0,10215
2709,49585	0,00688	0,08775	0,07751	0,04119	0,1022
2707,56738	0,00691	0,08778	0,07757	0,04115	0,10221
2705,63892	0,00691	0,08782	0,07761	0,04115	0,10213
2703,71045	0,00689	0,08783	0,07758	0,04116	0,10214
2701,78198	0,00689	0,08784	0,07757	0,04114	0,10216
2699,85352	0,00694	0,08786	0,07757	0,04115	0,10213
2697,92505	0,00702	0,08792	0,07762	0,0412	0,10218
2695,99658	0,00701	0,08796	0,07762	0,0412	0,10224
2694,06812	0,00701	0,08799	0,07758	0,04119	0,10225
2692,13965	0,00705	0,08804	0,07761	0,04119	0,10223
2690,21118	0,00698	0,08805	0,07764	0,04116	0,10225
2688,28271	0,0069	0,08807	0,07764	0,04113	0,10223
2686,35425	0,00692	0,08813	0,0777	0,04114	0,1022
2684,42578	0,00694	0,08813	0,07774	0,04114	0,10225
2682,49731	0,00698	0,08814	0,07777	0,04112	0,10231
2680,56885	0,00706	0,08825	0,07785	0,04115	0,10237
2678,64038	0,00712	0,08829	0,07787	0,04115	0,10238
2676,71191	0,00716	0,08832	0,07781	0,04114	0,10237
2674,78345	0,00719	0,08848	0,07781	0,04123	0,10246
2672,85498	0,00725	0,08855	0,07783	0,04124	0,1025
2670,92651	0,00727	0,08854	0,07784	0,04122	0,10251
2668,99805	0,00728	0,08864	0,07786	0,04125	0,10258
2667,06958	0,00732	0,08871	0,07789	0,04123	0,10258
2665,14111	0,00734	0,08877	0,07795	0,04125	0,10262
2663,21265	0,00743	0,08883	0,07797	0,04128	0,10267
2661,28418	0,0075	0,08889	0,07796	0,04125	0,10266
2659,35571	0,00746	0,08902	0,07802	0,04134	0,10273
2657,42725	0,00754	0,0891	0,07809	0,04139	0,10282
2655,49878	0,00762	0,08915	0,07809	0,04133	0,10279
2653,57031	0,00764	0,08929	0,07814	0,0414	0,10281
2651,64185	0,00771	0,0894	0,07821	0,04149	0,10293
2649,71338	0,00775	0,08944	0,07821	0,04144	0,10297
2647,78491	0,00776	0,08955	0,07828	0,04145	0,103
2645,85645	0,00783	0,08964	0,07835	0,04152	0,10308
2643,92798	0,00789	0,08965	0,07829	0,04153	0,1031
2641,99951	0,00792	0,08967	0,07825	0,0415	0,10313
2640,07104	0,00793	0,08972	0,07832	0,0415	0,10317
2638,14258	0,00792	0,08978	0,07838	0,04151	0,10316
2636,21411	0,00795	0,08986	0,07842	0,04155	0,1032
2634,28564	0,00797	0,08991	0,0784	0,04155	0,10326
2632,35718	0,00794	0,08986	0,07836	0,04149	0,10321
2630,42871	0,00796	0,08985	0,07842	0,04149	0,1032
2628,50024	0,00798	0,08989	0,07849	0,04155	0,10323
2626,57178	0,00794	0,08992	0,07849	0,04159	0,10322

2624,64331	0,00791	0,0899	0,07845	0,04154	0,10324
2622,71484	0,00793	0,08981	0,07841	0,04143	0,10318
2620,78638	0,00795	0,08981	0,0784	0,04145	0,10311
2618,85791	0,00794	0,08982	0,07829	0,04147	0,10308
2616,92944	0,00791	0,08973	0,07821	0,04145	0,103
2615,00098	0,00785	0,08968	0,07827	0,04149	0,10295
2613,07251	0,0078	0,08962	0,07823	0,04143	0,10285
2611,14404	0,00779	0,08955	0,07817	0,04136	0,10275
2609,21558	0,00775	0,0895	0,07814	0,04133	0,10271
2607,28711	0,00767	0,08937	0,07801	0,04125	0,10257
2605,35864	0,00758	0,08926	0,07796	0,04127	0,10248
2603,43018	0,00753	0,08922	0,07795	0,04123	0,10244
2601,50171	0,00755	0,08911	0,07787	0,04109	0,10228
2599,57324	0,00748	0,08899	0,07779	0,04108	0,10217
2597,64478	0,00731	0,08885	0,07769	0,04105	0,10204
2595,71631	0,00722	0,08871	0,07763	0,04098	0,10189
2593,78784	0,00716	0,08862	0,07764	0,04102	0,10187
2591,85938	0,00716	0,08848	0,0776	0,04096	0,10179
2589,93091	0,00714	0,08835	0,07757	0,04088	0,10168
2588,00244	0,00705	0,08828	0,07755	0,04087	0,10163
2586,07397	0,00702	0,08813	0,07742	0,04083	0,10151
2584,14551	0,00699	0,08797	0,07733	0,04077	0,10139
2582,21704	0,00688	0,08787	0,07732	0,04072	0,10131
2580,28857	0,00679	0,08777	0,07726	0,04065	0,10118
2578,36011	0,00675	0,0877	0,07718	0,04061	0,1011
2576,43164	0,0067	0,08761	0,07714	0,04058	0,10101
2574,50317	0,00659	0,08749	0,07709	0,04056	0,10091
2572,57471	0,0065	0,08738	0,07701	0,04051	0,10087
2570,64624	0,00646	0,08725	0,07695	0,04045	0,10076
2568,71777	0,00641	0,08713	0,07686	0,04039	0,10063
2566,78931	0,00636	0,08705	0,07679	0,04034	0,10057
2564,86084	0,00632	0,08697	0,07677	0,04035	0,10052
2562,93237	0,0063	0,08682	0,07665	0,04033	0,10043
2561,00391	0,00626	0,08667	0,07657	0,04027	0,10038
2559,07544	0,00612	0,08664	0,0766	0,04024	0,10037
2557,14697	0,00604	0,08655	0,07654	0,04014	0,10031
2555,21851	0,00603	0,08639	0,07646	0,04003	0,10018
2553,29004	0,00597	0,08635	0,07648	0,04002	0,10009
2551,36157	0,0059	0,08632	0,07652	0,04002	0,10003
2549,43311	0,00588	0,08621	0,07647	0,04001	0,09999
2547,50464	0,00585	0,08614	0,0764	0,04	0,09996
2545,57617	0,00574	0,08607	0,07641	0,03996	0,0999
2543,64771	0,00567	0,08596	0,0764	0,03995	0,09984
2541,71924	0,00569	0,08587	0,07633	0,03991	0,09978
2539,79077	0,00568	0,08581	0,07626	0,03986	0,09968
2537,8623	0,0056	0,08576	0,07622	0,03984	0,09962
2535,93384	0,00551	0,08572	0,07621	0,03983	0,09961
2534,00537	0,00549	0,08569	0,07622	0,03984	0,09958

2532,0769	0,00552	0,08567	0,07616	0,03987	0,09954
2530,14844	0,00548	0,08563	0,07609	0,03981	0,09951
2528,21997	0,00543	0,08556	0,0761	0,03977	0,09943
2526,2915	0,00542	0,08547	0,07605	0,03978	0,0993
2524,36304	0,00539	0,08541	0,07597	0,03974	0,09923
2522,43457	0,00535	0,08537	0,07597	0,03969	0,09915
2520,5061	0,00531	0,08536	0,07596	0,03966	0,0991
2518,57764	0,00528	0,08536	0,07596	0,03964	0,09913
2516,64917	0,00527	0,0853	0,07595	0,03962	0,09908
2514,7207	0,00525	0,08521	0,07587	0,0396	0,099
2512,79224	0,00516	0,08517	0,07585	0,03959	0,09897
2510,86377	0,00511	0,08516	0,07584	0,03961	0,09894
2508,9353	0,00513	0,08519	0,07583	0,03961	0,09894
2507,00684	0,0051	0,08518	0,07585	0,03963	0,09893
2505,07837	0,00506	0,08511	0,07579	0,0396	0,09887
2503,1499	0,00508	0,08509	0,07576	0,03956	0,09879
2501,22144	0,00509	0,08507	0,0758	0,03961	0,09882
2499,29297	0,00513	0,08501	0,07575	0,03957	0,09881
2497,3645	0,00522	0,08494	0,0757	0,03949	0,09868
2495,43604	0,00524	0,08495	0,07575	0,03952	0,09869
2493,50757	0,00518	0,08497	0,07574	0,03956	0,09871
2491,5791	0,00518	0,08493	0,07574	0,03958	0,09864
2489,65063	0,00522	0,0849	0,07575	0,0396	0,09863
2487,72217	0,00523	0,0849	0,07569	0,03961	0,09861
2485,7937	0,00525	0,0849	0,07568	0,03961	0,09858
2483,86523	0,00522	0,08485	0,07568	0,03962	0,09855
2481,93677	0,00518	0,08483	0,07569	0,03966	0,09855
2480,0083	0,00519	0,08485	0,07573	0,03967	0,09854
2478,07983	0,00524	0,08481	0,07572	0,03964	0,09847
2476,15137	0,00531	0,08476	0,07573	0,03965	0,09844
2474,2229	0,00537	0,08476	0,07577	0,03973	0,09846
2472,29443	0,00536	0,08475	0,07576	0,03976	0,09844
2470,36597	0,00537	0,08473	0,07571	0,03975	0,09841
2468,4375	0,00542	0,08477	0,07574	0,0398	0,09837
2466,50903	0,00545	0,08476	0,07578	0,03983	0,09833
2464,58057	0,00545	0,08465	0,07572	0,03979	0,09831
2462,6521	0,00545	0,08464	0,0757	0,03981	0,09831
2460,72363	0,00546	0,08471	0,07572	0,03986	0,09828
2458,79517	0,00549	0,08467	0,07567	0,03984	0,09822
2456,8667	0,00549	0,08466	0,07567	0,03983	0,09823
2454,93823	0,00541	0,08464	0,07567	0,03983	0,09824
2453,00977	0,00533	0,0846	0,07562	0,03982	0,0982
2451,0813	0,00531	0,0846	0,07567	0,03985	0,09817
2449,15283	0,00531	0,0846	0,07569	0,03983	0,09813
2447,22437	0,00531	0,08453	0,07561	0,03974	0,09808
2445,2959	0,00533	0,08441	0,07558	0,0397	0,09804
2443,36743	0,0053	0,08437	0,07561	0,03969	0,09799
2441,43896	0,00518	0,08438	0,07561	0,03966	0,09792

2439,5105	0,00514	0,08438	0,07559	0,03969	0,09793
2437,58203	0,00516	0,08438	0,07554	0,0397	0,09799
2435,65356	0,00513	0,08438	0,07552	0,03965	0,09794
2433,7251	0,00511	0,08441	0,07555	0,03967	0,0979
2431,79663	0,00511	0,08441	0,07552	0,03971	0,0979
2429,86816	0,00511	0,08431	0,07545	0,03966	0,09783
2427,9397	0,00511	0,08424	0,07546	0,03965	0,0978
2426,01123	0,00509	0,08424	0,0755	0,03969	0,09777
2424,08276	0,00514	0,08424	0,07554	0,03973	0,09772
2422,1543	0,00521	0,08422	0,07557	0,03978	0,0977
2420,22583	0,00521	0,08421	0,07558	0,03982	0,09768
2418,29736	0,00514	0,08421	0,07557	0,03987	0,09768
2416,3689	0,00514	0,08423	0,0756	0,03994	0,09773
2414,44043	0,00522	0,08424	0,0757	0,04001	0,09777
2412,51196	0,00527	0,08421	0,07572	0,04006	0,09774
2410,5835	0,00533	0,08419	0,07567	0,04005	0,09768
2408,65503	0,00534	0,0842	0,07566	0,04003	0,09767
2406,72656	0,00534	0,08419	0,0757	0,04006	0,09772
2404,7981	0,00535	0,08416	0,07573	0,04009	0,09767
2402,86963	0,00536	0,08413	0,07572	0,04011	0,09763
2400,94116	0,00536	0,08415	0,07568	0,04012	0,09766
2399,0127	0,00537	0,08412	0,07566	0,04011	0,09758
2397,08423	0,00538	0,08411	0,0757	0,04019	0,09753
2395,15576	0,00538	0,08417	0,07571	0,04026	0,09756
2393,22729	0,00539	0,08413	0,0757	0,04023	0,09754
2391,29883	0,0054	0,08412	0,0757	0,04024	0,09752
2389,37036	0,0054	0,08412	0,0757	0,04025	0,0975
2387,44189	0,00541	0,08411	0,07569	0,04025	0,09748
2385,51343	0,00542	0,0841	0,07569	0,04026	0,09746
2383,58496	0,00542	0,0841	0,07569	0,04027	0,09744
2381,65649	0,00543	0,08409	0,07569	0,04028	0,09742
2379,72803	0,00544	0,08409	0,07568	0,04028	0,0974
2377,79956	0,00544	0,08408	0,07568	0,04029	0,09738
2375,87109	0,00545	0,08407	0,07568	0,0403	0,09736
2373,94263	0,00546	0,08407	0,07567	0,0403	0,09734
2372,01416	0,00546	0,08406	0,07567	0,04031	0,09732
2370,08569	0,00547	0,08406	0,07567	0,04032	0,0973
2368,15723	0,00548	0,08405	0,07567	0,04032	0,09728
2366,22876	0,00548	0,08404	0,07566	0,04033	0,09726
2364,30029	0,00549	0,08404	0,07566	0,04034	0,09724
2362,37183	0,0055	0,08403	0,07566	0,04034	0,09722
2360,44336	0,00551	0,08403	0,07565	0,04035	0,0972
2358,51489	0,00551	0,08402	0,07565	0,04036	0,09718
2356,58643	0,00552	0,08401	0,07565	0,04036	0,09716
2354,65796	0,00553	0,08401	0,07564	0,04037	0,09714
2352,72949	0,00553	0,084	0,07564	0,04038	0,09712
2350,80103	0,00554	0,084	0,07564	0,04038	0,09709
2348,87256	0,00555	0,08399	0,07564	0,04039	0,09707



2346,94409	0,00555	0,08398	0,07563	0,0404	0,09705
2345,01563	0,00556	0,08398	0,07563	0,0404	0,09703
2343,08716	0,00557	0,08397	0,07563	0,04041	0,09701
2341,15869	0,00557	0,08397	0,07562	0,04042	0,09699
2339,23022	0,00558	0,08396	0,07562	0,04043	0,09697
2337,30176	0,00559	0,08395	0,07562	0,04043	0,09695
2335,37329	0,00559	0,08395	0,07561	0,04044	0,09693
2333,44482	0,0056	0,08394	0,07561	0,04045	0,09691
2331,51636	0,00561	0,08394	0,07561	0,04045	0,09689
2329,58789	0,00561	0,08393	0,07561	0,04046	0,09687
2327,65942	0,00562	0,08392	0,0756	0,04047	0,09685
2325,73096	0,00563	0,08392	0,0756	0,04047	0,09683
2323,80249	0,00563	0,08391	0,0756	0,04048	0,09681
2321,87402	0,00564	0,08391	0,07559	0,04049	0,09679
2319,94556	0,00565	0,0839	0,07559	0,04049	0,09677
2318,01709	0,00565	0,08389	0,07559	0,0405	0,09675
2316,08862	0,00566	0,08389	0,07558	0,04051	0,09673
2314,16016	0,00567	0,08388	0,07558	0,04051	0,09671
2312,23169	0,00567	0,08388	0,07558	0,04052	0,09669
2310,30322	0,00568	0,08387	0,07558	0,04053	0,09667
2308,37476	0,00569	0,08386	0,07557	0,04053	0,09665
2306,44629	0,00569	0,08386	0,07557	0,04054	0,09663
2304,51782	0,0057	0,08385	0,07557	0,04055	0,09661
2302,58936	0,00571	0,08384	0,07556	0,04055	0,09659
2300,66089	0,00571	0,08384	0,07556	0,04056	0,09657
2298,73242	0,00572	0,08383	0,07556	0,04057	0,09655
2296,80396	0,00573	0,08383	0,07556	0,04058	0,09653
2294,87549	0,00573	0,08382	0,07555	0,04058	0,09651
2292,94702	0,00574	0,08381	0,07555	0,04059	0,09649
2291,01855	0,00575	0,08381	0,07555	0,0406	0,09647
2289,09009	0,00576	0,0838	0,07554	0,0406	0,09645
2287,16162	0,00576	0,0838	0,07554	0,04061	0,09643
2285,23315	0,00577	0,08379	0,07554	0,04062	0,09641
2283,30469	0,00578	0,08378	0,07553	0,04062	0,09638
2281,37622	0,00578	0,08378	0,07553	0,04063	0,09636
2279,44775	0,00579	0,08377	0,07553	0,04064	0,09634
2277,51929	0,0058	0,08377	0,07553	0,04064	0,09632
2275,59082	0,0058	0,08376	0,07552	0,04065	0,0963
2273,66235	0,00581	0,08375	0,07557	0,04066	0,09628
2271,73389	0,00582	0,08374	0,07557	0,04066	0,09626
2269,80542	0,00582	0,08366	0,07552	0,04068	0,09624
2267,87695	0,00583	0,08369	0,07558	0,0407	0,09622
2265,94849	0,00584	0,08371	0,07563	0,04078	0,0962
2264,02002	0,00584	0,08369	0,07567	0,04085	0,09618
2262,09155	0,00585	0,08366	0,0757	0,04085	0,09616
2260,16309	0,00586	0,08363	0,07569	0,04088	0,09614
2258,23462	0,00586	0,0836	0,07577	0,04094	0,09616
2256,30615	0,00587	0,08356	0,07582	0,04093	0,09614

2254,37769	0,00588	0,08351	0,07578	0,04091	0,09609
2252,44922	0,00588	0,08347	0,07583	0,04093	0,09608
2250,52075	0,00589	0,08344	0,07591	0,0409	0,09611
2248,59229	0,00592	0,08342	0,0759	0,04091	0,09613
2246,66382	0,00592	0,08346	0,0759	0,041	0,09616
2244,73535	0,00591	0,08347	0,07593	0,04103	0,09616
2242,80688	0,00592	0,08336	0,07588	0,04102	0,09611
2240,87842	0,00591	0,08331	0,07587	0,04103	0,09607
2238,94995	0,00596	0,08329	0,07593	0,04103	0,09604
2237,02148	0,00595	0,08328	0,07593	0,04105	0,09603
2235,09302	0,00588	0,08328	0,07591	0,04104	0,09602
2233,16455	0,00589	0,08322	0,07591	0,04096	0,09593
2231,23608	0,00585	0,08319	0,0759	0,04093	0,09586
2229,30762	0,00575	0,08321	0,07588	0,04096	0,09585
2227,37915	0,00573	0,08315	0,07584	0,04088	0,0958
2225,45068	0,00576	0,08304	0,0758	0,04086	0,09571
2223,52222	0,00575	0,08303	0,07576	0,04092	0,09571
2221,59375	0,00572	0,08309	0,07574	0,04092	0,09574
2219,66528	0,0058	0,08314	0,07576	0,04098	0,0957
2217,73682	0,00589	0,08314	0,07582	0,04105	0,09569
2215,80835	0,00593	0,08309	0,07581	0,04106	0,09569
2213,87988	0,00599	0,0831	0,07582	0,04105	0,09565
2211,95142	0,00599	0,08312	0,07592	0,04105	0,09565
2210,02295	0,00594	0,08308	0,07587	0,04105	0,09562
2208,09448	0,00594	0,08308	0,07577	0,04104	0,09553
2206,16602	0,0059	0,08304	0,07579	0,04101	0,09548
2204,23755	0,00584	0,08293	0,07573	0,04094	0,09542
2202,30908	0,00587	0,0829	0,07574	0,04096	0,0954
2200,38062	0,00583	0,08292	0,07579	0,04097	0,09535
2198,45215	0,00577	0,08288	0,0757	0,04091	0,09527
2196,52368	0,00576	0,08285	0,07565	0,04092	0,09524
2194,59521	0,00571	0,08284	0,07563	0,0409	0,09521
2192,66675	0,00568	0,08281	0,0756	0,04085	0,09522
2190,73828	0,00574	0,08279	0,07562	0,04085	0,09524
2188,80981	0,00574	0,08274	0,0756	0,04082	0,09513
2186,88135	0,00571	0,08268	0,07555	0,04078	0,09506
2184,95288	0,00573	0,08269	0,07558	0,04078	0,09506
2183,02441	0,00573	0,08268	0,0756	0,04073	0,09506
2181,09595	0,00567	0,08264	0,07554	0,04068	0,09504
2179,16748	0,00566	0,08267	0,07553	0,0407	0,09505
2177,23901	0,00561	0,08271	0,07551	0,0407	0,09501
2175,31055	0,00552	0,08268	0,07545	0,04067	0,09493
2173,38208	0,00557	0,08266	0,07546	0,0407	0,09493
2171,45361	0,00547	0,08248	0,07525	0,04054	0,09477
2169,52515	0,0052	0,08226	0,075	0,04029	0,09454
2167,59668	0,00532	0,08241	0,07514	0,04039	0,09466
2165,66821	0,00546	0,08255	0,0753	0,04046	0,09478
2163,73975	0,00542	0,08248	0,0753	0,04039	0,09474

2161,81128	0,00544	0,08244	0,07525	0,0404	0,09476
2159,88281	0,00537	0,08239	0,07521	0,04035	0,09469
2157,95435	0,00532	0,08236	0,07518	0,04027	0,09463
2156,02588	0,00531	0,08235	0,07513	0,04017	0,09463
2154,09741	0,00516	0,08227	0,07509	0,04004	0,09458
2152,16895	0,00506	0,08226	0,07502	0,04002	0,09456
2150,24048	0,00502	0,08229	0,07493	0,04001	0,09452
2148,31201	0,005	0,08224	0,07491	0,03996	0,09445
2146,38354	0,00498	0,08212	0,07487	0,03989	0,09437
2144,45508	0,00491	0,08208	0,07481	0,03979	0,09432
2142,52661	0,00483	0,08213	0,07477	0,03974	0,0943
2140,59814	0,00481	0,08204	0,07471	0,03963	0,09423
2138,66968	0,0048	0,08194	0,07462	0,03953	0,0942
2136,74121	0,00481	0,0819	0,07456	0,03952	0,09422
2134,81274	0,00474	0,08185	0,07457	0,03951	0,0942
2132,88428	0,00459	0,08183	0,07456	0,03945	0,09415
2130,95581	0,00449	0,08178	0,0745	0,03936	0,09408
2129,02734	0,00446	0,08173	0,07443	0,03928	0,09403
2127,09888	0,00443	0,08176	0,07437	0,03924	0,09398
2125,17041	0,00437	0,08175	0,07433	0,0392	0,09394
2123,24194	0,00432	0,08172	0,07429	0,03911	0,09393
2121,31348	0,00433	0,08167	0,07426	0,03908	0,09394
2119,38501	0,00438	0,0816	0,07424	0,03907	0,09387
2117,45654	0,00439	0,08156	0,07421	0,03898	0,0938
2115,52808	0,00431	0,08154	0,07423	0,03897	0,09381
2113,59961	0,0042	0,08149	0,07424	0,03898	0,09378
2111,67114	0,00414	0,08141	0,07414	0,03889	0,09372
2109,74268	0,00408	0,08135	0,0741	0,03878	0,09367
2107,81421	0,00401	0,08127	0,07402	0,03864	0,09359
2105,88574	0,00389	0,08117	0,07383	0,03849	0,0935
2103,95728	0,00373	0,08108	0,07375	0,03834	0,09339
2102,02881	0,0036	0,08101	0,07368	0,0382	0,09333
2100,10034	0,00349	0,08095	0,07352	0,03807	0,09336
2098,17188	0,00338	0,08085	0,07339	0,03788	0,09328
2096,24341	0,00326	0,08077	0,07331	0,03772	0,09317
2094,31494	0,00314	0,08073	0,07324	0,03761	0,09313
2092,38647	0,0031	0,08074	0,0731	0,03746	0,09312
2090,45801	0,00303	0,08077	0,07295	0,03733	0,09309
2088,52954	0,00284	0,08064	0,07286	0,03726	0,093
2086,60107	0,00269	0,08051	0,07279	0,03714	0,09296
2084,67261	0,00262	0,0805	0,07277	0,03705	0,09297
2082,74414	0,00252	0,08043	0,07278	0,03701	0,09292
2080,81567	0,00248	0,08033	0,0727	0,03692	0,09283
2078,88721	0,00242	0,0803	0,07264	0,0368	0,09272
2076,95874	0,00237	0,08027	0,07263	0,03674	0,09265
2075,03027	0,00241	0,08017	0,07261	0,03674	0,09267
2073,10181	0,00245	0,0802	0,07262	0,03675	0,09275
2071,17334	0,00249	0,08027	0,07258	0,03679	0,09276

2069,24487	0,00249	0,08013	0,07258	0,03683	0,09272
2067,31641	0,00255	0,08023	0,07256	0,03689	0,09276
2065,38794	0,00269	0,08041	0,07236	0,03696	0,09272
2063,45947	0,00264	0,08023	0,07242	0,03699	0,09268
2061,53101	0,00262	0,08019	0,07262	0,03707	0,09275
2059,60254	0,00273	0,08023	0,07262	0,03717	0,09269
2057,67407	0,00277	0,08013	0,07268	0,03717	0,09264
2055,74561	0,00281	0,08013	0,07274	0,03721	0,09269
2053,81714	0,00286	0,08016	0,07272	0,03731	0,09269
2051,88867	0,00293	0,08017	0,07282	0,03739	0,09272
2049,96021	0,003	0,08021	0,07293	0,03744	0,09272
2048,03174	0,00308	0,08027	0,07298	0,03753	0,09273
2046,10327	0,00313	0,08025	0,07306	0,03766	0,09277
2044,1748	0,00314	0,08029	0,07312	0,03776	0,09281
2042,24634	0,00325	0,08041	0,07303	0,03778	0,09281
2040,31787	0,00329	0,08026	0,07298	0,03776	0,09275
2038,3894	0,00319	0,08015	0,07305	0,03774	0,09269
2036,46094	0,00313	0,08021	0,07303	0,03773	0,09265
2034,53247	0,00309	0,08014	0,07293	0,03767	0,09261
2032,604	0,003	0,08012	0,0729	0,03759	0,09253
2030,67554	0,00289	0,0801	0,07285	0,03748	0,09248
2028,74707	0,00283	0,08005	0,07274	0,03736	0,09252
2026,8186	0,00275	0,07997	0,07269	0,03729	0,09248
2024,89014	0,00271	0,07996	0,07269	0,0372	0,09245
2022,96167	0,00271	0,08	0,07265	0,03716	0,09245
2021,0332	0,00264	0,07992	0,07268	0,03717	0,09242
2019,10474	0,00275	0,08016	0,07258	0,03718	0,09247
2017,17627	0,00289	0,08032	0,07236	0,03722	0,09237
2015,2478	0,00285	0,07994	0,07256	0,03733	0,09223
2013,31934	0,00292	0,0799	0,07285	0,03744	0,09232
2011,39087	0,00297	0,08004	0,07287	0,03749	0,09232
2009,4624	0,00303	0,07999	0,07281	0,03758	0,09221
2007,53394	0,00317	0,08002	0,07277	0,03765	0,09226
2005,60547	0,00315	0,08003	0,07282	0,03765	0,09236
2003,677	0,00314	0,08003	0,0728	0,03769	0,09236
2001,74854	0,0032	0,07994	0,0728	0,03772	0,09227
1999,82007	0,00325	0,08002	0,0728	0,03775	0,09231
1997,8916	0,00323	0,08005	0,07277	0,0378	0,09225
1995,96313	0,00312	0,07984	0,07296	0,03779	0,09219
1994,03467	0,00331	0,08024	0,07274	0,03776	0,09247
1992,1062	0,00347	0,08046	0,07232	0,03773	0,09239
1990,17773	0,00326	0,08001	0,07259	0,03772	0,09208
1988,24927	0,00326	0,0801	0,07279	0,0378	0,0922
1986,3208	0,00332	0,08003	0,07286	0,03783	0,09217
1984,39233	0,00326	0,07983	0,07306	0,03787	0,09215
1982,46387	0,0033	0,07999	0,07306	0,03794	0,09224
1980,5354	0,00332	0,07996	0,07306	0,03793	0,09213
1978,60693	0,00332	0,07996	0,07304	0,03795	0,09213

1976,67847	0,00333	0,07995	0,07307	0,03798	0,09211
1974,75	0,00339	0,0799	0,07315	0,03798	0,09208
1972,82153	0,0034	0,07991	0,0731	0,038	0,09216
1970,89307	0,00331	0,07984	0,07319	0,03797	0,09217
1968,9646	0,00349	0,0802	0,07298	0,03796	0,09231
1967,03613	0,00363	0,08043	0,07251	0,03792	0,09219
1965,10767	0,00333	0,07986	0,0728	0,03786	0,09187
1963,1792	0,00325	0,07983	0,07313	0,03793	0,09204
1961,25073	0,00333	0,08006	0,07307	0,03796	0,09211
1959,32227	0,00329	0,07986	0,0731	0,03789	0,09198
1957,3938	0,00329	0,07991	0,07308	0,03786	0,09208
1955,46533	0,00321	0,08002	0,07299	0,03782	0,09209
1953,53687	0,00315	0,07991	0,07293	0,03776	0,09197
1951,6084	0,00305	0,07975	0,07293	0,03772	0,09186
1949,67993	0,00297	0,07981	0,07287	0,03766	0,09191
1947,75146	0,00297	0,07983	0,07266	0,03761	0,09181
1945,823	0,003	0,07981	0,07259	0,03757	0,09175
1943,89453	0,00331	0,08042	0,07212	0,03749	0,09211
1941,96606	0,00326	0,08022	0,07183	0,03741	0,09177
1940,0376	0,00282	0,07944	0,07258	0,03749	0,09151
1938,10913	0,00285	0,07967	0,07282	0,03758	0,09188
1936,18066	0,00285	0,07971	0,07275	0,03757	0,09189
1934,2522	0,0028	0,07977	0,07286	0,03761	0,09194
1932,32373	0,0028	0,07981	0,07285	0,03756	0,09188
1930,39526	0,00282	0,07982	0,07282	0,03747	0,09184
1928,4668	0,00278	0,07974	0,07278	0,03746	0,09178
1926,53833	0,00262	0,07943	0,07284	0,03733	0,09156
1924,60986	0,00297	0,08015	0,07238	0,03729	0,0919
1922,6814	0,00298	0,08028	0,0718	0,03725	0,09156
1920,75293	0,00257	0,07975	0,07231	0,03709	0,09148
1918,82446	0,00272	0,08018	0,07242	0,03709	0,09215
1916,896	0,00246	0,07954	0,07205	0,03696	0,09146
1914,96753	0,00219	0,07916	0,07228	0,03681	0,09128
1913,03906	0,00235	0,07963	0,07242	0,03681	0,09184
1911,1106	0,00238	0,07976	0,07207	0,03669	0,09177
1909,18213	0,00235	0,07989	0,07161	0,03653	0,09165
1907,25366	0,0021	0,07953	0,07176	0,0364	0,09152
1905,3252	0,00183	0,07929	0,07193	0,03629	0,09151
1903,39673	0,00171	0,07937	0,07181	0,03612	0,09152
1901,46826	0,00162	0,07937	0,07172	0,03594	0,09141
1899,53979	0,00143	0,07909	0,07169	0,03582	0,09133
1897,61133	0,00139	0,07919	0,07154	0,03567	0,09151
1895,68286	0,00154	0,07977	0,07103	0,03557	0,09161
1893,75439	0,00107	0,07915	0,07128	0,03544	0,0912
1891,82593	0,00103	0,07938	0,07147	0,03533	0,09162
1889,89746	0,00142	0,0801	0,0706	0,03521	0,0918
1887,96899	0,00091	0,07896	0,07085	0,03503	0,09105
1886,04053	0,00087	0,07905	0,07134	0,03509	0,09137

1884,11206	0,00113	0,07941	0,07118	0,03527	0,09146
1882,18359	0,00098	0,07898	0,07139	0,03534	0,09128
1880,25513	0,00103	0,07917	0,07147	0,03544	0,09153
1878,32666	0,00108	0,07915	0,07137	0,03549	0,09139
1876,39819	0,00113	0,07916	0,07151	0,03551	0,09153
1874,46973	0,0012	0,07914	0,07158	0,03564	0,09157
1872,54126	0,00122	0,07916	0,07157	0,03571	0,09154
1870,61279	0,00161	0,08011	0,07129	0,03578	0,09229
1868,68433	0,00201	0,08064	0,07	0,03566	0,09185
1866,75586	0,00148	0,07928	0,07035	0,03554	0,09077
1864,82739	0,00143	0,07922	0,07154	0,03586	0,09129
1862,89893	0,00165	0,0794	0,072	0,03619	0,09156
1860,97046	0,00186	0,07944	0,07186	0,03628	0,09148
1859,04199	0,00206	0,07953	0,07194	0,03648	0,09155
1857,11353	0,00215	0,07938	0,07206	0,0366	0,09143
1855,18506	0,00225	0,07934	0,07224	0,03674	0,09154
1853,25659	0,00229	0,07937	0,07221	0,03688	0,09142
1851,32813	0,00229	0,0794	0,0724	0,03684	0,09167
1849,39966	0,00238	0,07941	0,07215	0,03683	0,09158
1847,47119	0,0026	0,08009	0,07138	0,03678	0,09142
1845,54272	0,00267	0,08048	0,07192	0,03698	0,09253
1843,61426	0,00215	0,07894	0,07194	0,03691	0,09137
1841,68579	0,00189	0,07848	0,07176	0,03665	0,0903
1839,75732	0,00235	0,07953	0,07217	0,0369	0,09134
1837,82886	0,00242	0,07969	0,0723	0,03706	0,09159
1835,90039	0,00248	0,07957	0,07192	0,03691	0,09115
1833,97192	0,00225	0,07905	0,07238	0,03692	0,09097
1832,04346	0,00267	0,0801	0,0722	0,03703	0,09185
1830,11499	0,00316	0,08093	0,07097	0,03704	0,09181
1828,18652	0,0022	0,07912	0,07148	0,03678	0,09055
1826,25806	0,00252	0,07983	0,07179	0,03679	0,0914
1824,32959	0,00275	0,07983	0,07147	0,03689	0,09129
1822,40112	0,00208	0,07876	0,07204	0,03683	0,09067
1820,47266	0,00225	0,0793	0,07244	0,03697	0,0914
1818,54419	0,00236	0,07941	0,07216	0,03691	0,09134
1816,61572	0,0022	0,07906	0,0721	0,03675	0,09094
1814,68726	0,00216	0,0789	0,07237	0,03686	0,09106
1812,75879	0,00233	0,07957	0,07193	0,03685	0,09142
1810,83032	0,00238	0,07988	0,07132	0,0367	0,09128
1808,90186	0,00206	0,07911	0,07154	0,03658	0,09083
1806,97339	0,00191	0,07907	0,07172	0,03645	0,09096
1805,04492	0,00163	0,07903	0,07169	0,03619	0,09102
1803,11646	0,00143	0,07935	0,07108	0,03568	0,09117
1801,18799	0,00136	0,07985	0,06991	0,03501	0,09099
1799,25952	0,00071	0,07885	0,07028	0,03476	0,09042
1797,33105	0,00068	0,07872	0,07029	0,03479	0,09019
1795,40259	0,00104	0,07954	0,06995	0,03478	0,09067
1793,47412	0,00088	0,07975	0,07086	0,035	0,0918

1791,54565	0,00103	0,07917	0,06983	0,035	0,09045
1789,61719	0,00092	0,07794	0,07044	0,03523	0,08943
1787,68872	0,00146	0,07887	0,07153	0,03581	0,09084
1785,76025	0,00165	0,07905	0,07138	0,03595	0,09101
1783,83179	0,00112	0,07832	0,07135	0,03571	0,09031
1781,90332	0,00145	0,07925	0,07084	0,0357	0,09062
1779,97485	0,00156	0,07949	0,07021	0,03559	0,09055
1778,04639	0,00093	0,07819	0,07103	0,03551	0,0901
1776,11792	0,00131	0,07912	0,07037	0,03535	0,09033
1774,18945	0,00126	0,08018	0,07068	0,03551	0,09181
1772,26099	0,00065	0,07881	0,07053	0,03536	0,09072
1770,33252	0,00032	0,07773	0,06973	0,03459	0,08924
1768,40405	0,00057	0,07888	0,07013	0,03472	0,09057
1766,47559	-0,00033	0,07728	0,071	0,03476	0,08965
1764,54712	0,00025	0,07855	0,07026	0,03451	0,09016
1762,61865	0,00057	0,0796	0,07046	0,03469	0,09159
1760,69019	-0,00055	0,07726	0,07027	0,03428	0,0893
1758,76172	-0,00004	0,07871	0,06986	0,0342	0,09014
1756,83325	0,00023	0,0791	0,07001	0,03438	0,0907
1754,90479	-0,00041	0,07759	0,07	0,03407	0,08912
1752,97632	-0,00017	0,07892	0,07044	0,03425	0,09075
1751,04785	0,00009	0,0794	0,07008	0,03435	0,09144
1749,11938	-0,00004	0,07876	0,06813	0,03378	0,08944
1747,19092	0,00008	0,07943	0,06845	0,03391	0,09022
1745,26245	-0,00033	0,07878	0,06957	0,03415	0,09076
1743,33398	-0,00019	0,07897	0,06875	0,03399	0,09023
1741,40552	-0,00021	0,07956	0,06976	0,03431	0,09154
1739,47705	-0,00101	0,07771	0,07069	0,03447	0,0906
1737,54858	-0,00071	0,07833	0,06919	0,03399	0,08962
1735,62012	-0,00063	0,07986	0,07111	0,03449	0,09293
1733,69165	-0,00129	0,07752	0,07079	0,03444	0,09102
1731,76318	-0,00186	0,07635	0,06926	0,03363	0,08833
1729,83472	-0,00002	0,07977	0,06833	0,03399	0,09047
1727,90625	-0,00124	0,07712	0,07056	0,03431	0,08965
1725,97778	-0,00076	0,07802	0,07014	0,0342	0,08983
1724,04932	-0,00045	0,07866	0,07012	0,03441	0,09046
1722,12085	-0,00104	0,07747	0,06994	0,03411	0,0891
1720,19238	-0,00036	0,07914	0,06949	0,03406	0,09051
1718,26392	-0,00029	0,07999	0,06909	0,03411	0,09167
1716,33545	-0,00174	0,07697	0,06869	0,0334	0,08877
1714,40698	-0,00109	0,07746	0,06825	0,03334	0,08846
1712,47852	-0,00081	0,07791	0,06924	0,03376	0,08939
1710,55005	-0,00123	0,07718	0,06997	0,0339	0,08901
1708,62158	-0,00043	0,07873	0,0689	0,03384	0,08952
1706,69312	-0,00019	0,0792	0,06939	0,03419	0,09081
1704,76465	-0,00063	0,07752	0,06784	0,03363	0,08809
1702,83618	-0,00033	0,07901	0,06835	0,03362	0,08998
1700,90771	0,00003	0,07854	0,07132	0,03444	0,0931

1698,97925	-0,00264	0,07363	0,06912	0,03292	0,08662
1697,05078	-0,00153	0,0784	0,06798	0,03303	0,08951
1695,12231	-0,0016	0,07637	0,07046	0,03399	0,08973
1693,19385	-0,0018	0,07524	0,06949	0,03343	0,08708
1691,26538	-0,00034	0,07919	0,06887	0,03371	0,09002
1689,33691	-0,00071	0,07775	0,06899	0,03372	0,08893
1687,40845	-0,00055	0,07866	0,06784	0,03329	0,08878
1685,47998	-0,00115	0,07977	0,07069	0,03413	0,09277
1683,55151	-0,00101	0,07697	0,06715	0,03306	0,08773
1681,62305	-0,00115	0,07676	0,06742	0,03274	0,08721
1679,69458	-0,00102	0,07799	0,0683	0,03324	0,08841
1677,76611	-0,0013	0,07749	0,06924	0,03334	0,08875
1675,83765	-0,00126	0,07732	0,06997	0,03341	0,08978
1673,90918	-0,00215	0,07535	0,06948	0,03298	0,08743
1671,98071	-0,00131	0,07747	0,0681	0,03277	0,08793
1670,05225	-0,00033	0,07943	0,0677	0,03307	0,08985
1668,12378	-0,00198	0,07526	0,0683	0,03266	0,08627
1666,19531	-0,00165	0,07658	0,06824	0,03246	0,08678
1664,26685	-0,00137	0,07758	0,06941	0,03282	0,08898
1662,33838	-0,00148	0,07654	0,068	0,03238	0,08709
1660,40991	-0,00162	0,07617	0,06812	0,03217	0,08668
1658,48145	-0,00186	0,07564	0,06921	0,03225	0,08693
1656,55298	-0,00096	0,0773	0,06669	0,03151	0,08661
1654,62451	-0,00121	0,07898	0,06775	0,0316	0,09041
1652,69604	-0,001	0,07738	0,06461	0,03092	0,08635
1650,76758	-0,00446	0,07073	0,06807	0,02995	0,08253
1648,83911	-0,00065	0,07806	0,06389	0,02978	0,08615
1646,91064	-0,00068	0,07853	0,06316	0,02976	0,08666
1644,98218	-0,00372	0,07139	0,06637	0,02931	0,08257
1643,05371	-0,00231	0,07434	0,06523	0,02923	0,08402
1641,12524	-0,00266	0,07356	0,06609	0,02915	0,084
1639,19678	-0,00217	0,07426	0,06454	0,0286	0,08336
1637,26831	-0,00189	0,07603	0,06407	0,02853	0,08525
1635,33984	-0,00241	0,07435	0,06359	0,0282	0,08387
1633,41138	-0,00401	0,07075	0,06496	0,02781	0,08127
1631,48291	-0,00312	0,07335	0,06411	0,02776	0,08252
1629,55444	-0,0034	0,07354	0,06463	0,02782	0,08343
1627,62598	-0,00379	0,07261	0,06332	0,0273	0,08184
1625,69751	-0,00419	0,07243	0,06326	0,02684	0,08196
1623,76904	-0,00416	0,073	0,06295	0,02668	0,08264
1621,84058	-0,00503	0,07108	0,06264	0,02653	0,08032
1619,91211	-0,00472	0,07229	0,06263	0,02662	0,08113
1617,98364	-0,00516	0,07323	0,06443	0,02735	0,08396
1616,05518	-0,00572	0,07134	0,06518	0,02795	0,08258
1614,12671	-0,00457	0,07226	0,06498	0,02815	0,08238
1612,19824	-0,00339	0,07456	0,06556	0,02904	0,08449
1610,26978	-0,00332	0,07481	0,06633	0,02979	0,08516
1608,34131	-0,00292	0,07543	0,06592	0,03003	0,08521



1606,41284	-0,00291	0,07543	0,06705	0,03061	0,08584
1604,48438	-0,00264	0,07571	0,06758	0,03091	0,08632
1602,55591	-0,00223	0,07644	0,06761	0,03113	0,08674
1600,62744	-0,00224	0,07639	0,06827	0,03145	0,08695
1598,69897	-0,0021	0,07651	0,06877	0,0318	0,08745
1596,77051	-0,00185	0,07703	0,06873	0,03211	0,08794
1594,84204	-0,00167	0,07731	0,06856	0,03228	0,08794
1592,91357	-0,00175	0,07711	0,06913	0,03254	0,08799
1590,98511	-0,00175	0,07724	0,06934	0,03273	0,0882
1589,05664	-0,00158	0,07767	0,0694	0,03285	0,08852
1587,12817	-0,00185	0,0774	0,07009	0,03303	0,08872
1585,19971	-0,0018	0,07775	0,0699	0,03313	0,08883
1583,27124	-0,00169	0,07825	0,0701	0,0334	0,08936
1581,34277	-0,00193	0,07758	0,07039	0,03346	0,08898
1579,41431	-0,00133	0,07876	0,06933	0,0333	0,0891
1577,48584	-0,00173	0,0799	0,07071	0,03395	0,09148
1575,55737	-0,00267	0,07733	0,07054	0,03372	0,08939
1573,62891	-0,00211	0,0768	0,06969	0,0331	0,08775
1571,70044	-0,0006	0,08019	0,0699	0,03391	0,09088
1569,77197	-0,00053	0,07974	0,06924	0,03415	0,09049
1567,84351	-0,00143	0,07754	0,06917	0,03336	0,08829
1565,91504	-0,00089	0,07936	0,07009	0,03396	0,09043
1563,98657	-0,00096	0,0784	0,06964	0,03388	0,08915
1562,05811	-0,00066	0,07958	0,06955	0,03376	0,09016
1560,12964	0,00073	0,08321	0,07065	0,03474	0,09544
1558,20117	-0,00008	0,07812	0,0649	0,03254	0,08688
1556,27271	-0,00164	0,07689	0,06914	0,03309	0,08818
1554,34424	-0,00099	0,07876	0,07016	0,03399	0,09006
1552,41577	-0,00141	0,07745	0,07101	0,03412	0,08934
1550,4873	0,00019	0,0802	0,06876	0,03409	0,08997
1548,55884	-0,00038	0,07892	0,06982	0,03426	0,08958
1546,63037	-0,00068	0,07883	0,07113	0,03449	0,09047
1544,7019	0,00054	0,08125	0,06888	0,03441	0,09117
1542,77344	0,00004	0,08007	0,06873	0,03401	0,0904
1540,84497	0,00006	0,08089	0,07025	0,03447	0,09302
1538,9165	-0,00134	0,07787	0,06776	0,03347	0,08843
1536,98804	-0,00168	0,07687	0,06986	0,03363	0,08809
1535,05957	0,00025	0,08053	0,07001	0,03452	0,0914
1533,1311	0,00061	0,08052	0,06818	0,03439	0,09053
1531,20264	-0,00101	0,0776	0,06972	0,034	0,08871
1529,27417	-0,00004	0,07998	0,07008	0,03452	0,09085
1527,3457	0,00041	0,0805	0,06919	0,03454	0,09115
1525,41724	-0,00055	0,07851	0,06939	0,034	0,0896
1523,48877	0,00012	0,08034	0,06955	0,03426	0,09145
1521,5603	-0,00003	0,07991	0,0686	0,0341	0,09074
1519,63184	-0,00163	0,0767	0,07007	0,03372	0,08904
1517,70337	0,00044	0,08034	0,06821	0,03391	0,09068
1515,7749	0,00024	0,07953	0,06782	0,03381	0,08958

1513,84644	-0,00079	0,07804	0,06988	0,034	0,08971
1511,91797	-0,00073	0,0783	0,07048	0,03431	0,0906
1509,9895	0,00031	0,08013	0,06784	0,03396	0,09012
1508,06104	0,00126	0,08307	0,06703	0,03419	0,09267
1506,13257	0,00028	0,08013	0,06582	0,0334	0,08965
1504,2041	-0,00259	0,07451	0,07066	0,03348	0,08758
1502,27563	-0,00035	0,07876	0,0696	0,03422	0,08996
1500,34717	-0,00063	0,07841	0,07049	0,03466	0,09058
1498,4187	-0,0006	0,07868	0,06997	0,03444	0,09069
1496,49023	-0,00126	0,07746	0,07049	0,03438	0,09033
1494,56177	-0,00193	0,07577	0,07131	0,03431	0,08888
1492,6333	-0,0004	0,07839	0,07053	0,03461	0,09031
1490,70483	0,00022	0,07968	0,06931	0,03467	0,09102
1488,77637	-0,00024	0,07886	0,06777	0,03409	0,0893
1486,8479	-0,00085	0,07764	0,06949	0,03437	0,08932
1484,91943	-0,00126	0,07702	0,07123	0,03478	0,08975
1482,99097	-0,0009	0,07765	0,07099	0,03486	0,09006
1481,0625	-0,00077	0,07771	0,07037	0,03485	0,08988
1479,13403	-0,00117	0,07717	0,07102	0,03494	0,09008
1477,20557	-0,00064	0,07788	0,07034	0,03495	0,09056
1475,2771	-0,00038	0,07839	0,06947	0,03501	0,09108
1473,34863	-0,00099	0,07792	0,07036	0,03525	0,09217
1471,42017	-0,00133	0,07648	0,06985	0,03475	0,09022
1469,4917	-0,00127	0,07639	0,07035	0,03473	0,08965
1467,56323	-0,00101	0,07761	0,07136	0,03526	0,09144
1465,63477	-0,00062	0,07818	0,07056	0,03531	0,09179
1463,7063	-0,00148	0,07615	0,07085	0,03521	0,09066
1461,77783	-0,00144	0,07657	0,071	0,03532	0,09056
1459,84937	-0,00004	0,07956	0,06941	0,03531	0,0917
1457,9209	0,00031	0,08045	0,06828	0,03503	0,09213
1455,99243	-0,00243	0,07362	0,0708	0,03429	0,08808
1454,06396	-0,0011	0,07651	0,06926	0,03439	0,08863
1452,1355	-0,00077	0,07714	0,06989	0,03471	0,08959
1450,20703	-0,00125	0,07644	0,07089	0,03482	0,0898
1448,27856	-0,00066	0,07745	0,06983	0,03481	0,0901
1446,3501	-0,00127	0,07604	0,07028	0,03477	0,08913
1444,42163	-0,00124	0,0764	0,07074	0,03518	0,08998
1442,49316	-0,00115	0,0764	0,07105	0,03566	0,09096
1440,5647	-0,00107	0,07623	0,07052	0,03533	0,08998
1438,63623	-0,0008	0,07706	0,07102	0,03529	0,09087
1436,70776	-0,00077	0,07637	0,07066	0,03499	0,09014
1434,7793	-0,00176	0,0747	0,07023	0,03433	0,08728
1432,85083	-0,0009	0,07676	0,07	0,03455	0,08835
1430,92236	-0,00068	0,0771	0,07009	0,03474	0,08898
1428,9939	-0,00111	0,07598	0,06951	0,03433	0,08745
1427,06543	-0,00133	0,07596	0,07047	0,0344	0,08794
1425,13696	-0,00099	0,07662	0,07016	0,03462	0,08848
1423,2085	-0,0009	0,07664	0,06883	0,03441	0,08746

1421,28003	-0,00151	0,07629	0,07045	0,03457	0,08853
1419,35156	-0,00133	0,07636	0,07005	0,03446	0,0888
1417,4231	-0,00141	0,07555	0,06842	0,03386	0,08654
1415,49463	-0,00143	0,07606	0,0695	0,03418	0,08722
1413,56616	-0,00195	0,07582	0,07057	0,03439	0,08768
1411,6377	-0,00189	0,07614	0,06976	0,03416	0,08735
1409,70923	-0,00206	0,07589	0,06997	0,0341	0,08723
1407,78076	-0,00228	0,07572	0,07034	0,03402	0,08731
1405,85229	-0,00178	0,07666	0,06931	0,03386	0,08759
1403,92383	-0,00205	0,07569	0,06926	0,03369	0,08695
1401,99536	-0,00223	0,07569	0,06997	0,0338	0,08752
1400,06689	-0,00182	0,07657	0,06945	0,03397	0,08829
1398,13843	-0,00191	0,07622	0,06856	0,03384	0,08761
1396,20996	-0,00196	0,07674	0,06879	0,03396	0,0883
1394,28149	-0,00215	0,07645	0,0691	0,0342	0,08863
1392,35303	-0,00281	0,07517	0,06996	0,03431	0,08805
1390,42456	-0,00244	0,07629	0,07004	0,03447	0,08882
1388,49609	-0,00244	0,07646	0,06995	0,03456	0,08917
1386,56763	-0,00325	0,07524	0,06913	0,03384	0,0877
1384,63916	-0,00388	0,07465	0,0689	0,03316	0,08694
1382,71069	-0,00357	0,07499	0,06966	0,03352	0,08758
1380,78223	-0,00275	0,07593	0,07002	0,03436	0,08858
1378,85376	-0,00272	0,07621	0,0701	0,03473	0,08906
1376,92529	-0,00273	0,07657	0,07021	0,03479	0,08957
1374,99683	-0,00208	0,0777	0,0689	0,03469	0,09009
1373,06836	-0,00246	0,07681	0,06907	0,03475	0,09034
1371,13989	-0,00276	0,0763	0,07051	0,0351	0,0914
1369,21143	-0,00211	0,07728	0,07018	0,03529	0,09231
1367,28296	-0,00228	0,07656	0,07048	0,03521	0,09159
1365,35449	-0,00242	0,07642	0,07082	0,03507	0,09112
1363,42603	-0,00186	0,07752	0,06922	0,03475	0,09065
1361,49756	-0,00218	0,07649	0,06908	0,03442	0,0893
1359,56909	-0,00258	0,07559	0,07035	0,0345	0,08886
1357,64063	-0,00238	0,07607	0,07047	0,03466	0,08871
1355,71216	-0,00229	0,07623	0,07038	0,0347	0,08845
1353,78369	-0,00236	0,07592	0,07044	0,03458	0,08836
1351,85522	-0,00238	0,07592	0,07046	0,03445	0,08827
1349,92676	-0,00224	0,07612	0,07045	0,03445	0,08802
1347,99829	-0,00209	0,07602	0,07052	0,0344	0,08792
1346,06982	-0,002	0,0761	0,0706	0,03439	0,08802
1344,14136	-0,0021	0,07603	0,0708	0,03454	0,08798
1342,21289	-0,00198	0,07641	0,07057	0,03465	0,0883
1340,28442	-0,00149	0,07743	0,06919	0,03445	0,08838
1338,35596	-0,00152	0,07692	0,06879	0,03415	0,08764
1336,42749	-0,00176	0,07624	0,06999	0,03435	0,08775
1334,49902	-0,00156	0,07636	0,07062	0,03469	0,08814
1332,57056	-0,00123	0,07631	0,07077	0,03476	0,08808
1330,64209	-0,00108	0,07649	0,07094	0,03484	0,08831

1328,71362	-0,00109	0,07654	0,071	0,03495	0,08845
1326,78516	-0,00102	0,07653	0,07097	0,03494	0,08832
1324,85669	-0,00094	0,07663	0,0709	0,03494	0,0883
1322,92822	-0,00081	0,07636	0,07093	0,0349	0,08829
1320,99976	-0,00053	0,07658	0,07081	0,03485	0,08847
1319,07129	-0,0005	0,0769	0,07042	0,03493	0,08858
1317,14282	-0,00069	0,07651	0,07053	0,03504	0,08851
1315,21436	-0,00062	0,07656	0,07067	0,03513	0,08856
1313,28589	-0,00047	0,07674	0,07039	0,03514	0,08856
1311,35742	-0,00046	0,07647	0,07058	0,03508	0,08873
1309,42896	-0,00036	0,07677	0,07088	0,03519	0,08925
1307,50049	-0,00021	0,07701	0,07091	0,03527	0,08964
1305,57202	-0,00006	0,07692	0,07118	0,03534	0,08997
1303,64355	0,00009	0,07734	0,07137	0,03561	0,09053
1301,71509	0,00008	0,07761	0,07132	0,03566	0,09116
1299,78662	0,00003	0,0777	0,07142	0,03574	0,09192
1297,85815	0,00011	0,07806	0,07156	0,03601	0,09273
1295,92969	0,00014	0,07832	0,07165	0,03614	0,09351
1294,00122	0,00012	0,07852	0,07191	0,03638	0,09447
1292,07275	0,0003	0,07873	0,07208	0,03666	0,09531
1290,14429	0,00044	0,07878	0,07207	0,03671	0,09577
1288,21582	0,00041	0,07886	0,07203	0,03678	0,09597
1286,28735	0,0005	0,07882	0,07206	0,03689	0,09608
1284,35889	0,00076	0,07875	0,07218	0,03695	0,0964
1282,43042	0,001	0,07898	0,07219	0,03699	0,09706
1280,50195	0,00123	0,07936	0,07226	0,0371	0,0981
1278,57349	0,00145	0,07974	0,07251	0,03734	0,0993
1276,64502	0,00164	0,08005	0,07268	0,03762	0,10053
1274,71655	0,00187	0,08028	0,0729	0,03793	0,10179
1272,78809	0,00209	0,08064	0,07302	0,03823	0,10276
1270,85962	0,0023	0,08089	0,07313	0,03836	0,1034
1268,93115	0,00251	0,08099	0,07342	0,03843	0,10384
1267,00269	0,00261	0,08109	0,07341	0,03849	0,104
1265,07422	0,00261	0,08098	0,07335	0,03843	0,10406
1263,14575	0,00269	0,08091	0,07351	0,03832	0,10397
1261,21729	0,00289	0,08109	0,07348	0,03829	0,10373
1259,28882	0,00301	0,08116	0,07355	0,03844	0,10358
1257,36035	0,0031	0,08108	0,07374	0,03858	0,10339
1255,43188	0,00327	0,08116	0,07376	0,03859	0,10333
1253,50342	0,00338	0,08137	0,07395	0,03865	0,10359
1251,57495	0,00356	0,08151	0,07415	0,0387	0,10385
1249,64648	0,00386	0,08165	0,07421	0,03881	0,10414
1247,71802	0,00411	0,08182	0,07444	0,03896	0,10443
1245,78955	0,00448	0,08196	0,07462	0,03906	0,10455
1243,86108	0,00496	0,08203	0,07469	0,03912	0,10463
1241,93262	0,00532	0,08206	0,07488	0,03912	0,1045
1240,00415	0,00555	0,08219	0,07504	0,03912	0,10412
1238,07568	0,00573	0,08231	0,07515	0,03919	0,10379

1236,14722	0,00606	0,08252	0,07543	0,03939	0,10343
1234,21875	0,00653	0,08277	0,07575	0,03958	0,103
1232,29028	0,00692	0,08289	0,07588	0,03959	0,10262
1230,36182	0,00715	0,08297	0,07601	0,03958	0,10228
1228,43335	0,00739	0,08298	0,07621	0,03955	0,102
1226,50488	0,00791	0,0831	0,07641	0,0396	0,10179
1224,57642	0,00839	0,08324	0,07666	0,03981	0,10144
1222,64795	0,00853	0,08329	0,0769	0,03992	0,10101
1220,71948	0,00878	0,0836	0,07722	0,0401	0,10079
1218,79102	0,00936	0,08392	0,0776	0,04049	0,10059
1216,86255	0,00975	0,08407	0,0779	0,04079	0,10028
1214,93408	0,00992	0,08443	0,0782	0,04106	0,10035
1213,00562	0,01034	0,08482	0,07841	0,04134	0,10076
1211,07715	0,01086	0,08509	0,07878	0,04175	0,10117
1209,14868	0,01133	0,08549	0,07946	0,04259	0,10185
1207,22021	0,01189	0,08592	0,07993	0,04361	0,10297
1205,29175	0,01227	0,08621	0,08027	0,04477	0,10454
1203,36328	0,01252	0,08656	0,08078	0,04631	0,10664
1201,43481	0,01307	0,08695	0,0813	0,04787	0,10926
1199,50635	0,01368	0,08721	0,08178	0,04909	0,11201
1197,57788	0,01403	0,08764	0,08213	0,04939	0,11293
1195,64941	0,01425	0,08824	0,08239	0,04866	0,11153
1193,72095	0,01428	0,08869	0,08283	0,04835	0,11074
1191,79248	0,01441	0,08906	0,08316	0,04878	0,11165
1189,86401	0,01488	0,08939	0,08326	0,04894	0,11256
1187,93555	0,01519	0,08975	0,08337	0,04866	0,1128
1186,00708	0,01531	0,09027	0,08353	0,0482	0,11247
1184,07861	0,01558	0,09089	0,08374	0,0476	0,11165
1182,15015	0,01589	0,09145	0,08401	0,04674	0,11025
1180,22168	0,01623	0,09187	0,08437	0,04596	0,10877
1178,29321	0,01672	0,09247	0,08474	0,0457	0,10811
1176,36475	0,01717	0,09319	0,08518	0,04575	0,1081
1174,43628	0,01751	0,09363	0,08565	0,04584	0,10838
1172,50781	0,01788	0,09397	0,08593	0,04605	0,10868
1170,57935	0,01813	0,09431	0,0862	0,04633	0,10882
1168,65088	0,01823	0,0946	0,08659	0,04654	0,10906
1166,72241	0,01847	0,095	0,08686	0,04681	0,10939
1164,79395	0,01865	0,09539	0,08707	0,04717	0,10981
1162,86548	0,01867	0,09562	0,0873	0,0474	0,11021
1160,93701	0,0188	0,09588	0,08744	0,04752	0,11057
1159,00854	0,01891	0,09608	0,08748	0,04761	0,11103
1157,08008	0,01907	0,09618	0,08766	0,04767	0,11133
1155,15161	0,01931	0,09639	0,08805	0,04778	0,11163
1153,22314	0,01936	0,09673	0,08835	0,04802	0,11219
1151,29468	0,0194	0,09721	0,08868	0,04839	0,11273
1149,36621	0,01963	0,09763	0,08907	0,04864	0,11303
1147,43774	0,01983	0,09773	0,08924	0,0485	0,11313
1145,50928	0,02006	0,09794	0,08954	0,04844	0,11329

1143,58081	0,02028	0,09835	0,08991	0,04867	0,11364
1141,65234	0,02035	0,09864	0,09003	0,04878	0,11377
1139,72388	0,02044	0,09893	0,09027	0,04892	0,11368
1137,79541	0,02059	0,09925	0,09065	0,04926	0,11389
1135,86694	0,02079	0,09951	0,09096	0,04943	0,11427
1133,93848	0,02102	0,09967	0,09129	0,04956	0,11476
1132,01001	0,02113	0,0998	0,09151	0,05	0,11539
1130,08154	0,0212	0,09989	0,09175	0,05075	0,11627
1128,15308	0,02144	0,09989	0,09221	0,05192	0,11809
1126,22461	0,02163	0,1001	0,09268	0,05324	0,12022
1124,29614	0,02177	0,10037	0,09295	0,054	0,12148
1122,36768	0,02194	0,10047	0,09303	0,05392	0,1216
1120,43921	0,02193	0,10054	0,093	0,0532	0,12059
1118,51074	0,022	0,10065	0,09301	0,05259	0,11937
1116,58228	0,02233	0,10086	0,09325	0,05237	0,11885
1114,65381	0,02264	0,10103	0,09346	0,05221	0,11881
1112,72534	0,02282	0,10128	0,09353	0,05222	0,11887
1110,79688	0,02287	0,10172	0,09373	0,05224	0,11876
1108,86841	0,02293	0,1018	0,09399	0,0519	0,11846
1106,93994	0,02306	0,10178	0,09413	0,05173	0,11821
1105,01147	0,02326	0,10207	0,09433	0,05184	0,11795
1103,08301	0,02344	0,10217	0,09461	0,05167	0,11742
1101,15454	0,02345	0,10212	0,09463	0,05137	0,11687
1099,22607	0,02348	0,10221	0,09442	0,05116	0,11666
1097,29761	0,02358	0,10216	0,09447	0,05109	0,11665
1095,36914	0,02356	0,10224	0,0947	0,05123	0,11679
1093,44067	0,02356	0,10249	0,09483	0,0514	0,11693
1091,51221	0,0236	0,10242	0,09485	0,05138	0,11676
1089,58374	0,02364	0,10236	0,09489	0,05134	0,11662
1087,65527	0,02371	0,10257	0,095	0,05132	0,11671
1085,72681	0,02357	0,10255	0,09482	0,05115	0,11663
1083,79834	0,02325	0,10233	0,09448	0,05102	0,11653
1081,86987	0,02297	0,1023	0,09455	0,05115	0,1166
1079,94141	0,02261	0,10228	0,09454	0,05129	0,11663
1078,01294	0,02223	0,10209	0,09417	0,05125	0,11671
1076,08447	0,02209	0,10189	0,09383	0,05103	0,11667
1074,15601	0,02179	0,10164	0,09347	0,05064	0,1164
1072,22754	0,02113	0,10142	0,09322	0,05037	0,11625
1070,29907	0,02076	0,10145	0,09304	0,05039	0,11632
1068,37061	0,02063	0,10128	0,09254	0,05039	0,11642
1066,44214	0,02032	0,10077	0,09204	0,05014	0,11641
1064,51367	0,0201	0,10045	0,09166	0,04977	0,1162
1062,58521	0,02005	0,10029	0,09127	0,04953	0,1161
1060,65674	0,01987	0,09991	0,09099	0,04948	0,11621
1058,72827	0,01957	0,09941	0,09064	0,04928	0,11617
1056,7998	0,01928	0,0992	0,09024	0,04902	0,11631
1054,87134	0,01888	0,09908	0,08992	0,04894	0,11691
1052,94287	0,01848	0,09878	0,08966	0,04925	0,11775

1051,0144	0,01821	0,09863	0,08953	0,05034	0,11946
1049,08594	0,01788	0,09844	0,08936	0,05132	0,12159
1047,15747	0,01758	0,09818	0,08913	0,05121	0,1223
1045,229	0,01756	0,09809	0,08904	0,05069	0,12194
1043,30054	0,01754	0,09789	0,08894	0,05042	0,12199
1041,37207	0,01736	0,09782	0,08892	0,05073	0,12277
1039,4436	0,01724	0,09781	0,08895	0,05168	0,12401
1037,51514	0,01714	0,09765	0,08895	0,05311	0,1258
1035,58667	0,01689	0,09765	0,08911	0,05462	0,12819
1033,6582	0,01659	0,09756	0,08895	0,05432	0,12881
1031,72974	0,01647	0,09738	0,08839	0,05224	0,12672
1029,80127	0,01659	0,09743	0,08811	0,0508	0,12524
1027,8728	0,01653	0,09749	0,08806	0,05018	0,12516
1025,94434	0,01637	0,09758	0,08794	0,04972	0,12507
1024,01587	0,01639	0,09758	0,08785	0,04953	0,125
1022,0874	0,01629	0,09765	0,08791	0,04952	0,12472
1020,15894	0,0162	0,09778	0,08804	0,04927	0,12387
1018,23047	0,01617	0,0975	0,08789	0,04872	0,12271
1016,302	0,0159	0,09724	0,08761	0,04856	0,12193
1014,37354	0,01547	0,09716	0,08733	0,04852	0,12123
1012,44507	0,01515	0,09691	0,08703	0,04824	0,1202
1010,5166	0,01518	0,09671	0,08692	0,04833	0,1198
1008,58813	0,01535	0,09648	0,08672	0,04828	0,11952
1006,65967	0,01543	0,09619	0,08631	0,04755	0,11837
1004,7312	0,01531	0,09627	0,08603	0,04683	0,11749
1002,80273	0,01493	0,09629	0,08582	0,04634	0,11709
1000,87427	0,01471	0,09585	0,08551	0,04589	0,11648
998,9458	0,01471	0,09578	0,08524	0,0456	0,11605
997,01733	0,01469	0,09594	0,08513	0,04546	0,11585
995,08887	0,01471	0,09571	0,08515	0,04523	0,11548
993,1604	0,01458	0,09557	0,08522	0,04499	0,11503
991,23193	0,01441	0,09558	0,08518	0,04498	0,11478
989,30347	0,0144	0,09553	0,08488	0,04492	0,11446
987,375	0,01419	0,09554	0,08458	0,04469	0,1142
985,44653	0,01386	0,09547	0,08457	0,0446	0,11444
983,51807	0,01383	0,09542	0,08461	0,04447	0,11448
981,5896	0,01377	0,09545	0,08452	0,04422	0,11395
979,66113	0,01353	0,09544	0,08447	0,04417	0,11346
977,73267	0,01354	0,09525	0,08422	0,04395	0,11297
975,8042	0,01364	0,0949	0,08374	0,04345	0,1127
973,87573	0,01342	0,09493	0,08353	0,04341	0,11297
971,94727	0,01323	0,09506	0,0835	0,04351	0,11285
970,0188	0,01319	0,09499	0,08327	0,04331	0,11229
968,09033	0,01294	0,09516	0,08314	0,04333	0,11213
966,16187	0,01276	0,09516	0,08323	0,04344	0,11218
964,2334	0,01275	0,09491	0,08317	0,04329	0,11227
962,30493	0,01267	0,0949	0,08287	0,04315	0,11253
960,37646	0,01254	0,09491	0,0828	0,04311	0,11262

958,448	0,01252	0,09493	0,08311	0,04293	0,11248
956,51953	0,01268	0,09494	0,08327	0,0428	0,11237
954,59106	0,01277	0,09489	0,08316	0,04288	0,11233
952,6626	0,01263	0,09488	0,08302	0,0428	0,1124
950,73413	0,01265	0,09486	0,08303	0,04275	0,1125
948,80566	0,01267	0,09493	0,08311	0,04294	0,11242
946,8772	0,01234	0,09499	0,08308	0,04287	0,11236
944,94873	0,01215	0,09484	0,08301	0,04277	0,11223
943,02026	0,0122	0,09459	0,08274	0,04279	0,11199
941,0918	0,0122	0,09443	0,08256	0,04265	0,11212
939,16333	0,01241	0,09432	0,08262	0,04251	0,11225
937,23486	0,01268	0,09423	0,08248	0,04244	0,11213
935,3064	0,0126	0,09412	0,08257	0,04231	0,11221
933,37793	0,01239	0,09381	0,08269	0,04222	0,11207
931,44946	0,01242	0,09386	0,08261	0,04235	0,11178
929,521	0,01264	0,09423	0,08272	0,0425	0,11174
927,59253	0,01249	0,0943	0,08266	0,04243	0,11182
925,66406	0,0123	0,09447	0,08232	0,04224	0,11178
923,7356	0,01267	0,09446	0,08215	0,0421	0,11162
921,80713	0,01271	0,09428	0,08238	0,04235	0,11188
919,87866	0,01237	0,0947	0,08254	0,04264	0,11224
917,9502	0,01254	0,09505	0,08252	0,0426	0,11245
916,02173	0,01274	0,09498	0,08282	0,04254	0,11276
914,09326	0,01265	0,09481	0,08301	0,04238	0,11275
912,16479	0,01277	0,09444	0,08311	0,04225	0,11274
910,23633	0,01298	0,09432	0,08327	0,04222	0,11288
908,30786	0,01307	0,09444	0,08317	0,04206	0,11271
906,37939	0,01305	0,09432	0,08315	0,04213	0,11244
904,45093	0,01319	0,09432	0,0832	0,04233	0,1124
902,52246	0,01347	0,0943	0,08297	0,04234	0,11254
900,59399	0,01342	0,09405	0,08279	0,04229	0,11251
898,66553	0,01327	0,09404	0,08283	0,0423	0,11261
896,73706	0,01328	0,09417	0,08287	0,04237	0,11302
894,80859	0,0133	0,09404	0,08286	0,04238	0,11304
892,88013	0,01346	0,09378	0,08279	0,04215	0,11283
890,95166	0,01351	0,09377	0,08281	0,04192	0,11288
889,02319	0,01332	0,09398	0,08318	0,04203	0,11295
887,09473	0,01338	0,09404	0,08325	0,04222	0,11305
885,16626	0,01359	0,09416	0,08295	0,04231	0,1132
883,23779	0,01368	0,09449	0,08287	0,04241	0,11321
881,30933	0,01394	0,09472	0,08272	0,04248	0,11319
879,38086	0,01444	0,09509	0,08284	0,04274	0,11354
877,45239	0,0148	0,09577	0,08365	0,04311	0,11459
875,52393	0,01523	0,09666	0,08467	0,04355	0,1163
873,59546	0,01618	0,09777	0,08575	0,0445	0,11841
871,66699	0,01751	0,09928	0,08688	0,04584	0,12105
869,73853	0,01884	0,10121	0,08813	0,04717	0,12399
867,81006	0,01978	0,10266	0,0895	0,04814	0,12591



865,88159	0,02055	0,10341	0,09049	0,04873	0,12686
863,95313	0,02137	0,1043	0,09108	0,04923	0,12782
862,02466	0,02167	0,10509	0,0915	0,0495	0,12845
860,09619	0,02137	0,10503	0,09145	0,04927	0,12831
858,16772	0,02085	0,10458	0,09091	0,04889	0,12748
856,23926	0,02022	0,10406	0,09021	0,04858	0,12627
854,31079	0,01967	0,10299	0,08941	0,04819	0,1251
852,38232	0,01942	0,10239	0,08905	0,04799	0,12456
850,45386	0,01942	0,10301	0,08946	0,0481	0,12529
848,52539	0,02025	0,1047	0,09098	0,04909	0,12793
846,59692	0,02229	0,10799	0,09372	0,05147	0,13257
844,66846	0,02414	0,1109	0,09591	0,05329	0,13655
842,73999	0,02615	0,11322	0,09785	0,05455	0,13995
840,81152	0,02998	0,11818	0,10189	0,05796	0,14689
838,88306	0,03423	0,12388	0,10667	0,06212	0,15524
836,95459	0,03771	0,12834	0,11068	0,06527	0,16183
835,02612	0,0407	0,1323	0,11421	0,06824	0,16741
833,09766	0,04184	0,13372	0,11559	0,06962	0,16953
831,16919	0,04147	0,13327	0,1151	0,06922	0,16894
829,24072	0,0414	0,13294	0,11472	0,0688	0,1685
827,31226	0,04147	0,13278	0,11438	0,06859	0,16812
825,38379	0,0429	0,13492	0,11605	0,06973	0,17077
823,45532	0,04547	0,13805	0,11938	0,0717	0,17524
821,52686	0,04626	0,13859	0,12032	0,07227	0,17639
819,59839	0,04609	0,13846	0,11993	0,07244	0,17643
817,66992	0,04658	0,13925	0,12055	0,07318	0,1777
815,74146	0,0476	0,14015	0,12158	0,07417	0,17904
813,81299	0,04913	0,14138	0,12275	0,07528	0,18077
811,88452	0,04999	0,14218	0,12329	0,07577	0,18203
809,95605	0,04995	0,14214	0,1231	0,0757	0,18169
808,02759	0,05036	0,14239	0,12356	0,07591	0,18164
806,09912	0,05147	0,14342	0,12467	0,07683	0,18286
804,17065	0,05231	0,14465	0,1256	0,07784	0,18398
802,24219	0,0526	0,14536	0,12647	0,07811	0,18465
800,31372	0,05373	0,14628	0,12756	0,07876	0,18584
798,38525	0,05537	0,14754	0,12862	0,07994	0,18746
796,45679	0,0559	0,14816	0,12948	0,08049	0,18872
794,52832	0,05585	0,14854	0,12981	0,08086	0,18949
792,59985	0,05562	0,14817	0,1294	0,08078	0,18929
790,67139	0,05476	0,14658	0,12836	0,0798	0,18795
788,74292	0,05389	0,14537	0,12716	0,079	0,18643
786,81445	0,05347	0,14513	0,12652	0,07863	0,18554
784,88599	0,05252	0,14449	0,12571	0,07798	0,18441
782,95752	0,05108	0,14312	0,12424	0,07688	0,18249
781,02905	0,05051	0,14214	0,12354	0,07603	0,18138
779,10059	0,05074	0,14181	0,1236	0,07591	0,18139
777,17212	0,05143	0,14232	0,124	0,07631	0,18216
775,24365	0,0528	0,14375	0,12532	0,07726	0,18412

773,31519	0,05426	0,14482	0,12672	0,07829	0,18604
771,38672	0,0551	0,14546	0,12745	0,07882	0,187
769,45825	0,05543	0,14601	0,12807	0,07931	0,18776
767,52979	0,05588	0,14616	0,12863	0,07984	0,18858
765,60132	0,05663	0,14662	0,12921	0,0802	0,18916
763,67285	0,057	0,14708	0,12951	0,08068	0,18955
761,74438	0,05627	0,14622	0,12868	0,08073	0,18945
759,81592	0,05528	0,1451	0,12773	0,08014	0,18848
757,88745	0,05486	0,14495	0,12738	0,07975	0,18784
755,95898	0,05486	0,14488	0,12717	0,07963	0,18802
754,03052	0,05512	0,14465	0,12738	0,07934	0,18765
752,10205	0,05483	0,14422	0,12724	0,07901	0,18661
750,17358	0,05451	0,14392	0,12684	0,07916	0,18646
748,24512	0,05512	0,14451	0,12738	0,07962	0,18736
746,31665	0,05564	0,14499	0,12795	0,07979	0,1879
744,38818	0,05578	0,1454	0,12817	0,08001	0,18828
742,45972	0,05589	0,14611	0,12857	0,08028	0,1888
740,53125	0,05606	0,14615	0,12898	0,08032	0,18904
738,60278	0,05677	0,14627	0,12973	0,08096	0,18947
736,67432	0,0577	0,14714	0,13061	0,08174	0,19019
734,74585	0,05818	0,14772	0,13072	0,08162	0,19079
732,81738	0,05804	0,14763	0,13021	0,08126	0,19072
730,88892	0,05802	0,14771	0,13033	0,08143	0,19056
728,96045	0,05881	0,14842	0,131	0,08223	0,19116
727,03198	0,05982	0,14924	0,13139	0,08301	0,19173
725,10352	0,06075	0,15016	0,13251	0,08343	0,19263
723,17505	0,0615	0,15102	0,13358	0,08413	0,19354
721,24658	0,06167	0,15142	0,13316	0,08453	0,19328
719,31812	0,06204	0,1518	0,1334	0,08469	0,19345
717,38965	0,06305	0,15252	0,13461	0,08534	0,19443
715,46118	0,06382	0,1533	0,13524	0,08558	0,1951
713,53271	0,06386	0,1536	0,13581	0,08548	0,19557
711,60425	0,06346	0,15331	0,13632	0,08577	0,19564
709,67578	0,06338	0,15307	0,13641	0,08608	0,19559
707,74731	0,06396	0,15329	0,1361	0,08625	0,19571
705,81885	0,06441	0,15384	0,13594	0,08665	0,19582
703,89038	0,064	0,15415	0,13598	0,0867	0,1957
701,96191	0,06355	0,15382	0,13583	0,0864	0,1953
700,03345	0,06366	0,15381	0,1361	0,08654	0,19537
698,10498	0,06366	0,15422	0,13673	0,0865	0,19578
696,17651	0,0635	0,15438	0,13705	0,08625	0,19574
694,24805	0,06355	0,15441	0,13684	0,0863	0,19556
692,31958	0,06379	0,15454	0,13654	0,0863	0,19571
690,39111	0,06451	0,15559	0,13678	0,08669	0,19626
688,46265	0,06581	0,15703	0,13745	0,08759	0,19717
686,53418	0,06679	0,15787	0,13792	0,08833	0,19781
684,60571	0,06723	0,15818	0,13838	0,08888	0,19819
682,67725	0,06803	0,15863	0,13868	0,08933	0,19901

680,74878	0,06881	0,16015	0,13899	0,0898	0,19999
678,82031	0,06973	0,16082	0,14026	0,09036	0,20041
676,89185	0,07053	0,16106	0,14038	0,09056	0,20042
674,96338	0,07126	0,16208	0,1405	0,09081	0,20215
673,03491	0,07137	0,16205	0,14063	0,09106	0,20319
671,10645	0,07145	0,16203	0,14075	0,09132	0,20334
669,17798	0,07153	0,16201	0,14088	0,09157	0,2035
667,24951	0,07161	0,16199	0,141	0,09182	0,20366
665,32104	0,07168	0,16197	0,14113	0,09208	0,20381
663,39258	0,07176	0,16195	0,14125	0,09233	0,20397
661,46411	0,07184	0,16193	0,14137	0,09259	0,20412
659,53564	0,07192	0,1619	0,1415	0,09284	0,20428
657,60718	0,072	0,16188	0,14162	0,09309	0,20444
655,67871	0,07207	0,16186	0,14175	0,09299	0,20422
653,75024	0,07189	0,16184	0,14187	0,09163	0,20313
651,82178	0,07266	0,16205	0,14237	0,09211	0,20345
649,89331	0,07272	0,16184	0,14275	0,09261	0,20369
647,96484	0,0731	0,16215	0,14355	0,09333	0,20456
646,03638	0,07413	0,16224	0,14536	0,09472	0,20565
644,10791	0,07447	0,16178	0,1458	0,09482	0,20582
642,17944	0,07454	0,16197	0,1459	0,09484	0,20641
640,25098	0,07508	0,16226	0,14649	0,09552	0,20677
638,32251	0,07495	0,16206	0,14636	0,09536	0,20597
636,39404	0,07477	0,16181	0,14618	0,09497	0,20605
634,46558	0,07496	0,16166	0,14624	0,09499	0,20636
632,53711	0,07425	0,16176	0,14598	0,09504	0,20588
630,60864	0,0738	0,16119	0,14572	0,09511	0,20559
628,68018	0,07416	0,16025	0,14513	0,0951	0,20495
626,75171	0,07477	0,16013	0,14523	0,09551	0,20506
624,82324	0,07514	0,16029	0,14572	0,09603	0,2058
622,89478	0,07523	0,16018	0,14542	0,09588	0,20564
620,96631	0,07578	0,15972	0,14536	0,09548	0,2054
619,03784	0,07625	0,15961	0,14503	0,09546	0,20509
617,10938	0,07652	0,16026	0,14481	0,09605	0,20539
615,18091	0,07671	0,16045	0,14595	0,09634	0,20629
613,25244	0,07647	0,16027	0,1466	0,09592	0,20621
611,32397	0,07661	0,16072	0,14649	0,09566	0,20616
609,39551	0,07687	0,16036	0,14656	0,09523	0,20599
607,46704	0,07689	0,15926	0,14631	0,09497	0,2056
605,53857	0,07713	0,15903	0,14598	0,09525	0,20626
603,61011	0,07689	0,15874	0,14556	0,09498	0,20624
601,68164	0,07699	0,15861	0,14521	0,09459	0,20558
599,75317	0,0774	0,15866	0,14534	0,09436	0,20602
597,82471	0,07677	0,15783	0,14515	0,09401	0,20623
595,89624	0,07635	0,15722	0,14456	0,09374	0,20561
593,96777	0,0767	0,15762	0,14412	0,09375	0,20581
592,03931	0,07736	0,15852	0,14445	0,09445	0,20661
590,11084	0,0771	0,15857	0,1451	0,09416	0,20595

588,18237	0,0761	0,15809	0,14506	0,09303	0,2054
586,25391	0,0762	0,15802	0,14482	0,09294	0,20603
584,32544	0,07669	0,1581	0,14483	0,09305	0,20611
582,39697	0,07739	0,15884	0,14518	0,09329	0,20651
580,46851	0,07735	0,15881	0,1452	0,09346	0,20675
578,54004	0,0766	0,1582	0,14487	0,09344	0,20631
576,61157	0,07754	0,15889	0,14526	0,09399	0,20703
574,68311	0,07776	0,15894	0,14602	0,09398	0,20737
572,75464	0,07732	0,159	0,14652	0,09383	0,20714
570,82617	0,07844	0,16045	0,14692	0,09458	0,20816
568,89771	0,07936	0,16141	0,14784	0,09558	0,20912
566,96924	0,07965	0,16162	0,14893	0,09606	0,20956
565,04077	0,07953	0,16214	0,14911	0,09574	0,21013
563,1123	0,07898	0,16297	0,14963	0,09585	0,21019
561,18384	0,07847	0,16336	0,15071	0,09684	0,21037
559,25537	0,0786	0,164	0,15097	0,09755	0,21138
557,3269	0,07931	0,16533	0,15134	0,09793	0,21241
555,39844	0,07915	0,16612	0,15219	0,09874	0,2131
553,46997	0,07846	0,16653	0,15253	0,09985	0,21335
551,5415	0,07767	0,16625	0,15301	0,10045	0,21325
549,61304	0,07639	0,16609	0,15344	0,10023	0,213
547,68457	0,07584	0,16678	0,15412	0,10041	0,21306
545,7561	0,07571	0,16658	0,15457	0,1012	0,2134
543,82764	0,07441	0,16653	0,15303	0,1005	0,21261
541,89917	0,07328	0,1676	0,15281	0,09966	0,21188
539,9707	0,07302	0,16829	0,15432	0,10056	0,21265
538,04224	0,07114	0,16865	0,15483	0,10129	0,21307
536,11377	0,06908	0,16946	0,15611	0,10192	0,21309
534,1853	0,06798	0,1704	0,1569	0,10289	0,21348
532,25684	0,06501	0,17069	0,15786	0,10349	0,21395
530,32837	0,0627	0,17133	0,15826	0,10284	0,21287
528,3999	0,06016	0,17007	0,15887	0,1025	0,21108
526,47144	0,05525	0,16714	0,1626	0,10451	0,21167
524,54297	0,05186	0,16803	0,16255	0,10479	0,21105
522,6145	0,04775	0,16928	0,16057	0,10262	0,20788
520,68604	0,04193	0,16758	0,16178	0,10268	0,20677
518,75757	0,03766	0,1668	0,16322	0,10407	0,20641
516,8291	0,03316	0,16658	0,16392	0,10325	0,20407
514,90063	0,02888	0,16544	0,16172	0,10206	0,20164
512,97217	0,02409	0,16428	0,15985	0,1019	0,19931
511,0437	0,01592	0,16299	0,16072	0,1002	0,19619
509,11523	0,00946	0,16104	0,16074	0,09921	0,1931
507,18677	0,00576	0,15928	0,15952	0,09944	0,19049
505,2583	0,00119	0,15969	0,15906	0,09861	0,19035
503,32983	-0,00236	0,15876	0,1593	0,09825	0,18942
501,40137	-0,00607	0,15573	0,1579	0,0974	0,18513
499,4729	-0,01001	0,15501	0,15687	0,09651	0,1829

Figure 3.3 B					
n°spectre	Vd339	VD331	VD75	VD77	VD78
cm-1	crushedF2	pHnat-F2	$\theta=0,6$ -F2	$\theta=5,3$ -F2	$\theta=14,3$ -F2
4001,5686	0,03712	0,11956	0,10667	0,12153	0,1329
3999,64014	0,03704	0,11934	0,10665	0,12158	0,13283
3997,71167	0,03697	0,11925	0,10668	0,12162	0,13281
3995,7832	0,037	0,11933	0,10652	0,12139	0,13271
3993,85474	0,03696	0,11913	0,10628	0,12117	0,13248
3991,92627	0,0369	0,11918	0,1063	0,12111	0,13242
3989,9978	0,03691	0,11933	0,10623	0,12107	0,13242
3988,06934	0,03681	0,11902	0,10613	0,12109	0,13233
3986,14087	0,03668	0,11895	0,10629	0,12099	0,13228
3984,2124	0,03676	0,119	0,1063	0,12085	0,13218
3982,28394	0,03683	0,11875	0,10603	0,12081	0,13209
3980,35547	0,03664	0,11865	0,10602	0,12065	0,13208
3978,427	0,03652	0,11863	0,10608	0,12062	0,13209
3976,49854	0,03659	0,11858	0,10575	0,1206	0,13199
3974,57007	0,03648	0,11857	0,10563	0,12038	0,13178
3972,6416	0,03631	0,11846	0,10573	0,12023	0,13164
3970,71313	0,03636	0,11839	0,10554	0,12017	0,13168
3968,78467	0,03646	0,11846	0,10541	0,12014	0,13174
3966,8562	0,03636	0,11811	0,10552	0,12006	0,13161
3964,92773	0,03636	0,11801	0,10562	0,12017	0,13168
3962,99927	0,03659	0,11853	0,10529	0,12008	0,13158
3961,0708	0,03646	0,11819	0,10501	0,11961	0,13114
3959,14233	0,03631	0,11787	0,10514	0,11962	0,13124
3957,21387	0,03635	0,11795	0,10511	0,1197	0,13137
3955,2854	0,0363	0,11782	0,10508	0,11962	0,13123
3953,35693	0,03638	0,11799	0,10507	0,11957	0,13121
3951,42847	0,03626	0,11774	0,10485	0,11943	0,13111
3949,5	0,0362	0,11773	0,10424	0,11912	0,13065
3947,57153	0,03612	0,11743	0,10388	0,11847	0,13009
3945,64307	0,03607	0,11729	0,10447	0,11891	0,13058
3943,7146	0,03661	0,11838	0,10432	0,11933	0,13083
3941,78613	0,03639	0,1176	0,10359	0,11812	0,12987
3939,85767	0,03583	0,11675	0,10406	0,11834	0,1302
3937,9292	0,03607	0,11738	0,10445	0,11909	0,13082
3936,00073	0,03608	0,11713	0,10426	0,11872	0,13053
3934,07227	0,03612	0,11755	0,10419	0,11903	0,13075
3932,1438	0,03636	0,11803	0,10353	0,11849	0,13018
3930,21533	0,03583	0,11671	0,10304	0,11711	0,129
3928,28687	0,03555	0,11639	0,10377	0,11788	0,12981
3926,3584	0,03606	0,11753	0,10394	0,11867	0,13049
3924,42993	0,03612	0,1175	0,10304	0,11754	0,12946
3922,50146	0,03558	0,11634	0,10323	0,11722	0,12925
3920,573	0,03574	0,11672	0,10372	0,11821	0,12996

3918,64453	0,03597	0,11715	0,10338	0,11817	0,1298
3916,71606	0,0355	0,11626	0,10298	0,11715	0,12908
3914,7876	0,03495	0,11538	0,10316	0,11693	0,12897
3912,85913	0,0353	0,11595	0,10353	0,11763	0,12951
3910,93066	0,03574	0,11644	0,10384	0,11822	0,13003
3909,0022	0,0354	0,11587	0,1036	0,1177	0,1297
3907,07373	0,03569	0,11695	0,10331	0,11788	0,12965
3905,14526	0,03619	0,11806	0,10323	0,11834	0,12979
3903,2168	0,03513	0,11569	0,10263	0,11672	0,12852
3901,28833	0,03451	0,11445	0,10214	0,11594	0,12773
3899,35986	0,03485	0,11521	0,10171	0,11581	0,12754
3897,4314	0,03436	0,11417	0,10216	0,1155	0,12766
3895,50293	0,0347	0,11463	0,10227	0,11578	0,12807
3893,57446	0,03585	0,1173	0,10309	0,11781	0,12951
3891,646	0,0359	0,11737	0,10347	0,11822	0,12962
3889,71753	0,03373	0,11243	0,10175	0,11444	0,12692
3887,78906	0,0349	0,11555	0,10276	0,11687	0,12877
3885,8606	0,03604	0,11753	0,1044	0,11939	0,13052
3883,93213	0,03332	0,11188	0,10162	0,11374	0,12626
3882,00366	0,03495	0,1162	0,10168	0,116	0,12768
3880,0752	0,03613	0,11758	0,10116	0,11626	0,12779
3878,14673	0,03338	0,11186	0,10072	0,11312	0,1259
3876,21826	0,03488	0,1159	0,10334	0,11757	0,12918
3874,28979	0,0356	0,11647	0,10122	0,11585	0,12777
3872,36133	0,03435	0,1145	0,10071	0,11432	0,12654
3870,43286	0,03482	0,11639	0,10458	0,11886	0,1298
3868,50439	0,03315	0,11194	0,1013	0,1136	0,12592
3866,57593	0,03357	0,11324	0,10104	0,11424	0,1264
3864,64746	0,0351	0,11626	0,10318	0,11755	0,12896
3862,71899	0,03409	0,11351	0,09973	0,11276	0,12536
3860,79053	0,03384	0,11335	0,10132	0,11472	0,127
3858,86206	0,03452	0,11403	0,10187	0,11562	0,12802
3856,93359	0,0355	0,11598	0,09937	0,11385	0,12631
3855,00513	0,03477	0,11672	0,10835	0,12261	0,13301
3853,07666	0,03254	0,11178	0,10761	0,11986	0,13109
3851,14819	0,03038	0,10771	0,09997	0,10993	0,12296
3849,21973	0,03346	0,11275	0,0998	0,11268	0,12522
3847,29126	0,03434	0,11368	0,10186	0,11533	0,12787
3845,36279	0,03508	0,11495	0,1009	0,11505	0,12746
3843,43433	0,03498	0,11476	0,10133	0,1154	0,12756
3841,50586	0,03475	0,11405	0,09925	0,11324	0,12564
3839,57739	0,03477	0,11521	0,10094	0,11475	0,12655
3837,64893	0,03315	0,11295	0,10452	0,11641	0,12818
3835,72046	0,03195	0,10977	0,10102	0,11246	0,12519
3833,79199	0,0338	0,11307	0,09955	0,11317	0,12544
3831,86353	0,03413	0,11324	0,10127	0,11471	0,12698
3829,93506	0,03339	0,11135	0,09975	0,11248	0,12557

3828,00659	0,03456	0,11427	0,10069	0,11474	0,12702
3826,07813	0,03433	0,11343	0,10006	0,1135	0,12622
3824,14966	0,03399	0,11298	0,09911	0,11241	0,12541
3822,22119	0,03526	0,1164	0,10329	0,11824	0,1294
3820,29272	0,0333	0,11148	0,09844	0,11105	0,12378
3818,36426	0,03255	0,11101	0,09851	0,11092	0,12389
3816,43579	0,03354	0,11395	0,10463	0,11779	0,12931
3814,50732	0,03165	0,109	0,10143	0,11261	0,12561
3812,57886	0,03276	0,11087	0,09886	0,1116	0,12465
3810,65039	0,0341	0,11292	0,09986	0,11363	0,12642
3808,72192	0,03438	0,11409	0,10154	0,11547	0,12777
3806,79346	0,03331	0,11227	0,10252	0,11534	0,1275
3804,86499	0,03207	0,10933	0,09873	0,11066	0,12397
3802,93652	0,03425	0,11455	0,10078	0,11488	0,12683
3801,00806	0,03328	0,11251	0,10278	0,11498	0,12701
3799,07959	0,03104	0,10789	0,09855	0,10965	0,12306
3797,15112	0,03396	0,11359	0,09846	0,1127	0,12504
3795,22266	0,03326	0,11124	0,09962	0,11257	0,12528
3793,29419	0,03265	0,11017	0,09881	0,11144	0,12468
3791,36572	0,03396	0,11256	0,09993	0,11366	0,12646
3789,43726	0,03351	0,1112	0,09952	0,11269	0,12576
3787,50879	0,03337	0,11161	0,09945	0,11277	0,12575
3785,58032	0,03396	0,11294	0,09927	0,113	0,1258
3783,65186	0,0332	0,11099	0,09845	0,11148	0,12465
3781,72339	0,03326	0,11139	0,09943	0,11289	0,12577
3779,79492	0,03396	0,11272	0,09882	0,11282	0,12546
3777,86646	0,03282	0,11021	0,09812	0,11089	0,12402
3775,93799	0,03273	0,11003	0,09886	0,11174	0,12496
3774,00952	0,03322	0,11089	0,09896	0,1123	0,12549
3772,08105	0,03348	0,11183	0,09922	0,11296	0,12575
3770,15259	0,03349	0,11186	0,09891	0,11262	0,12518
3768,22412	0,03214	0,10914	0,09818	0,11065	0,12382
3766,29565	0,0328	0,11061	0,09808	0,11145	0,12433
3764,36719	0,03283	0,11021	0,09789	0,11099	0,124
3762,43872	0,03229	0,10962	0,09813	0,11081	0,12405
3760,51025	0,03345	0,11202	0,09878	0,11283	0,12536
3758,58179	0,03294	0,1106	0,09707	0,11033	0,12329
3756,65332	0,03204	0,10919	0,09676	0,10939	0,12268
3754,72485	0,03252	0,11044	0,0981	0,1113	0,12425
3752,79639	0,03244	0,1114	0,10019	0,11312	0,12538
3750,86792	0,0319	0,11072	0,10212	0,11434	0,12591
3748,93945	0,02871	0,10371	0,0986	0,1084	0,12172
3747,01099	0,03088	0,1088	0,0965	0,10872	0,12159
3745,08252	0,0322	0,11141	0,10281	0,1164	0,12735
3743,15405	0,02823	0,10258	0,09946	0,1096	0,12259
3741,22559	0,02988	0,10685	0,09319	0,10497	0,11841
3739,29712	0,03199	0,11124	0,09636	0,10971	0,12191
3737,36865	0,03124	0,11036	0,09882	0,11146	0,12336

3735,44019	0,03068	0,10987	0,09383	0,10644	0,11866
3733,51172	0,03002	0,10863	0,0941	0,10633	0,11841
3731,58325	0,02848	0,10566	0,09656	0,10745	0,11984
3729,65479	0,0286	0,10667	0,09538	0,10649	0,11911
3727,72632	0,02982	0,10947	0,09544	0,10784	0,12
3725,79785	0,02992	0,10899	0,09522	0,10766	0,11992
3723,86938	0,02961	0,10809	0,09423	0,10615	0,11865
3721,94092	0,0298	0,10842	0,09489	0,10705	0,11949
3720,01245	0,02973	0,10752	0,09513	0,10732	0,12003
3718,08398	0,02986	0,10741	0,09583	0,10809	0,12075
3716,15552	0,03018	0,1073	0,096	0,10857	0,12149
3714,22705	0,03076	0,10843	0,0971	0,1102	0,12268
3712,29858	0,03056	0,10892	0,09794	0,11072	0,12254
3710,37012	0,02854	0,10541	0,09556	0,10665	0,11896
3708,44165	0,02774	0,10476	0,09513	0,10639	0,1182
3706,51318	0,02779	0,10502	0,09479	0,10608	0,11829
3704,58472	0,02848	0,10612	0,09496	0,10695	0,11948
3702,65625	0,02925	0,10743	0,0958	0,1086	0,12046
3700,72778	0,028	0,1048	0,09442	0,10621	0,11856
3698,79932	0,02734	0,10408	0,09496	0,10649	0,11903
3696,87085	0,02791	0,10528	0,09503	0,10731	0,11962
3694,94238	0,02747	0,10441	0,09517	0,10712	0,11954
3693,01392	0,02708	0,10422	0,09504	0,10723	0,11945
3691,08545	0,02737	0,10536	0,09387	0,10697	0,11858
3689,15698	0,02537	0,10224	0,09635	0,10748	0,11899
3687,22852	0,02306	0,09764	0,0968	0,10629	0,11865
3685,30005	0,025	0,10012	0,09276	0,10442	0,11709
3683,37158	0,02631	0,10237	0,09437	0,10687	0,11913
3681,44312	0,02643	0,1025	0,09653	0,10874	0,12081
3679,51465	0,02718	0,10298	0,09316	0,1055	0,11813
3677,58618	0,02751	0,10484	0,09663	0,10897	0,12045
3675,65771	0,0279	0,10558	0,09745	0,11007	0,12073
3673,72925	0,02507	0,0982	0,09289	0,10285	0,11577
3671,80078	0,02639	0,10256	0,09657	0,10793	0,11987
3669,87231	0,02729	0,10451	0,09842	0,11051	0,12175
3667,94385	0,02575	0,09948	0,09341	0,10401	0,11694
3666,01538	0,02696	0,102	0,0945	0,10656	0,1192
3664,08691	0,0276	0,10325	0,09645	0,10902	0,12145
3662,15845	0,02764	0,10285	0,09545	0,10799	0,12054
3660,22998	0,02748	0,10257	0,09542	0,10771	0,12036
3658,30151	0,02787	0,10384	0,09608	0,10882	0,12118
3656,37305	0,02748	0,103	0,09662	0,10911	0,12117
3654,44458	0,0258	0,09975	0,09526	0,10635	0,11926
3652,51611	0,02736	0,10325	0,09431	0,10737	0,11972
3650,58765	0,02844	0,10548	0,09581	0,10969	0,12087
3648,65918	0,02614	0,10119	0,09427	0,10538	0,11739
3646,73071	0,02516	0,09939	0,09219	0,10316	0,11579
3644,80225	0,02561	0,09998	0,09347	0,10509	0,11766



3642,87378	0,02582	0,10085	0,09517	0,10709	0,11957
3640,94531	0,02608	0,10145	0,09491	0,10731	0,11964
3639,01685	0,02547	0,1003	0,09476	0,10667	0,11909
3637,08838	0,02524	0,10046	0,09478	0,10665	0,11894
3635,15991	0,02521	0,10069	0,09508	0,10727	0,1191
3633,23145	0,02442	0,09949	0,09326	0,10489	0,11707
3631,30298	0,02419	0,10047	0,09465	0,10642	0,11796
3629,37451	0,02433	0,1011	0,09656	0,10914	0,11958
3627,44604	0,02144	0,09483	0,09262	0,10221	0,11413
3625,51758	0,02195	0,0968	0,09239	0,10269	0,11458
3623,58911	0,02281	0,09857	0,09424	0,10558	0,11702
3621,66064	0,02269	0,0984	0,09446	0,10579	0,11721
3619,73218	0,02301	0,09909	0,09469	0,10655	0,11741
3617,80371	0,02177	0,09578	0,09304	0,10352	0,11521
3615,87524	0,0215	0,09607	0,09342	0,1039	0,11555
3613,94678	0,02243	0,09802	0,0944	0,10595	0,11687
3612,01831	0,02155	0,09549	0,0939	0,1046	0,11599
3610,08984	0,02053	0,09471	0,09554	0,10628	0,11726
3608,16138	0,0204	0,09545	0,09461	0,10569	0,11625
3606,23291	0,01964	0,094	0,09304	0,10302	0,114
3604,30444	0,01942	0,09407	0,09451	0,10475	0,11544
3602,37598	0,01964	0,09514	0,09503	0,10588	0,11607
3600,44751	0,01937	0,09494	0,09447	0,1048	0,11487
3598,51904	0,01878	0,09385	0,09437	0,10426	0,11452
3596,59058	0,01887	0,09429	0,09433	0,10475	0,11485
3594,66211	0,01893	0,09454	0,09425	0,10473	0,11464
3592,73364	0,01836	0,09307	0,09423	0,1039	0,11419
3590,80518	0,01842	0,09325	0,09565	0,10549	0,11547
3588,87671	0,01915	0,09458	0,096	0,10695	0,11634
3586,94824	0,01903	0,0936	0,09347	0,10384	0,11375
3585,01978	0,01791	0,09147	0,09441	0,10353	0,11368
3583,09131	0,01831	0,09238	0,09601	0,10567	0,11561
3581,16284	0,01867	0,09262	0,09614	0,10611	0,11604
3579,23438	0,01848	0,09231	0,09619	0,10596	0,11575
3577,30591	0,01841	0,09226	0,09642	0,10609	0,11585
3575,37744	0,01829	0,09215	0,09645	0,10611	0,11591
3573,44897	0,01809	0,0918	0,09641	0,10606	0,11582
3571,52051	0,01804	0,09146	0,09651	0,10596	0,11576
3569,59204	0,01824	0,09227	0,09681	0,10676	0,11625
3567,66357	0,01868	0,09343	0,09479	0,10541	0,11465
3565,73511	0,01776	0,09132	0,09356	0,10275	0,11243
3563,80664	0,01708	0,09028	0,09562	0,10429	0,11407
3561,87817	0,01743	0,09084	0,09663	0,1059	0,11543
3559,94971	0,0175	0,09061	0,09636	0,10561	0,11511
3558,02124	0,01722	0,09013	0,09671	0,10568	0,11525
3556,09277	0,01709	0,08983	0,09708	0,10593	0,11553
3554,16431	0,01717	0,09025	0,09683	0,10604	0,1155
3552,23584	0,01716	0,0903	0,09624	0,10551	0,11491

3550,30737	0,01659	0,08924	0,09661	0,1051	0,11469
3548,37891	0,01662	0,08962	0,09696	0,10583	0,11526
3546,45044	0,01705	0,09004	0,09598	0,1053	0,11457
3544,52197	0,01648	0,08901	0,09579	0,10432	0,11373
3542,59351	0,01606	0,0886	0,0965	0,10495	0,11432
3540,66504	0,01614	0,08828	0,09691	0,10561	0,11493
3538,73657	0,01608	0,0882	0,09704	0,10565	0,11501
3536,80811	0,01599	0,08837	0,09674	0,10527	0,11458
3534,87964	0,01572	0,08777	0,09668	0,10499	0,11427
3532,95117	0,0155	0,08725	0,09697	0,10531	0,11452
3531,02271	0,01545	0,08739	0,09689	0,10547	0,11452
3529,09424	0,01528	0,08765	0,0965	0,10483	0,11389
3527,16577	0,01501	0,08715	0,0963	0,10433	0,11351
3525,2373	0,01492	0,08675	0,09624	0,1045	0,11355
3523,30884	0,01479	0,08669	0,09617	0,10428	0,1133
3521,38037	0,0144	0,086	0,09648	0,10418	0,11329
3519,4519	0,01419	0,08563	0,09677	0,10465	0,11364
3517,52344	0,01407	0,0856	0,09668	0,10473	0,1137
3515,59497	0,01384	0,08541	0,09671	0,10462	0,11358
3513,6665	0,01382	0,08512	0,09679	0,10461	0,11347
3511,73804	0,01378	0,08497	0,09669	0,10456	0,11338
3509,80957	0,01362	0,08507	0,09632	0,10414	0,1129
3507,8811	0,01327	0,08435	0,0963	0,10371	0,11259
3505,95264	0,01307	0,08403	0,09671	0,10421	0,11304
3504,02417	0,01333	0,08471	0,09635	0,10422	0,11276
3502,0957	0,0132	0,08424	0,09591	0,10333	0,11206
3500,16724	0,01277	0,08349	0,09643	0,10361	0,11252
3498,23877	0,01276	0,08363	0,0967	0,10417	0,11291
3496,3103	0,01276	0,08358	0,09659	0,10392	0,11257
3494,38184	0,01264	0,0833	0,09673	0,10387	0,11247
3492,45337	0,0125	0,0831	0,09685	0,104	0,11265
3490,5249	0,01245	0,08308	0,09693	0,10397	0,11276
3488,59644	0,01259	0,08312	0,09686	0,10389	0,11259
3486,66797	0,01255	0,08283	0,09665	0,10369	0,11233
3484,7395	0,01232	0,08269	0,09684	0,10378	0,11246
3482,81104	0,01229	0,08286	0,09686	0,10375	0,11238
3480,88257	0,01231	0,08253	0,09663	0,10339	0,11208
3478,9541	0,01215	0,08214	0,0969	0,10364	0,11232
3477,02563	0,01205	0,08229	0,09717	0,104	0,11246
3475,09717	0,01212	0,08218	0,09702	0,10381	0,11229
3473,1687	0,01208	0,08194	0,09695	0,1036	0,11228
3471,24023	0,01205	0,08198	0,09717	0,10365	0,11225
3469,31177	0,0121	0,08197	0,09718	0,10375	0,11224
3467,3833	0,01204	0,0818	0,09709	0,10366	0,11225
3465,45483	0,01193	0,08156	0,09721	0,1036	0,11215
3463,52637	0,0119	0,08154	0,09713	0,10355	0,11195
3461,5979	0,01183	0,08145	0,09712	0,10341	0,11186
3459,66943	0,01174	0,08124	0,09727	0,10354	0,11202

3457,74097	0,01171	0,08117	0,09722	0,10355	0,11197
3455,8125	0,01157	0,08106	0,09735	0,10344	0,11185
3453,88403	0,01155	0,08107	0,09736	0,10357	0,11195
3451,95557	0,0116	0,08095	0,09731	0,10354	0,11196
3450,0271	0,01145	0,08092	0,09749	0,10348	0,11198
3448,09863	0,01156	0,08132	0,09711	0,10333	0,11177
3446,17017	0,01152	0,08097	0,09694	0,10297	0,11139
3444,2417	0,01129	0,08064	0,09736	0,10311	0,11163
3442,31323	0,01144	0,08095	0,09725	0,10336	0,11183
3440,38477	0,01138	0,08074	0,09729	0,10335	0,11178
3438,4563	0,01126	0,08067	0,09761	0,1034	0,1119
3436,52783	0,01139	0,08083	0,09754	0,10343	0,11186
3434,59937	0,0114	0,08082	0,09755	0,10345	0,11186
3432,6709	0,01144	0,08103	0,0976	0,10342	0,11195
3430,74243	0,01151	0,08095	0,0975	0,10338	0,11196
3428,81396	0,01155	0,0809	0,09754	0,10342	0,11203
3426,8855	0,01162	0,08111	0,09762	0,10337	0,11196
3424,95703	0,01162	0,08107	0,09768	0,10349	0,11202
3423,02856	0,01168	0,08127	0,09779	0,10359	0,11216
3421,1001	0,01181	0,08158	0,09762	0,10337	0,11193
3419,17163	0,01188	0,08142	0,09752	0,10333	0,11191
3417,24316	0,0119	0,0814	0,09779	0,10347	0,11221
3415,3147	0,01189	0,0817	0,09794	0,10355	0,11227
3413,38623	0,01199	0,08184	0,09792	0,10362	0,11227
3411,45776	0,01213	0,08185	0,09789	0,10364	0,11235
3409,5293	0,01217	0,08193	0,09784	0,10367	0,11238
3407,60083	0,01226	0,08207	0,09788	0,10366	0,11239
3405,67236	0,01229	0,08221	0,09791	0,10372	0,11245
3403,7439	0,01223	0,08231	0,09782	0,10373	0,11252
3401,81543	0,0123	0,08234	0,09778	0,1037	0,11264
3399,88696	0,01246	0,08255	0,09789	0,10378	0,11276
3397,9585	0,0125	0,08284	0,09776	0,10362	0,11262
3396,03003	0,01249	0,08277	0,09768	0,10353	0,11261
3394,10156	0,01248	0,08283	0,09773	0,10369	0,11287
3392,1731	0,01253	0,08313	0,0976	0,1035	0,1128
3390,24463	0,01272	0,08303	0,09763	0,10345	0,11275
3388,31616	0,01265	0,08302	0,09768	0,10368	0,11299
3386,3877	0,01256	0,08335	0,09753	0,1036	0,11307
3384,45923	0,01276	0,08343	0,09738	0,10341	0,11301
3382,53076	0,01274	0,08349	0,09733	0,10348	0,11303
3380,60229	0,01278	0,08373	0,09734	0,10359	0,11317
3378,67383	0,01297	0,08378	0,09729	0,10358	0,11332
3376,74536	0,01287	0,0839	0,0972	0,10361	0,11334
3374,81689	0,01294	0,08416	0,09713	0,10356	0,11338
3372,88843	0,01313	0,08425	0,09706	0,10346	0,11341
3370,95996	0,01308	0,08435	0,09696	0,10345	0,1134
3369,03149	0,01311	0,08471	0,09685	0,10342	0,11349
3367,10303	0,01327	0,08507	0,09675	0,10338	0,11354

3365,17456	0,01329	0,08509	0,0966	0,10333	0,11345
3363,24609	0,01333	0,08514	0,09656	0,1033	0,11353
3361,31763	0,01354	0,08543	0,09648	0,10335	0,11363
3359,38916	0,0136	0,08554	0,09635	0,10339	0,11361
3357,46069	0,01363	0,0857	0,09623	0,10338	0,11372
3355,53223	0,01382	0,08592	0,09606	0,10332	0,11382
3353,60376	0,01389	0,08599	0,09605	0,10329	0,11377
3351,67529	0,01385	0,08628	0,09608	0,10328	0,1138
3349,74683	0,01395	0,08659	0,09598	0,10327	0,11395
3347,81836	0,01406	0,08664	0,09586	0,10328	0,11394
3345,88989	0,01402	0,08675	0,09581	0,10318	0,11383
3343,96143	0,01405	0,08708	0,0958	0,1032	0,11389
3342,03296	0,01415	0,08722	0,09559	0,10329	0,114
3340,10449	0,01419	0,0871	0,09542	0,10322	0,11407
3338,17603	0,01431	0,08733	0,09542	0,10315	0,1141
3336,24756	0,01443	0,08765	0,09527	0,10306	0,11401
3334,31909	0,01443	0,0876	0,09515	0,10299	0,11403
3332,39063	0,01444	0,0877	0,09518	0,10298	0,11408
3330,46216	0,01446	0,0879	0,09511	0,10299	0,11403
3328,53369	0,01448	0,08796	0,09505	0,10293	0,11404
3326,60522	0,01456	0,08817	0,09505	0,10292	0,11415
3324,67676	0,01468	0,08836	0,09499	0,10293	0,11416
3322,74829	0,01474	0,08835	0,09487	0,10281	0,11408
3320,81982	0,01464	0,08847	0,09474	0,10278	0,11414
3318,89136	0,01451	0,08867	0,09464	0,10284	0,11419
3316,96289	0,0146	0,08862	0,09463	0,1028	0,11413
3315,03442	0,01471	0,08863	0,09454	0,10272	0,1141
3313,10596	0,0147	0,0888	0,09437	0,10262	0,11411
3311,17749	0,01469	0,08891	0,09438	0,10257	0,11413
3309,24902	0,01471	0,08904	0,09439	0,10254	0,11401
3307,32056	0,01477	0,08905	0,0943	0,10254	0,11403
3305,39209	0,0149	0,08908	0,09426	0,10245	0,11414
3303,46362	0,01495	0,08913	0,0942	0,10229	0,11404
3301,53516	0,01483	0,08903	0,09414	0,10236	0,11407
3299,60669	0,01475	0,08915	0,09407	0,10237	0,1141
3297,67822	0,01485	0,08925	0,09397	0,1022	0,11399
3295,74976	0,01487	0,08919	0,09392	0,10223	0,11403
3293,82129	0,01474	0,08935	0,09392	0,10224	0,11402
3291,89282	0,01475	0,08943	0,09388	0,10206	0,11386
3289,96436	0,01478	0,08937	0,09376	0,10194	0,11382
3288,03589	0,01472	0,08941	0,09374	0,10193	0,11386
3286,10742	0,01481	0,08939	0,09367	0,10188	0,11379
3284,17896	0,01489	0,08933	0,09348	0,10187	0,11368
3282,25049	0,01476	0,08935	0,09345	0,10187	0,11366
3280,32202	0,01471	0,0894	0,09343	0,10175	0,11369
3278,39355	0,0147	0,08932	0,09334	0,10168	0,11363
3276,46509	0,01464	0,08939	0,09329	0,10159	0,11356
3274,53662	0,01458	0,08952	0,09328	0,10149	0,11353

3272,60815	0,01453	0,0894	0,09325	0,10146	0,11344
3270,67969	0,01453	0,08944	0,09315	0,1014	0,11343
3268,75122	0,0145	0,0895	0,09315	0,10136	0,11347
3266,82275	0,01448	0,08938	0,09314	0,10134	0,11341
3264,89429	0,01452	0,08937	0,09294	0,10133	0,11335
3262,96582	0,0145	0,08938	0,09288	0,1013	0,1133
3261,03735	0,01442	0,0894	0,09288	0,10118	0,11328
3259,10889	0,01443	0,08941	0,09284	0,10111	0,11326
3257,18042	0,01443	0,08939	0,09279	0,10113	0,11318
3255,25195	0,01435	0,08949	0,09261	0,10093	0,113
3253,32349	0,01439	0,08943	0,09259	0,10076	0,11287
3251,39502	0,0144	0,08926	0,09265	0,10089	0,11296
3249,46655	0,01431	0,08928	0,09259	0,10093	0,11295
3247,53809	0,01427	0,08945	0,09255	0,10089	0,11294
3245,60962	0,01425	0,08952	0,09244	0,10082	0,11294
3243,68115	0,01424	0,08941	0,09236	0,10062	0,11275
3241,75269	0,01419	0,08937	0,09231	0,1006	0,11274
3239,82422	0,01419	0,08946	0,09226	0,10058	0,11278
3237,89575	0,01424	0,08947	0,09221	0,1004	0,11263
3235,96729	0,01417	0,08942	0,09209	0,10035	0,11264
3234,03882	0,01421	0,08948	0,09202	0,10036	0,11264
3232,11035	0,01423	0,08948	0,09199	0,10023	0,1125
3230,18188	0,01406	0,08943	0,09198	0,10014	0,11245
3228,25342	0,01403	0,08946	0,09198	0,10014	0,11244
3226,32495	0,01407	0,08946	0,09182	0,10005	0,11233
3224,39648	0,014	0,08942	0,09168	0,1	0,1123
3222,46802	0,01397	0,08947	0,0917	0,10004	0,11231
3220,53955	0,01403	0,08959	0,09165	0,09992	0,11221
3218,61108	0,014	0,08953	0,09154	0,09979	0,11212
3216,68262	0,01392	0,08951	0,09157	0,09976	0,11213
3214,75415	0,01393	0,0896	0,0915	0,0997	0,11206
3212,82568	0,01387	0,08947	0,09139	0,09961	0,11196
3210,89722	0,01379	0,08951	0,09132	0,09954	0,11196
3208,96875	0,01376	0,08951	0,09115	0,09947	0,11187
3207,04028	0,01377	0,0894	0,0912	0,09942	0,11185
3205,11182	0,01379	0,08958	0,09127	0,09934	0,11184
3203,18335	0,01376	0,0896	0,09113	0,09928	0,11175
3201,25488	0,01374	0,08957	0,09109	0,09932	0,11177
3199,32642	0,01371	0,08981	0,091	0,09922	0,11175
3197,39795	0,01367	0,08984	0,09082	0,09905	0,11162
3195,46948	0,01363	0,08972	0,0908	0,099	0,11159
3193,54102	0,0136	0,08968	0,0908	0,099	0,11155
3191,61255	0,01367	0,08974	0,09073	0,09897	0,1115
3189,68408	0,01366	0,08983	0,09071	0,09893	0,11157
3187,75562	0,01362	0,08986	0,09071	0,0989	0,11153
3185,82715	0,01368	0,08993	0,09065	0,0988	0,1114
3183,89868	0,01363	0,08997	0,0905	0,09867	0,11132
3181,97021	0,0136	0,08999	0,0904	0,09868	0,11128

3180,04175	0,01369	0,09006	0,09035	0,09864	0,11127
3178,11328	0,01366	0,09003	0,09027	0,0985	0,1112
3176,18481	0,01359	0,08997	0,09022	0,09848	0,11114
3174,25635	0,0136	0,09	0,09018	0,09849	0,11118
3172,32788	0,01357	0,09006	0,09015	0,0984	0,11111
3170,39941	0,01359	0,09016	0,09013	0,0983	0,11098
3168,47095	0,0136	0,09016	0,09009	0,09828	0,11097
3166,54248	0,01351	0,09011	0,09003	0,09824	0,111
3164,61401	0,01351	0,09018	0,08994	0,0982	0,11094
3162,68555	0,01354	0,09021	0,08987	0,09818	0,11086
3160,75708	0,01351	0,09017	0,0898	0,09806	0,11083
3158,82861	0,01346	0,09018	0,08969	0,09802	0,1108
3156,90015	0,01342	0,09016	0,08964	0,09801	0,11073
3154,97168	0,01343	0,09013	0,08964	0,09787	0,11061
3153,04321	0,01339	0,09023	0,08959	0,09786	0,11057
3151,11475	0,01334	0,09031	0,08949	0,09784	0,11053
3149,18628	0,01337	0,09025	0,08943	0,09765	0,11039
3147,25781	0,01332	0,09023	0,08941	0,09763	0,1104
3145,32935	0,01324	0,09023	0,08938	0,09767	0,11037
3143,40088	0,0132	0,09019	0,08933	0,09751	0,11019
3141,47241	0,01316	0,09023	0,08926	0,0974	0,11019
3139,54395	0,01323	0,09033	0,08921	0,0974	0,11019
3137,61548	0,0132	0,09024	0,08912	0,09735	0,11008
3135,68701	0,01315	0,09022	0,08901	0,0973	0,11004
3133,75854	0,01316	0,09035	0,08895	0,09716	0,10992
3131,83008	0,01308	0,09014	0,08892	0,09707	0,10979
3129,90161	0,01307	0,09009	0,08887	0,09714	0,10984
3127,97314	0,01306	0,09023	0,08879	0,09703	0,10983
3126,04468	0,01298	0,0901	0,08878	0,0969	0,10971
3124,11621	0,013	0,09016	0,08874	0,09693	0,1096
3122,18774	0,01302	0,09022	0,08861	0,09681	0,1095
3120,25928	0,01296	0,09015	0,08859	0,09671	0,10951
3118,33081	0,01294	0,09033	0,08855	0,09674	0,10957
3116,40234	0,01289	0,09042	0,08848	0,09663	0,10943
3114,47388	0,01281	0,09024	0,08846	0,09652	0,10923
3112,54541	0,01277	0,09009	0,08835	0,09649	0,10917
3110,61694	0,01269	0,09011	0,08832	0,09644	0,10917
3108,68848	0,01262	0,09023	0,08833	0,09641	0,10915
3106,76001	0,01264	0,0902	0,08819	0,09638	0,10912
3104,83154	0,01269	0,09009	0,0881	0,09639	0,10908
3102,90308	0,01265	0,09016	0,0881	0,09636	0,10897
3100,97461	0,01258	0,09019	0,08801	0,09621	0,10886
3099,04614	0,01256	0,09012	0,08792	0,09617	0,10886
3097,11768	0,01255	0,09024	0,08788	0,09617	0,10882
3095,18921	0,01243	0,09023	0,08782	0,09602	0,1087
3093,26074	0,01243	0,09006	0,08779	0,09599	0,10871
3091,33228	0,01245	0,09014	0,0878	0,09607	0,10875
3089,40381	0,01235	0,0902	0,08783	0,09597	0,10869

3087,47534	0,01237	0,09012	0,08773	0,09591	0,10864
3085,54688	0,01238	0,09012	0,0876	0,09592	0,10866
3083,61841	0,01224	0,09014	0,08758	0,09582	0,10861
3081,68994	0,01216	0,09014	0,08749	0,09568	0,10847
3079,76147	0,01216	0,09022	0,08739	0,09562	0,10841
3077,83301	0,01214	0,09022	0,08737	0,09561	0,10841
3075,90454	0,01206	0,09006	0,08736	0,09558	0,10835
3073,97607	0,01202	0,08998	0,08728	0,09555	0,10832
3072,04761	0,01196	0,08996	0,08723	0,09548	0,10828
3070,11914	0,01189	0,08998	0,0873	0,09537	0,10817
3068,19067	0,01196	0,09011	0,08722	0,09543	0,10812
3066,26221	0,0119	0,0901	0,08706	0,09538	0,10805
3064,33374	0,01177	0,08994	0,08701	0,09517	0,10789
3062,40527	0,01176	0,08982	0,08702	0,09515	0,10788
3060,47681	0,01168	0,08986	0,08701	0,09516	0,10796
3058,54834	0,01165	0,08995	0,08688	0,0951	0,10787
3056,61987	0,01167	0,08994	0,08679	0,09499	0,10777
3054,69141	0,01155	0,0899	0,08686	0,09489	0,10773
3052,76294	0,01151	0,08989	0,08686	0,09497	0,10775
3050,83447	0,01162	0,08989	0,08679	0,095	0,1078
3048,90601	0,0116	0,08985	0,08676	0,09487	0,10772
3046,97754	0,01152	0,08974	0,0867	0,09478	0,1076
3045,04907	0,01149	0,08968	0,08662	0,09472	0,10753
3043,12061	0,01143	0,08974	0,08664	0,09471	0,10749
3041,19214	0,01139	0,08978	0,08663	0,09468	0,10748
3039,26367	0,01135	0,08968	0,08656	0,09462	0,10741
3037,33521	0,01128	0,08966	0,08654	0,09454	0,10729
3035,40674	0,0113	0,08982	0,08644	0,09443	0,10724
3033,47827	0,0113	0,08987	0,08633	0,09438	0,10719
3031,5498	0,01119	0,08974	0,08627	0,09422	0,10705
3029,62134	0,01116	0,0896	0,08626	0,09418	0,10707
3027,69287	0,01116	0,08953	0,0863	0,09429	0,10717
3025,7644	0,01114	0,08955	0,08628	0,09414	0,1071
3023,83594	0,01116	0,08955	0,08622	0,09407	0,10708
3021,90747	0,01112	0,0895	0,08619	0,09412	0,10697
3019,979	0,01113	0,08955	0,08618	0,09408	0,10686
3018,05054	0,01118	0,08956	0,08605	0,09418	0,10693
3016,12207	0,01106	0,08952	0,08589	0,09408	0,10685
3014,1936	0,01099	0,08958	0,08596	0,09386	0,1068
3012,26514	0,01101	0,0896	0,086	0,09383	0,10682
3010,33667	0,01087	0,08947	0,08587	0,09378	0,10671
3008,4082	0,01073	0,08938	0,08592	0,09378	0,10674
3006,47974	0,01061	0,08941	0,08592	0,0938	0,10675
3004,55127	0,01045	0,08936	0,08572	0,09367	0,10659
3002,6228	0,01036	0,08923	0,08572	0,09358	0,10658
3000,69434	0,01031	0,08924	0,08579	0,09356	0,10661
2998,76587	0,01018	0,08926	0,08574	0,09356	0,10663
2996,8374	0,01005	0,08922	0,08576	0,09356	0,10671

2994,90894	0,00995	0,08927	0,08566	0,09351	0,10668
2992,98047	0,00982	0,08923	0,08555	0,09345	0,10663
2991,052	0,00967	0,08914	0,0856	0,09344	0,10674
2989,12354	0,00945	0,08913	0,08553	0,09336	0,10676
2987,19507	0,00926	0,08907	0,08543	0,09325	0,10676
2985,2666	0,00906	0,08897	0,08547	0,09325	0,10691
2983,33813	0,00881	0,08892	0,08545	0,09328	0,10703
2981,40967	0,00867	0,08896	0,0854	0,0933	0,10723
2979,4812	0,00849	0,08893	0,08539	0,09332	0,10756
2977,55273	0,0083	0,0888	0,08533	0,0934	0,10785
2975,62427	0,00829	0,0888	0,08531	0,09349	0,10821
2973,6958	0,0082	0,08873	0,08532	0,09345	0,1087
2971,76733	0,00819	0,08855	0,08532	0,09351	0,1094
2969,83887	0,00817	0,08852	0,08532	0,09366	0,11027
2967,9104	0,00815	0,0885	0,08526	0,09372	0,11106
2965,98193	0,00814	0,08841	0,08524	0,09381	0,11176
2964,05347	0,00812	0,08842	0,08525	0,09387	0,11238
2962,125	0,0081	0,08843	0,08516	0,09389	0,11283
2960,19653	0,00809	0,08838	0,0851	0,09386	0,11302
2958,26807	0,00807	0,08836	0,08511	0,09381	0,11295
2956,3396	0,00805	0,08832	0,08506	0,0938	0,11276
2954,41113	0,00804	0,08827	0,08505	0,09366	0,11237
2952,48267	0,00802	0,08829	0,08504	0,09355	0,11183
2950,5542	0,008	0,08828	0,08499	0,09354	0,11134
2948,62573	0,00799	0,08825	0,08499	0,09345	0,11083
2946,69727	0,00797	0,08827	0,08498	0,0934	0,11046
2944,7688	0,00795	0,08833	0,08501	0,09338	0,11034
2942,84033	0,00792	0,08833	0,08501	0,09336	0,11037
2940,91187	0,0079	0,08824	0,08497	0,09343	0,11055
2938,9834	0,00786	0,08823	0,08501	0,09352	0,11078
2937,05493	0,00784	0,0883	0,08494	0,0936	0,11103
2935,12646	0,00783	0,08827	0,08487	0,09359	0,1113
2933,198	0,00782	0,08818	0,08496	0,09359	0,11137
2931,26953	0,00783	0,08823	0,08502	0,09371	0,11135
2929,34106	0,00786	0,08828	0,08506	0,09379	0,11129
2927,4126	0,00784	0,0882	0,08505	0,09377	0,11101
2925,48413	0,00782	0,08817	0,085	0,09368	0,11069
2923,55566	0,0078	0,08806	0,085	0,09355	0,11041
2921,6272	0,00778	0,08788	0,08493	0,09345	0,11003
2919,69873	0,00776	0,0878	0,08491	0,09332	0,10966
2917,77026	0,00774	0,08769	0,08487	0,09313	0,10936
2915,8418	0,00772	0,08769	0,0847	0,09296	0,10899
2913,91333	0,0077	0,08789	0,08467	0,09275	0,10861
2911,98486	0,00768	0,08799	0,08464	0,09258	0,10831
2910,0564	0,00766	0,08797	0,08455	0,09253	0,10797
2908,12793	0,0076	0,088	0,08451	0,09242	0,10757
2906,19946	0,00765	0,088	0,08441	0,09225	0,10731
2904,271	0,00764	0,08795	0,08444	0,09218	0,10717



2902,34253	0,0076	0,08791	0,0845	0,09213	0,10698
2900,41406	0,00765	0,08791	0,08445	0,09206	0,10676
2898,4856	0,00758	0,08797	0,08439	0,09199	0,10662
2896,55713	0,00748	0,08803	0,08432	0,09197	0,10655
2894,62866	0,00752	0,08797	0,08424	0,09195	0,10641
2892,7002	0,00745	0,08786	0,08417	0,09187	0,10629
2890,77173	0,00741	0,0878	0,08418	0,0918	0,10621
2888,84326	0,00747	0,08781	0,08417	0,09173	0,1061
2886,91479	0,00741	0,08782	0,08408	0,09167	0,10603
2884,98633	0,0074	0,08776	0,08413	0,09168	0,10605
2883,05786	0,00744	0,08773	0,08412	0,09166	0,10611
2881,12939	0,00734	0,08771	0,08404	0,09169	0,10625
2879,20093	0,00723	0,08766	0,08405	0,0917	0,10644
2877,27246	0,00722	0,08764	0,08397	0,09167	0,10658
2875,34399	0,00729	0,08766	0,08395	0,0917	0,10682
2873,41553	0,00736	0,08772	0,08405	0,09169	0,10711
2871,48706	0,00736	0,08776	0,08401	0,09164	0,10721
2869,55859	0,00729	0,08764	0,08387	0,09164	0,10712
2867,63013	0,00728	0,08763	0,08384	0,09161	0,10691
2865,70166	0,00729	0,08767	0,0839	0,09151	0,1067
2863,77319	0,00723	0,08753	0,08388	0,09148	0,10669
2861,84473	0,00722	0,08751	0,0838	0,0915	0,10674
2859,91626	0,00721	0,08757	0,08377	0,09146	0,10666
2857,98779	0,00711	0,08747	0,08377	0,0915	0,10655
2856,05933	0,00707	0,08745	0,08378	0,09151	0,10629
2854,13086	0,00716	0,08757	0,08381	0,09137	0,10588
2852,20239	0,00723	0,08763	0,08379	0,0913	0,10551
2850,27393	0,00728	0,08766	0,0837	0,09126	0,10519
2848,34546	0,00729	0,08761	0,08364	0,09106	0,10483
2846,41699	0,00725	0,0875	0,08359	0,09081	0,10444
2844,48853	0,00723	0,08748	0,08345	0,09068	0,10408
2842,56006	0,00717	0,08741	0,08331	0,09064	0,10385
2840,63159	0,00713	0,08736	0,08324	0,09054	0,10373
2838,70313	0,00715	0,0874	0,08325	0,09047	0,1036
2836,77466	0,00714	0,08738	0,08324	0,09039	0,10341
2834,84619	0,00715	0,0874	0,08317	0,09033	0,1033
2832,91772	0,00713	0,08738	0,08312	0,09034	0,10322
2830,98926	0,00711	0,08732	0,08309	0,09029	0,10307
2829,06079	0,00713	0,08732	0,08307	0,09024	0,10298
2827,13232	0,00715	0,08727	0,08305	0,09021	0,1029
2825,20386	0,00715	0,0873	0,08305	0,09012	0,10274
2823,27539	0,00711	0,08737	0,08306	0,09006	0,10266
2821,34692	0,0071	0,08733	0,08301	0,09003	0,10265
2819,41846	0,00711	0,0873	0,08295	0,09002	0,10261
2817,48999	0,00706	0,08732	0,08293	0,09003	0,10251
2815,56152	0,0071	0,08735	0,08295	0,08997	0,10244
2813,63306	0,00712	0,08737	0,08294	0,0899	0,10242
2811,70459	0,00706	0,0874	0,08292	0,08988	0,10231

2809,77612	0,00705	0,08744	0,08295	0,08988	0,10225
2807,84766	0,00703	0,0874	0,08293	0,08986	0,1022
2805,91919	0,00698	0,08734	0,08286	0,08979	0,10211
2803,99072	0,007	0,08735	0,08285	0,08974	0,10211
2802,06226	0,00706	0,08731	0,08285	0,08972	0,10205
2800,13379	0,00707	0,08729	0,08283	0,08969	0,10199
2798,20532	0,00709	0,08738	0,08281	0,08968	0,10197
2796,27686	0,00711	0,08743	0,08273	0,08969	0,10193
2794,34839	0,00709	0,08735	0,08269	0,08967	0,10192
2792,41992	0,00712	0,08734	0,08271	0,08961	0,10181
2790,49146	0,00715	0,08742	0,08268	0,0896	0,10171
2788,56299	0,00714	0,08745	0,0827	0,08958	0,10174
2786,63452	0,00709	0,08747	0,08274	0,0895	0,1017
2784,70605	0,00702	0,0875	0,08271	0,08949	0,10163
2782,77759	0,00704	0,08748	0,08273	0,08955	0,10157
2780,84912	0,0071	0,0875	0,08268	0,08953	0,10152
2778,92065	0,00711	0,08756	0,08261	0,08951	0,10151
2776,99219	0,0071	0,08759	0,08266	0,0895	0,10151
2775,06372	0,00709	0,0876	0,08264	0,08947	0,10147
2773,13525	0,00706	0,08758	0,08259	0,08942	0,10139
2771,20679	0,00706	0,08756	0,08258	0,08935	0,10134
2769,27832	0,00712	0,0876	0,08255	0,08929	0,10133
2767,34985	0,00711	0,08761	0,08251	0,08927	0,10129
2765,42139	0,0071	0,0876	0,08243	0,08929	0,10123
2763,49292	0,00712	0,08765	0,08244	0,08924	0,10115
2761,56445	0,00708	0,08768	0,08244	0,08916	0,1011
2759,63599	0,00709	0,08764	0,08238	0,08918	0,10115
2757,70752	0,0071	0,08762	0,08241	0,08923	0,10111
2755,77905	0,00701	0,08764	0,08242	0,08915	0,10099
2753,85059	0,007	0,08764	0,08238	0,08905	0,10099
2751,92212	0,00703	0,08768	0,08236	0,08908	0,10101
2749,99365	0,007	0,08771	0,08233	0,08911	0,10096
2748,06519	0,00708	0,08769	0,08232	0,08906	0,10094
2746,13672	0,00706	0,08772	0,08228	0,0891	0,10092
2744,20825	0,00698	0,08778	0,08224	0,08911	0,10089
2742,27979	0,00706	0,08772	0,08227	0,08901	0,10086
2740,35132	0,00701	0,08761	0,08228	0,08902	0,10086
2738,42285	0,00694	0,08764	0,08225	0,08903	0,1009
2736,49438	0,00701	0,08772	0,08219	0,08897	0,10083
2734,56592	0,00696	0,08771	0,08217	0,08893	0,10074
2732,63745	0,00688	0,08769	0,08222	0,08889	0,10076
2730,70898	0,00684	0,08769	0,08217	0,08886	0,10078
2728,78052	0,00681	0,08774	0,08211	0,08886	0,10074
2726,85205	0,00681	0,08781	0,08215	0,08881	0,1007
2724,92358	0,0068	0,08778	0,08214	0,08879	0,10071
2722,99512	0,00677	0,08778	0,08214	0,08877	0,10069
2721,06665	0,00682	0,0878	0,08219	0,08869	0,10059
2719,13818	0,00682	0,08778	0,08219	0,08865	0,10052

2717,20972	0,00677	0,08778	0,08215	0,08868	0,10049
2715,28125	0,00679	0,08777	0,08219	0,08862	0,10044
2713,35278	0,00684	0,08775	0,08216	0,08852	0,10041
2711,42432	0,00685	0,08776	0,08208	0,08853	0,1004
2709,49585	0,00688	0,08775	0,08211	0,08851	0,10035
2707,56738	0,00691	0,08778	0,0821	0,08848	0,10033
2705,63892	0,00691	0,08782	0,08209	0,0885	0,10032
2703,71045	0,00689	0,08783	0,08212	0,08847	0,10025
2701,78198	0,00689	0,08784	0,08208	0,08849	0,10024
2699,85352	0,00694	0,08786	0,08208	0,08858	0,1003
2697,92505	0,00702	0,08792	0,08215	0,08855	0,10025
2695,99658	0,00701	0,08796	0,08215	0,08848	0,10019
2694,06812	0,00701	0,08799	0,08212	0,08847	0,10018
2692,13965	0,00705	0,08804	0,08212	0,08847	0,10012
2690,21118	0,00698	0,08805	0,08215	0,08844	0,10007
2688,28271	0,0069	0,08807	0,08213	0,08843	0,10008
2686,35425	0,00692	0,08813	0,0821	0,08843	0,10009
2684,42578	0,00694	0,08813	0,08208	0,08841	0,1001
2682,49731	0,00698	0,08814	0,08209	0,08841	0,10014
2680,56885	0,00706	0,08825	0,08211	0,0884	0,10011
2678,64038	0,00712	0,08829	0,0821	0,08831	0,10007
2676,71191	0,00716	0,08832	0,08215	0,08829	0,10008
2674,78345	0,00719	0,08848	0,08217	0,0883	0,10005
2672,85498	0,00725	0,08855	0,08214	0,08827	0,10003
2670,92651	0,00727	0,08854	0,08216	0,08828	0,10004
2668,99805	0,00728	0,08864	0,08216	0,08829	0,09999
2667,06958	0,00732	0,08871	0,08214	0,08829	0,09995
2665,14111	0,00734	0,08877	0,08212	0,08831	0,09998
2663,21265	0,00743	0,08883	0,08212	0,08832	0,1
2661,28418	0,0075	0,08889	0,08214	0,08831	0,09997
2659,35571	0,00746	0,08902	0,08215	0,08831	0,09996
2657,42725	0,00754	0,0891	0,08214	0,08833	0,09996
2655,49878	0,00762	0,08915	0,08212	0,08835	0,09996
2653,57031	0,00764	0,08929	0,08212	0,08831	0,09999
2651,64185	0,00771	0,0894	0,08211	0,08829	0,1
2649,71338	0,00775	0,08944	0,08212	0,08831	0,10001
2647,78491	0,00776	0,08955	0,08212	0,08829	0,1
2645,85645	0,00783	0,08964	0,08208	0,08822	0,09994
2643,92798	0,00789	0,08965	0,08211	0,08823	0,09996
2641,99951	0,00792	0,08967	0,08216	0,0883	0,09997
2640,07104	0,00793	0,08972	0,08217	0,08825	0,09992
2638,14258	0,00792	0,08978	0,08216	0,0882	0,0999
2636,21411	0,00795	0,08986	0,08212	0,08827	0,09991
2634,28564	0,00797	0,08991	0,08215	0,08824	0,09992
2632,35718	0,00794	0,08986	0,08216	0,08817	0,09993
2630,42871	0,00796	0,08985	0,08211	0,0882	0,09991
2628,50024	0,00798	0,08989	0,08212	0,0882	0,0999
2626,57178	0,00794	0,08992	0,08212	0,08815	0,09987

2624,64331	0,00791	0,0899	0,08204	0,08812	0,09982
2622,71484	0,00793	0,08981	0,08204	0,0881	0,09979
2620,78638	0,00795	0,08981	0,08202	0,08811	0,09983
2618,85791	0,00794	0,08982	0,08197	0,08805	0,09981
2616,92944	0,00791	0,08973	0,082	0,08793	0,09969
2615,00098	0,00785	0,08968	0,08198	0,08792	0,09963
2613,07251	0,0078	0,08962	0,08191	0,08796	0,09961
2611,14404	0,00779	0,08955	0,08188	0,08788	0,09955
2609,21558	0,00775	0,0895	0,08185	0,08782	0,09951
2607,28711	0,00767	0,08937	0,08185	0,08779	0,09944
2605,35864	0,00758	0,08926	0,08189	0,08773	0,09934
2603,43018	0,00753	0,08922	0,08185	0,08775	0,09933
2601,50171	0,00755	0,08911	0,0818	0,08776	0,0993
2599,57324	0,00748	0,08899	0,0818	0,08767	0,09918
2597,64478	0,00731	0,08885	0,08177	0,08763	0,09915
2595,71631	0,00722	0,08871	0,08174	0,08762	0,09912
2593,78784	0,00716	0,08862	0,08168	0,08751	0,09902
2591,85938	0,00716	0,08848	0,0816	0,08744	0,09897
2589,93091	0,00714	0,08835	0,08163	0,08744	0,09891
2588,00244	0,00705	0,08828	0,08163	0,08737	0,09883
2586,07397	0,00702	0,08813	0,08149	0,08731	0,09877
2584,14551	0,00699	0,08797	0,08141	0,08729	0,09874
2582,21704	0,00688	0,08787	0,08144	0,08727	0,09875
2580,28857	0,00679	0,08777	0,08142	0,08724	0,09873
2578,36011	0,00675	0,0877	0,08136	0,08718	0,09864
2576,43164	0,0067	0,08761	0,08132	0,08716	0,09858
2574,50317	0,00659	0,08749	0,08126	0,08712	0,09852
2572,57471	0,0065	0,08738	0,08122	0,08703	0,09844
2570,64624	0,00646	0,08725	0,08123	0,08703	0,09841
2568,71777	0,00641	0,08713	0,08117	0,08704	0,09836
2566,78931	0,00636	0,08705	0,08107	0,08698	0,09826
2564,86084	0,00632	0,08697	0,08099	0,08691	0,09822
2562,93237	0,0063	0,08682	0,08092	0,08689	0,09815
2561,00391	0,00626	0,08667	0,0809	0,08688	0,0981
2559,07544	0,00612	0,08664	0,08089	0,08688	0,0981
2557,14697	0,00604	0,08655	0,08083	0,08682	0,09803
2555,21851	0,00603	0,08639	0,08082	0,08675	0,09792
2553,29004	0,00597	0,08635	0,08081	0,08671	0,09787
2551,36157	0,0059	0,08632	0,08076	0,08664	0,09785
2549,43311	0,00588	0,08621	0,08074	0,0866	0,09781
2547,50464	0,00585	0,08614	0,08072	0,08661	0,09777
2545,57617	0,00574	0,08607	0,08067	0,08659	0,09774
2543,64771	0,00567	0,08596	0,0806	0,0866	0,09769
2541,71924	0,00569	0,08587	0,08058	0,08659	0,09765
2539,79077	0,00568	0,08581	0,08065	0,08651	0,09759
2537,8623	0,0056	0,08576	0,08066	0,08649	0,09755
2535,93384	0,00551	0,08572	0,0806	0,08646	0,09748
2534,00537	0,00549	0,08569	0,08056	0,08637	0,09744

2532,0769	0,00552	0,08567	0,08048	0,08635	0,09751
2530,14844	0,00548	0,08563	0,08044	0,08637	0,09747
2528,21997	0,00543	0,08556	0,08042	0,08632	0,09733
2526,2915	0,00542	0,08547	0,08039	0,08631	0,09731
2524,36304	0,00539	0,08541	0,08041	0,0863	0,09729
2522,43457	0,00535	0,08537	0,08038	0,08622	0,09722
2520,5061	0,00531	0,08536	0,08027	0,0862	0,09726
2518,57764	0,00528	0,08536	0,08024	0,08618	0,09724
2516,64917	0,00527	0,0853	0,08026	0,08618	0,09721
2514,7207	0,00525	0,08521	0,0803	0,08618	0,09721
2512,79224	0,00516	0,08517	0,08031	0,0861	0,09711
2510,86377	0,00511	0,08516	0,08027	0,08608	0,09706
2508,9353	0,00513	0,08519	0,08025	0,08612	0,09709
2507,00684	0,0051	0,08518	0,08027	0,08608	0,09709
2505,07837	0,00506	0,08511	0,08023	0,08604	0,0971
2503,1499	0,00508	0,08509	0,08018	0,08603	0,09706
2501,22144	0,00509	0,08507	0,0802	0,086	0,09701
2499,29297	0,00513	0,08501	0,0802	0,08599	0,09697
2497,3645	0,00522	0,08494	0,08013	0,08596	0,09691
2495,43604	0,00524	0,08495	0,08012	0,08593	0,09695
2493,50757	0,00518	0,08497	0,08014	0,08595	0,09697
2491,5791	0,00518	0,08493	0,08011	0,0859	0,09691
2489,65063	0,00522	0,0849	0,0801	0,08581	0,09687
2487,72217	0,00523	0,0849	0,08005	0,08575	0,09685
2485,7937	0,00525	0,0849	0,07992	0,08572	0,09683
2483,86523	0,00522	0,08485	0,0799	0,08576	0,09683
2481,93677	0,00518	0,08483	0,07998	0,08573	0,09678
2480,0083	0,00519	0,08485	0,07997	0,08563	0,09671
2478,07983	0,00524	0,08481	0,07995	0,0856	0,0967
2476,15137	0,00531	0,08476	0,07997	0,08557	0,09668
2474,2229	0,00537	0,08476	0,07992	0,08555	0,09664
2472,29443	0,00536	0,08475	0,07983	0,08554	0,09661
2470,36597	0,00537	0,08473	0,0798	0,08549	0,09658
2468,4375	0,00542	0,08477	0,0798	0,08549	0,09655
2466,50903	0,00545	0,08476	0,0797	0,08548	0,09658
2464,58057	0,00545	0,08465	0,07965	0,08547	0,09662
2462,6521	0,00545	0,08464	0,07967	0,08546	0,09657
2460,72363	0,00546	0,08471	0,07966	0,08541	0,09651
2458,79517	0,00549	0,08467	0,07966	0,08537	0,09651
2456,8667	0,00549	0,08466	0,07966	0,08537	0,0965
2454,93823	0,00541	0,08464	0,07963	0,08537	0,09651
2453,00977	0,00533	0,0846	0,0796	0,08536	0,09648
2451,0813	0,00531	0,0846	0,07961	0,08532	0,0964
2449,15283	0,00531	0,0846	0,07964	0,08531	0,09638
2447,22437	0,00531	0,08453	0,07966	0,08536	0,09641
2445,2959	0,00533	0,08441	0,07965	0,08536	0,09638
2443,36743	0,0053	0,08437	0,07965	0,08532	0,09632
2441,43896	0,00518	0,08438	0,07966	0,08524	0,09631

2439,5105	0,00514	0,08438	0,07965	0,08519	0,09632
2437,58203	0,00516	0,08438	0,07957	0,08525	0,09629
2435,65356	0,00513	0,08438	0,0795	0,08525	0,09625
2433,7251	0,00511	0,08441	0,0795	0,08517	0,09625
2431,79663	0,00511	0,08441	0,07951	0,08516	0,09625
2429,86816	0,00511	0,08431	0,0795	0,08509	0,09621
2427,9397	0,00511	0,08424	0,07951	0,08502	0,09616
2426,01123	0,00509	0,08424	0,0795	0,08508	0,09616
2424,08276	0,00514	0,08424	0,07945	0,08507	0,09621
2422,1543	0,00521	0,08422	0,07946	0,08503	0,0962
2420,22583	0,00521	0,08421	0,07949	0,08505	0,09619
2418,29736	0,00514	0,08421	0,07946	0,08497	0,09621
2416,3689	0,00514	0,08423	0,07949	0,08497	0,09622
2414,44043	0,00522	0,08424	0,07951	0,08504	0,09625
2412,51196	0,00527	0,08421	0,07946	0,08501	0,09621
2410,5835	0,00533	0,08419	0,07941	0,08505	0,09619
2408,65503	0,00534	0,0842	0,07936	0,08505	0,09621
2406,72656	0,00534	0,08419	0,07939	0,08498	0,09623
2404,7981	0,00535	0,08416	0,07941	0,085	0,09628
2402,86963	0,00536	0,08413	0,07941	0,08498	0,09627
2400,94116	0,00536	0,08415	0,07946	0,08493	0,09624
2399,0127	0,00537	0,08412	0,0794	0,08494	0,09625
2397,08423	0,00538	0,08411	0,07938	0,08496	0,0963
2395,15576	0,00538	0,08417	0,07936	0,08489	0,09629
2393,22729	0,00539	0,08413	0,07934	0,0849	0,09627
2391,29883	0,0054	0,08412	0,07932	0,08488	0,09626
2389,37036	0,0054	0,08412	0,0793	0,08487	0,09625
2387,44189	0,00541	0,08411	0,07929	0,08485	0,09624
2385,51343	0,00542	0,0841	0,07927	0,08484	0,09623
2383,58496	0,00542	0,0841	0,07925	0,08483	0,09621
2381,65649	0,00543	0,08409	0,07923	0,08481	0,0962
2379,72803	0,00544	0,08409	0,07921	0,0848	0,09619
2377,79956	0,00544	0,08408	0,07919	0,08478	0,09618
2375,87109	0,00545	0,08407	0,07918	0,08477	0,09616
2373,94263	0,00546	0,08407	0,07916	0,08475	0,09615
2372,01416	0,00546	0,08406	0,07914	0,08474	0,09614
2370,08569	0,00547	0,08406	0,07912	0,08473	0,09613
2368,15723	0,00548	0,08405	0,0791	0,08471	0,09612
2366,22876	0,00548	0,08404	0,07908	0,0847	0,0961
2364,30029	0,00549	0,08404	0,07907	0,08468	0,09609
2362,37183	0,0055	0,08403	0,07905	0,08467	0,09608
2360,44336	0,00551	0,08403	0,07903	0,08465	0,09607
2358,51489	0,00551	0,08402	0,07901	0,08464	0,09605
2356,58643	0,00552	0,08401	0,07899	0,08463	0,09604
2354,65796	0,00553	0,08401	0,07897	0,08461	0,09603
2352,72949	0,00553	0,084	0,07896	0,0846	0,09602
2350,80103	0,00554	0,084	0,07894	0,08458	0,09601
2348,87256	0,00555	0,08399	0,07892	0,08457	0,09599

2346,94409	0,00555	0,08398	0,0789	0,08455	0,09598
2345,01563	0,00556	0,08398	0,07888	0,08454	0,09597
2343,08716	0,00557	0,08397	0,07886	0,08453	0,09596
2341,15869	0,00557	0,08397	0,07885	0,08451	0,09594
2339,23022	0,00558	0,08396	0,07883	0,0845	0,09593
2337,30176	0,00559	0,08395	0,07881	0,08448	0,09592
2335,37329	0,00559	0,08395	0,07879	0,08447	0,09591
2333,44482	0,0056	0,08394	0,07877	0,08445	0,0959
2331,51636	0,00561	0,08394	0,07876	0,08444	0,09588
2329,58789	0,00561	0,08393	0,07874	0,08443	0,09587
2327,65942	0,00562	0,08392	0,07872	0,08441	0,09586
2325,73096	0,00563	0,08392	0,0787	0,0844	0,09585
2323,80249	0,00563	0,08391	0,07868	0,08438	0,09583
2321,87402	0,00564	0,08391	0,07866	0,08437	0,09582
2319,94556	0,00565	0,0839	0,07865	0,08435	0,09581
2318,01709	0,00565	0,08389	0,07863	0,08434	0,0958
2316,08862	0,00566	0,08389	0,07861	0,08433	0,09579
2314,16016	0,00567	0,08388	0,07859	0,08431	0,09577
2312,23169	0,00567	0,08388	0,07857	0,0843	0,09576
2310,30322	0,00568	0,08387	0,07855	0,08428	0,09575
2308,37476	0,00569	0,08386	0,07854	0,08427	0,09574
2306,44629	0,00569	0,08386	0,07852	0,08425	0,09572
2304,51782	0,0057	0,08385	0,0785	0,08424	0,09571
2302,58936	0,00571	0,08384	0,07848	0,08423	0,0957
2300,66089	0,00571	0,08384	0,07846	0,08421	0,09569
2298,73242	0,00572	0,08383	0,07844	0,0842	0,09568
2296,80396	0,00573	0,08383	0,07843	0,08418	0,09566
2294,87549	0,00573	0,08382	0,07841	0,08417	0,09565
2292,94702	0,00574	0,08381	0,07839	0,08415	0,09564
2291,01855	0,00575	0,08381	0,07837	0,08414	0,09563
2289,09009	0,00576	0,0838	0,07835	0,08413	0,09561
2287,16162	0,00576	0,0838	0,07833	0,08411	0,0956
2285,23315	0,00577	0,08379	0,07832	0,0841	0,09559
2283,30469	0,00578	0,08378	0,0783	0,08408	0,09558
2281,37622	0,00578	0,08378	0,07828	0,08407	0,09557
2279,44775	0,00579	0,08377	0,07826	0,08405	0,09555
2277,51929	0,0058	0,08377	0,07824	0,08404	0,09554
2275,59082	0,0058	0,08376	0,07823	0,08403	0,09553
2273,66235	0,00581	0,08375	0,07821	0,08401	0,09552
2271,73389	0,00582	0,08374	0,07819	0,084	0,0955
2269,80542	0,00582	0,08366	0,07817	0,08398	0,09549
2267,87695	0,00583	0,08369	0,07815	0,08397	0,09548
2265,94849	0,00584	0,08371	0,07813	0,08392	0,09547
2264,02002	0,00584	0,08369	0,07812	0,08395	0,09545
2262,09155	0,00585	0,08366	0,07821	0,08394	0,09544
2260,16309	0,00586	0,08363	0,07829	0,08389	0,09543
2258,23462	0,00586	0,0836	0,0783	0,08387	0,09542
2256,30615	0,00587	0,08356	0,07832	0,08389	0,09541

2254,37769	0,00588	0,08351	0,07835	0,0839	0,09539
2252,44922	0,00588	0,08347	0,07842	0,08391	0,09538
2250,52075	0,00589	0,08344	0,07852	0,084	0,09537
2248,59229	0,00592	0,08342	0,07852	0,08399	0,09536
2246,66382	0,00592	0,08346	0,07852	0,08392	0,09534
2244,73535	0,00591	0,08347	0,07856	0,08394	0,09533
2242,80688	0,00592	0,08336	0,07858	0,08397	0,09532
2240,87842	0,00591	0,08331	0,07858	0,08398	0,09531
2238,94995	0,00596	0,08329	0,07857	0,08396	0,0953
2237,02148	0,00595	0,08328	0,07858	0,08394	0,0953
2235,09302	0,00588	0,08328	0,07859	0,08395	0,0953
2233,16455	0,00589	0,08322	0,07861	0,08392	0,0953
2231,23608	0,00585	0,08319	0,07867	0,08388	0,09527
2229,30762	0,00575	0,08321	0,07867	0,08389	0,09523
2227,37915	0,00573	0,08315	0,07865	0,08388	0,0952
2225,45068	0,00576	0,08304	0,07871	0,08386	0,09514
2223,52222	0,00575	0,08303	0,07873	0,08384	0,09509
2221,59375	0,00572	0,08309	0,07872	0,08383	0,09511
2219,66528	0,0058	0,08314	0,0787	0,08384	0,09508
2217,73682	0,00589	0,08314	0,07865	0,08381	0,09507
2215,80835	0,00593	0,08309	0,07865	0,08382	0,09514
2213,87988	0,00599	0,0831	0,07862	0,08386	0,09511
2211,95142	0,00599	0,08312	0,07852	0,08385	0,09507
2210,02295	0,00594	0,08308	0,07855	0,08378	0,09507
2208,09448	0,00594	0,08308	0,07862	0,08368	0,09499
2206,16602	0,0059	0,08304	0,07864	0,08369	0,09494
2204,23755	0,00584	0,08293	0,07868	0,08375	0,09496
2202,30908	0,00587	0,0829	0,07863	0,08375	0,09494
2200,38062	0,00583	0,08292	0,07856	0,08369	0,09484
2198,45215	0,00577	0,08288	0,07862	0,08361	0,09478
2196,52368	0,00576	0,08285	0,07862	0,08363	0,09476
2194,59521	0,00571	0,08284	0,07859	0,08368	0,09473
2192,66675	0,00568	0,08281	0,07865	0,08367	0,09471
2190,73828	0,00574	0,08279	0,07867	0,08367	0,0947
2188,80981	0,00574	0,08274	0,07864	0,08367	0,09471
2186,88135	0,00571	0,08268	0,07866	0,08365	0,09471
2184,95288	0,00573	0,08269	0,07863	0,08363	0,09466
2183,02441	0,00573	0,08268	0,07854	0,08358	0,09464
2181,09595	0,00567	0,08264	0,07849	0,08355	0,09462
2179,16748	0,00566	0,08267	0,07851	0,08354	0,09456
2177,23901	0,00561	0,08271	0,0785	0,08353	0,09455
2175,31055	0,00552	0,08268	0,07851	0,08355	0,0946
2173,38208	0,00557	0,08266	0,07858	0,08354	0,09462
2171,45361	0,00547	0,08248	0,07853	0,08349	0,09455
2169,52515	0,0052	0,08226	0,07843	0,08344	0,09442
2167,59668	0,00532	0,08241	0,07849	0,08348	0,09449
2165,66821	0,00546	0,08255	0,07857	0,08353	0,09458
2163,73975	0,00542	0,08248	0,07857	0,08352	0,0945



2161,81128	0,00544	0,08244	0,07861	0,08357	0,09452
2159,88281	0,00537	0,08239	0,0786	0,08361	0,09457
2157,95435	0,00532	0,08236	0,07859	0,0836	0,09451
2156,02588	0,00531	0,08235	0,07863	0,08365	0,09447
2154,09741	0,00516	0,08227	0,0786	0,08367	0,0945
2152,16895	0,00506	0,08226	0,07859	0,08365	0,09451
2150,24048	0,00502	0,08229	0,07862	0,08366	0,09446
2148,31201	0,005	0,08224	0,07862	0,08367	0,09439
2146,38354	0,00498	0,08212	0,07863	0,0837	0,09437
2144,45508	0,00491	0,08208	0,07865	0,08372	0,09439
2142,52661	0,00483	0,08213	0,07861	0,08363	0,09432
2140,59814	0,00481	0,08204	0,0786	0,08357	0,09423
2138,66968	0,0048	0,08194	0,07859	0,08358	0,0942
2136,74121	0,00481	0,0819	0,07857	0,08356	0,09417
2134,81274	0,00474	0,08185	0,0786	0,08357	0,09416
2132,88428	0,00459	0,08183	0,07864	0,08365	0,09415
2130,95581	0,00449	0,08178	0,07867	0,08367	0,09411
2129,02734	0,00446	0,08173	0,07868	0,08367	0,09409
2127,09888	0,00443	0,08176	0,07867	0,08367	0,09405
2125,17041	0,00437	0,08175	0,07871	0,08367	0,094
2123,24194	0,00432	0,08172	0,07871	0,0837	0,09397
2121,31348	0,00433	0,08167	0,07867	0,08373	0,09394
2119,38501	0,00438	0,0816	0,0787	0,08372	0,09393
2117,45654	0,00439	0,08156	0,07878	0,08371	0,09385
2115,52808	0,00431	0,08154	0,07881	0,08371	0,09378
2113,59961	0,0042	0,08149	0,07882	0,0837	0,09379
2111,67114	0,00414	0,08141	0,07885	0,08366	0,09376
2109,74268	0,00408	0,08135	0,07888	0,08363	0,09368
2107,81421	0,00401	0,08127	0,0789	0,08356	0,09361
2105,88574	0,00389	0,08117	0,07895	0,08351	0,09356
2103,95728	0,00373	0,08108	0,07899	0,08356	0,09354
2102,02881	0,0036	0,08101	0,079	0,08359	0,09346
2100,10034	0,00349	0,08095	0,07901	0,08359	0,09341
2098,17188	0,00338	0,08085	0,07906	0,08359	0,09341
2096,24341	0,00326	0,08077	0,07907	0,08353	0,09332
2094,31494	0,00314	0,08073	0,07906	0,08348	0,09326
2092,38647	0,0031	0,08074	0,07906	0,08355	0,09321
2090,45801	0,00303	0,08077	0,07907	0,08354	0,09309
2088,52954	0,00284	0,08064	0,07918	0,08344	0,09304
2086,60107	0,00269	0,08051	0,07925	0,08351	0,09308
2084,67261	0,00262	0,0805	0,07923	0,08356	0,09302
2082,74414	0,00252	0,08043	0,07928	0,08352	0,09296
2080,81567	0,00248	0,08033	0,07927	0,08345	0,09294
2078,88721	0,00242	0,0803	0,07924	0,08337	0,09286
2076,95874	0,00237	0,08027	0,07928	0,08338	0,09281
2075,03027	0,00241	0,08017	0,07927	0,08344	0,09281
2073,10181	0,00245	0,0802	0,0793	0,08342	0,09278
2071,17334	0,00249	0,08027	0,07927	0,08341	0,09281

2069,24487	0,00249	0,08013	0,07927	0,08344	0,09288
2067,31641	0,00255	0,08023	0,07927	0,08343	0,09286
2065,38794	0,00269	0,08041	0,07907	0,08329	0,09273
2063,45947	0,00264	0,08023	0,07905	0,08326	0,09272
2061,53101	0,00262	0,08019	0,07912	0,08337	0,09284
2059,60254	0,00273	0,08023	0,07906	0,08336	0,09286
2057,67407	0,00277	0,08013	0,07914	0,08335	0,0929
2055,74561	0,00281	0,08013	0,07918	0,08339	0,09301
2053,81714	0,00286	0,08016	0,07913	0,0834	0,09304
2051,88867	0,00293	0,08017	0,07914	0,08343	0,09304
2049,96021	0,003	0,08021	0,07915	0,08345	0,09309
2048,03174	0,00308	0,08027	0,07916	0,08339	0,09311
2046,10327	0,00313	0,08025	0,07911	0,08333	0,09312
2044,1748	0,00314	0,08029	0,07905	0,08337	0,09316
2042,24634	0,00325	0,08041	0,07893	0,08331	0,09316
2040,31787	0,00329	0,08026	0,07893	0,08328	0,09319
2038,3894	0,00319	0,08015	0,07913	0,08346	0,09333
2036,46094	0,00313	0,08021	0,07917	0,08347	0,09339
2034,53247	0,00309	0,08014	0,07911	0,08337	0,09339
2032,604	0,003	0,08012	0,07917	0,08342	0,0934
2030,67554	0,00289	0,0801	0,07921	0,08346	0,09345
2028,74707	0,00283	0,08005	0,07917	0,08348	0,09345
2026,8186	0,00275	0,07997	0,07919	0,0835	0,09336
2024,89014	0,00271	0,07996	0,0792	0,08349	0,09333
2022,96167	0,00271	0,08	0,07909	0,0834	0,09327
2021,0332	0,00264	0,07992	0,07916	0,08344	0,09329
2019,10474	0,00275	0,08016	0,07906	0,08349	0,09334
2017,17627	0,00289	0,08032	0,07873	0,08321	0,09309
2015,2478	0,00285	0,07994	0,07897	0,08321	0,09315
2013,31934	0,00292	0,0799	0,07924	0,08351	0,09351
2011,39087	0,00297	0,08004	0,0792	0,0835	0,0936
2009,4624	0,00303	0,07999	0,07921	0,08343	0,09362
2007,53394	0,00317	0,08002	0,07917	0,08341	0,09361
2005,60547	0,00315	0,08003	0,07917	0,08342	0,09359
2003,677	0,00314	0,08003	0,07918	0,08343	0,0936
2001,74854	0,0032	0,07994	0,07917	0,08344	0,09362
1999,82007	0,00325	0,08002	0,07922	0,08354	0,09371
1997,8916	0,00323	0,08005	0,07918	0,08349	0,09362
1995,96313	0,00312	0,07984	0,07936	0,08362	0,09366
1994,03467	0,00331	0,08024	0,0792	0,0837	0,09369
1992,1062	0,00347	0,08046	0,0786	0,08318	0,09326
1990,17773	0,00326	0,08001	0,07881	0,08312	0,0932
1988,24927	0,00326	0,0801	0,0791	0,08337	0,0934
1986,3208	0,00332	0,08003	0,07906	0,08336	0,09343
1984,39233	0,00326	0,07983	0,07925	0,08351	0,09353
1982,46387	0,0033	0,07999	0,07928	0,0835	0,09346
1980,5354	0,00332	0,07996	0,07922	0,08347	0,09336
1978,60693	0,00332	0,07996	0,07919	0,08354	0,09333

1976,67847	0,00333	0,07995	0,07917	0,08345	0,09325
1974,75	0,00339	0,0799	0,07918	0,08346	0,09323
1972,82153	0,0034	0,07991	0,07907	0,08346	0,09318
1970,89307	0,00331	0,07984	0,07923	0,08353	0,09325
1968,9646	0,00349	0,0802	0,07904	0,08354	0,09324
1967,03613	0,00363	0,08043	0,0785	0,08311	0,09282
1965,10767	0,00333	0,07986	0,0789	0,08315	0,09282
1963,1792	0,00325	0,07983	0,07935	0,08355	0,09316
1961,25073	0,00333	0,08006	0,07914	0,08349	0,09304
1959,32227	0,00329	0,07986	0,07907	0,08342	0,09287
1957,3938	0,00329	0,07991	0,07906	0,08346	0,09294
1955,46533	0,00321	0,08002	0,07894	0,08345	0,09289
1953,53687	0,00315	0,07991	0,07897	0,08343	0,09277
1951,6084	0,00305	0,07975	0,07912	0,08342	0,09275
1949,67993	0,00297	0,07981	0,07915	0,08354	0,0928
1947,75146	0,00297	0,07983	0,07894	0,08337	0,09264
1945,823	0,003	0,07981	0,07899	0,08332	0,09261
1943,89453	0,00331	0,08042	0,0785	0,08325	0,09243
1941,96606	0,00326	0,08022	0,07785	0,08258	0,09182
1940,0376	0,00282	0,07944	0,0787	0,08297	0,09216
1938,10913	0,00285	0,07967	0,07921	0,0836	0,0926
1936,18066	0,00285	0,07971	0,07912	0,08352	0,09248
1934,2522	0,0028	0,07977	0,07915	0,08356	0,09246
1932,32373	0,0028	0,07981	0,0791	0,08357	0,09242
1930,39526	0,00282	0,07982	0,07917	0,08371	0,09248
1928,4668	0,00278	0,07974	0,07898	0,08363	0,09233
1926,53833	0,00262	0,07943	0,07921	0,08375	0,09236
1924,60986	0,00297	0,08015	0,07903	0,08383	0,09232
1922,6814	0,00298	0,08028	0,07803	0,0828	0,09146
1920,75293	0,00257	0,07975	0,07873	0,08327	0,0919
1918,82446	0,00272	0,08018	0,07908	0,08395	0,09236
1916,896	0,00246	0,07954	0,07845	0,08293	0,09152
1914,96753	0,00219	0,07916	0,0791	0,08323	0,09182
1913,03906	0,00235	0,07963	0,07949	0,0839	0,09231
1911,1106	0,00238	0,07976	0,07911	0,08354	0,09195
1909,18213	0,00235	0,07989	0,07891	0,08332	0,09167
1907,25366	0,0021	0,07953	0,07918	0,08351	0,09181
1905,3252	0,00183	0,07929	0,07948	0,0838	0,09205
1903,39673	0,00171	0,07937	0,07954	0,08396	0,09211
1901,46826	0,00162	0,07937	0,07951	0,08392	0,09203
1899,53979	0,00143	0,07909	0,07963	0,08392	0,09207
1897,61133	0,00139	0,07919	0,07977	0,08416	0,09223
1895,68286	0,00154	0,07977	0,07919	0,08378	0,09177
1893,75439	0,00107	0,07915	0,07932	0,08352	0,09155
1891,82593	0,00103	0,07938	0,07989	0,08421	0,09211
1889,89746	0,00142	0,0801	0,0789	0,08365	0,09156
1887,96899	0,00091	0,07896	0,07905	0,08325	0,09125
1886,04053	0,00087	0,07905	0,07994	0,08409	0,09196

1884,11206	0,00113	0,07941	0,07966	0,08405	0,09191
1882,18359	0,00098	0,07898	0,0798	0,08408	0,09186
1880,25513	0,00103	0,07917	0,0799	0,08425	0,09193
1878,32666	0,00108	0,07915	0,07968	0,08404	0,09179
1876,39819	0,00113	0,07916	0,07992	0,08431	0,09206
1874,46973	0,0012	0,07914	0,07983	0,08413	0,0919
1872,54126	0,00122	0,07916	0,07988	0,08408	0,09187
1870,61279	0,00161	0,08011	0,07975	0,08457	0,09219
1868,68433	0,00201	0,08064	0,078	0,08302	0,09073
1866,75586	0,00148	0,07928	0,07831	0,08251	0,0904
1864,82739	0,00143	0,07922	0,0798	0,08401	0,0918
1862,89893	0,00165	0,0794	0,07991	0,08431	0,09207
1860,97046	0,00186	0,07944	0,07971	0,08404	0,09189
1859,04199	0,00206	0,07953	0,07978	0,08412	0,092
1857,11353	0,00215	0,07938	0,07977	0,08411	0,09191
1855,18506	0,00225	0,07934	0,07993	0,08437	0,09207
1853,25659	0,00229	0,07937	0,07971	0,08408	0,0918
1851,32813	0,00229	0,0794	0,08007	0,08443	0,09203
1849,39966	0,00238	0,07941	0,07962	0,0841	0,09171
1847,47119	0,0026	0,08009	0,07902	0,08358	0,09113
1845,54272	0,00267	0,08048	0,07989	0,08491	0,09219
1843,61426	0,00215	0,07894	0,07885	0,08363	0,09107
1841,68579	0,00189	0,07848	0,07894	0,08313	0,09054
1839,75732	0,00235	0,07953	0,07974	0,0845	0,09167
1837,82886	0,00242	0,07969	0,07967	0,08461	0,09174
1835,90039	0,00248	0,07957	0,07923	0,08402	0,09115
1833,97192	0,00225	0,07905	0,07978	0,08442	0,09145
1832,04346	0,00267	0,0801	0,0799	0,0852	0,09199
1830,11499	0,00316	0,08093	0,07805	0,08373	0,09068
1828,18652	0,0022	0,07912	0,07843	0,08315	0,09028
1826,25806	0,00252	0,07983	0,07923	0,08444	0,09133
1824,32959	0,00275	0,07983	0,07838	0,08365	0,09068
1822,40112	0,00208	0,07876	0,07925	0,08371	0,09081
1820,47266	0,00225	0,0793	0,08007	0,08482	0,09174
1818,54419	0,00236	0,07941	0,07951	0,0845	0,09146
1816,61572	0,0022	0,07906	0,07943	0,08429	0,0913
1814,68726	0,00216	0,0789	0,07991	0,08462	0,0916
1812,75879	0,00233	0,07957	0,07962	0,08456	0,09147
1810,83032	0,00238	0,07988	0,0789	0,08398	0,09083
1808,90186	0,00206	0,07911	0,07924	0,08403	0,09087
1806,97339	0,00191	0,07907	0,07964	0,08445	0,0913
1805,04492	0,00163	0,07903	0,07994	0,08462	0,09136
1803,11646	0,00143	0,07935	0,07981	0,08475	0,09116
1801,18799	0,00136	0,07985	0,07878	0,08406	0,09025
1799,25952	0,00071	0,07885	0,07928	0,08397	0,09014
1797,33105	0,00068	0,07872	0,07952	0,08395	0,09014
1795,40259	0,00104	0,07954	0,07963	0,08426	0,09035
1793,47412	0,00088	0,07975	0,0806	0,08566	0,09146

1791,54565	0,00103	0,07917	0,07823	0,08327	0,08945
1789,61719	0,00092	0,07794	0,07866	0,08284	0,08933
1787,68872	0,00146	0,07887	0,0804	0,08503	0,09124
1785,76025	0,00165	0,07905	0,07987	0,08502	0,09117
1783,83179	0,00112	0,07832	0,07991	0,08461	0,0908
1781,90332	0,00145	0,07925	0,0796	0,08449	0,09061
1779,97485	0,00156	0,07949	0,07923	0,08415	0,09022
1778,04639	0,00093	0,07819	0,08007	0,08449	0,09051
1776,11792	0,00131	0,07912	0,07937	0,08427	0,09018
1774,18945	0,00126	0,08018	0,08099	0,08616	0,09159
1772,26099	0,00065	0,07881	0,08034	0,08492	0,0903
1770,33252	0,00032	0,07773	0,07887	0,08323	0,08877
1768,40405	0,00057	0,07888	0,0798	0,08495	0,0902
1766,47559	-0,00033	0,07728	0,08028	0,08459	0,08986
1764,54712	0,00025	0,07855	0,08041	0,08508	0,09008
1762,61865	0,00057	0,0796	0,08077	0,08636	0,09101
1760,69019	-0,00055	0,07726	0,07966	0,08413	0,0892
1758,76172	-0,00004	0,07871	0,08032	0,08522	0,09009
1756,83325	0,00023	0,0791	0,08005	0,08549	0,09024
1754,90479	-0,00041	0,07759	0,07966	0,08429	0,0893
1752,97632	-0,00017	0,07892	0,0815	0,0867	0,09131
1751,04785	0,00009	0,0794	0,08052	0,08642	0,09096
1749,11938	-0,00004	0,07876	0,07763	0,08295	0,08808
1747,19092	0,00008	0,07943	0,07868	0,08422	0,08931
1745,26245	-0,00033	0,07878	0,07991	0,08533	0,09041
1743,33398	-0,00019	0,07897	0,07883	0,08433	0,08951
1741,40552	-0,00021	0,07956	0,08069	0,08662	0,09134
1739,47705	-0,00101	0,07771	0,08055	0,08579	0,09053
1737,54858	-0,00071	0,07833	0,07936	0,0844	0,08915
1735,62012	-0,00063	0,07986	0,08341	0,08956	0,09339
1733,69165	-0,00129	0,07752	0,08116	0,08678	0,091
1731,76318	-0,00186	0,07635	0,07961	0,08375	0,08847
1729,83472	-0,00002	0,07977	0,07892	0,08534	0,08962
1727,90625	-0,00124	0,07712	0,08085	0,08622	0,09051
1725,97778	-0,00076	0,07802	0,08072	0,08636	0,09062
1724,04932	-0,00045	0,07866	0,08077	0,08672	0,0909
1722,12085	-0,00104	0,07747	0,08044	0,08564	0,08996
1720,19238	-0,00036	0,07914	0,08044	0,087	0,09095
1718,26392	-0,00029	0,07999	0,08093	0,08773	0,09144
1716,33545	-0,00174	0,07697	0,08006	0,08488	0,08908
1714,40698	-0,00109	0,07746	0,07848	0,08426	0,08855
1712,47852	-0,00081	0,07791	0,07985	0,08604	0,09012
1710,55005	-0,00123	0,07718	0,08062	0,08639	0,0905
1708,62158	-0,00043	0,07873	0,07982	0,08646	0,09038
1706,69312	-0,00019	0,0792	0,08046	0,08771	0,09136
1704,76465	-0,00063	0,07752	0,07782	0,08404	0,08829
1702,83618	-0,00033	0,07901	0,08025	0,08715	0,09078
1700,90771	0,00003	0,07854	0,08135	0,09081	0,09376

1698,97925	-0,00264	0,07363	0,07833	0,08399	0,08795
1697,05078	-0,00153	0,0784	0,08128	0,08733	0,0906
1695,12231	-0,0016	0,07637	0,08195	0,08824	0,09148
1693,19385	-0,0018	0,07524	0,0799	0,08551	0,08927
1691,26538	-0,00034	0,07919	0,08128	0,08853	0,09169
1689,33691	-0,00071	0,07775	0,08004	0,08694	0,09039
1687,40845	-0,00055	0,07866	0,07978	0,08682	0,09015
1685,47998	-0,00115	0,07977	0,08528	0,09288	0,09516
1683,55151	-0,00101	0,07697	0,07856	0,08551	0,08857
1681,62305	-0,00115	0,07676	0,07826	0,08539	0,08864
1679,69458	-0,00102	0,07799	0,08048	0,08767	0,0907
1677,76611	-0,0013	0,07749	0,08175	0,08908	0,09184
1675,83765	-0,00126	0,07732	0,08195	0,0903	0,09274
1673,90918	-0,00215	0,07535	0,08083	0,08766	0,09049
1671,98071	-0,00131	0,07747	0,08079	0,08813	0,09065
1670,05225	-0,00033	0,07943	0,08073	0,08971	0,09166
1668,12378	-0,00198	0,07526	0,07998	0,0868	0,08935
1666,19531	-0,00165	0,07658	0,08133	0,08832	0,09067
1664,26685	-0,00137	0,07758	0,08338	0,09135	0,0931
1662,33838	-0,00148	0,07654	0,08114	0,08844	0,09038
1660,40991	-0,00162	0,07617	0,08214	0,08908	0,0909
1658,48145	-0,00186	0,07564	0,08376	0,0905	0,09216
1656,55298	-0,00096	0,0773	0,08122	0,08898	0,09048
1654,62451	-0,00121	0,07898	0,08521	0,09431	0,09467
1652,69604	-0,001	0,07738	0,08156	0,08885	0,0899
1650,76758	-0,00446	0,07073	0,08356	0,08761	0,08917
1648,83911	-0,00065	0,07806	0,08038	0,08905	0,08989
1646,91064	-0,00068	0,07853	0,08108	0,08952	0,09019
1644,98218	-0,00372	0,07139	0,08308	0,08812	0,08921
1643,05371	-0,00231	0,07434	0,08304	0,08975	0,09041
1641,12524	-0,00266	0,07356	0,08437	0,09087	0,09144
1639,19678	-0,00217	0,07426	0,08286	0,08961	0,09011
1637,26831	-0,00189	0,07603	0,08389	0,09167	0,09146
1635,33984	-0,00241	0,07435	0,08237	0,08963	0,08967
1633,41138	-0,00401	0,07075	0,08259	0,08817	0,08867
1631,48291	-0,00312	0,07335	0,08306	0,08994	0,09005
1629,55444	-0,0034	0,07354	0,084	0,09136	0,09113
1627,62598	-0,00379	0,07261	0,08238	0,08901	0,08895
1625,69751	-0,00419	0,07243	0,08319	0,08993	0,08977
1623,76904	-0,00416	0,073	0,08304	0,0905	0,09023
1621,84058	-0,00503	0,07108	0,08172	0,08791	0,08814
1619,91211	-0,00472	0,07229	0,08216	0,08911	0,08924
1617,98364	-0,00516	0,07323	0,08548	0,09291	0,0925
1616,05518	-0,00572	0,07134	0,08442	0,09012	0,09033
1614,12671	-0,00457	0,07226	0,08254	0,08894	0,0895
1612,19824	-0,00339	0,07456	0,0832	0,09082	0,09112
1610,26978	-0,00332	0,07481	0,08361	0,09098	0,09131
1608,34131	-0,00292	0,07543	0,08244	0,09029	0,09065

1606,41284	-0,00291	0,07543	0,08328	0,09118	0,09141
1604,48438	-0,00264	0,07571	0,08341	0,09129	0,09154
1602,55591	-0,00223	0,07644	0,083	0,09118	0,09145
1600,62744	-0,00224	0,07639	0,08339	0,09142	0,09164
1598,69897	-0,0021	0,07651	0,08375	0,09177	0,09191
1596,77051	-0,00185	0,07703	0,08363	0,0919	0,09195
1594,84204	-0,00167	0,07731	0,08328	0,09162	0,09164
1592,91357	-0,00175	0,07711	0,08374	0,09186	0,09186
1590,98511	-0,00175	0,07724	0,08376	0,09197	0,09193
1589,05664	-0,00158	0,07767	0,08356	0,09204	0,09194
1587,12817	-0,00185	0,0774	0,08411	0,09233	0,09223
1585,19971	-0,0018	0,07775	0,08354	0,09193	0,09177
1583,27124	-0,00169	0,07825	0,08393	0,09265	0,09218
1581,34277	-0,00193	0,07758	0,08394	0,09251	0,09202
1579,41431	-0,00133	0,07876	0,08266	0,09182	0,09138
1577,48584	-0,00173	0,0799	0,08605	0,09513	0,09408
1575,55737	-0,00267	0,07733	0,08494	0,09244	0,09176
1573,62891	-0,00211	0,0768	0,08259	0,09038	0,09009
1571,70044	-0,0006	0,08019	0,0838	0,09362	0,0927
1569,77197	-0,00053	0,07974	0,08226	0,09194	0,09109
1567,84351	-0,00143	0,07754	0,08192	0,0903	0,08968
1565,91504	-0,00089	0,07936	0,08388	0,09309	0,09204
1563,98657	-0,00096	0,0784	0,08245	0,09117	0,09046
1562,05811	-0,00066	0,07958	0,08376	0,09294	0,09185
1560,12964	0,00073	0,08321	0,08539	0,09795	0,09567
1558,20117	-0,00008	0,07812	0,07751	0,08678	0,08558
1556,27271	-0,00164	0,07689	0,08167	0,09034	0,08922
1554,34424	-0,00099	0,07876	0,08329	0,09288	0,09149
1552,41577	-0,00141	0,07745	0,08379	0,09267	0,09143
1550,4873	0,00019	0,0802	0,08133	0,09157	0,09044
1548,55884	-0,00038	0,07892	0,08222	0,09192	0,09082
1546,63037	-0,00068	0,07883	0,0841	0,09379	0,09243
1544,7019	0,00054	0,08125	0,08125	0,09237	0,09104
1542,77344	0,00004	0,08007	0,08118	0,09199	0,09063
1540,84497	0,00006	0,08089	0,08409	0,09556	0,09352
1538,9165	-0,00134	0,07787	0,08157	0,08986	0,08873
1536,98804	-0,00168	0,07687	0,08256	0,09102	0,0902
1535,05957	0,00025	0,08053	0,08301	0,09412	0,0928
1533,1311	0,00061	0,08052	0,08039	0,09148	0,09032
1531,20264	-0,00101	0,0776	0,08193	0,09134	0,09054
1529,27417	-0,00004	0,07998	0,08324	0,09369	0,09263
1527,3457	0,00041	0,0805	0,08179	0,09276	0,09158
1525,41724	-0,00055	0,07851	0,08169	0,09178	0,09077
1523,48877	0,00012	0,08034	0,08289	0,09393	0,09261
1521,5603	-0,00003	0,07991	0,08205	0,09271	0,09141
1519,63184	-0,00163	0,0767	0,0828	0,092	0,09099
1517,70337	0,00044	0,08034	0,08053	0,09185	0,09075
1515,7749	0,00024	0,07953	0,07995	0,09068	0,08977

1513,84644	-0,00079	0,07804	0,08263	0,09263	0,09167
1511,91797	-0,00073	0,0783	0,08323	0,09358	0,09255
1509,9895	0,00031	0,08013	0,08038	0,09126	0,09028
1508,06104	0,00126	0,08307	0,08117	0,09342	0,09174
1506,13257	0,00028	0,08013	0,07972	0,09013	0,08883
1504,2041	-0,00259	0,07451	0,08345	0,09133	0,09048
1502,27563	-0,00035	0,07876	0,08293	0,0931	0,09192
1500,34717	-0,00063	0,07841	0,08346	0,09385	0,09264
1498,4187	-0,0006	0,07868	0,08308	0,09349	0,09231
1496,49023	-0,00126	0,07746	0,0841	0,09358	0,09239
1494,56177	-0,00193	0,07577	0,08448	0,09301	0,09214
1492,6333	-0,0004	0,07839	0,08375	0,0939	0,09288
1490,70483	0,00022	0,07968	0,08225	0,09338	0,09217
1488,77637	-0,00024	0,07886	0,08045	0,09102	0,09007
1486,8479	-0,00085	0,07764	0,08234	0,09217	0,09143
1484,91943	-0,00126	0,07702	0,08442	0,09387	0,093
1482,99097	-0,0009	0,07765	0,08425	0,09422	0,09313
1481,0625	-0,00077	0,07771	0,08369	0,09361	0,09274
1479,13403	-0,00117	0,07717	0,08467	0,09439	0,0936
1477,20557	-0,00064	0,07788	0,08356	0,09403	0,09325
1475,2771	-0,00038	0,07839	0,08294	0,09347	0,09285
1473,34863	-0,00099	0,07792	0,08437	0,0948	0,09421
1471,42017	-0,00133	0,07648	0,08285	0,09267	0,09293
1469,4917	-0,00127	0,07639	0,08366	0,09301	0,09417
1467,56323	-0,00101	0,07761	0,08559	0,09557	0,09721
1465,63477	-0,00062	0,07818	0,08406	0,09478	0,09689
1463,7063	-0,00148	0,07615	0,08422	0,09369	0,09592
1461,77783	-0,00144	0,07657	0,08479	0,09401	0,09624
1459,84937	-0,00004	0,07956	0,08341	0,09446	0,09632
1457,9209	0,00031	0,08045	0,08287	0,09483	0,09618
1455,99243	-0,00243	0,07362	0,08401	0,09299	0,09461
1454,06396	-0,0011	0,07651	0,08287	0,09258	0,0942
1452,1355	-0,00077	0,07714	0,0839	0,09422	0,09534
1450,20703	-0,00125	0,07644	0,08499	0,09503	0,0956
1448,27856	-0,00066	0,07745	0,08345	0,09422	0,0944
1446,3501	-0,00127	0,07604	0,08394	0,09383	0,09371
1444,42163	-0,00124	0,0764	0,0851	0,09482	0,09437
1442,49316	-0,00115	0,0764	0,08511	0,09524	0,09453
1440,5647	-0,00107	0,07623	0,08453	0,09438	0,09358
1438,63623	-0,0008	0,07706	0,08573	0,09632	0,09502
1436,70776	-0,00077	0,07637	0,08381	0,09535	0,09397
1434,7793	-0,00176	0,0747	0,0835	0,09308	0,09215
1432,85083	-0,0009	0,07676	0,08447	0,09459	0,09341
1430,92236	-0,00068	0,0771	0,08455	0,0953	0,09397
1428,9939	-0,00111	0,07598	0,08361	0,09346	0,09232
1427,06543	-0,00133	0,07596	0,08511	0,09498	0,09351
1425,13696	-0,00099	0,07662	0,0844	0,09507	0,09335
1423,2085	-0,0009	0,07664	0,08291	0,09322	0,09146



1421,28003	-0,00151	0,07629	0,08581	0,09597	0,09366
1419,35156	-0,00133	0,07636	0,08463	0,09577	0,09313
1417,4231	-0,00141	0,07555	0,08226	0,09255	0,09032
1415,49463	-0,00143	0,07606	0,08389	0,09423	0,09193
1413,56616	-0,00195	0,07582	0,08528	0,09567	0,09315
1411,6377	-0,00189	0,07614	0,0845	0,09497	0,09239
1409,70923	-0,00206	0,07589	0,08471	0,09524	0,09253
1407,78076	-0,00228	0,07572	0,08525	0,0959	0,09308
1405,85229	-0,00178	0,07666	0,08402	0,09538	0,09251
1403,92383	-0,00205	0,07569	0,0836	0,0946	0,09197
1401,99536	-0,00223	0,07569	0,08497	0,09577	0,09318
1400,06689	-0,00182	0,07657	0,08428	0,09578	0,09324
1398,13843	-0,00191	0,07622	0,08298	0,09439	0,09223
1396,20996	-0,00196	0,07674	0,08355	0,09519	0,09312
1394,28149	-0,00215	0,07645	0,08332	0,09516	0,09333
1392,35303	-0,00281	0,07517	0,08406	0,09525	0,09384
1390,42456	-0,00244	0,07629	0,0847	0,0964	0,09519
1388,49609	-0,00244	0,07646	0,08443	0,09669	0,09554
1386,56763	-0,00325	0,07524	0,08332	0,09525	0,09461
1384,63916	-0,00388	0,07465	0,08328	0,09507	0,09514
1382,71069	-0,00357	0,07499	0,0842	0,0961	0,09617
1380,78223	-0,00275	0,07593	0,08453	0,09637	0,09618
1378,85376	-0,00272	0,07621	0,08451	0,09615	0,09585
1376,92529	-0,00273	0,07657	0,08488	0,09666	0,0958
1374,99683	-0,00208	0,0777	0,08372	0,09593	0,09454
1373,06836	-0,00246	0,07681	0,08364	0,09521	0,09367
1371,13989	-0,00276	0,0763	0,08538	0,09651	0,09473
1369,21143	-0,00211	0,07728	0,08489	0,09648	0,09444
1367,28296	-0,00228	0,07656	0,0849	0,0962	0,09393
1365,35449	-0,00242	0,07642	0,08567	0,09712	0,09457
1363,42603	-0,00186	0,07752	0,08385	0,09623	0,09354
1361,49756	-0,00218	0,07649	0,0835	0,09546	0,09279
1359,56909	-0,00258	0,07559	0,08528	0,09661	0,09392
1357,64063	-0,00238	0,07607	0,0856	0,09702	0,09417
1355,71216	-0,00229	0,07623	0,08535	0,09691	0,09377
1353,78369	-0,00236	0,07592	0,08546	0,09703	0,09371
1351,85522	-0,00238	0,07592	0,08565	0,09715	0,09378
1349,92676	-0,00224	0,07612	0,08562	0,09717	0,0938
1347,99829	-0,00209	0,07602	0,08568	0,09741	0,09402
1346,06982	-0,002	0,0761	0,08568	0,09753	0,09411
1344,14136	-0,0021	0,07603	0,08575	0,09771	0,09422
1342,21289	-0,00198	0,07641	0,08546	0,0979	0,09416
1340,28442	-0,00149	0,07743	0,08403	0,0968	0,09298
1338,35596	-0,00152	0,07692	0,08372	0,09613	0,0924
1336,42749	-0,00176	0,07624	0,08493	0,09703	0,0933
1334,49902	-0,00156	0,07636	0,08563	0,09756	0,09385
1332,57056	-0,00123	0,07631	0,08586	0,09773	0,09405
1330,64209	-0,00108	0,07649	0,08584	0,09781	0,0942

1328,71362	-0,00109	0,07654	0,08585	0,09783	0,09427
1326,78516	-0,00102	0,07653	0,086	0,09812	0,09448
1324,85669	-0,00094	0,07663	0,08609	0,09832	0,09466
1322,92822	-0,00081	0,07636	0,08628	0,09845	0,09482
1320,99976	-0,00053	0,07658	0,0862	0,09834	0,09483
1319,07129	-0,0005	0,0769	0,0858	0,09799	0,09463
1317,14282	-0,00069	0,07651	0,086	0,0983	0,09493
1315,21436	-0,00062	0,07656	0,08629	0,09865	0,09522
1313,28589	-0,00047	0,07674	0,08608	0,0985	0,09503
1311,35742	-0,00046	0,07647	0,0865	0,09882	0,09528
1309,42896	-0,00036	0,07677	0,08711	0,09924	0,09574
1307,50049	-0,00021	0,07701	0,08717	0,09929	0,09603
1305,57202	-0,00006	0,07692	0,08734	0,09956	0,09652
1303,64355	0,00009	0,07734	0,08742	0,09979	0,0969
1301,71509	0,00008	0,07761	0,08744	0,09983	0,09725
1299,78662	0,00003	0,0777	0,08773	0,09992	0,0978
1297,85815	0,00011	0,07806	0,0878	0,10003	0,09821
1295,92969	0,00014	0,07832	0,08782	0,10028	0,09866
1294,00122	0,00012	0,07852	0,08798	0,10057	0,09937
1292,07275	0,0003	0,07873	0,08812	0,10075	0,10014
1290,14429	0,00044	0,07878	0,08822	0,10089	0,10087
1288,21582	0,00041	0,07886	0,08823	0,10093	0,10159
1286,28735	0,0005	0,07882	0,08832	0,10111	0,10257
1284,35889	0,00076	0,07875	0,08852	0,10151	0,10393
1282,43042	0,001	0,07898	0,08864	0,10189	0,10547
1280,50195	0,00123	0,07936	0,08873	0,10231	0,10704
1278,57349	0,00145	0,07974	0,08894	0,10265	0,10842
1276,64502	0,00164	0,08005	0,08924	0,10288	0,10967
1274,71655	0,00187	0,08028	0,08946	0,10321	0,11096
1272,78809	0,00209	0,08064	0,08953	0,10352	0,11207
1270,85962	0,0023	0,08089	0,08967	0,10383	0,1132
1268,93115	0,00251	0,08099	0,08992	0,10428	0,11443
1267,00269	0,00261	0,08109	0,0901	0,10462	0,11528
1265,07422	0,00261	0,08098	0,09028	0,1048	0,1158
1263,14575	0,00269	0,08091	0,09044	0,10493	0,11604
1261,21729	0,00289	0,08109	0,09046	0,10498	0,11586
1259,28882	0,00301	0,08116	0,09054	0,10498	0,11535
1257,36035	0,0031	0,08108	0,09075	0,10499	0,11449
1255,43188	0,00327	0,08116	0,09088	0,10506	0,11337
1253,50342	0,00338	0,08137	0,09088	0,10508	0,11204
1251,57495	0,00356	0,08151	0,09098	0,10501	0,1106
1249,64648	0,00386	0,08165	0,09126	0,10494	0,10939
1247,71802	0,00411	0,08182	0,09151	0,10501	0,10837
1245,78955	0,00448	0,08196	0,09171	0,10518	0,10738
1243,86108	0,00496	0,08203	0,09201	0,10527	0,10668
1241,93262	0,00532	0,08206	0,09225	0,10527	0,10617
1240,00415	0,00555	0,08219	0,09229	0,10533	0,10577
1238,07568	0,00573	0,08231	0,09251	0,10549	0,10559

1236,14722	0,00606	0,08252	0,0929	0,10575	0,10552
1234,21875	0,00653	0,08277	0,09317	0,10599	0,10555
1232,29028	0,00692	0,08289	0,09349	0,10613	0,10573
1230,36182	0,00715	0,08297	0,0938	0,10639	0,10576
1228,43335	0,00739	0,08298	0,09394	0,10662	0,10558
1226,50488	0,00791	0,0831	0,0942	0,10661	0,10545
1224,57642	0,00839	0,08324	0,09456	0,10669	0,10521
1222,64795	0,00853	0,08329	0,0948	0,10696	0,10489
1220,71948	0,00878	0,0836	0,09508	0,10727	0,10463
1218,79102	0,00936	0,08392	0,09541	0,10755	0,1042
1216,86255	0,00975	0,08407	0,09576	0,10768	0,10385
1214,93408	0,00992	0,08443	0,09623	0,10784	0,10385
1213,00562	0,01034	0,08482	0,09655	0,10823	0,10403
1211,07715	0,01086	0,08509	0,09683	0,10869	0,10453
1209,14868	0,01133	0,08549	0,09723	0,1091	0,10506
1207,22021	0,01189	0,08592	0,09763	0,1095	0,10538
1205,29175	0,01227	0,08621	0,09804	0,10981	0,10553
1203,36328	0,01252	0,08656	0,09843	0,11007	0,10544
1201,43481	0,01307	0,08695	0,09884	0,11044	0,10529
1199,50635	0,01368	0,08721	0,09922	0,1108	0,10522
1197,57788	0,01403	0,08764	0,09942	0,11114	0,10512
1195,64941	0,01425	0,08824	0,09968	0,11169	0,10509
1193,72095	0,01428	0,08869	0,10002	0,11229	0,10509
1191,79248	0,01441	0,08906	0,10043	0,11268	0,10513
1189,86401	0,01488	0,08939	0,1009	0,11298	0,10523
1187,93555	0,01519	0,08975	0,10124	0,11343	0,1054
1186,00708	0,01531	0,09027	0,10157	0,11401	0,10579
1184,07861	0,01558	0,09089	0,10194	0,11437	0,10624
1182,15015	0,01589	0,09145	0,10222	0,1146	0,10661
1180,22168	0,01623	0,09187	0,10256	0,11508	0,10711
1178,29321	0,01672	0,09247	0,10303	0,11569	0,10768
1176,36475	0,01717	0,09319	0,1035	0,11622	0,10814
1174,43628	0,01751	0,09363	0,1039	0,11656	0,10866
1172,50781	0,01788	0,09397	0,10426	0,1169	0,10928
1170,57935	0,01813	0,09431	0,10457	0,11738	0,10976
1168,65088	0,01823	0,0946	0,10486	0,11766	0,11016
1166,72241	0,01847	0,095	0,10511	0,11781	0,11052
1164,79395	0,01865	0,09539	0,10529	0,11825	0,11086
1162,86548	0,01867	0,09562	0,10558	0,1188	0,11125
1160,93701	0,0188	0,09588	0,10589	0,11916	0,11158
1159,00854	0,01891	0,09608	0,10595	0,11946	0,11183
1157,08008	0,01907	0,09618	0,10606	0,11977	0,11189
1155,15161	0,01931	0,09639	0,10628	0,11993	0,11177
1153,22314	0,01936	0,09673	0,10632	0,12013	0,1118
1151,29468	0,0194	0,09721	0,10643	0,12059	0,11204
1149,36621	0,01963	0,09763	0,10679	0,12113	0,11237
1147,43774	0,01983	0,09773	0,10712	0,12161	0,11258
1145,50928	0,02006	0,09794	0,10735	0,12197	0,11266

1143,58081	0,02028	0,09835	0,10752	0,12224	0,11274
1141,65234	0,02035	0,09864	0,10776	0,12242	0,11283
1139,72388	0,02044	0,09893	0,10819	0,12265	0,11297
1137,79541	0,02059	0,09925	0,1085	0,12289	0,11304
1135,86694	0,02079	0,09951	0,10854	0,12292	0,11307
1133,93848	0,02102	0,09967	0,10875	0,12308	0,11327
1132,01001	0,02113	0,0998	0,10885	0,12323	0,11334
1130,08154	0,0212	0,09989	0,10865	0,12307	0,11315
1128,15308	0,02144	0,09989	0,10894	0,12334	0,11335
1126,22461	0,02163	0,1001	0,10957	0,12378	0,11378
1124,29614	0,02177	0,10037	0,10982	0,12391	0,11377
1122,36768	0,02194	0,10047	0,10993	0,12428	0,11376
1120,43921	0,02193	0,10054	0,11015	0,12446	0,11388
1118,51074	0,022	0,10065	0,11041	0,12434	0,11369
1116,58228	0,02233	0,10086	0,11072	0,12463	0,11365
1114,65381	0,02264	0,10103	0,11099	0,125	0,11388
1112,72534	0,02282	0,10128	0,11124	0,12517	0,11391
1110,79688	0,02287	0,10172	0,11155	0,12545	0,11391
1108,86841	0,02293	0,1018	0,11183	0,12564	0,11402
1106,93994	0,02306	0,10178	0,112	0,12568	0,11404
1105,01147	0,02326	0,10207	0,11207	0,12591	0,11401
1103,08301	0,02344	0,10217	0,1122	0,12596	0,11393
1101,15454	0,02345	0,10212	0,11241	0,12595	0,11388
1099,22607	0,02348	0,10221	0,11258	0,12616	0,11396
1097,29761	0,02358	0,10216	0,11294	0,12618	0,11395
1095,36914	0,02356	0,10224	0,11335	0,12629	0,1139
1093,44067	0,02356	0,10249	0,11347	0,12663	0,11401
1091,51221	0,0236	0,10242	0,11355	0,12678	0,11424
1089,58374	0,02364	0,10236	0,11376	0,1267	0,11438
1087,65527	0,02371	0,10257	0,11374	0,12667	0,11452
1085,72681	0,02357	0,10255	0,11353	0,12685	0,1146
1083,79834	0,02325	0,10233	0,11343	0,12692	0,11447
1081,86987	0,02297	0,1023	0,11337	0,12686	0,11456
1079,94141	0,02261	0,10228	0,11331	0,12688	0,11489
1078,01294	0,02223	0,10209	0,11315	0,12686	0,11501
1076,08447	0,02209	0,10189	0,11275	0,12675	0,11512
1074,15601	0,02179	0,10164	0,11246	0,12661	0,11531
1072,22754	0,02113	0,10142	0,11223	0,12658	0,1154
1070,29907	0,02076	0,10145	0,11193	0,1267	0,11562
1068,37061	0,02063	0,10128	0,11169	0,12681	0,11594
1066,44214	0,02032	0,10077	0,11151	0,12678	0,11604
1064,51367	0,0201	0,10045	0,11139	0,12661	0,11618
1062,58521	0,02005	0,10029	0,11125	0,12655	0,11652
1060,65674	0,01987	0,09991	0,11107	0,1265	0,11664
1058,72827	0,01957	0,09941	0,11079	0,12644	0,11667
1056,7998	0,01928	0,0992	0,11044	0,12657	0,11713
1054,87134	0,01888	0,09908	0,11033	0,12679	0,11794
1052,94287	0,01848	0,09878	0,11023	0,12707	0,11897

1051,0144	0,01821	0,09863	0,10998	0,12714	0,12014
1049,08594	0,01788	0,09844	0,1099	0,12706	0,12115
1047,15747	0,01758	0,09818	0,10987	0,12711	0,12196
1045,229	0,01756	0,09809	0,1099	0,12706	0,12257
1043,30054	0,01754	0,09789	0,11009	0,12709	0,12281
1041,37207	0,01736	0,09782	0,1101	0,12734	0,1229
1039,4436	0,01724	0,09781	0,10986	0,12755	0,12306
1037,51514	0,01714	0,09765	0,1098	0,12772	0,12322
1035,58667	0,01689	0,09765	0,11003	0,12797	0,12361
1033,6582	0,01659	0,09756	0,11016	0,12825	0,12446
1031,72974	0,01647	0,09738	0,11	0,1284	0,12554
1029,80127	0,01659	0,09743	0,1099	0,12861	0,12673
1027,8728	0,01653	0,09749	0,11001	0,12899	0,12776
1025,94434	0,01637	0,09758	0,11029	0,12914	0,12824
1024,01587	0,01639	0,09758	0,11055	0,12919	0,12823
1022,0874	0,01629	0,09765	0,11059	0,12939	0,12757
1020,15894	0,0162	0,09778	0,11066	0,12944	0,12625
1018,23047	0,01617	0,0975	0,11072	0,12924	0,12476
1016,302	0,0159	0,09724	0,11072	0,12914	0,12317
1014,37354	0,01547	0,09716	0,11081	0,12892	0,12151
1012,44507	0,01515	0,09691	0,11075	0,1286	0,12018
1010,5166	0,01518	0,09671	0,11044	0,12842	0,1191
1008,58813	0,01535	0,09648	0,1103	0,12806	0,11806
1006,65967	0,01543	0,09619	0,11044	0,1278	0,11738
1004,7312	0,01531	0,09627	0,11045	0,12783	0,1171
1002,80273	0,01493	0,09629	0,11033	0,12776	0,1168
1000,87427	0,01471	0,09585	0,11037	0,12764	0,11638
998,9458	0,01471	0,09578	0,11039	0,1276	0,11587
997,01733	0,01469	0,09594	0,11028	0,12762	0,11552
995,08887	0,01471	0,09571	0,11015	0,12768	0,11533
993,1604	0,01458	0,09557	0,11016	0,12761	0,11474
991,23193	0,01441	0,09558	0,11025	0,1275	0,1142
989,30347	0,0144	0,09553	0,11021	0,12742	0,11412
987,375	0,01419	0,09554	0,11027	0,1273	0,1138
985,44653	0,01386	0,09547	0,11032	0,12717	0,11341
983,51807	0,01383	0,09542	0,11021	0,12699	0,11327
981,5896	0,01377	0,09545	0,11022	0,12687	0,1131
979,66113	0,01353	0,09544	0,11017	0,12714	0,11309
977,73267	0,01354	0,09525	0,11012	0,12722	0,11313
975,8042	0,01364	0,0949	0,11035	0,12704	0,11301
973,87573	0,01342	0,09493	0,11041	0,12706	0,11307
971,94727	0,01323	0,09506	0,11015	0,12698	0,11318
970,0188	0,01319	0,09499	0,10996	0,12701	0,11306
968,09033	0,01294	0,09516	0,10994	0,1272	0,11296
966,16187	0,01276	0,09516	0,11001	0,12701	0,11296
964,2334	0,01275	0,09491	0,11017	0,1268	0,11301
962,30493	0,01267	0,0949	0,11024	0,12677	0,11304
960,37646	0,01254	0,09491	0,11021	0,12678	0,11279

958,448	0,01252	0,09493	0,11025	0,12703	0,11268
956,51953	0,01268	0,09494	0,11025	0,12723	0,11301
954,59106	0,01277	0,09489	0,11009	0,12724	0,11324
952,6626	0,01263	0,09488	0,1101	0,12736	0,11337
950,73413	0,01265	0,09486	0,11037	0,12729	0,11344
948,80566	0,01267	0,09493	0,11036	0,12697	0,11335
946,8772	0,01234	0,09499	0,11031	0,12681	0,11339
944,94873	0,01215	0,09484	0,11055	0,12674	0,11327
943,02026	0,0122	0,09459	0,1105	0,12674	0,11294
941,0918	0,0122	0,09443	0,11044	0,12685	0,11276
939,16333	0,01241	0,09432	0,11076	0,12693	0,11262
937,23486	0,01268	0,09423	0,11092	0,127	0,11257
935,3064	0,0126	0,09412	0,11081	0,12706	0,11261
933,37793	0,01239	0,09381	0,11058	0,12689	0,11251
931,44946	0,01242	0,09386	0,11055	0,12668	0,11258
929,521	0,01264	0,09423	0,11074	0,12672	0,11273
927,59253	0,01249	0,0943	0,11075	0,12686	0,11258
925,66406	0,0123	0,09447	0,11072	0,12692	0,11253
923,7356	0,01267	0,09446	0,11081	0,12686	0,11265
921,80713	0,01271	0,09428	0,11078	0,12686	0,11274
919,87866	0,01237	0,0947	0,11079	0,12717	0,113
917,9502	0,01254	0,09505	0,11107	0,12738	0,11309
916,02173	0,01274	0,09498	0,11123	0,12748	0,11308
914,09326	0,01265	0,09481	0,11101	0,1277	0,11329
912,16479	0,01277	0,09444	0,11099	0,12769	0,11322
910,23633	0,01298	0,09432	0,11147	0,1274	0,11295
908,30786	0,01307	0,09444	0,1116	0,12723	0,11294
906,37939	0,01305	0,09432	0,11135	0,12735	0,11293
904,45093	0,01319	0,09432	0,11161	0,12751	0,11282
902,52246	0,01347	0,0943	0,11186	0,12751	0,11272
900,59399	0,01342	0,09405	0,11184	0,12742	0,11262
898,66553	0,01327	0,09404	0,11197	0,12728	0,1126
896,73706	0,01328	0,09417	0,11189	0,12725	0,11249
894,80859	0,0133	0,09404	0,11179	0,12728	0,11236
892,88013	0,01346	0,09378	0,11179	0,12735	0,11246
890,95166	0,01351	0,09377	0,11188	0,12752	0,11236
889,02319	0,01332	0,09398	0,11221	0,12766	0,11218
887,09473	0,01338	0,09404	0,11236	0,12773	0,11228
885,16626	0,01359	0,09416	0,11247	0,1276	0,11223
883,23779	0,01368	0,09449	0,11275	0,12745	0,1124
881,30933	0,01394	0,09472	0,11306	0,12761	0,11279
879,38086	0,01444	0,09509	0,11356	0,12803	0,11271
877,45239	0,0148	0,09577	0,11417	0,12846	0,11283
875,52393	0,01523	0,09666	0,11487	0,12893	0,1137
873,59546	0,01618	0,09777	0,11566	0,12999	0,115
871,66699	0,01751	0,09928	0,11662	0,13136	0,1164
869,73853	0,01884	0,10121	0,11791	0,13259	0,11768
867,81006	0,01978	0,10266	0,11902	0,13378	0,11879

865,88159	0,02055	0,10341	0,11977	0,13464	0,1196
863,95313	0,02137	0,1043	0,12031	0,13494	0,12018
862,02466	0,02167	0,10509	0,12049	0,13516	0,12057
860,09619	0,02137	0,10503	0,12047	0,13557	0,12043
858,16772	0,02085	0,10458	0,12033	0,13564	0,11991
856,23926	0,02022	0,10406	0,11983	0,1353	0,11932
854,31079	0,01967	0,10299	0,11923	0,13461	0,11862
852,38232	0,01942	0,10239	0,11905	0,13398	0,11834
850,45386	0,01942	0,10301	0,11935	0,13426	0,1187
848,52539	0,02025	0,1047	0,12023	0,13546	0,11976
846,59692	0,02229	0,10799	0,122	0,13769	0,12224
844,66846	0,02414	0,1109	0,12387	0,14001	0,12494
842,73999	0,02615	0,11322	0,1254	0,14202	0,12744
840,81152	0,02998	0,11818	0,12833	0,14586	0,13162
838,88306	0,03423	0,12388	0,13233	0,15071	0,13627
836,95459	0,03771	0,12834	0,13577	0,15493	0,14001
835,02612	0,0407	0,1323	0,13886	0,15891	0,14347
833,09766	0,04184	0,13372	0,14028	0,16054	0,14484
831,16919	0,04147	0,13327	0,13983	0,16012	0,14451
829,24072	0,0414	0,13294	0,13981	0,16021	0,14449
827,31226	0,04147	0,13278	0,13987	0,16007	0,14417
825,38379	0,0429	0,13492	0,14095	0,16157	0,14553
823,45532	0,04547	0,13805	0,14374	0,16515	0,14861
821,52686	0,04626	0,13859	0,14505	0,16642	0,14959
819,59839	0,04609	0,13846	0,14505	0,16642	0,14951
817,66992	0,04658	0,13925	0,1457	0,16742	0,15009
815,74146	0,0476	0,14015	0,14679	0,16822	0,15082
813,81299	0,04913	0,14138	0,14804	0,1692	0,15203
811,88452	0,04999	0,14218	0,1488	0,16999	0,15262
809,95605	0,04995	0,14214	0,14886	0,16968	0,15232
808,02759	0,05036	0,14239	0,14898	0,16982	0,15253
806,09912	0,05147	0,14342	0,14973	0,17105	0,15311
804,17065	0,05231	0,14465	0,15081	0,17235	0,15365
802,24219	0,0526	0,14536	0,15159	0,17325	0,15412
800,31372	0,05373	0,14628	0,15257	0,17423	0,15481
798,38525	0,05537	0,14754	0,15405	0,17544	0,15613
796,45679	0,0559	0,14816	0,15492	0,17626	0,1571
794,52832	0,05585	0,14854	0,15516	0,17643	0,1573
792,59985	0,05562	0,14817	0,155	0,1759	0,15716
790,67139	0,05476	0,14658	0,1539	0,17473	0,15626
788,74292	0,05389	0,14537	0,15294	0,17362	0,15522
786,81445	0,05347	0,14513	0,15271	0,17305	0,1547
784,88599	0,05252	0,14449	0,15182	0,17232	0,15383
782,95752	0,05108	0,14312	0,15049	0,17087	0,15266
781,02905	0,05051	0,14214	0,14986	0,17004	0,15207
779,10059	0,05074	0,14181	0,14964	0,17031	0,15213
777,17212	0,05143	0,14232	0,15005	0,17083	0,15289
775,24365	0,0528	0,14375	0,15151	0,17225	0,15433

773,31519	0,05426	0,14482	0,1532	0,17414	0,15569
771,38672	0,0551	0,14546	0,1543	0,17505	0,15632
769,45825	0,05543	0,14601	0,15471	0,17539	0,15659
767,52979	0,05588	0,14616	0,1551	0,1758	0,15713
765,60132	0,05663	0,14662	0,15563	0,17629	0,15765
763,67285	0,057	0,14708	0,15572	0,17676	0,15787
761,74438	0,05627	0,14622	0,15524	0,17644	0,1577
759,81592	0,05528	0,1451	0,1547	0,17543	0,15723
757,88745	0,05486	0,14495	0,15455	0,17484	0,1571
755,95898	0,05486	0,14488	0,15443	0,17467	0,15725
754,03052	0,05512	0,14465	0,15417	0,17436	0,15705
752,10205	0,05483	0,14422	0,15392	0,17389	0,1565
750,17358	0,05451	0,14392	0,15365	0,17366	0,15618
748,24512	0,05512	0,14451	0,15396	0,17432	0,15671
746,31665	0,05564	0,14499	0,15467	0,1752	0,15751
744,38818	0,05578	0,1454	0,15506	0,17536	0,15768
742,45972	0,05589	0,14611	0,15557	0,17545	0,15766
740,53125	0,05606	0,14615	0,15626	0,17605	0,1581
738,60278	0,05677	0,14627	0,15655	0,17672	0,15886
736,67432	0,0577	0,14714	0,15683	0,17707	0,1593
734,74585	0,05818	0,14772	0,15749	0,17736	0,1596
732,81738	0,05804	0,14763	0,15762	0,17727	0,1597
730,88892	0,05802	0,14771	0,15742	0,17699	0,15932
728,96045	0,05881	0,14842	0,15799	0,17763	0,15966
727,03198	0,05982	0,14924	0,15868	0,17842	0,16021
725,10352	0,06075	0,15016	0,15975	0,17958	0,16073
723,17505	0,0615	0,15102	0,16056	0,18091	0,16157
721,24658	0,06167	0,15142	0,15986	0,1806	0,16118
719,31812	0,06204	0,1518	0,1604	0,18119	0,16157
717,38965	0,06305	0,15252	0,16232	0,18331	0,1634
715,46118	0,06382	0,1533	0,16308	0,18421	0,16404
713,53271	0,06386	0,1536	0,16319	0,18445	0,16414
711,60425	0,06346	0,15331	0,16316	0,18446	0,164
709,67578	0,06338	0,15307	0,16314	0,1846	0,16379
707,74731	0,06396	0,15329	0,16335	0,18527	0,16413
705,81885	0,06441	0,15384	0,16341	0,18529	0,16409
703,89038	0,064	0,15415	0,16309	0,18486	0,16351
701,96191	0,06355	0,15382	0,16248	0,18462	0,16308
700,03345	0,06366	0,15381	0,16212	0,18415	0,16302
698,10498	0,06366	0,15422	0,16201	0,18376	0,16306
696,17651	0,0635	0,15438	0,16184	0,18382	0,16286
694,24805	0,06355	0,15441	0,16216	0,18426	0,16284
692,31958	0,06379	0,15454	0,16256	0,18498	0,16345
690,39111	0,06451	0,15559	0,16216	0,18559	0,16415
688,46265	0,06581	0,15703	0,16261	0,18636	0,1645
686,53418	0,06679	0,15787	0,16332	0,1871	0,16483
684,60571	0,06723	0,15818	0,1631	0,1875	0,1652
682,67725	0,06803	0,15863	0,16318	0,18766	0,1651



680,74878	0,06881	0,16015	0,16351	0,1883	0,16549
678,82031	0,06973	0,16082	0,1651	0,1902	0,16715
676,89185	0,07053	0,16106	0,16557	0,19016	0,16674
674,96338	0,07126	0,16208	0,16629	0,19128	0,16799
673,03491	0,07137	0,16205	0,16833	0,19334	0,16825
671,10645	0,07145	0,16203	0,16848	0,19354	0,16852
669,17798	0,07153	0,16201	0,16862	0,19374	0,16878
667,24951	0,07161	0,16199	0,16876	0,19395	0,16905
665,32104	0,07168	0,16197	0,16891	0,19415	0,16931
663,39258	0,07176	0,16195	0,16905	0,19435	0,16958
661,46411	0,07184	0,16193	0,16919	0,19455	0,16984
659,53564	0,07192	0,1619	0,16934	0,19475	0,17011
657,60718	0,072	0,16188	0,16948	0,19495	0,17037
655,67871	0,07207	0,16186	0,16962	0,19516	0,17064
653,75024	0,07189	0,16184	0,16976	0,19536	0,1709
651,82178	0,07266	0,16205	0,16991	0,19556	0,17117
649,89331	0,07272	0,16184	0,17005	0,19576	0,17143
647,96484	0,0731	0,16215	0,17019	0,19596	0,1717
646,03638	0,07413	0,16224	0,17151	0,19616	0,17196
644,10791	0,07447	0,16178	0,17198	0,19637	0,1725
642,17944	0,07454	0,16197	0,17198	0,19609	0,17267
640,25098	0,07508	0,16226	0,1724	0,19624	0,1735
638,32251	0,07495	0,16206	0,17282	0,196	0,17346
636,39404	0,07477	0,16181	0,17355	0,19678	0,17394
634,46558	0,07496	0,16166	0,17323	0,19684	0,1745
632,53711	0,07425	0,16176	0,17272	0,19593	0,17373
630,60864	0,0738	0,16119	0,17287	0,19582	0,17309
628,68018	0,07416	0,16025	0,17174	0,19581	0,17312
626,75171	0,07477	0,16013	0,17101	0,19586	0,17348
624,82324	0,07514	0,16029	0,17146	0,19547	0,17352
622,89478	0,07523	0,16018	0,17193	0,19483	0,17346
620,96631	0,07578	0,15972	0,17219	0,19486	0,17354
619,03784	0,07625	0,15961	0,17191	0,19442	0,1728
617,10938	0,07652	0,16026	0,17198	0,19426	0,17275
615,18091	0,07671	0,16045	0,17299	0,1951	0,17401
613,25244	0,07647	0,16027	0,1738	0,19511	0,17409
611,32397	0,07661	0,16072	0,1739	0,19475	0,17375
609,39551	0,07687	0,16036	0,17404	0,19485	0,17406
607,46704	0,07689	0,15926	0,17422	0,19513	0,17399
605,53857	0,07713	0,15903	0,17441	0,19511	0,17369
603,61011	0,07689	0,15874	0,17455	0,19435	0,17331
601,68164	0,07699	0,15861	0,17394	0,19404	0,17306
599,75317	0,0774	0,15866	0,17325	0,19406	0,17333
597,82471	0,07677	0,15783	0,17287	0,19373	0,17343
595,89624	0,07635	0,15722	0,17289	0,19377	0,17284
593,96777	0,0767	0,15762	0,1736	0,19372	0,17281
592,03931	0,07736	0,15852	0,17453	0,19351	0,17351
590,11084	0,0771	0,15857	0,17492	0,19342	0,17234

588,18237	0,0761	0,15809	0,17445	0,19344	0,1712
586,25391	0,0762	0,15802	0,1741	0,19349	0,17179
584,32544	0,07669	0,1581	0,17439	0,19306	0,17141
582,39697	0,07739	0,15884	0,17463	0,19327	0,17205
580,46851	0,07735	0,15881	0,17464	0,19392	0,17352
578,54004	0,0766	0,1582	0,17472	0,1941	0,17271
576,61157	0,07754	0,15889	0,17463	0,19491	0,1725
574,68311	0,07776	0,15894	0,17441	0,19538	0,17289
572,75464	0,07732	0,159	0,17525	0,19555	0,17265
570,82617	0,07844	0,16045	0,17631	0,19703	0,17381
568,89771	0,07936	0,16141	0,17722	0,19854	0,17518
566,96924	0,07965	0,16162	0,17861	0,19938	0,17546
565,04077	0,07953	0,16214	0,17871	0,19988	0,17538
563,1123	0,07898	0,16297	0,17841	0,20011	0,17538
561,18384	0,07847	0,16336	0,1791	0,20065	0,17578
559,25537	0,0786	0,164	0,17942	0,20108	0,1763
557,3269	0,07931	0,16533	0,17948	0,2012	0,17705
555,39844	0,07915	0,16612	0,17943	0,20168	0,17814
553,46997	0,07846	0,16653	0,17987	0,20242	0,17927
551,5415	0,07767	0,16625	0,18046	0,20271	0,18027
549,61304	0,07639	0,16609	0,18033	0,20238	0,18078
547,68457	0,07584	0,16678	0,18194	0,20351	0,18282
545,7561	0,07571	0,16658	0,1813	0,20359	0,18479
543,82764	0,07441	0,16653	0,17739	0,20105	0,18383
541,89917	0,07328	0,1676	0,17795	0,20133	0,18458
539,9707	0,07302	0,16829	0,17977	0,20305	0,18698
538,04224	0,07114	0,16865	0,17988	0,20401	0,18878
536,11377	0,06908	0,16946	0,18128	0,2052	0,19147
534,1853	0,06798	0,1704	0,18056	0,20404	0,19271
532,25684	0,06501	0,17069	0,18108	0,20404	0,19558
530,32837	0,0627	0,17133	0,17943	0,20293	0,19788
528,3999	0,06016	0,17007	0,1788	0,20189	0,20048
526,47144	0,05525	0,16714	0,18677	0,20534	0,20836
524,54297	0,05186	0,16803	0,18421	0,20376	0,20962
522,6145	0,04775	0,16928	0,17651	0,19964	0,20754
520,68604	0,04193	0,16758	0,18111	0,19961	0,21201
518,75757	0,03766	0,1668	0,18436	0,20073	0,21755
516,8291	0,03316	0,16658	0,18037	0,19838	0,22082
514,90063	0,02888	0,16544	0,17532	0,19291	0,21976
512,97217	0,02409	0,16428	0,17227	0,19163	0,21989
511,0437	0,01592	0,16299	0,17157	0,19005	0,22355
509,11523	0,00946	0,16104	0,17225	0,18709	0,22667
507,18677	0,00576	0,15928	0,17196	0,18657	0,2288
505,2583	0,00119	0,15969	0,1688	0,18473	0,22955
503,32983	-0,00236	0,15876	0,16953	0,18381	0,23344
501,40137	-0,00607	0,15573	0,1704	0,18228	0,2345
499,4729	-0,01001	0,15501	0,16605	0,17938	0,23213

Figure 3.3 C						
n°spectre	Vd339	VD331	VD89	VD90	VD92	Vd93
cm-1	crushedF2	pHnat-F2	$\theta=0.5$	$\theta=2.9$	$\theta=14.5$	$\theta=29.0$
4001,5686	0,03712	0,11956	0,13047	0,14449	0,10722	0,1099
3999,64014	0,03704	0,11934	0,1304	0,14446	0,10708	0,10986
3997,71167	0,03697	0,11925	0,13043	0,14447	0,10704	0,10988
3995,7832	0,037	0,11933	0,1303	0,1443	0,10707	0,10982
3993,85474	0,03696	0,11913	0,13016	0,14412	0,10684	0,10973
3991,92627	0,0369	0,11918	0,13008	0,14405	0,10672	0,10962
3989,9978	0,03691	0,11933	0,12993	0,14397	0,10673	0,10952
3988,06934	0,03681	0,11902	0,1298	0,14378	0,10652	0,10947
3986,14087	0,03668	0,11895	0,12971	0,1436	0,10646	0,10935
3984,2124	0,03676	0,119	0,1297	0,14352	0,10652	0,10928
3982,28394	0,03683	0,11875	0,12962	0,14344	0,1064	0,10926
3980,35547	0,03664	0,11865	0,12939	0,14334	0,10617	0,10911
3978,427	0,03652	0,11863	0,12935	0,14325	0,1061	0,10902
3976,49854	0,03659	0,11858	0,12926	0,14304	0,10616	0,10897
3974,57007	0,03648	0,11857	0,12907	0,14286	0,10604	0,10885
3972,6416	0,03631	0,11846	0,12907	0,14293	0,10594	0,10879
3970,71313	0,03636	0,11839	0,12898	0,14284	0,10593	0,10865
3968,78467	0,03646	0,11846	0,12885	0,14263	0,10583	0,10853
3966,8562	0,03636	0,11811	0,12876	0,14253	0,10561	0,10847
3964,92773	0,03636	0,11801	0,12878	0,14247	0,10557	0,10853
3962,99927	0,03659	0,11853	0,12873	0,14246	0,10578	0,10868
3961,0708	0,03646	0,11819	0,12842	0,1422	0,10557	0,10843
3959,14233	0,03631	0,11787	0,12835	0,14197	0,1053	0,10818
3957,21387	0,03635	0,11795	0,12837	0,14204	0,10534	0,1082
3955,2854	0,0363	0,11782	0,12829	0,14197	0,10528	0,10818
3953,35693	0,03638	0,11799	0,12827	0,14184	0,10521	0,10814
3951,42847	0,03626	0,11774	0,12803	0,14162	0,10517	0,10808
3949,5	0,0362	0,11773	0,12768	0,14145	0,1054	0,10821
3947,57153	0,03612	0,11743	0,1274	0,1413	0,10498	0,10783
3945,64307	0,03607	0,11729	0,1276	0,14118	0,10458	0,10757
3943,7146	0,03661	0,11838	0,12786	0,14152	0,10545	0,10826
3941,78613	0,03639	0,1176	0,1273	0,14124	0,10498	0,10771
3939,85767	0,03583	0,11675	0,12724	0,14081	0,10419	0,10711
3937,9292	0,03607	0,11738	0,12762	0,14108	0,10472	0,10775
3936,00073	0,03608	0,11713	0,12737	0,14087	0,10446	0,10757
3934,07227	0,03612	0,11755	0,12742	0,1409	0,10477	0,10769
3932,1438	0,03636	0,11803	0,12713	0,14101	0,10534	0,10795
3930,21533	0,03583	0,11671	0,12631	0,14017	0,10406	0,10679
3928,28687	0,03555	0,11639	0,12664	0,13997	0,10359	0,10664
3926,3584	0,03606	0,11753	0,12709	0,14052	0,10457	0,10759
3924,42993	0,03612	0,1175	0,12648	0,14034	0,10448	0,10727
3922,50146	0,03558	0,11634	0,12613	0,13976	0,10362	0,10652
3920,573	0,03574	0,11672	0,12651	0,13996	0,1041	0,10708
3918,64453	0,03597	0,11715	0,12652	0,14033	0,10471	0,10755

3916,71606	0,0355	0,11626	0,12595	0,1399	0,10412	0,1069
3914,7876	0,03495	0,11538	0,12556	0,1393	0,10316	0,10609
3912,85913	0,0353	0,11595	0,12612	0,1394	0,10319	0,10638
3910,93066	0,03574	0,11644	0,1266	0,13975	0,10384	0,10693
3909,0022	0,0354	0,11587	0,12609	0,13932	0,10322	0,10633
3907,07373	0,03569	0,11695	0,12615	0,13932	0,10367	0,1068
3905,14526	0,03619	0,11806	0,12627	0,14008	0,10539	0,10786
3903,2168	0,03513	0,11569	0,12502	0,13943	0,10423	0,1065
3901,28833	0,03451	0,11445	0,12431	0,13857	0,1031	0,10561
3899,35986	0,03485	0,11521	0,12424	0,13864	0,10342	0,10582
3897,4314	0,03436	0,11417	0,12423	0,13827	0,10235	0,10508
3895,50293	0,0347	0,11463	0,12472	0,13783	0,10167	0,10496
3893,57446	0,03585	0,1173	0,12598	0,13875	0,10376	0,1068
3891,646	0,0359	0,11737	0,12583	0,13972	0,10513	0,10746
3889,71753	0,03373	0,11243	0,1233	0,13738	0,10081	0,10384
3887,78906	0,0349	0,11555	0,12506	0,13778	0,1024	0,1056
3885,8606	0,03604	0,11753	0,12627	0,14008	0,10605	0,10808
3883,93213	0,03332	0,11188	0,12261	0,13695	0,10026	0,10319
3882,00366	0,03495	0,1162	0,12429	0,13734	0,10235	0,10543
3880,0752	0,03613	0,11758	0,12461	0,139	0,10506	0,10709
3878,14673	0,03338	0,11186	0,12241	0,13613	0,09964	0,10292
3876,21826	0,03488	0,1159	0,12527	0,13769	0,10271	0,10595
3874,28979	0,0356	0,11647	0,12409	0,13821	0,10355	0,10618
3872,36133	0,03435	0,1145	0,12306	0,13659	0,10136	0,10432
3870,43286	0,03482	0,11639	0,12557	0,13894	0,10486	0,10689
3868,50439	0,03315	0,11194	0,12207	0,13674	0,10068	0,10316
3866,57593	0,03357	0,11324	0,12254	0,13572	0,10037	0,10355
3864,64746	0,0351	0,11626	0,12477	0,13817	0,1042	0,10653
3862,71899	0,03409	0,11351	0,12184	0,13613	0,10077	0,10346
3860,79053	0,03384	0,11335	0,12288	0,13597	0,10086	0,104
3858,86206	0,03452	0,11403	0,12337	0,13671	0,1014	0,10463
3856,93359	0,0355	0,11598	0,12266	0,13591	0,10132	0,10459
3855,00513	0,03477	0,11672	0,12748	0,13985	0,10695	0,10864
3853,07666	0,03254	0,11178	0,1245	0,14013	0,10467	0,10567
3851,14819	0,03038	0,10771	0,11859	0,13357	0,09616	0,09863
3849,21973	0,03346	0,11275	0,12141	0,13452	0,0993	0,10246
3847,29126	0,03434	0,11368	0,12315	0,13594	0,10081	0,10425
3845,36279	0,03508	0,11495	0,123	0,13589	0,10134	0,10462
3843,43433	0,03498	0,11476	0,12306	0,13632	0,10203	0,10484
3841,50586	0,03475	0,11405	0,12145	0,13527	0,10081	0,10375
3839,57739	0,03477	0,11521	0,12276	0,13603	0,10225	0,10471
3837,64893	0,03315	0,11295	0,12346	0,137	0,10223	0,10407
3835,72046	0,03195	0,10977	0,12021	0,13428	0,09833	0,10108
3833,79199	0,0338	0,11307	0,12102	0,13443	0,09995	0,10298
3831,86353	0,03413	0,11324	0,12221	0,13567	0,10133	0,10398
3829,93506	0,03339	0,11135	0,12073	0,13403	0,0987	0,1021
3828,00659	0,03456	0,11427	0,12232	0,13489	0,10087	0,10409

3826,07813	0,03433	0,11343	0,12164	0,13508	0,1007	0,10369
3824,14966	0,03399	0,11298	0,1209	0,13372	0,09894	0,10262
3822,22119	0,03526	0,1164	0,12399	0,13664	0,10415	0,10646
3820,29272	0,0333	0,11148	0,11954	0,13456	0,10001	0,10212
3818,36426	0,03255	0,11101	0,11938	0,1326	0,09762	0,10094
3816,43579	0,03354	0,11395	0,12382	0,13619	0,10264	0,1049
3814,50732	0,03165	0,109	0,12008	0,13388	0,09812	0,10089
3812,57886	0,03276	0,11087	0,11976	0,13255	0,09754	0,1012
3810,65039	0,0341	0,11292	0,12157	0,13372	0,09958	0,10319
3808,72192	0,03438	0,11409	0,12235	0,13456	0,10102	0,10416
3806,79346	0,03331	0,11227	0,12173	0,13531	0,10135	0,10376
3804,86499	0,03207	0,10933	0,11874	0,13222	0,09686	0,10024
3802,93652	0,03425	0,11455	0,12173	0,13392	0,10117	0,10389
3801,00806	0,03328	0,11251	0,12171	0,13551	0,10165	0,10344
3799,07959	0,03104	0,10789	0,11772	0,13123	0,09541	0,09883
3797,15112	0,03396	0,11359	0,12014	0,13272	0,09972	0,10279
3795,22266	0,03326	0,11124	0,12009	0,13343	0,09939	0,10231
3793,29419	0,03265	0,11017	0,11933	0,13195	0,09703	0,10093
3791,36572	0,03396	0,11256	0,12086	0,13308	0,09934	0,10291
3789,43726	0,03351	0,1112	0,12013	0,13272	0,0985	0,10213
3787,50879	0,03337	0,11161	0,12016	0,13231	0,0983	0,10218
3785,58032	0,03396	0,11294	0,12026	0,13279	0,09945	0,10277
3783,65186	0,0332	0,11099	0,11929	0,132	0,09794	0,10137
3781,72339	0,03326	0,11139	0,11999	0,13219	0,09842	0,10208
3779,79492	0,03396	0,11272	0,11982	0,13257	0,09967	0,10274
3777,86646	0,03282	0,11021	0,11872	0,1316	0,09776	0,10096
3775,93799	0,03273	0,11003	0,11918	0,1316	0,09748	0,10125
3774,00952	0,03322	0,11089	0,11948	0,13175	0,09791	0,10175
3772,08105	0,03348	0,11183	0,11985	0,13201	0,09871	0,10224
3770,15259	0,03349	0,11186	0,11948	0,1324	0,09947	0,10256
3768,22412	0,03214	0,10914	0,11806	0,13107	0,09716	0,10056
3766,29565	0,0328	0,11061	0,11862	0,13115	0,09797	0,10133
3764,36719	0,03283	0,11021	0,11842	0,13121	0,09795	0,10126
3762,43872	0,03229	0,10962	0,11826	0,13045	0,09664	0,10039
3760,51025	0,03345	0,11202	0,11937	0,13173	0,09925	0,10249
3758,58179	0,03294	0,1106	0,11777	0,13116	0,0982	0,10121
3756,65332	0,03204	0,10919	0,11709	0,12991	0,09648	0,09984
3754,72485	0,03252	0,11044	0,11832	0,13076	0,09799	0,10117
3752,79639	0,03244	0,1114	0,11935	0,13178	0,09941	0,10195
3750,86792	0,0319	0,11072	0,11972	0,13313	0,10078	0,10222
3748,93945	0,02871	0,10371	0,11522	0,12964	0,09468	0,09716
3747,01099	0,03088	0,1088	0,11604	0,12892	0,09569	0,09882
3745,08252	0,0322	0,11141	0,12071	0,1336	0,10255	0,10415
3743,15405	0,02823	0,10258	0,11555	0,13082	0,09596	0,09818
3741,22559	0,02988	0,10685	0,11359	0,12752	0,09325	0,09685
3739,29712	0,03199	0,11124	0,11767	0,13035	0,09816	0,10141
3737,36865	0,03124	0,11036	0,11827	0,1321	0,09961	0,1022
3735,44019	0,03068	0,10987	0,11513	0,13071	0,09799	0,10036

3733,51172	0,03002	0,10863	0,11507	0,13035	0,09761	0,09999
3731,58325	0,02848	0,10566	0,1153	0,13006	0,09602	0,09888
3729,65479	0,0286	0,10667	0,11504	0,1296	0,09531	0,09878
3727,72632	0,02982	0,10947	0,11631	0,1307	0,09764	0,10094
3725,79785	0,02992	0,10899	0,11601	0,13088	0,0979	0,10091
3723,86938	0,02961	0,10809	0,11505	0,12968	0,09643	0,09962
3721,94092	0,0298	0,10842	0,11557	0,12972	0,09682	0,09999
3720,01245	0,02973	0,10752	0,11541	0,1293	0,09621	0,09949
3718,08398	0,02986	0,10741	0,1157	0,12902	0,09591	0,09934
3716,15552	0,03018	0,1073	0,1158	0,12846	0,09551	0,09909
3714,22705	0,03076	0,10843	0,11674	0,12879	0,09694	0,10009
3712,29858	0,03056	0,10892	0,11676	0,13011	0,09858	0,10081
3710,37012	0,02854	0,10541	0,11421	0,12862	0,0958	0,09819
3708,44165	0,02774	0,10476	0,1142	0,12791	0,09553	0,09821
3706,51318	0,02779	0,10502	0,11385	0,12771	0,09441	0,09759
3704,58472	0,02848	0,10612	0,11454	0,12794	0,09471	0,09823
3702,65625	0,02925	0,10743	0,11575	0,12926	0,09752	0,10028
3700,72778	0,028	0,1048	0,11406	0,12824	0,0956	0,09837
3698,79932	0,02734	0,10408	0,11423	0,12757	0,09441	0,0977
3696,87085	0,02791	0,10528	0,11486	0,12797	0,0956	0,09866
3694,94238	0,02747	0,10441	0,11468	0,12776	0,09523	0,09815
3693,01392	0,02708	0,10422	0,11451	0,12745	0,0952	0,09808
3691,08545	0,02737	0,10536	0,11413	0,12751	0,09657	0,09874
3689,15698	0,02537	0,10224	0,1143	0,12762	0,09602	0,0975
3687,22852	0,02306	0,09764	0,11275	0,12586	0,09254	0,09468
3685,30005	0,025	0,10012	0,11183	0,12474	0,09224	0,09516
3683,37158	0,02631	0,10237	0,11378	0,12584	0,09426	0,09712
3681,44312	0,02643	0,1025	0,11458	0,12677	0,09531	0,09768
3679,51465	0,02718	0,10298	0,11269	0,12534	0,09412	0,09657
3677,58618	0,02751	0,10484	0,11493	0,12665	0,09676	0,09853
3675,65771	0,0279	0,10558	0,11503	0,12873	0,09913	0,09959
3673,72925	0,02507	0,0982	0,10996	0,12406	0,09173	0,0935
3671,80078	0,02639	0,10256	0,11366	0,12523	0,09462	0,09646
3669,87231	0,02729	0,10451	0,11508	0,12785	0,09808	0,0987
3667,94385	0,02575	0,09948	0,11062	0,12419	0,09249	0,09413
3666,01538	0,02696	0,102	0,11273	0,12451	0,09373	0,09589
3664,08691	0,0276	0,10325	0,11444	0,12593	0,09558	0,09752
3662,15845	0,02764	0,10285	0,11362	0,12555	0,09514	0,0971
3660,22998	0,02748	0,10257	0,11353	0,12526	0,09475	0,09672
3658,30151	0,02787	0,10384	0,11419	0,12568	0,09616	0,09767
3656,37305	0,02748	0,103	0,114	0,12638	0,09723	0,09805
3654,44458	0,0258	0,09975	0,112	0,12456	0,0937	0,09513
3652,51611	0,02736	0,10325	0,11293	0,12473	0,09563	0,0969
3650,58765	0,02844	0,10548	0,11433	0,12703	0,09961	0,09944
3648,65918	0,02614	0,10119	0,1116	0,12546	0,09613	0,09575
3646,73071	0,02516	0,09939	0,10996	0,12327	0,09368	0,09394
3644,80225	0,02561	0,09998	0,11134	0,12373	0,09422	0,09507
3642,87378	0,02582	0,10085	0,11278	0,12457	0,09514	0,09614

3640,94531	0,02608	0,10145	0,11287	0,12492	0,09613	0,09671
3639,01685	0,02547	0,1003	0,11231	0,12459	0,0955	0,09604
3637,08838	0,02524	0,10046	0,1124	0,12445	0,09552	0,0961
3635,15991	0,02521	0,10069	0,11267	0,12514	0,09679	0,09687
3633,23145	0,02442	0,09949	0,1113	0,12436	0,09549	0,09557
3631,30298	0,02419	0,10047	0,11236	0,12494	0,09688	0,09665
3629,37451	0,02433	0,1011	0,1132	0,12741	0,10058	0,09905
3627,44604	0,02144	0,09483	0,10869	0,12404	0,0945	0,0935
3625,51758	0,02195	0,0968	0,10956	0,12282	0,09361	0,09351
3623,58911	0,02281	0,09857	0,11166	0,12449	0,09628	0,09591
3621,66064	0,02269	0,0984	0,11136	0,12443	0,0964	0,09577
3619,73218	0,02301	0,09909	0,1115	0,12472	0,09783	0,09653
3617,80371	0,02177	0,09578	0,10959	0,12346	0,09561	0,09424
3615,87524	0,0215	0,09607	0,10979	0,12274	0,09475	0,09371
3613,94678	0,02243	0,09802	0,11107	0,12369	0,09707	0,09547
3612,01831	0,02155	0,09549	0,10992	0,12277	0,09578	0,09419
3610,08984	0,02053	0,09471	0,11045	0,12291	0,09601	0,09449
3608,16138	0,0204	0,09545	0,11013	0,12347	0,09698	0,09494
3606,23291	0,01964	0,094	0,1088	0,12243	0,09526	0,09337
3604,30444	0,01942	0,09407	0,10977	0,1226	0,09534	0,09379
3602,37598	0,01964	0,09514	0,11048	0,12332	0,09676	0,09488
3600,44751	0,01937	0,09494	0,11008	0,12315	0,09712	0,09472
3598,51904	0,01878	0,09385	0,10941	0,12252	0,09608	0,09376
3596,59058	0,01887	0,09429	0,10945	0,12262	0,09641	0,09402
3594,66211	0,01893	0,09454	0,10963	0,12301	0,09733	0,0945
3592,73364	0,01836	0,09307	0,10897	0,12239	0,0961	0,09342
3590,80518	0,01842	0,09325	0,1097	0,1225	0,09635	0,09372
3588,87671	0,01915	0,09458	0,11039	0,12352	0,0987	0,09531
3586,94824	0,01903	0,0936	0,10854	0,12263	0,09772	0,09395
3585,01978	0,01791	0,09147	0,10815	0,12145	0,09567	0,09237
3583,09131	0,01831	0,09238	0,10963	0,12203	0,09655	0,09337
3581,16284	0,01867	0,09262	0,10984	0,1223	0,09716	0,09368
3579,23438	0,01848	0,09231	0,10955	0,12207	0,09696	0,09335
3577,30591	0,01841	0,09226	0,10966	0,12205	0,09693	0,09345
3575,37744	0,01829	0,09215	0,10966	0,12201	0,09695	0,09339
3573,44897	0,01809	0,0918	0,10946	0,12196	0,097	0,09325
3571,52051	0,01804	0,09146	0,10944	0,12177	0,09675	0,09302
3569,59204	0,01824	0,09227	0,10989	0,12224	0,09789	0,0938
3567,66357	0,01868	0,09343	0,10907	0,12251	0,09902	0,09428
3565,73511	0,01776	0,09132	0,10758	0,12124	0,0969	0,09223
3563,80664	0,01708	0,09028	0,10833	0,12104	0,09619	0,09185
3561,87817	0,01743	0,09084	0,10923	0,12167	0,09725	0,09282
3559,94971	0,0175	0,09061	0,10908	0,12162	0,09719	0,09271
3558,02124	0,01722	0,09013	0,10906	0,12155	0,09703	0,09258
3556,09277	0,01709	0,08983	0,10911	0,12156	0,09713	0,09264
3554,16431	0,01717	0,09025	0,10915	0,12161	0,09744	0,09278
3552,23584	0,01716	0,0903	0,10881	0,12148	0,09753	0,0926
3550,30737	0,01659	0,08924	0,10853	0,12109	0,09684	0,09196

3548,37891	0,01662	0,08962	0,10893	0,12137	0,09739	0,09241
3546,45044	0,01705	0,09004	0,10871	0,12153	0,09805	0,09272
3544,52197	0,01648	0,08901	0,10812	0,12099	0,0972	0,09193
3542,59351	0,01606	0,0886	0,10831	0,1209	0,09697	0,09173
3540,66504	0,01614	0,08828	0,10857	0,12106	0,09713	0,09178
3538,73657	0,01608	0,0882	0,1085	0,12095	0,0971	0,09179
3536,80811	0,01599	0,08837	0,10834	0,12088	0,09728	0,0919
3534,87964	0,01572	0,08777	0,10821	0,12085	0,09712	0,0916
3532,95117	0,0155	0,08725	0,10824	0,1207	0,09691	0,09137
3531,02271	0,01545	0,08739	0,10822	0,1207	0,09719	0,09158
3529,09424	0,01528	0,08765	0,1079	0,12065	0,09734	0,09147
3527,16577	0,01501	0,08715	0,10764	0,12037	0,09706	0,09103
3525,2373	0,01492	0,08675	0,10759	0,12033	0,09709	0,09108
3523,30884	0,01479	0,08669	0,10735	0,12024	0,09712	0,09098
3521,38037	0,0144	0,086	0,10731	0,12002	0,09672	0,09055
3519,4519	0,01419	0,08563	0,10748	0,12007	0,09663	0,09063
3517,52344	0,01407	0,0856	0,10738	0,11997	0,09673	0,09064
3515,59497	0,01384	0,08541	0,10729	0,11985	0,09669	0,09039
3513,6665	0,01382	0,08512	0,10732	0,11995	0,09665	0,09038
3511,73804	0,01378	0,08497	0,10729	0,11993	0,09678	0,09043
3509,80957	0,01362	0,08507	0,10698	0,11977	0,09692	0,09033
3507,8811	0,01327	0,08435	0,10672	0,11957	0,09645	0,08988
3505,95264	0,01307	0,08403	0,10694	0,11965	0,09648	0,08995
3504,02417	0,01333	0,08471	0,10681	0,11975	0,09703	0,0903
3502,0957	0,0132	0,08424	0,1064	0,11939	0,09655	0,08988
3500,16724	0,01277	0,08349	0,1066	0,11927	0,0963	0,08966
3498,23877	0,01276	0,08363	0,10685	0,11957	0,09675	0,08996
3496,3103	0,01276	0,08358	0,10674	0,11957	0,09674	0,08999
3494,38184	0,01264	0,0833	0,10663	0,11939	0,09657	0,08977
3492,45337	0,0125	0,0831	0,10672	0,11941	0,09666	0,08965
3490,5249	0,01245	0,08308	0,10676	0,11942	0,09683	0,08975
3488,59644	0,01259	0,08312	0,10663	0,1194	0,09684	0,08977
3486,66797	0,01255	0,08283	0,10656	0,11941	0,09671	0,08962
3484,7395	0,01232	0,08269	0,10655	0,11929	0,09672	0,08959
3482,81104	0,01229	0,08286	0,10652	0,11931	0,09695	0,08971
3480,88257	0,01231	0,08253	0,10643	0,11924	0,09685	0,08948
3478,9541	0,01215	0,08214	0,10639	0,11912	0,09659	0,08924
3477,02563	0,01205	0,08229	0,10652	0,11928	0,09691	0,08949
3475,09717	0,01212	0,08218	0,1065	0,11918	0,09701	0,08952
3473,1687	0,01208	0,08194	0,10636	0,11906	0,09676	0,0893
3471,24023	0,01205	0,08198	0,10637	0,11917	0,09691	0,08935
3469,31177	0,0121	0,08197	0,1064	0,11913	0,09698	0,08942
3467,3833	0,01204	0,0818	0,10633	0,11909	0,09698	0,08942
3465,45483	0,01193	0,08156	0,10621	0,119	0,09699	0,08928
3463,52637	0,0119	0,08154	0,10618	0,1189	0,09691	0,08916
3461,5979	0,01183	0,08145	0,10622	0,11893	0,09695	0,08923
3459,66943	0,01174	0,08124	0,1061	0,11892	0,097	0,08926
3457,74097	0,01171	0,08117	0,10598	0,11887	0,09694	0,0892



3455,8125	0,01157	0,08106	0,10605	0,11881	0,09694	0,08916
3453,88403	0,01155	0,08107	0,10603	0,11876	0,09708	0,08919
3451,95557	0,0116	0,08095	0,10593	0,11868	0,097	0,08911
3450,0271	0,01145	0,08092	0,10608	0,11877	0,097	0,08926
3448,09863	0,01156	0,08132	0,10601	0,11888	0,09733	0,08946
3446,17017	0,01152	0,08097	0,10565	0,11866	0,09716	0,0891
3444,2417	0,01129	0,08064	0,10579	0,11862	0,09705	0,08912
3442,31323	0,01144	0,08095	0,10595	0,11877	0,09726	0,08946
3440,38477	0,01138	0,08074	0,1058	0,11876	0,09712	0,08935
3438,4563	0,01126	0,08067	0,10589	0,11874	0,09721	0,08941
3436,52783	0,01139	0,08083	0,10594	0,11864	0,0973	0,0895
3434,59937	0,0114	0,08082	0,10584	0,11864	0,0972	0,08947
3432,6709	0,01144	0,08103	0,10585	0,11869	0,09739	0,08965
3430,74243	0,01151	0,08095	0,10587	0,11859	0,09739	0,08961
3428,81396	0,01155	0,0809	0,10589	0,11862	0,09729	0,08962
3426,8855	0,01162	0,08111	0,1059	0,11877	0,0974	0,08978
3424,95703	0,01162	0,08107	0,10591	0,11874	0,09749	0,08975
3423,02856	0,01168	0,08127	0,10594	0,11871	0,09764	0,08985
3421,1001	0,01181	0,08158	0,10592	0,11887	0,09773	0,08999
3419,17163	0,01188	0,08142	0,10589	0,11885	0,09761	0,08992
3417,24316	0,0119	0,0814	0,10595	0,11875	0,09757	0,09001
3415,3147	0,01189	0,0817	0,10609	0,11885	0,09769	0,09022
3413,38623	0,01199	0,08184	0,10609	0,11889	0,09786	0,09031
3411,45776	0,01213	0,08185	0,10609	0,11892	0,09798	0,09035
3409,5293	0,01217	0,08193	0,10616	0,11895	0,09788	0,09033
3407,60083	0,01226	0,08207	0,10611	0,11891	0,09783	0,09036
3405,67236	0,01229	0,08221	0,10614	0,11904	0,09797	0,09047
3403,7439	0,01223	0,08231	0,10617	0,11912	0,098	0,09045
3401,81543	0,0123	0,08234	0,10612	0,11902	0,09801	0,0905
3399,88696	0,01246	0,08255	0,10621	0,11896	0,09808	0,0906
3397,9585	0,0125	0,08284	0,10626	0,1189	0,09803	0,09056
3396,03003	0,01249	0,08277	0,10622	0,11893	0,09796	0,09052
3394,10156	0,01248	0,08283	0,10624	0,11898	0,09805	0,0906
3392,1731	0,01253	0,08313	0,10626	0,11894	0,09811	0,09059
3390,24463	0,01272	0,08303	0,10629	0,11893	0,09801	0,09047
3388,31616	0,01265	0,08302	0,10632	0,11893	0,09797	0,09051
3386,3877	0,01256	0,08335	0,10638	0,11889	0,09799	0,09055
3384,45923	0,01276	0,08343	0,10641	0,11888	0,09804	0,0905
3382,53076	0,01274	0,08349	0,10631	0,11881	0,09801	0,09055
3380,60229	0,01278	0,08373	0,10635	0,11883	0,09795	0,09062
3378,67383	0,01297	0,08378	0,10643	0,11892	0,09801	0,09061
3376,74536	0,01287	0,0839	0,10635	0,1189	0,09798	0,09055
3374,81689	0,01294	0,08416	0,10632	0,11881	0,09782	0,09051
3372,88843	0,01313	0,08425	0,1064	0,1188	0,09782	0,09052
3370,95996	0,01308	0,08435	0,10641	0,1188	0,09785	0,09056
3369,03149	0,01311	0,08471	0,10641	0,11879	0,09776	0,09055
3367,10303	0,01327	0,08507	0,10645	0,11886	0,09781	0,0905
3365,17456	0,01329	0,08509	0,10638	0,11884	0,09785	0,09049

3363,24609	0,01333	0,08514	0,1063	0,11873	0,09785	0,09049
3361,31763	0,01354	0,08543	0,1063	0,11871	0,09784	0,09055
3359,38916	0,0136	0,08554	0,10627	0,11865	0,09769	0,09061
3357,46069	0,01363	0,0857	0,10631	0,11861	0,09769	0,09053
3355,53223	0,01382	0,08592	0,1064	0,11863	0,09774	0,09047
3353,60376	0,01389	0,08599	0,10633	0,11859	0,09769	0,09046
3351,67529	0,01385	0,08628	0,10621	0,11856	0,09766	0,09045
3349,74683	0,01395	0,08659	0,10623	0,11853	0,09768	0,09051
3347,81836	0,01406	0,08664	0,10633	0,1185	0,09766	0,09054
3345,88989	0,01402	0,08675	0,10628	0,11849	0,0975	0,09047
3343,96143	0,01405	0,08708	0,10628	0,11845	0,09748	0,09051
3342,03296	0,01415	0,08722	0,10631	0,11846	0,09754	0,09055
3340,10449	0,01419	0,0871	0,10625	0,11849	0,09747	0,09048
3338,17603	0,01431	0,08733	0,10629	0,11846	0,09748	0,09044
3336,24756	0,01443	0,08765	0,10627	0,11845	0,09747	0,09046
3334,31909	0,01443	0,0876	0,10616	0,1184	0,09734	0,09041
3332,39063	0,01444	0,0877	0,10621	0,11833	0,0973	0,09034
3330,46216	0,01446	0,0879	0,10621	0,11834	0,0973	0,09039
3328,53369	0,01448	0,08796	0,10616	0,11839	0,09721	0,09041
3326,60522	0,01456	0,08817	0,1062	0,1184	0,09723	0,09042
3324,67676	0,01468	0,08836	0,10614	0,1183	0,09729	0,09042
3322,74829	0,01474	0,08835	0,10599	0,1182	0,09715	0,09027
3320,81982	0,01464	0,08847	0,10597	0,11819	0,09706	0,09022
3318,89136	0,01451	0,08867	0,10601	0,11816	0,09706	0,09029
3316,96289	0,0146	0,08862	0,10593	0,11812	0,09694	0,09024
3315,03442	0,01471	0,08863	0,10587	0,11801	0,09686	0,09019
3313,10596	0,0147	0,0888	0,10589	0,11796	0,09686	0,09021
3311,17749	0,01469	0,08891	0,10591	0,11803	0,09684	0,09019
3309,24902	0,01471	0,08904	0,10588	0,11793	0,09683	0,0901
3307,32056	0,01477	0,08905	0,10577	0,11779	0,09675	0,09003
3305,39209	0,0149	0,08908	0,1057	0,11778	0,09668	0,09003
3303,46362	0,01495	0,08913	0,10574	0,11776	0,09671	0,09002
3301,53516	0,01483	0,08903	0,10572	0,11768	0,09668	0,09001
3299,60669	0,01475	0,08915	0,10558	0,11758	0,09657	0,08994
3297,67822	0,01485	0,08925	0,10547	0,11753	0,09644	0,08974
3295,74976	0,01487	0,08919	0,10544	0,11741	0,09637	0,08972
3293,82129	0,01474	0,08935	0,10541	0,11729	0,09631	0,08972
3291,89282	0,01475	0,08943	0,10532	0,1173	0,09622	0,08965
3289,96436	0,01478	0,08937	0,10533	0,11731	0,09623	0,08973
3288,03589	0,01472	0,08941	0,10531	0,1172	0,09617	0,08965
3286,10742	0,01481	0,08939	0,10513	0,11708	0,09608	0,08949
3284,17896	0,01489	0,08933	0,10516	0,11704	0,09615	0,08956
3282,25049	0,01476	0,08935	0,10519	0,11701	0,09608	0,0895
3280,32202	0,01471	0,0894	0,10507	0,11692	0,09593	0,08934
3278,39355	0,0147	0,08932	0,10508	0,11687	0,09589	0,0894
3276,46509	0,01464	0,08939	0,10496	0,11685	0,0958	0,08936
3274,53662	0,01458	0,08952	0,10484	0,11681	0,09571	0,08917
3272,60815	0,01453	0,0894	0,10489	0,11676	0,09569	0,08923

3270,67969	0,01453	0,08944	0,1048	0,11667	0,09563	0,08925
3268,75122	0,0145	0,0895	0,10471	0,11661	0,09557	0,08909
3266,82275	0,01448	0,08938	0,10468	0,11648	0,09552	0,08903
3264,89429	0,01452	0,08937	0,10454	0,11632	0,09545	0,08897
3262,96582	0,0145	0,08938	0,10452	0,11635	0,09534	0,08895
3261,03735	0,01442	0,0894	0,10449	0,11632	0,09521	0,08893
3259,10889	0,01443	0,08941	0,10439	0,11616	0,0951	0,08881
3257,18042	0,01443	0,08939	0,10445	0,11618	0,09512	0,08887
3255,25195	0,01435	0,08949	0,10442	0,11611	0,09512	0,08887
3253,32349	0,01439	0,08943	0,10425	0,11598	0,09492	0,08872
3251,39502	0,0144	0,08926	0,10419	0,11599	0,09483	0,08869
3249,46655	0,01431	0,08928	0,10418	0,11584	0,09483	0,08866
3247,53809	0,01427	0,08945	0,10419	0,11574	0,09476	0,08869
3245,60962	0,01425	0,08952	0,10413	0,11578	0,09469	0,08871
3243,68115	0,01424	0,08941	0,10395	0,11569	0,09455	0,08857
3241,75269	0,01419	0,08937	0,10394	0,11563	0,09449	0,08849
3239,82422	0,01419	0,08946	0,10395	0,11556	0,09438	0,08847
3237,89575	0,01424	0,08947	0,10379	0,11545	0,0942	0,0884
3235,96729	0,01417	0,08942	0,10381	0,11545	0,09427	0,08841
3234,03882	0,01421	0,08948	0,10388	0,11542	0,09423	0,08842
3232,11035	0,01423	0,08948	0,10374	0,11541	0,0941	0,08835
3230,18188	0,01406	0,08943	0,10365	0,11537	0,0941	0,08825
3228,25342	0,01403	0,08946	0,10361	0,11516	0,09401	0,08819
3226,32495	0,01407	0,08946	0,10355	0,11509	0,0939	0,08815
3224,39648	0,014	0,08942	0,10353	0,1151	0,09374	0,08811
3222,46802	0,01397	0,08947	0,10347	0,11497	0,09354	0,08806
3220,53955	0,01403	0,08959	0,10335	0,1149	0,0935	0,08797
3218,61108	0,014	0,08953	0,10327	0,1148	0,09343	0,08784
3216,68262	0,01392	0,08951	0,10326	0,11469	0,09335	0,08782
3214,75415	0,01393	0,0896	0,10322	0,11472	0,09332	0,08784
3212,82568	0,01387	0,08947	0,10313	0,11464	0,09318	0,0877
3210,89722	0,01379	0,08951	0,10311	0,11446	0,09305	0,08766
3208,96875	0,01376	0,08951	0,10301	0,1144	0,09297	0,08768
3207,04028	0,01377	0,0894	0,10292	0,11438	0,09286	0,08758
3205,11182	0,01379	0,08958	0,10293	0,11426	0,09276	0,0875
3203,18335	0,01376	0,0896	0,10287	0,11423	0,09267	0,0875
3201,25488	0,01374	0,08957	0,10278	0,11426	0,09263	0,08751
3199,32642	0,01371	0,08981	0,10275	0,11421	0,09259	0,08749
3197,39795	0,01367	0,08984	0,10268	0,11415	0,09245	0,08739
3195,46948	0,01363	0,08972	0,1026	0,11402	0,09229	0,0873
3193,54102	0,0136	0,08968	0,10263	0,11396	0,09225	0,08734
3191,61255	0,01367	0,08974	0,10263	0,11402	0,09223	0,08734
3189,68408	0,01366	0,08983	0,10256	0,11391	0,09211	0,08721
3187,75562	0,01362	0,08986	0,10255	0,11385	0,09198	0,08719
3185,82715	0,01368	0,08993	0,10247	0,11384	0,09193	0,08722
3183,89868	0,01363	0,08997	0,10238	0,11366	0,09181	0,08712
3181,97021	0,0136	0,08999	0,10235	0,1136	0,09165	0,08704
3180,04175	0,01369	0,09006	0,10229	0,1136	0,09162	0,08706

3178,11328	0,01366	0,09003	0,10222	0,11349	0,09162	0,08709
3176,18481	0,01359	0,08997	0,10217	0,11346	0,0915	0,08704
3174,25635	0,0136	0,09	0,10217	0,11342	0,09138	0,08697
3172,32788	0,01357	0,09006	0,10213	0,11333	0,09126	0,08694
3170,39941	0,01359	0,09016	0,102	0,11327	0,09114	0,08686
3168,47095	0,0136	0,09016	0,10197	0,11315	0,09102	0,08682
3166,54248	0,01351	0,09011	0,10187	0,11306	0,09092	0,08676
3164,61401	0,01351	0,09018	0,10174	0,11304	0,09084	0,08663
3162,68555	0,01354	0,09021	0,10174	0,11299	0,09076	0,08662
3160,75708	0,01351	0,09017	0,10167	0,11288	0,09064	0,08659
3158,82861	0,01346	0,09018	0,10161	0,11278	0,09044	0,08646
3156,90015	0,01342	0,09016	0,10165	0,11274	0,09034	0,08641
3154,97168	0,01343	0,09013	0,10157	0,11274	0,09033	0,08637
3153,04321	0,01339	0,09023	0,10153	0,11272	0,09028	0,08638
3151,11475	0,01334	0,09031	0,10151	0,11262	0,09013	0,08639
3149,18628	0,01337	0,09025	0,10138	0,11254	0,08995	0,0863
3147,25781	0,01332	0,09023	0,10136	0,11254	0,08986	0,08637
3145,32935	0,01324	0,09023	0,10135	0,11251	0,08982	0,08634
3143,40088	0,0132	0,09019	0,10128	0,11244	0,08977	0,08616
3141,47241	0,01316	0,09023	0,10124	0,11231	0,08962	0,08613
3139,54395	0,01323	0,09033	0,1011	0,11216	0,0894	0,08609
3137,61548	0,0132	0,09024	0,10101	0,11211	0,08928	0,08602
3135,68701	0,01315	0,09022	0,10098	0,11204	0,08924	0,086
3133,75854	0,01316	0,09035	0,10093	0,11191	0,08916	0,08594
3131,83008	0,01308	0,09014	0,10089	0,11185	0,08896	0,08582
3129,90161	0,01307	0,09009	0,10083	0,11185	0,08885	0,08578
3127,97314	0,01306	0,09023	0,10075	0,1118	0,08885	0,08576
3126,04468	0,01298	0,0901	0,10065	0,11168	0,08873	0,08562
3124,11621	0,013	0,09016	0,10059	0,11164	0,0886	0,08556
3122,18774	0,01302	0,09022	0,10054	0,11158	0,08845	0,08554
3120,25928	0,01296	0,09015	0,10047	0,11146	0,08831	0,08544
3118,33081	0,01294	0,09033	0,10038	0,11136	0,08829	0,08539
3116,40234	0,01289	0,09042	0,10039	0,11133	0,08822	0,08537
3114,47388	0,01281	0,09024	0,10039	0,1113	0,08801	0,08534
3112,54541	0,01277	0,09009	0,10026	0,11113	0,08785	0,08533
3110,61694	0,01269	0,09011	0,10028	0,11108	0,08777	0,08533
3108,68848	0,01262	0,09023	0,10027	0,11108	0,08766	0,08524
3106,76001	0,01264	0,0902	0,1001	0,11094	0,08753	0,08512
3104,83154	0,01269	0,09009	0,1001	0,11096	0,08748	0,08512
3102,90308	0,01265	0,09016	0,10007	0,11098	0,08744	0,08514
3100,97461	0,01258	0,09019	0,09991	0,11081	0,08731	0,08502
3099,04614	0,01256	0,09012	0,09983	0,11072	0,08716	0,08488
3097,11768	0,01255	0,09024	0,09984	0,11068	0,0871	0,08492
3095,18921	0,01243	0,09023	0,09985	0,11061	0,08698	0,08493
3093,26074	0,01243	0,09006	0,0998	0,1106	0,08683	0,08486
3091,33228	0,01245	0,09014	0,09969	0,11056	0,08676	0,08486
3089,40381	0,01235	0,0902	0,09965	0,11047	0,0867	0,08478
3087,47534	0,01237	0,09012	0,09967	0,11047	0,08661	0,08472

3085,54688	0,01238	0,09012	0,09964	0,11044	0,08646	0,08469
3083,61841	0,01224	0,09014	0,09956	0,11031	0,08632	0,08459
3081,68994	0,01216	0,09014	0,09946	0,11027	0,0862	0,08453
3079,76147	0,01216	0,09022	0,09941	0,11022	0,08614	0,08449
3077,83301	0,01214	0,09022	0,09942	0,11017	0,08609	0,0845
3075,90454	0,01206	0,09006	0,09932	0,11015	0,08593	0,08449
3073,97607	0,01202	0,08998	0,09927	0,11012	0,0858	0,08442
3072,04761	0,01196	0,08996	0,09923	0,11005	0,08574	0,08435
3070,11914	0,01189	0,08998	0,09912	0,10995	0,08566	0,08422
3068,19067	0,01196	0,09011	0,09911	0,10994	0,08557	0,08425
3066,26221	0,0119	0,0901	0,09903	0,10986	0,08544	0,08425
3064,33374	0,01177	0,08994	0,09892	0,10972	0,08529	0,08407
3062,40527	0,01176	0,08982	0,09892	0,10971	0,08522	0,084
3060,47681	0,01168	0,08986	0,09891	0,10965	0,08521	0,08402
3058,54834	0,01165	0,08995	0,09893	0,10959	0,08511	0,08404
3056,61987	0,01167	0,08994	0,09884	0,10958	0,08497	0,08397
3054,69141	0,01155	0,0899	0,09869	0,10949	0,08493	0,08387
3052,76294	0,01151	0,08989	0,09871	0,10945	0,08486	0,08392
3050,83447	0,01162	0,08989	0,0987	0,10944	0,08478	0,08393
3048,90601	0,0116	0,08985	0,09859	0,10937	0,08475	0,08387
3046,97754	0,01152	0,08974	0,09857	0,10931	0,08461	0,08387
3045,04907	0,01149	0,08968	0,09854	0,10926	0,0845	0,08379
3043,12061	0,01143	0,08974	0,09848	0,10925	0,08445	0,08368
3041,19214	0,01139	0,08978	0,09847	0,10922	0,0844	0,08369
3039,26367	0,01135	0,08968	0,09835	0,10908	0,0843	0,08368
3037,33521	0,01128	0,08966	0,09821	0,10897	0,08416	0,08351
3035,40674	0,0113	0,08982	0,09825	0,109	0,08409	0,08349
3033,47827	0,0113	0,08987	0,09827	0,10897	0,08403	0,0836
3031,5498	0,01119	0,08974	0,09818	0,10884	0,08394	0,08352
3029,62134	0,01116	0,0896	0,09817	0,1088	0,08386	0,08346
3027,69287	0,01116	0,08953	0,09817	0,10867	0,08373	0,08343
3025,7644	0,01114	0,08955	0,09814	0,10858	0,08369	0,08339
3023,83594	0,01116	0,08955	0,09817	0,10866	0,08367	0,08348
3021,90747	0,01112	0,0895	0,09812	0,10855	0,08353	0,08346
3019,979	0,01113	0,08955	0,09811	0,1085	0,08353	0,08349
3018,05054	0,01118	0,08956	0,09818	0,10864	0,08357	0,08364
3016,12207	0,01106	0,08952	0,09802	0,10852	0,08342	0,0835
3014,1936	0,01099	0,08958	0,09788	0,10837	0,08331	0,08337
3012,26514	0,01101	0,0896	0,09784	0,10833	0,08332	0,08341
3010,33667	0,01087	0,08947	0,09769	0,10826	0,08325	0,08336
3008,4082	0,01073	0,08938	0,09766	0,1082	0,08314	0,08334
3006,47974	0,01061	0,08941	0,09768	0,10816	0,08313	0,08335
3004,55127	0,01045	0,08936	0,09759	0,10814	0,08312	0,08334
3002,6228	0,01036	0,08923	0,09752	0,1081	0,08306	0,08336
3000,69434	0,01031	0,08924	0,09751	0,10804	0,08304	0,08343
2998,76587	0,01018	0,08926	0,09751	0,10801	0,08306	0,08343
2996,8374	0,01005	0,08922	0,09746	0,1079	0,08306	0,08344
2994,90894	0,00995	0,08927	0,09739	0,10785	0,0831	0,0836

2992,98047	0,00982	0,08923	0,09729	0,10787	0,0831	0,08366
2991,052	0,00967	0,08914	0,09725	0,10784	0,08304	0,08374
2989,12354	0,00945	0,08913	0,09723	0,10781	0,08302	0,08388
2987,19507	0,00926	0,08907	0,09712	0,10777	0,08307	0,0839
2985,2666	0,00906	0,08897	0,09707	0,1077	0,08312	0,08398
2983,33813	0,00881	0,08892	0,09708	0,10771	0,08319	0,08424
2981,40967	0,00867	0,08896	0,09704	0,10772	0,08335	0,08449
2979,4812	0,00849	0,08893	0,09698	0,1077	0,08354	0,08477
2977,55273	0,0083	0,0888	0,09695	0,10772	0,08374	0,08521
2975,62427	0,00829	0,0888	0,09698	0,10778	0,08411	0,08581
2973,6958	0,0082	0,08873	0,09699	0,1078	0,08461	0,08657
2971,76733	0,00819	0,08855	0,09697	0,10785	0,08532	0,08765
2969,83887	0,00817	0,08852	0,09702	0,10807	0,08637	0,08917
2967,9104	0,00815	0,0885	0,09707	0,10827	0,08746	0,09079
2965,98193	0,00814	0,08841	0,09705	0,10848	0,08843	0,09221
2964,05347	0,00812	0,08842	0,09704	0,1088	0,08942	0,09362
2962,125	0,0081	0,08843	0,09706	0,10891	0,09021	0,09481
2960,19653	0,00809	0,08838	0,0971	0,10894	0,09063	0,09557
2958,26807	0,00807	0,08836	0,09708	0,10899	0,09078	0,09601
2956,3396	0,00805	0,08832	0,09699	0,1089	0,09072	0,09599
2954,41113	0,00804	0,08827	0,09697	0,10902	0,0906	0,09578
2952,48267	0,00802	0,08829	0,09695	0,10914	0,09034	0,09541
2950,5542	0,008	0,08828	0,09687	0,10889	0,08978	0,09461
2948,62573	0,00799	0,08825	0,09684	0,10871	0,08921	0,09378
2946,69727	0,00797	0,08827	0,09685	0,10877	0,08889	0,09329
2944,7688	0,00795	0,08833	0,09685	0,10894	0,08894	0,09321
2942,84033	0,00792	0,08833	0,09687	0,10908	0,08927	0,09351
2940,91187	0,0079	0,08824	0,0969	0,10897	0,08951	0,09388
2938,9834	0,00786	0,08823	0,09696	0,10883	0,08978	0,09447
2937,05493	0,00784	0,0883	0,09697	0,10882	0,09024	0,0953
2935,12646	0,00783	0,08827	0,09696	0,10882	0,09073	0,09602
2933,198	0,00782	0,08818	0,09704	0,10884	0,09113	0,09657
2931,26953	0,00783	0,08823	0,09703	0,10884	0,09128	0,09684
2929,34106	0,00786	0,08828	0,097	0,10883	0,09126	0,09686
2927,4126	0,00784	0,0882	0,09706	0,10888	0,09118	0,09669
2925,48413	0,00782	0,08817	0,09704	0,10893	0,09097	0,09628
2923,55566	0,0078	0,08806	0,09695	0,10892	0,09063	0,09578
2921,6272	0,00778	0,08788	0,0969	0,10889	0,09016	0,09517
2919,69873	0,00776	0,0878	0,09689	0,10888	0,08963	0,09443
2917,77026	0,00774	0,08769	0,09683	0,10883	0,08905	0,09361
2915,8418	0,00772	0,08769	0,09668	0,10866	0,08831	0,09266
2913,91333	0,0077	0,08789	0,09658	0,10844	0,08752	0,09169
2911,98486	0,00768	0,08799	0,09657	0,1082	0,08681	0,09078
2910,0564	0,00766	0,08797	0,09651	0,1079	0,08611	0,08989
2908,12793	0,0076	0,088	0,09641	0,10762	0,08548	0,08913
2906,19946	0,00765	0,088	0,09635	0,10745	0,08504	0,08855
2904,271	0,00764	0,08795	0,09636	0,10739	0,08474	0,08804
2902,34253	0,0076	0,08791	0,09629	0,10733	0,08443	0,08758

2900,41406	0,00765	0,08791	0,0962	0,10721	0,08412	0,0872
2898,4856	0,00758	0,08797	0,09616	0,10706	0,08378	0,0868
2896,55713	0,00748	0,08803	0,09613	0,10697	0,08346	0,08643
2894,62866	0,00752	0,08797	0,09613	0,10694	0,08323	0,0862
2892,7002	0,00745	0,08786	0,09613	0,10682	0,08302	0,08594
2890,77173	0,00741	0,0878	0,09603	0,10663	0,08278	0,08564
2888,84326	0,00747	0,08781	0,09598	0,10658	0,08263	0,08547
2886,91479	0,00741	0,08782	0,09603	0,10656	0,08251	0,08539
2884,98633	0,0074	0,08776	0,09603	0,10644	0,0824	0,08524
2883,05786	0,00744	0,08773	0,09596	0,10648	0,08244	0,08521
2881,12939	0,00734	0,08771	0,09593	0,10659	0,08254	0,08533
2879,20093	0,00723	0,08766	0,09588	0,10654	0,08265	0,08549
2877,27246	0,00722	0,08764	0,09583	0,10656	0,08289	0,08595
2875,34399	0,00729	0,08766	0,09587	0,10677	0,08324	0,08661
2873,41553	0,00736	0,08772	0,0959	0,10687	0,08365	0,08726
2871,48706	0,00736	0,08776	0,09582	0,10673	0,08393	0,08779
2869,55859	0,00729	0,08764	0,09574	0,10656	0,08394	0,08791
2867,63013	0,00728	0,08763	0,09568	0,10648	0,08381	0,0878
2865,70166	0,00729	0,08767	0,09564	0,10641	0,08374	0,08783
2863,77319	0,00723	0,08753	0,09563	0,10642	0,08392	0,08808
2861,84473	0,00722	0,08751	0,09565	0,10648	0,0843	0,08861
2859,91626	0,00721	0,08757	0,0957	0,10652	0,08459	0,08915
2857,98779	0,00711	0,08747	0,09566	0,10656	0,08465	0,08931
2856,05933	0,00707	0,08745	0,09564	0,10655	0,08447	0,08903
2854,13086	0,00716	0,08757	0,09565	0,10644	0,08406	0,08846
2852,20239	0,00723	0,08763	0,09551	0,10631	0,08352	0,08768
2850,27393	0,00728	0,08766	0,09538	0,10613	0,08289	0,08675
2848,34546	0,00729	0,08761	0,09533	0,10583	0,08218	0,08578
2846,41699	0,00725	0,0875	0,09521	0,1055	0,08139	0,0848
2844,48853	0,00723	0,08748	0,09505	0,10527	0,08065	0,08391
2842,56006	0,00717	0,08741	0,09504	0,10513	0,08013	0,08322
2840,63159	0,00713	0,08736	0,0951	0,10505	0,07973	0,08267
2838,70313	0,00715	0,0874	0,09505	0,10499	0,07939	0,08219
2836,77466	0,00714	0,08738	0,09498	0,10486	0,07914	0,08186
2834,84619	0,00715	0,0874	0,09494	0,10477	0,07891	0,08158
2832,91772	0,00713	0,08738	0,09489	0,10472	0,07866	0,08126
2830,98926	0,00711	0,08732	0,09485	0,1046	0,07854	0,08105
2829,06079	0,00713	0,08732	0,09481	0,10451	0,07843	0,08093
2827,13232	0,00715	0,08727	0,09483	0,10448	0,07829	0,0808
2825,20386	0,00715	0,0873	0,09482	0,10445	0,07821	0,08067
2823,27539	0,00711	0,08737	0,09479	0,10438	0,07814	0,08056
2821,34692	0,0071	0,08733	0,09481	0,10429	0,07804	0,08052
2819,41846	0,00711	0,0873	0,09475	0,10429	0,0779	0,08041
2817,48999	0,00706	0,08732	0,09471	0,10426	0,0778	0,08028
2815,56152	0,0071	0,08735	0,09469	0,10421	0,07773	0,08022
2813,63306	0,00712	0,08737	0,0946	0,10421	0,07764	0,08017
2811,70459	0,00706	0,0874	0,09464	0,10422	0,07762	0,08015
2809,77612	0,00705	0,08744	0,09464	0,10423	0,07761	0,08009

2807,84766	0,00703	0,0874	0,09454	0,10414	0,07749	0,07997
2805,91919	0,00698	0,08734	0,09453	0,10406	0,07741	0,0799
2803,99072	0,007	0,08735	0,09451	0,10406	0,07734	0,07987
2802,06226	0,00706	0,08731	0,09449	0,10407	0,07726	0,07983
2800,13379	0,00707	0,08729	0,09452	0,10409	0,0773	0,07978
2798,20532	0,00709	0,08738	0,09452	0,10407	0,07728	0,07973
2796,27686	0,00711	0,08743	0,09453	0,10407	0,07722	0,07975
2794,34839	0,00709	0,08735	0,09449	0,10404	0,0772	0,07969
2792,41992	0,00712	0,08734	0,09446	0,10396	0,07711	0,0796
2790,49146	0,00715	0,08742	0,0945	0,10392	0,07706	0,07962
2788,56299	0,00714	0,08745	0,0945	0,10392	0,07708	0,07965
2786,63452	0,00709	0,08747	0,0945	0,10388	0,07702	0,07957
2784,70605	0,00702	0,0875	0,0945	0,10387	0,07693	0,07952
2782,77759	0,00704	0,08748	0,09448	0,10384	0,07687	0,07953
2780,84912	0,0071	0,0875	0,09448	0,10375	0,07685	0,07949
2778,92065	0,00711	0,08756	0,09449	0,10377	0,07684	0,07944
2776,99219	0,0071	0,08759	0,09449	0,10384	0,07681	0,07946
2775,06372	0,00709	0,0876	0,09443	0,10379	0,07677	0,07943
2773,13525	0,00706	0,08758	0,09437	0,10378	0,0767	0,07938
2771,20679	0,00706	0,08756	0,09441	0,10383	0,07667	0,07942
2769,27832	0,00712	0,0876	0,09443	0,10381	0,07669	0,07937
2767,34985	0,00711	0,08761	0,09438	0,10379	0,07666	0,07932
2765,42139	0,0071	0,0876	0,0944	0,10381	0,07666	0,07935
2763,49292	0,00712	0,08765	0,09442	0,10381	0,07664	0,07929
2761,56445	0,00708	0,08768	0,09437	0,10378	0,07657	0,07928
2759,63599	0,00709	0,08764	0,09437	0,10374	0,07657	0,07929
2757,70752	0,0071	0,08762	0,09441	0,10369	0,07655	0,07926
2755,77905	0,00701	0,08764	0,0944	0,10366	0,07648	0,07926
2753,85059	0,007	0,08764	0,09441	0,10365	0,07647	0,07922
2751,92212	0,00703	0,08768	0,09442	0,10365	0,07645	0,07918
2749,99365	0,007	0,08771	0,0944	0,10364	0,07641	0,07916
2748,06519	0,00708	0,08769	0,09444	0,10362	0,07637	0,07915
2746,13672	0,00706	0,08772	0,09442	0,1036	0,07629	0,07913
2744,20825	0,00698	0,08778	0,09437	0,10359	0,07627	0,07911
2742,27979	0,00706	0,08772	0,09443	0,10357	0,07633	0,07911
2740,35132	0,00701	0,08761	0,09446	0,10359	0,07627	0,07909
2738,42285	0,00694	0,08764	0,09442	0,1036	0,07622	0,07911
2736,49438	0,00701	0,08772	0,0944	0,10359	0,07624	0,0791
2734,56592	0,00696	0,08771	0,09439	0,10359	0,07617	0,07905
2732,63745	0,00688	0,08769	0,0944	0,10354	0,07613	0,07905
2730,70898	0,00684	0,08769	0,0944	0,10354	0,07619	0,07907
2728,78052	0,00681	0,08774	0,09441	0,10358	0,07615	0,07902
2726,85205	0,00681	0,08781	0,09439	0,1035	0,07605	0,07896
2724,92358	0,0068	0,08778	0,0944	0,10346	0,07606	0,07901
2722,99512	0,00677	0,08778	0,09445	0,10348	0,07606	0,07904
2721,06665	0,00682	0,0878	0,09438	0,10349	0,07599	0,07895
2719,13818	0,00682	0,08778	0,09435	0,10352	0,07597	0,0789
2717,20972	0,00677	0,08778	0,09442	0,10348	0,07595	0,07887



2715,28125	0,00679	0,08777	0,0944	0,10342	0,07587	0,07882
2713,35278	0,00684	0,08775	0,09439	0,1035	0,07584	0,07885
2711,42432	0,00685	0,08776	0,09446	0,10356	0,07587	0,07887
2709,49585	0,00688	0,08775	0,09442	0,10352	0,07584	0,07879
2707,56738	0,00691	0,08778	0,09438	0,10355	0,07578	0,07879
2705,63892	0,00691	0,08782	0,0944	0,10354	0,07576	0,07881
2703,71045	0,00689	0,08783	0,0944	0,10348	0,07572	0,07875
2701,78198	0,00689	0,08784	0,09444	0,10349	0,07573	0,07874
2699,85352	0,00694	0,08786	0,09445	0,1035	0,07572	0,07878
2697,92505	0,00702	0,08792	0,09441	0,10346	0,07564	0,07876
2695,99658	0,00701	0,08796	0,09443	0,10348	0,07563	0,07875
2694,06812	0,00701	0,08799	0,09445	0,10348	0,07563	0,07873
2692,13965	0,00705	0,08804	0,09445	0,10345	0,0756	0,07869
2690,21118	0,00698	0,08805	0,09453	0,10349	0,07564	0,07873
2688,28271	0,0069	0,08807	0,09457	0,10349	0,07563	0,07873
2686,35425	0,00692	0,08813	0,09462	0,10349	0,0756	0,0787
2684,42578	0,00694	0,08813	0,09471	0,10357	0,07565	0,07872
2682,49731	0,00698	0,08814	0,09467	0,10355	0,07567	0,07869
2680,56885	0,00706	0,08825	0,09469	0,10355	0,07566	0,07873
2678,64038	0,00712	0,08829	0,0948	0,10363	0,07566	0,07879
2676,71191	0,00716	0,08832	0,09478	0,10361	0,07562	0,07872
2674,78345	0,00719	0,08848	0,09478	0,10364	0,0756	0,0787
2672,85498	0,00725	0,08855	0,09488	0,10373	0,07562	0,07874
2670,92651	0,00727	0,08854	0,09493	0,10377	0,07562	0,07877
2668,99805	0,00728	0,08864	0,09498	0,10381	0,07562	0,07879
2667,06958	0,00732	0,08871	0,095	0,10388	0,07561	0,07875
2665,14111	0,00734	0,08877	0,09496	0,10389	0,07558	0,07871
2663,21265	0,00743	0,08883	0,09505	0,10393	0,07559	0,07876
2661,28418	0,0075	0,08889	0,09517	0,10402	0,07562	0,07875
2659,35571	0,00746	0,08902	0,09519	0,10406	0,07563	0,07869
2657,42725	0,00754	0,0891	0,09527	0,10417	0,07564	0,0787
2655,49878	0,00762	0,08915	0,09534	0,10428	0,07561	0,07872
2653,57031	0,00764	0,08929	0,09529	0,10424	0,0756	0,07873
2651,64185	0,00771	0,0894	0,09533	0,10431	0,07564	0,0788
2649,71338	0,00775	0,08944	0,09546	0,10438	0,07562	0,0788
2647,78491	0,00776	0,08955	0,09546	0,10434	0,07561	0,07875
2645,85645	0,00783	0,08964	0,09547	0,10441	0,07562	0,0788
2643,92798	0,00789	0,08965	0,09555	0,10449	0,07559	0,0788
2641,99951	0,00792	0,08967	0,09558	0,10449	0,0756	0,07875
2640,07104	0,00793	0,08972	0,09564	0,10453	0,07563	0,07877
2638,14258	0,00792	0,08978	0,09569	0,10456	0,07564	0,07881
2636,21411	0,00795	0,08986	0,09573	0,10457	0,07565	0,07883
2634,28564	0,00797	0,08991	0,09578	0,10461	0,07565	0,07885
2632,35718	0,00794	0,08986	0,09578	0,10461	0,07566	0,07886
2630,42871	0,00796	0,08985	0,09575	0,10459	0,07564	0,07883
2628,50024	0,00798	0,08989	0,09576	0,10457	0,07558	0,07876
2626,57178	0,00794	0,08992	0,09577	0,10455	0,07551	0,07876
2624,64331	0,00791	0,0899	0,0958	0,10456	0,07555	0,0788

2622,71484	0,00793	0,08981	0,09579	0,10458	0,07557	0,07874
2620,78638	0,00795	0,08981	0,09568	0,10452	0,07546	0,07862
2618,85791	0,00794	0,08982	0,09567	0,10449	0,07546	0,07862
2616,92944	0,00791	0,08973	0,09563	0,10442	0,07546	0,07865
2615,00098	0,00785	0,08968	0,09548	0,10423	0,07534	0,07855
2613,07251	0,0078	0,08962	0,09549	0,10421	0,07535	0,07855
2611,14404	0,00779	0,08955	0,09553	0,10424	0,07534	0,07856
2609,21558	0,00775	0,0895	0,09539	0,10409	0,07521	0,07842
2607,28711	0,00767	0,08937	0,09528	0,10401	0,07518	0,07841
2605,35864	0,00758	0,08926	0,09527	0,10391	0,07512	0,07841
2603,43018	0,00753	0,08922	0,09519	0,10379	0,075	0,07827
2601,50171	0,00755	0,08911	0,09509	0,1037	0,07494	0,07824
2599,57324	0,00748	0,08899	0,09501	0,10355	0,07489	0,07821
2597,64478	0,00731	0,08885	0,09494	0,10344	0,07484	0,07814
2595,71631	0,00722	0,08871	0,09482	0,10335	0,07475	0,0781
2593,78784	0,00716	0,08862	0,09469	0,1032	0,07461	0,07802
2591,85938	0,00716	0,08848	0,09462	0,10308	0,07456	0,07797
2589,93091	0,00714	0,08835	0,09455	0,10301	0,07456	0,07799
2588,00244	0,00705	0,08828	0,09442	0,1029	0,07446	0,07796
2586,07397	0,00702	0,08813	0,09432	0,10272	0,07433	0,07789
2584,14551	0,00699	0,08797	0,09428	0,10261	0,07427	0,0778
2582,21704	0,00688	0,08787	0,09419	0,10253	0,07422	0,07771
2580,28857	0,00679	0,08777	0,09408	0,10238	0,07413	0,07765
2578,36011	0,00675	0,0877	0,09403	0,1023	0,07405	0,07762
2576,43164	0,0067	0,08761	0,09394	0,10222	0,07402	0,07755
2574,50317	0,00659	0,08749	0,09383	0,10207	0,07397	0,07749
2572,57471	0,0065	0,08738	0,09374	0,10198	0,07387	0,07746
2570,64624	0,00646	0,08725	0,09363	0,10189	0,07383	0,07738
2568,71777	0,00641	0,08713	0,09353	0,10177	0,07379	0,07732
2566,78931	0,00636	0,08705	0,09344	0,10168	0,07371	0,07729
2564,86084	0,00632	0,08697	0,09336	0,10161	0,07363	0,07722
2562,93237	0,0063	0,08682	0,09331	0,10151	0,07359	0,07716
2561,00391	0,00626	0,08667	0,09324	0,10146	0,07355	0,07713
2559,07544	0,00612	0,08664	0,09318	0,10139	0,07349	0,07709
2557,14697	0,00604	0,08655	0,0931	0,1013	0,07346	0,07706
2555,21851	0,00603	0,08639	0,093	0,10124	0,07344	0,07703
2553,29004	0,00597	0,08635	0,09296	0,10119	0,07337	0,07695
2551,36157	0,0059	0,08632	0,09295	0,10113	0,07331	0,07689
2549,43311	0,00588	0,08621	0,09293	0,10104	0,0733	0,07689
2547,50464	0,00585	0,08614	0,09284	0,10094	0,07328	0,07687
2545,57617	0,00574	0,08607	0,09276	0,10086	0,07319	0,07681
2543,64771	0,00567	0,08596	0,09273	0,1008	0,07315	0,0768
2541,71924	0,00569	0,08587	0,09271	0,10076	0,07314	0,07682
2539,79077	0,00568	0,08581	0,09265	0,1007	0,07309	0,07683
2537,8623	0,0056	0,08576	0,09256	0,10062	0,07305	0,07679
2535,93384	0,00551	0,08572	0,09253	0,10054	0,07303	0,07674
2534,00537	0,00549	0,08569	0,09253	0,10052	0,07299	0,07671
2532,0769	0,00552	0,08567	0,09251	0,10051	0,07297	0,07669

2530,14844	0,00548	0,08563	0,09245	0,10044	0,07292	0,07665
2528,21997	0,00543	0,08556	0,09235	0,10042	0,07285	0,0766
2526,2915	0,00542	0,08547	0,09232	0,10039	0,07279	0,07661
2524,36304	0,00539	0,08541	0,09235	0,10033	0,07279	0,07664
2522,43457	0,00535	0,08537	0,09233	0,10029	0,07277	0,07659
2520,5061	0,00531	0,08536	0,09233	0,10023	0,07274	0,07655
2518,57764	0,00528	0,08536	0,09232	0,10018	0,07277	0,07656
2516,64917	0,00527	0,0853	0,09227	0,10016	0,07278	0,07655
2514,7207	0,00525	0,08521	0,09225	0,10012	0,07277	0,07654
2512,79224	0,00516	0,08517	0,09217	0,10004	0,0727	0,07649
2510,86377	0,00511	0,08516	0,09209	0,09992	0,07262	0,07641
2508,9353	0,00513	0,08519	0,09211	0,09993	0,07264	0,07642
2507,00684	0,0051	0,08518	0,09208	0,09995	0,07264	0,0764
2505,07837	0,00506	0,08511	0,09201	0,09988	0,07258	0,07632
2503,1499	0,00508	0,08509	0,09202	0,09987	0,07257	0,0763
2501,22144	0,00509	0,08507	0,09207	0,09983	0,07261	0,07632
2499,29297	0,00513	0,08501	0,09206	0,09976	0,07262	0,07628
2497,3645	0,00522	0,08494	0,09199	0,09971	0,07259	0,07624
2495,43604	0,00524	0,08495	0,09197	0,09962	0,07256	0,07623
2493,50757	0,00518	0,08497	0,09197	0,09958	0,07254	0,07623
2491,5791	0,00518	0,08493	0,09198	0,09958	0,07247	0,07621
2489,65063	0,00522	0,0849	0,09194	0,09953	0,07241	0,07618
2487,72217	0,00523	0,0849	0,09187	0,09952	0,07239	0,07612
2485,7937	0,00525	0,0849	0,09192	0,09955	0,07234	0,07611
2483,86523	0,00522	0,08485	0,09191	0,09949	0,07235	0,07611
2481,93677	0,00518	0,08483	0,09184	0,09944	0,07236	0,07608
2480,0083	0,00519	0,08485	0,09184	0,09944	0,07227	0,07606
2478,07983	0,00524	0,08481	0,09186	0,09945	0,07225	0,07605
2476,15137	0,00531	0,08476	0,09184	0,09943	0,0723	0,07608
2474,2229	0,00537	0,08476	0,09181	0,09937	0,07225	0,07606
2472,29443	0,00536	0,08475	0,09182	0,09937	0,07219	0,07599
2470,36597	0,00537	0,08473	0,09177	0,0994	0,07218	0,07595
2468,4375	0,00542	0,08477	0,09169	0,09934	0,0721	0,07593
2466,50903	0,00545	0,08476	0,09173	0,09932	0,07201	0,07592
2464,58057	0,00545	0,08465	0,09172	0,09933	0,072	0,07591
2462,6521	0,00545	0,08464	0,09163	0,09927	0,07197	0,07585
2460,72363	0,00546	0,08471	0,09163	0,09926	0,07192	0,07585
2458,79517	0,00549	0,08467	0,09166	0,09928	0,07194	0,07584
2456,8667	0,00549	0,08466	0,09162	0,09924	0,07194	0,07573
2454,93823	0,00541	0,08464	0,09159	0,09925	0,07188	0,07572
2453,00977	0,00533	0,0846	0,09157	0,09927	0,07184	0,07573
2451,0813	0,00531	0,0846	0,09155	0,09918	0,07181	0,07567
2449,15283	0,00531	0,0846	0,09157	0,09914	0,07179	0,07568
2447,22437	0,00531	0,08453	0,09151	0,09916	0,07178	0,0757
2445,2959	0,00533	0,08441	0,09141	0,09906	0,07171	0,07564
2443,36743	0,0053	0,08437	0,09141	0,09898	0,07167	0,07562
2441,43896	0,00518	0,08438	0,09144	0,09901	0,0717	0,07565
2439,5105	0,00514	0,08438	0,09145	0,099	0,0717	0,07567

2437,58203	0,00516	0,08438	0,09144	0,09898	0,07169	0,07567
2435,65356	0,00513	0,08438	0,09144	0,09896	0,07166	0,07561
2433,7251	0,00511	0,08441	0,09148	0,09895	0,07163	0,07558
2431,79663	0,00511	0,08441	0,09149	0,09898	0,07165	0,07559
2429,86816	0,00511	0,08431	0,09144	0,09895	0,07165	0,07553
2427,9397	0,00511	0,08424	0,09139	0,09893	0,0716	0,07547
2426,01123	0,00509	0,08424	0,09143	0,09892	0,07161	0,07551
2424,08276	0,00514	0,08424	0,09148	0,09887	0,07162	0,0755
2422,1543	0,00521	0,08422	0,09147	0,09885	0,0716	0,07549
2420,22583	0,00521	0,08421	0,09142	0,09882	0,0716	0,07551
2418,29736	0,00514	0,08421	0,09145	0,09878	0,0716	0,07548
2416,3689	0,00514	0,08423	0,09153	0,09881	0,07158	0,07547
2414,44043	0,00522	0,08424	0,09148	0,09882	0,07154	0,07547
2412,51196	0,00527	0,08421	0,09142	0,09878	0,07151	0,07546
2410,5835	0,00533	0,08419	0,09145	0,09877	0,07149	0,07547
2408,65503	0,00534	0,0842	0,09144	0,0988	0,07149	0,07549
2406,72656	0,00534	0,08419	0,09142	0,09878	0,07148	0,07547
2404,7981	0,00535	0,08416	0,09143	0,09871	0,07142	0,07543
2402,86963	0,00536	0,08413	0,09139	0,0987	0,07138	0,07543
2400,94116	0,00536	0,08415	0,09138	0,09877	0,07141	0,07542
2399,0127	0,00537	0,08412	0,09141	0,09877	0,07143	0,07542
2397,08423	0,00538	0,08411	0,09143	0,09876	0,07141	0,07545
2395,15576	0,00538	0,08417	0,09145	0,09875	0,0714	0,07542
2393,22729	0,00539	0,08413	0,09143	0,09874	0,07138	0,0754
2391,29883	0,0054	0,08412	0,09142	0,09872	0,07137	0,07539
2389,37036	0,0054	0,08412	0,09141	0,09871	0,07136	0,07538
2387,44189	0,00541	0,08411	0,09139	0,0987	0,07135	0,07537
2385,51343	0,00542	0,0841	0,09138	0,09869	0,07134	0,07536
2383,58496	0,00542	0,0841	0,09137	0,09868	0,07133	0,07535
2381,65649	0,00543	0,08409	0,09136	0,09867	0,07132	0,07534
2379,72803	0,00544	0,08409	0,09134	0,09865	0,0713	0,07533
2377,79956	0,00544	0,08408	0,09133	0,09864	0,07129	0,07533
2375,87109	0,00545	0,08407	0,09132	0,09863	0,07128	0,07532
2373,94263	0,00546	0,08407	0,0913	0,09862	0,07127	0,07531
2372,01416	0,00546	0,08406	0,09129	0,09861	0,07126	0,0753
2370,08569	0,00547	0,08406	0,09128	0,09859	0,07125	0,07529
2368,15723	0,00548	0,08405	0,09127	0,09858	0,07124	0,07528
2366,22876	0,00548	0,08404	0,09125	0,09857	0,07122	0,07527
2364,30029	0,00549	0,08404	0,09124	0,09856	0,07121	0,07526
2362,37183	0,0055	0,08403	0,09123	0,09855	0,0712	0,07525
2360,44336	0,00551	0,08403	0,09121	0,09854	0,07119	0,07525
2358,51489	0,00551	0,08402	0,0912	0,09852	0,07118	0,07524
2356,58643	0,00552	0,08401	0,09119	0,09851	0,07117	0,07523
2354,65796	0,00553	0,08401	0,09117	0,0985	0,07116	0,07522
2352,72949	0,00553	0,084	0,09116	0,09849	0,07114	0,07521
2350,80103	0,00554	0,084	0,09115	0,09848	0,07113	0,0752
2348,87256	0,00555	0,08399	0,09114	0,09847	0,07112	0,07519
2346,94409	0,00555	0,08398	0,09112	0,09845	0,07111	0,07518

2345,01563	0,00556	0,08398	0,09111	0,09844	0,0711	0,07518
2343,08716	0,00557	0,08397	0,0911	0,09843	0,07109	0,07517
2341,15869	0,00557	0,08397	0,09108	0,09842	0,07108	0,07516
2339,23022	0,00558	0,08396	0,09107	0,09841	0,07106	0,07515
2337,30176	0,00559	0,08395	0,09106	0,09839	0,07105	0,07514
2335,37329	0,00559	0,08395	0,09105	0,09838	0,07104	0,07513
2333,44482	0,0056	0,08394	0,09103	0,09837	0,07103	0,07512
2331,51636	0,00561	0,08394	0,09102	0,09836	0,07102	0,07511
2329,58789	0,00561	0,08393	0,09101	0,09835	0,07101	0,0751
2327,65942	0,00562	0,08392	0,09099	0,09834	0,071	0,0751
2325,73096	0,00563	0,08392	0,09098	0,09832	0,07099	0,07509
2323,80249	0,00563	0,08391	0,09097	0,09831	0,07097	0,07508
2321,87402	0,00564	0,08391	0,09096	0,0983	0,07096	0,07507
2319,94556	0,00565	0,0839	0,09094	0,09829	0,07095	0,07506
2318,01709	0,00565	0,08389	0,09093	0,09828	0,07094	0,07505
2316,08862	0,00566	0,08389	0,09092	0,09827	0,07093	0,07504
2314,16016	0,00567	0,08388	0,0909	0,09825	0,07092	0,07503
2312,23169	0,00567	0,08388	0,09089	0,09824	0,07091	0,07503
2310,30322	0,00568	0,08387	0,09088	0,09823	0,07089	0,07502
2308,37476	0,00569	0,08386	0,09087	0,09822	0,07088	0,07501
2306,44629	0,00569	0,08386	0,09085	0,09821	0,07087	0,075
2304,51782	0,0057	0,08385	0,09084	0,09819	0,07086	0,07499
2302,58936	0,00571	0,08384	0,09083	0,09818	0,07085	0,07498
2300,66089	0,00571	0,08384	0,09081	0,09817	0,07084	0,07497
2298,73242	0,00572	0,08383	0,0908	0,09816	0,07083	0,07496
2296,80396	0,00573	0,08383	0,09079	0,09815	0,07081	0,07496
2294,87549	0,00573	0,08382	0,09078	0,09814	0,0708	0,07495
2292,94702	0,00574	0,08381	0,09076	0,09812	0,07079	0,07494
2291,01855	0,00575	0,08381	0,09075	0,09811	0,07078	0,07493
2289,09009	0,00576	0,0838	0,09074	0,0981	0,07077	0,07492
2287,16162	0,00576	0,0838	0,09072	0,09809	0,07076	0,07491
2285,23315	0,00577	0,08379	0,09071	0,09808	0,07075	0,0749
2283,30469	0,00578	0,08378	0,0907	0,09807	0,07073	0,07489
2281,37622	0,00578	0,08378	0,09068	0,09805	0,07072	0,07488
2279,44775	0,00579	0,08377	0,09067	0,09804	0,07071	0,07488
2277,51929	0,0058	0,08377	0,09066	0,09803	0,0707	0,07487
2275,59082	0,0058	0,08376	0,09065	0,09802	0,07069	0,07486
2273,66235	0,00581	0,08375	0,09063	0,09801	0,07068	0,07485
2271,73389	0,00582	0,08374	0,09062	0,09799	0,07067	0,07484
2269,80542	0,00582	0,08366	0,09061	0,09798	0,07065	0,07483
2267,87695	0,00583	0,08369	0,09059	0,09797	0,07064	0,07482
2265,94849	0,00584	0,08371	0,09058	0,09796	0,07063	0,07481
2264,02002	0,00584	0,08369	0,09057	0,09795	0,07062	0,07478
2262,09155	0,00585	0,08366	0,09056	0,09794	0,07061	0,07486
2260,16309	0,00586	0,08363	0,09054	0,09782	0,07053	0,07482
2258,23462	0,00586	0,0836	0,09057	0,09776	0,07049	0,07475
2256,30615	0,00587	0,08356	0,09055	0,09773	0,07048	0,07475
2254,37769	0,00588	0,08351	0,09057	0,09769	0,07045	0,07475

2252,44922	0,00588	0,08347	0,0906	0,09768	0,07036	0,0747
2250,52075	0,00589	0,08344	0,09057	0,09762	0,0703	0,07465
2248,59229	0,00592	0,08342	0,09059	0,09759	0,07026	0,07463
2246,66382	0,00592	0,08346	0,09067	0,0976	0,07022	0,07463
2244,73535	0,00591	0,08347	0,09072	0,09757	0,07023	0,07464
2242,80688	0,00592	0,08336	0,09075	0,0976	0,07027	0,07459
2240,87842	0,00591	0,08331	0,09076	0,09762	0,07028	0,07451
2238,94995	0,00596	0,08329	0,09077	0,09756	0,07029	0,0745
2237,02148	0,00595	0,08328	0,0908	0,09754	0,07025	0,07453
2235,09302	0,00588	0,08328	0,09077	0,09753	0,07019	0,07449
2233,16455	0,00589	0,08322	0,09069	0,09745	0,07015	0,07441
2231,23608	0,00585	0,08319	0,09063	0,0974	0,07012	0,07439
2229,30762	0,00575	0,08321	0,09061	0,09737	0,07012	0,07438
2227,37915	0,00573	0,08315	0,09061	0,09733	0,07012	0,07433
2225,45068	0,00576	0,08304	0,09056	0,09733	0,07009	0,07424
2223,52222	0,00575	0,08303	0,09054	0,09733	0,07006	0,0742
2221,59375	0,00572	0,08309	0,0906	0,09733	0,07007	0,07422
2219,66528	0,0058	0,08314	0,09055	0,0973	0,07006	0,07421
2217,73682	0,00589	0,08314	0,0905	0,09727	0,07007	0,07419
2215,80835	0,00593	0,08309	0,09055	0,09733	0,0701	0,07421
2213,87988	0,00599	0,0831	0,09055	0,0973	0,07006	0,07419
2211,95142	0,00599	0,08312	0,09055	0,09722	0,07003	0,07415
2210,02295	0,00594	0,08308	0,0905	0,09719	0,06995	0,07413
2208,09448	0,00594	0,08308	0,09036	0,09707	0,06983	0,07403
2206,16602	0,0059	0,08304	0,0903	0,09704	0,06984	0,07398
2204,23755	0,00584	0,08293	0,09034	0,09706	0,06985	0,07397
2202,30908	0,00587	0,0829	0,09034	0,09702	0,06982	0,07394
2200,38062	0,00583	0,08292	0,09027	0,09704	0,06983	0,07398
2198,45215	0,00577	0,08288	0,09027	0,09702	0,06981	0,074
2196,52368	0,00576	0,08285	0,09032	0,09697	0,06977	0,07396
2194,59521	0,00571	0,08284	0,09028	0,09696	0,06971	0,07394
2192,66675	0,00568	0,08281	0,09027	0,09696	0,06972	0,0739
2190,73828	0,00574	0,08279	0,09025	0,09694	0,06975	0,07387
2188,80981	0,00574	0,08274	0,0902	0,09683	0,06967	0,07387
2186,88135	0,00571	0,08268	0,09023	0,09678	0,06965	0,07384
2184,95288	0,00573	0,08269	0,09022	0,09684	0,06971	0,07381
2183,02441	0,00573	0,08268	0,09017	0,09685	0,06971	0,07381
2181,09595	0,00567	0,08264	0,09018	0,09686	0,0697	0,07384
2179,16748	0,00566	0,08267	0,09019	0,09686	0,06966	0,07382
2177,23901	0,00561	0,08271	0,09019	0,09678	0,06957	0,07371
2175,31055	0,00552	0,08268	0,09017	0,09673	0,06957	0,07368
2173,38208	0,00557	0,08266	0,09013	0,0967	0,0696	0,0737
2171,45361	0,00547	0,08248	0,09003	0,09657	0,06949	0,0736
2169,52515	0,0052	0,08226	0,08991	0,09644	0,06938	0,07352
2167,59668	0,00532	0,08241	0,08996	0,09648	0,06944	0,07356
2165,66821	0,00546	0,08255	0,09007	0,09654	0,06949	0,07359
2163,73975	0,00542	0,08248	0,09009	0,09649	0,06947	0,07361
2161,81128	0,00544	0,08244	0,09007	0,09647	0,06952	0,07362

2159,88281	0,00537	0,08239	0,09007	0,09649	0,0695	0,0736
2157,95435	0,00532	0,08236	0,09008	0,09645	0,06943	0,07361
2156,02588	0,00531	0,08235	0,09004	0,09635	0,06939	0,07355
2154,09741	0,00516	0,08227	0,09	0,09627	0,06934	0,07346
2152,16895	0,00506	0,08226	0,09003	0,09626	0,06938	0,07347
2150,24048	0,00502	0,08229	0,09005	0,09624	0,06945	0,07345
2148,31201	0,005	0,08224	0,09002	0,09616	0,06942	0,07342
2146,38354	0,00498	0,08212	0,09003	0,09616	0,06943	0,07343
2144,45508	0,00491	0,08208	0,09003	0,09616	0,06943	0,07337
2142,52661	0,00483	0,08213	0,08997	0,09609	0,06941	0,07337
2140,59814	0,00481	0,08204	0,09002	0,09605	0,06941	0,07341
2138,66968	0,0048	0,08194	0,09008	0,09604	0,06935	0,07333
2136,74121	0,00481	0,0819	0,09003	0,09602	0,06932	0,0733
2134,81274	0,00474	0,08185	0,08999	0,09603	0,06934	0,0733
2132,88428	0,00459	0,08183	0,09001	0,09607	0,06936	0,07331
2130,95581	0,00449	0,08178	0,08997	0,09602	0,06935	0,07328
2129,02734	0,00446	0,08173	0,0899	0,09592	0,06928	0,07318
2127,09888	0,00443	0,08176	0,08988	0,09592	0,0692	0,0732
2125,17041	0,00437	0,08175	0,08985	0,09587	0,06919	0,07318
2123,24194	0,00432	0,08172	0,08979	0,09578	0,06916	0,07309
2121,31348	0,00433	0,08167	0,08981	0,09584	0,06912	0,0731
2119,38501	0,00438	0,0816	0,08986	0,09589	0,06911	0,07308
2117,45654	0,00439	0,08156	0,08988	0,09583	0,06911	0,07304
2115,52808	0,00431	0,08154	0,08985	0,09578	0,06913	0,07308
2113,59961	0,0042	0,08149	0,08979	0,09573	0,06913	0,07306
2111,67114	0,00414	0,08141	0,08975	0,09576	0,06909	0,07299
2109,74268	0,00408	0,08135	0,08971	0,09575	0,06907	0,07291
2107,81421	0,00401	0,08127	0,0897	0,09563	0,06904	0,07285
2105,88574	0,00389	0,08117	0,08969	0,09555	0,06903	0,07285
2103,95728	0,00373	0,08108	0,08968	0,09549	0,06903	0,07278
2102,02881	0,0036	0,08101	0,08964	0,09547	0,06899	0,07271
2100,10034	0,00349	0,08095	0,08959	0,09546	0,06896	0,0727
2098,17188	0,00338	0,08085	0,08964	0,0954	0,06893	0,07268
2096,24341	0,00326	0,08077	0,08967	0,09535	0,06892	0,07264
2094,31494	0,00314	0,08073	0,08957	0,0953	0,06889	0,07258
2092,38647	0,0031	0,08074	0,08956	0,09529	0,06883	0,07255
2090,45801	0,00303	0,08077	0,08953	0,09528	0,06884	0,07255
2088,52954	0,00284	0,08064	0,08944	0,09518	0,06888	0,07246
2086,60107	0,00269	0,08051	0,08946	0,0951	0,06887	0,07236
2084,67261	0,00262	0,0805	0,08947	0,09509	0,06883	0,07234
2082,74414	0,00252	0,08043	0,08943	0,09511	0,0688	0,07234
2080,81567	0,00248	0,08033	0,08942	0,09507	0,06879	0,07235
2078,88721	0,00242	0,0803	0,08942	0,09507	0,06879	0,07237
2076,95874	0,00237	0,08027	0,08942	0,09508	0,06876	0,07231
2075,03027	0,00241	0,08017	0,08942	0,095	0,06871	0,07226
2073,10181	0,00245	0,0802	0,08942	0,095	0,06868	0,07232
2071,17334	0,00249	0,08027	0,08939	0,09496	0,06868	0,07233
2069,24487	0,00249	0,08013	0,08941	0,09488	0,06866	0,07224

2067,31641	0,00255	0,08023	0,08949	0,09493	0,06873	0,0723
2065,38794	0,00269	0,08041	0,0894	0,09491	0,06874	0,07238
2063,45947	0,00264	0,08023	0,08936	0,09488	0,06865	0,07231
2061,53101	0,00262	0,08019	0,08948	0,09493	0,06869	0,07234
2059,60254	0,00273	0,08023	0,08943	0,09487	0,0687	0,07235
2057,67407	0,00277	0,08013	0,08939	0,0948	0,0686	0,0723
2055,74561	0,00281	0,08013	0,08952	0,09484	0,06863	0,07236
2053,81714	0,00286	0,08016	0,08958	0,09493	0,06873	0,07239
2051,88867	0,00293	0,08017	0,08953	0,09493	0,0687	0,07236
2049,96021	0,003	0,08021	0,08957	0,09489	0,06867	0,07232
2048,03174	0,00308	0,08027	0,08963	0,09491	0,06872	0,07238
2046,10327	0,00313	0,08025	0,08964	0,09494	0,06867	0,07244
2044,1748	0,00314	0,08029	0,08974	0,09495	0,06866	0,07239
2042,24634	0,00325	0,08041	0,08979	0,09493	0,06877	0,07246
2040,31787	0,00329	0,08026	0,08978	0,09492	0,06876	0,07243
2038,3894	0,00319	0,08015	0,08988	0,09497	0,06879	0,07234
2036,46094	0,00313	0,08021	0,08992	0,09504	0,06889	0,0724
2034,53247	0,00309	0,08014	0,08991	0,09508	0,06885	0,07234
2032,604	0,003	0,08012	0,08998	0,09506	0,06879	0,07223
2030,67554	0,00289	0,0801	0,08999	0,09502	0,06875	0,07225
2028,74707	0,00283	0,08005	0,09002	0,09503	0,06872	0,07228
2026,8186	0,00275	0,07997	0,09004	0,09503	0,06873	0,07226
2024,89014	0,00271	0,07996	0,09003	0,09497	0,06877	0,0722
2022,96167	0,00271	0,08	0,09002	0,09491	0,06875	0,07216
2021,0332	0,00264	0,07992	0,09004	0,09488	0,06862	0,0721
2019,10474	0,00275	0,08016	0,09009	0,09493	0,06872	0,07215
2017,17627	0,00289	0,08032	0,09004	0,09494	0,06879	0,07217
2015,2478	0,00285	0,07994	0,09002	0,09487	0,06856	0,07203
2013,31934	0,00292	0,0799	0,09014	0,09491	0,06857	0,07206
2011,39087	0,00297	0,08004	0,0902	0,09498	0,06863	0,07207
2009,4624	0,00303	0,07999	0,09023	0,09502	0,06861	0,07201
2007,53394	0,00317	0,08002	0,09026	0,09509	0,06868	0,07209
2005,60547	0,00315	0,08003	0,09029	0,09516	0,06857	0,0721
2003,677	0,00314	0,08003	0,09032	0,09514	0,06854	0,07211
2001,74854	0,0032	0,07994	0,09034	0,09507	0,06861	0,07213
1999,82007	0,00325	0,08002	0,09039	0,09509	0,06867	0,07218
1997,8916	0,00323	0,08005	0,09032	0,09501	0,06864	0,0722
1995,96313	0,00312	0,07984	0,09038	0,09497	0,06849	0,07212
1994,03467	0,00331	0,08024	0,09049	0,09506	0,06873	0,07229
1992,1062	0,00347	0,08046	0,09016	0,09482	0,06879	0,07224
1990,17773	0,00326	0,08001	0,09005	0,09463	0,06842	0,07194
1988,24927	0,00326	0,0801	0,0903	0,09482	0,06848	0,07208
1986,3208	0,00332	0,08003	0,09034	0,09481	0,06851	0,07206
1984,39233	0,00326	0,07983	0,09039	0,09481	0,06843	0,07197
1982,46387	0,0033	0,07999	0,09043	0,09491	0,06849	0,07208
1980,5354	0,00332	0,07996	0,09039	0,0948	0,0684	0,07197
1978,60693	0,00332	0,07996	0,09038	0,09472	0,06831	0,07195
1976,67847	0,00333	0,07995	0,09036	0,09475	0,06828	0,07203



1974,75	0,00339	0,0799	0,09036	0,09474	0,06835	0,07198
1972,82153	0,0034	0,07991	0,09029	0,09467	0,06838	0,07194
1970,89307	0,00331	0,07984	0,0903	0,09464	0,06826	0,07195
1968,9646	0,00349	0,0802	0,09033	0,09466	0,06839	0,07211
1967,03613	0,00363	0,08043	0,09007	0,09455	0,06834	0,07207
1965,10767	0,00333	0,07986	0,09008	0,0945	0,06807	0,07186
1963,1792	0,00325	0,07983	0,09029	0,09459	0,06817	0,07194
1961,25073	0,00333	0,08006	0,09021	0,09453	0,06821	0,07199
1959,32227	0,00329	0,07986	0,09016	0,09447	0,06812	0,07187
1957,3938	0,00329	0,07991	0,0902	0,0945	0,06816	0,07186
1955,46533	0,00321	0,08002	0,09019	0,09446	0,06818	0,0719
1953,53687	0,00315	0,07991	0,09021	0,09439	0,06817	0,07185
1951,6084	0,00305	0,07975	0,09019	0,09437	0,06808	0,07171
1949,67993	0,00297	0,07981	0,09013	0,09436	0,06808	0,07175
1947,75146	0,00297	0,07983	0,09	0,09421	0,068	0,07168
1945,823	0,003	0,07981	0,09004	0,09414	0,06793	0,07151
1943,89453	0,00331	0,08042	0,08997	0,09415	0,0683	0,07178
1941,96606	0,00326	0,08022	0,0895	0,09385	0,06807	0,07165
1940,0376	0,00282	0,07944	0,08964	0,0939	0,06765	0,07129
1938,10913	0,00285	0,07967	0,08996	0,09415	0,06789	0,07146
1936,18066	0,00285	0,07971	0,08989	0,09406	0,0679	0,07147
1934,2522	0,0028	0,07977	0,08986	0,09405	0,06791	0,07144
1932,32373	0,0028	0,07981	0,08979	0,09401	0,06789	0,07142
1930,39526	0,00282	0,07982	0,08981	0,09396	0,06785	0,07141
1928,4668	0,00278	0,07974	0,08974	0,09389	0,06786	0,07134
1926,53833	0,00262	0,07943	0,08988	0,09387	0,06774	0,07119
1924,60986	0,00297	0,08015	0,09006	0,09398	0,06822	0,07158
1922,6814	0,00298	0,08028	0,08954	0,09361	0,06799	0,07132
1920,75293	0,00257	0,07975	0,08972	0,09357	0,06769	0,07111
1918,82446	0,00272	0,08018	0,08996	0,0938	0,06839	0,07173
1916,896	0,00246	0,07954	0,08933	0,09346	0,06791	0,07119
1914,96753	0,00219	0,07916	0,08965	0,09359	0,06749	0,07084
1913,03906	0,00235	0,07963	0,09012	0,09392	0,068	0,07134
1911,1106	0,00238	0,07976	0,08989	0,09375	0,0681	0,07133
1909,18213	0,00235	0,07989	0,08976	0,09357	0,06799	0,07116
1907,25366	0,0021	0,07953	0,08982	0,09354	0,06784	0,07099
1905,3252	0,00183	0,07929	0,08997	0,09355	0,06784	0,07092
1903,39673	0,00171	0,07937	0,09012	0,09359	0,06801	0,07099
1901,46826	0,00162	0,07937	0,09019	0,09365	0,06809	0,07104
1899,53979	0,00143	0,07909	0,09014	0,09355	0,06788	0,07095
1897,61133	0,00139	0,07919	0,09023	0,09358	0,06796	0,07105
1895,68286	0,00154	0,07977	0,09017	0,09354	0,06827	0,07116
1893,75439	0,00107	0,07915	0,0901	0,09328	0,06781	0,07067
1891,82593	0,00103	0,07938	0,09051	0,09351	0,06817	0,07103
1889,89746	0,00142	0,0801	0,0902	0,09339	0,06861	0,07139
1887,96899	0,00091	0,07896	0,08984	0,09299	0,06775	0,07057
1886,04053	0,00087	0,07905	0,09032	0,0933	0,0679	0,07066
1884,11206	0,00113	0,07941	0,09032	0,09335	0,06821	0,07086

1882,18359	0,00098	0,07898	0,09028	0,09329	0,06798	0,07065
1880,25513	0,00103	0,07917	0,09038	0,09346	0,06813	0,07081
1878,32666	0,00108	0,07915	0,09028	0,09337	0,06805	0,07075
1876,39819	0,00113	0,07916	0,09033	0,09341	0,0682	0,07091
1874,46973	0,0012	0,07914	0,09024	0,09341	0,06818	0,07096
1872,54126	0,00122	0,07916	0,09042	0,09343	0,06809	0,07082
1870,61279	0,00161	0,08011	0,09055	0,09366	0,06898	0,07146
1868,68433	0,00201	0,08064	0,08954	0,093	0,0689	0,07132
1866,75586	0,00148	0,07928	0,08925	0,09262	0,06778	0,07033
1864,82739	0,00143	0,07922	0,09019	0,09334	0,06808	0,07064
1862,89893	0,00165	0,0794	0,09038	0,09357	0,06835	0,07095
1860,97046	0,00186	0,07944	0,09022	0,09349	0,06827	0,0709
1859,04199	0,00206	0,07953	0,09021	0,09343	0,06833	0,07094
1857,11353	0,00215	0,07938	0,09018	0,09335	0,06821	0,07092
1855,18506	0,00225	0,07934	0,09018	0,09346	0,06833	0,07104
1853,25659	0,00229	0,07937	0,08992	0,09329	0,06823	0,07086
1851,32813	0,00229	0,0794	0,09008	0,09341	0,06848	0,07104
1849,39966	0,00238	0,07941	0,08986	0,09323	0,06852	0,07106
1847,47119	0,0026	0,08009	0,08979	0,09304	0,0685	0,07103
1845,54272	0,00267	0,08048	0,09012	0,09354	0,06963	0,07198
1843,61426	0,00215	0,07894	0,08881	0,09259	0,06873	0,07106
1841,68579	0,00189	0,07848	0,0888	0,09219	0,0676	0,07004
1839,75732	0,00235	0,07953	0,08986	0,09305	0,06858	0,07093
1837,82886	0,00242	0,07969	0,08979	0,09308	0,06896	0,07109
1835,90039	0,00248	0,07957	0,08939	0,09283	0,06877	0,07084
1833,97192	0,00225	0,07905	0,08951	0,09293	0,06864	0,07071
1832,04346	0,00267	0,0801	0,08983	0,09314	0,06969	0,07153
1830,11499	0,00316	0,08093	0,08894	0,09257	0,07004	0,07164
1828,18652	0,0022	0,07912	0,0887	0,09223	0,06891	0,07048
1826,25806	0,00252	0,07983	0,08954	0,09287	0,06995	0,07137
1824,32959	0,00275	0,07983	0,08893	0,09249	0,07008	0,07133
1822,40112	0,00208	0,07876	0,08906	0,09237	0,06931	0,07041
1820,47266	0,00225	0,0793	0,08984	0,0929	0,07021	0,07097
1818,54419	0,00236	0,07941	0,08964	0,09274	0,07065	0,07106
1816,61572	0,0022	0,07906	0,08953	0,09264	0,0708	0,07085
1814,68726	0,00216	0,0789	0,08966	0,09275	0,0714	0,07089
1812,75879	0,00233	0,07957	0,08964	0,09276	0,0724	0,07111
1810,83032	0,00238	0,07988	0,08932	0,09248	0,07331	0,07101
1808,90186	0,00206	0,07911	0,08927	0,0923	0,07395	0,07067
1806,97339	0,00191	0,07907	0,08953	0,09245	0,07501	0,07075
1805,04492	0,00163	0,07903	0,08968	0,09251	0,07595	0,07069
1803,11646	0,00143	0,07935	0,08974	0,09247	0,07695	0,07096
1801,18799	0,00136	0,07985	0,08923	0,09206	0,07752	0,07099
1799,25952	0,00071	0,07885	0,08898	0,0918	0,07695	0,07034
1797,33105	0,00068	0,07872	0,08916	0,09175	0,07648	0,07014
1795,40259	0,00104	0,07954	0,08953	0,09193	0,07664	0,07048
1793,47412	0,00088	0,07975	0,08979	0,09236	0,07732	0,07124
1791,54565	0,00103	0,07917	0,08835	0,09141	0,07609	0,07053

1789,61719	0,00092	0,07794	0,08844	0,0913	0,07437	0,06951
1787,68872	0,00146	0,07887	0,08983	0,09243	0,07496	0,07049
1785,76025	0,00165	0,07905	0,08952	0,09228	0,07496	0,07091
1783,83179	0,00112	0,07832	0,08923	0,09192	0,07385	0,07024
1781,90332	0,00145	0,07925	0,08926	0,09202	0,0737	0,07042
1779,97485	0,00156	0,07949	0,08912	0,09189	0,07374	0,07063
1778,04639	0,00093	0,07819	0,08918	0,09184	0,07314	0,07017
1776,11792	0,00131	0,07912	0,08921	0,09186	0,07329	0,0703
1774,18945	0,00126	0,08018	0,09001	0,09239	0,07473	0,07136
1772,26099	0,00065	0,07881	0,08866	0,09142	0,07385	0,07047
1770,33252	0,00032	0,07773	0,08769	0,09069	0,0727	0,06933
1768,40405	0,00057	0,07888	0,08881	0,09166	0,07423	0,0706
1766,47559	-0,00033	0,07728	0,08833	0,0912	0,07311	0,06958
1764,54712	0,00025	0,07855	0,089	0,09163	0,07361	0,06995
1762,61865	0,00057	0,0796	0,08937	0,09222	0,07554	0,07139
1760,69019	-0,00055	0,07726	0,08786	0,09079	0,07361	0,06949
1758,76172	-0,00004	0,07871	0,08885	0,09142	0,07454	0,07025
1756,83325	0,00023	0,0791	0,08873	0,09157	0,07576	0,07114
1754,90479	-0,00041	0,07759	0,08809	0,0908	0,07445	0,06979
1752,97632	-0,00017	0,07892	0,08954	0,09194	0,07624	0,07129
1751,04785	0,00009	0,0794	0,08885	0,09173	0,07739	0,07225
1749,11938	-0,00004	0,07876	0,08713	0,09026	0,07568	0,07062
1747,19092	0,00008	0,07943	0,08809	0,091	0,07647	0,07129
1745,26245	-0,00033	0,07878	0,08851	0,0914	0,07686	0,07165
1743,33398	-0,00019	0,07897	0,08802	0,09102	0,0763	0,07121
1741,40552	-0,00021	0,07956	0,08904	0,09186	0,07757	0,07231
1739,47705	-0,00101	0,07771	0,08801	0,09109	0,07637	0,07122
1737,54858	-0,00071	0,07833	0,08779	0,09066	0,07524	0,07018
1735,62012	-0,00063	0,07986	0,0903	0,09269	0,07859	0,07292
1733,69165	-0,00129	0,07752	0,08812	0,09114	0,07753	0,07134
1731,76318	-0,00186	0,07635	0,0869	0,08979	0,07501	0,06851
1729,83472	-0,00002	0,07977	0,08836	0,09126	0,07807	0,07103
1727,90625	-0,00124	0,07712	0,08842	0,0911	0,07752	0,06996
1725,97778	-0,00076	0,07802	0,08887	0,0914	0,0779	0,07012
1724,04932	-0,00045	0,07866	0,08905	0,09174	0,07928	0,07098
1722,12085	-0,00104	0,07747	0,08848	0,09101	0,07825	0,06979
1720,19238	-0,00036	0,07914	0,08917	0,09176	0,08012	0,0714
1718,26392	-0,00029	0,07999	0,08934	0,09192	0,08154	0,07231
1716,33545	-0,00174	0,07697	0,08772	0,09012	0,07886	0,06977
1714,40698	-0,00109	0,07746	0,08751	0,09016	0,07892	0,06996
1712,47852	-0,00081	0,07791	0,08879	0,09124	0,07991	0,07082
1710,55005	-0,00123	0,07718	0,08891	0,09128	0,0793	0,07019
1708,62158	-0,00043	0,07873	0,08911	0,09149	0,07996	0,0707
1706,69312	-0,00019	0,0792	0,0893	0,09175	0,08119	0,07183
1704,76465	-0,00063	0,07752	0,08736	0,09002	0,07881	0,06966
1702,83618	-0,00033	0,07901	0,08949	0,09162	0,08072	0,07119
1700,90771	0,00003	0,07854	0,08961	0,09258	0,08379	0,07408
1698,97925	-0,00264	0,07363	0,08586	0,08898	0,07785	0,06829

1697,05078	-0,00153	0,0784	0,08944	0,09136	0,08029	0,07021
1695,12231	-0,0016	0,07637	0,08909	0,0916	0,08051	0,07065
1693,19385	-0,0018	0,07524	0,08768	0,09033	0,07743	0,06834
1691,26538	-0,00034	0,07919	0,09049	0,0926	0,08053	0,07142
1689,33691	-0,00071	0,07775	0,08901	0,09172	0,07925	0,0707
1687,40845	-0,00055	0,07866	0,08941	0,09183	0,07895	0,07051
1685,47998	-0,00115	0,07977	0,09228	0,09411	0,08226	0,07322
1683,55151	-0,00101	0,07697	0,08772	0,09075	0,07856	0,06997
1681,62305	-0,00115	0,07676	0,0876	0,09078	0,07803	0,06963
1679,69458	-0,00102	0,07799	0,08957	0,0922	0,07903	0,0705
1677,76611	-0,0013	0,07749	0,08997	0,09254	0,0792	0,07062
1675,83765	-0,00126	0,07732	0,08992	0,0929	0,08048	0,07177
1673,90918	-0,00215	0,07535	0,08855	0,09153	0,0782	0,06961
1671,98071	-0,00131	0,07747	0,08947	0,092	0,07868	0,07004
1670,05225	-0,00033	0,07943	0,09002	0,09277	0,08107	0,07212
1668,12378	-0,00198	0,07526	0,08804	0,09101	0,07788	0,06925
1666,19531	-0,00165	0,07658	0,08965	0,09211	0,07804	0,06951
1664,26685	-0,00137	0,07758	0,09096	0,09341	0,0802	0,07144
1662,33838	-0,00148	0,07654	0,08901	0,09191	0,07855	0,07003
1660,40991	-0,00162	0,07617	0,08966	0,09237	0,07828	0,06989
1658,48145	-0,00186	0,07564	0,0904	0,09297	0,07847	0,07011
1656,55298	-0,00096	0,0773	0,08975	0,09259	0,07878	0,07048
1654,62451	-0,00121	0,07898	0,09211	0,09457	0,0826	0,07365
1652,69604	-0,001	0,07738	0,08993	0,09238	0,0795	0,07089
1650,76758	-0,00446	0,07073	0,0876	0,09032	0,07463	0,06654
1648,83911	-0,00065	0,07806	0,08983	0,09276	0,07975	0,07146
1646,91064	-0,00068	0,07853	0,09	0,09293	0,08062	0,07202
1644,98218	-0,00372	0,07139	0,08816	0,09105	0,0762	0,06796
1643,05371	-0,00231	0,07434	0,08998	0,09261	0,07818	0,06987
1641,12524	-0,00266	0,07356	0,09033	0,09306	0,07851	0,07019
1639,19678	-0,00217	0,07426	0,08981	0,09259	0,07818	0,06995
1637,26831	-0,00189	0,07603	0,09083	0,09341	0,08048	0,07179
1635,33984	-0,00241	0,07435	0,089	0,09197	0,07935	0,07064
1633,41138	-0,00401	0,07075	0,08787	0,09072	0,07637	0,06801
1631,48291	-0,00312	0,07335	0,08991	0,09221	0,07809	0,06966
1629,55444	-0,0034	0,07354	0,09026	0,09258	0,07932	0,07062
1627,62598	-0,00379	0,07261	0,08895	0,09152	0,07825	0,0696
1625,69751	-0,00419	0,07243	0,08961	0,09195	0,0786	0,06998
1623,76904	-0,00416	0,073	0,08951	0,09198	0,07953	0,07073
1621,84058	-0,00503	0,07108	0,08815	0,09067	0,07741	0,0689
1619,91211	-0,00472	0,07229	0,0895	0,09149	0,07792	0,06963
1617,98364	-0,00516	0,07323	0,09121	0,09277	0,08004	0,07138
1616,05518	-0,00572	0,07134	0,08925	0,09116	0,07764	0,06914
1614,12671	-0,00457	0,07226	0,08905	0,09111	0,07715	0,06894
1612,19824	-0,00339	0,07456	0,09053	0,09247	0,07903	0,07068
1610,26978	-0,00332	0,07481	0,09044	0,09243	0,07889	0,07048
1608,34131	-0,00292	0,07543	0,09007	0,09207	0,07881	0,0704
1606,41284	-0,00291	0,07543	0,09047	0,09228	0,07894	0,07049

1604,48438	-0,00264	0,07571	0,09058	0,09232	0,07889	0,07037
1602,55591	-0,00223	0,07644	0,09055	0,09228	0,0792	0,07058
1600,62744	-0,00224	0,07639	0,09054	0,09229	0,07894	0,07048
1598,69897	-0,0021	0,07651	0,09065	0,09248	0,07875	0,07052
1596,77051	-0,00185	0,07703	0,09063	0,09251	0,07883	0,07071
1594,84204	-0,00167	0,07731	0,09045	0,09233	0,07865	0,0707
1592,91357	-0,00175	0,07711	0,09055	0,0924	0,07855	0,07066
1590,98511	-0,00175	0,07724	0,09057	0,09252	0,07852	0,07073
1589,05664	-0,00158	0,07767	0,09057	0,09268	0,07864	0,07088
1587,12817	-0,00185	0,0774	0,09054	0,09268	0,07855	0,07068
1585,19971	-0,0018	0,07775	0,09026	0,09234	0,07824	0,07057
1583,27124	-0,00169	0,07825	0,09062	0,09252	0,07851	0,07088
1581,34277	-0,00193	0,07758	0,09022	0,09221	0,07789	0,0704
1579,41431	-0,00133	0,07876	0,09006	0,09202	0,07765	0,07072
1577,48584	-0,00173	0,0799	0,09173	0,09314	0,07922	0,07214
1575,55737	-0,00267	0,07733	0,08968	0,09153	0,07695	0,07006
1573,62891	-0,00211	0,0768	0,08888	0,09091	0,07493	0,06901
1571,70044	-0,0006	0,08019	0,0911	0,09289	0,07768	0,07191
1569,77197	-0,00053	0,07974	0,0893	0,09175	0,07683	0,07146
1567,84351	-0,00143	0,07754	0,08846	0,09073	0,07424	0,0696
1565,91504	-0,00089	0,07936	0,09034	0,09231	0,07588	0,07131
1563,98657	-0,00096	0,0784	0,08894	0,09146	0,07432	0,07033
1562,05811	-0,00066	0,07958	0,09033	0,09227	0,07502	0,07122
1560,12964	0,00073	0,08321	0,09207	0,09407	0,07952	0,07536
1558,20117	-0,00008	0,07812	0,08667	0,0892	0,07248	0,06952
1556,27271	-0,00164	0,07689	0,0877	0,08999	0,07202	0,06923
1554,34424	-0,00099	0,07876	0,08974	0,09165	0,07368	0,07108
1552,41577	-0,00141	0,07745	0,08933	0,09134	0,07209	0,07018
1550,4873	0,00019	0,0802	0,0893	0,09149	0,07289	0,07112
1548,55884	-0,00038	0,07892	0,0894	0,0914	0,07189	0,07063
1546,63037	-0,00068	0,07883	0,09011	0,09194	0,07186	0,07096
1544,7019	0,00054	0,08125	0,08924	0,09167	0,07289	0,07202
1542,77344	0,00004	0,08007	0,08885	0,09121	0,07229	0,07167
1540,84497	0,00006	0,08089	0,09043	0,09229	0,07402	0,07333
1538,9165	-0,00134	0,07787	0,08788	0,0897	0,07002	0,0696
1536,98804	-0,00168	0,07687	0,08833	0,09022	0,0691	0,06911
1535,05957	0,00025	0,08053	0,09043	0,09227	0,07259	0,0724
1533,1311	0,00061	0,08052	0,08879	0,09106	0,07201	0,07172
1531,20264	-0,00101	0,0776	0,08858	0,09067	0,06968	0,06984
1529,27417	-0,00004	0,07998	0,09043	0,0921	0,07145	0,07158
1527,3457	0,00041	0,0805	0,08968	0,09167	0,07194	0,07198
1525,41724	-0,00055	0,07851	0,08881	0,09088	0,0703	0,0706
1523,48877	0,00012	0,08034	0,09003	0,09177	0,07192	0,07211
1521,5603	-0,00003	0,07991	0,08939	0,09113	0,07151	0,07191
1519,63184	-0,00163	0,0767	0,0883	0,09027	0,06919	0,06996
1517,70337	0,00044	0,08034	0,08867	0,09092	0,07103	0,07169
1515,7749	0,00024	0,07953	0,08823	0,0904	0,07029	0,07105
1513,84644	-0,00079	0,07804	0,08916	0,09097	0,06983	0,0708

1511,91797	-0,00073	0,0783	0,0895	0,09152	0,07042	0,07148
1509,9895	0,00031	0,08013	0,08863	0,09097	0,07032	0,07151
1508,06104	0,00126	0,08307	0,08986	0,09194	0,07285	0,07375
1506,13257	0,00028	0,08013	0,0882	0,0901	0,07023	0,07135
1504,2041	-0,00259	0,07451	0,08767	0,08946	0,06697	0,06839
1502,27563	-0,00035	0,07876	0,08977	0,09139	0,06965	0,07102
1500,34717	-0,00063	0,07841	0,08976	0,09152	0,07008	0,07139
1498,4187	-0,0006	0,07868	0,08949	0,09127	0,07013	0,07146
1496,49023	-0,00126	0,07746	0,08946	0,09115	0,06987	0,07127
1494,56177	-0,00193	0,07577	0,08906	0,09067	0,06812	0,06978
1492,6333	-0,0004	0,07839	0,09	0,09153	0,06967	0,07133
1490,70483	0,00022	0,07968	0,08953	0,09143	0,07086	0,07243
1488,77637	-0,00024	0,07886	0,08818	0,09032	0,06954	0,07117
1486,8479	-0,00085	0,07764	0,08879	0,09058	0,0691	0,07082
1484,91943	-0,00126	0,07702	0,08976	0,09116	0,06922	0,07102
1482,99097	-0,0009	0,07765	0,08986	0,09139	0,06968	0,07141
1481,0625	-0,00077	0,07771	0,08951	0,09127	0,06967	0,07138
1479,13403	-0,00117	0,07717	0,08982	0,09143	0,06967	0,07148
1477,20557	-0,00064	0,07788	0,08948	0,09155	0,07049	0,0724
1475,2771	-0,00038	0,07839	0,08926	0,09198	0,07141	0,07335
1473,34863	-0,00099	0,07792	0,08958	0,09207	0,07221	0,07416
1471,42017	-0,00133	0,07648	0,08825	0,09043	0,07124	0,07397
1469,4917	-0,00127	0,07639	0,08895	0,09095	0,07157	0,07518
1467,56323	-0,00101	0,07761	0,09055	0,0923	0,07391	0,0779
1465,63477	-0,00062	0,07818	0,0897	0,09177	0,07473	0,07895
1463,7063	-0,00148	0,07615	0,08902	0,09115	0,07319	0,07749
1461,77783	-0,00144	0,07657	0,08954	0,09136	0,07293	0,07736
1459,84937	-0,00004	0,07956	0,08998	0,09187	0,07498	0,07933
1457,9209	0,00031	0,08045	0,08987	0,09193	0,07635	0,08058
1455,99243	-0,00243	0,07362	0,08766	0,08987	0,07243	0,07673
1454,06396	-0,0011	0,07651	0,08839	0,09032	0,07233	0,07643
1452,1355	-0,00077	0,07714	0,08959	0,0913	0,07298	0,07681
1450,20703	-0,00125	0,07644	0,08962	0,09128	0,07224	0,07577
1448,27856	-0,00066	0,07745	0,08904	0,09103	0,07233	0,07563
1446,3501	-0,00127	0,07604	0,08882	0,09045	0,07101	0,07412
1444,42163	-0,00124	0,0764	0,0896	0,09069	0,07082	0,07362
1442,49316	-0,00115	0,0764	0,08956	0,09085	0,071	0,07355
1440,5647	-0,00107	0,07623	0,08934	0,09063	0,07021	0,07277
1438,63623	-0,0008	0,07706	0,09017	0,09139	0,07164	0,07394
1436,70776	-0,00077	0,07637	0,08859	0,09056	0,0719	0,07419
1434,7793	-0,00176	0,0747	0,08787	0,0895	0,06944	0,07208
1432,85083	-0,0009	0,07676	0,08961	0,0907	0,07052	0,0731
1430,92236	-0,00068	0,0771	0,08951	0,09084	0,07141	0,07387
1428,9939	-0,00111	0,07598	0,08858	0,09007	0,06997	0,07255
1427,06543	-0,00133	0,07596	0,08965	0,09071	0,07003	0,07246
1425,13696	-0,00099	0,07662	0,08929	0,09058	0,07047	0,07262
1423,2085	-0,0009	0,07664	0,08842	0,08995	0,06941	0,0716
1421,28003	-0,00151	0,07629	0,0898	0,09093	0,07012	0,07227

1419,35156	-0,00133	0,07636	0,08879	0,09043	0,0707	0,07279
1417,4231	-0,00141	0,07555	0,08723	0,08906	0,06869	0,07086
1415,49463	-0,00143	0,07606	0,08869	0,09005	0,06894	0,07121
1413,56616	-0,00195	0,07582	0,08928	0,09057	0,06921	0,07154
1411,6377	-0,00189	0,07614	0,08892	0,09026	0,06901	0,07129
1409,70923	-0,00206	0,07589	0,08903	0,0902	0,06897	0,07122
1407,78076	-0,00228	0,07572	0,08923	0,0903	0,06898	0,0713
1405,85229	-0,00178	0,07666	0,08887	0,09023	0,06964	0,07191
1403,92383	-0,00205	0,07569	0,08839	0,08984	0,06915	0,07144
1401,99536	-0,00223	0,07569	0,08924	0,09035	0,06933	0,07169
1400,06689	-0,00182	0,07657	0,08902	0,09047	0,0704	0,07276
1398,13843	-0,00191	0,07622	0,08815	0,08977	0,06994	0,0725
1396,20996	-0,00196	0,07674	0,08857	0,09004	0,07052	0,07331
1394,28149	-0,00215	0,07645	0,08818	0,08991	0,07115	0,07426
1392,35303	-0,00281	0,07517	0,08822	0,08964	0,07038	0,07395
1390,42456	-0,00244	0,07629	0,08903	0,09026	0,07132	0,07507
1388,49609	-0,00244	0,07646	0,08874	0,09036	0,07241	0,07619
1386,56763	-0,00325	0,07524	0,08783	0,08934	0,0715	0,07561
1384,63916	-0,00388	0,07465	0,08766	0,08897	0,07103	0,0753
1382,71069	-0,00357	0,07499	0,08834	0,08971	0,07168	0,0758
1380,78223	-0,00275	0,07593	0,08903	0,09039	0,07229	0,07639
1378,85376	-0,00272	0,07621	0,08922	0,09058	0,07224	0,07628
1376,92529	-0,00273	0,07657	0,08945	0,09079	0,07206	0,07575
1374,99683	-0,00208	0,0777	0,08909	0,09051	0,07215	0,07532
1373,06836	-0,00246	0,07681	0,08854	0,08999	0,07125	0,07414
1371,13989	-0,00276	0,0763	0,08918	0,09044	0,07069	0,07352
1369,21143	-0,00211	0,07728	0,08938	0,09065	0,07105	0,07352
1367,28296	-0,00228	0,07656	0,08921	0,09034	0,07042	0,07278
1365,35449	-0,00242	0,07642	0,08954	0,09049	0,07039	0,07288
1363,42603	-0,00186	0,07752	0,08892	0,09015	0,07104	0,07348
1361,49756	-0,00218	0,07649	0,0884	0,08965	0,07047	0,07308
1359,56909	-0,00258	0,07559	0,08915	0,09001	0,07023	0,073
1357,64063	-0,00238	0,07607	0,08952	0,09016	0,07051	0,07312
1355,71216	-0,00229	0,07623	0,08943	0,09007	0,07048	0,07288
1353,78369	-0,00236	0,07592	0,08946	0,09016	0,07045	0,07268
1351,85522	-0,00238	0,07592	0,08952	0,09012	0,07046	0,0727
1349,92676	-0,00224	0,07612	0,08946	0,08999	0,07037	0,07272
1347,99829	-0,00209	0,07602	0,08939	0,09004	0,07017	0,07257
1346,06982	-0,002	0,0761	0,08945	0,09019	0,07017	0,07256
1344,14136	-0,0021	0,07603	0,08961	0,09024	0,07022	0,07259
1342,21289	-0,00198	0,07641	0,08955	0,0902	0,07045	0,07274
1340,28442	-0,00149	0,07743	0,08907	0,08991	0,07075	0,07293
1338,35596	-0,00152	0,07692	0,08887	0,08965	0,07044	0,07263
1336,42749	-0,00176	0,07624	0,08922	0,08984	0,07033	0,07243
1334,49902	-0,00156	0,07636	0,08953	0,09006	0,07069	0,07271
1332,57056	-0,00123	0,07631	0,08965	0,09013	0,0709	0,07313
1330,64209	-0,00108	0,07649	0,08961	0,09019	0,0711	0,07346
1328,71362	-0,00109	0,07654	0,08955	0,09023	0,07122	0,07369

1326,78516	-0,00102	0,07653	0,08969	0,09028	0,07131	0,0739
1324,85669	-0,00094	0,07663	0,08982	0,0903	0,07149	0,07399
1322,92822	-0,00081	0,07636	0,0899	0,09032	0,07162	0,07413
1320,99976	-0,00053	0,07658	0,08994	0,09044	0,07199	0,07457
1319,07129	-0,0005	0,0769	0,08983	0,09043	0,07229	0,07496
1317,14282	-0,00069	0,07651	0,08986	0,09049	0,07219	0,07508
1315,21436	-0,00062	0,07656	0,09008	0,09076	0,07227	0,07509
1313,28589	-0,00047	0,07674	0,09016	0,09091	0,07249	0,07509
1311,35742	-0,00046	0,07647	0,09028	0,09103	0,07254	0,07513
1309,42896	-0,00036	0,07677	0,09047	0,09123	0,07286	0,07553
1307,50049	-0,00021	0,07701	0,09063	0,09137	0,07337	0,07621
1305,57202	-0,00006	0,07692	0,09087	0,09159	0,07372	0,07681
1303,64355	0,00009	0,07734	0,09101	0,09185	0,07418	0,07737
1301,71509	0,00008	0,07761	0,09118	0,09204	0,07476	0,07797
1299,78662	0,00003	0,0777	0,09149	0,09218	0,0753	0,07866
1297,85815	0,00011	0,07806	0,09172	0,09233	0,07597	0,07945
1295,92969	0,00014	0,07832	0,09182	0,09254	0,07652	0,08009
1294,00122	0,00012	0,07852	0,09186	0,09261	0,07692	0,08062
1292,07275	0,0003	0,07873	0,09193	0,09257	0,07757	0,08154
1290,14429	0,00044	0,07878	0,09199	0,09249	0,07842	0,0828
1288,21582	0,00041	0,07886	0,092	0,09243	0,07948	0,08432
1286,28735	0,0005	0,07882	0,09203	0,09246	0,0808	0,08643
1284,35889	0,00076	0,07875	0,09211	0,09249	0,0822	0,08874
1282,43042	0,001	0,07898	0,09219	0,09268	0,08381	0,091
1280,50195	0,00123	0,07936	0,09232	0,09306	0,08561	0,09345
1278,57349	0,00145	0,07974	0,09255	0,09331	0,0874	0,09593
1276,64502	0,00164	0,08005	0,09282	0,09364	0,0893	0,09857
1274,71655	0,00187	0,08028	0,09315	0,09412	0,09131	0,10126
1272,78809	0,00209	0,08064	0,09351	0,09448	0,09302	0,10347
1270,85962	0,0023	0,08089	0,09379	0,09482	0,0942	0,1052
1268,93115	0,00251	0,08099	0,09408	0,09505	0,09499	0,10648
1267,00269	0,00261	0,08109	0,09433	0,09511	0,09547	0,10726
1265,07422	0,00261	0,08098	0,09441	0,0953	0,09533	0,10736
1263,14575	0,00269	0,08091	0,09441	0,09543	0,09464	0,10669
1261,21729	0,00289	0,08109	0,09439	0,0952	0,09392	0,10571
1259,28882	0,00301	0,08116	0,09432	0,09509	0,09324	0,10465
1257,36035	0,0031	0,08108	0,09429	0,09527	0,09257	0,10371
1255,43188	0,00327	0,08116	0,09425	0,09532	0,09206	0,10311
1253,50342	0,00338	0,08137	0,09421	0,09526	0,09172	0,10261
1251,57495	0,00356	0,08151	0,09424	0,0953	0,09143	0,10209
1249,64648	0,00386	0,08165	0,09439	0,09552	0,09115	0,10155
1247,71802	0,00411	0,08182	0,09472	0,09588	0,09076	0,10078
1245,78955	0,00448	0,08196	0,09488	0,09614	0,09019	0,09966
1243,86108	0,00496	0,08203	0,09498	0,09644	0,08946	0,09834
1241,93262	0,00532	0,08206	0,09548	0,09684	0,08863	0,09678
1240,00415	0,00555	0,08219	0,0958	0,09709	0,08774	0,09497
1238,07568	0,00573	0,08231	0,09589	0,0974	0,08703	0,09343
1236,14722	0,00606	0,08252	0,09622	0,09781	0,08648	0,09222



1234,21875	0,00653	0,08277	0,09655	0,09826	0,08598	0,09115
1232,29028	0,00692	0,08289	0,09693	0,09882	0,08584	0,09069
1230,36182	0,00715	0,08297	0,09727	0,09928	0,08591	0,09074
1228,43335	0,00739	0,08298	0,09753	0,09958	0,08603	0,09073
1226,50488	0,00791	0,0831	0,09779	0,09981	0,08635	0,09094
1224,57642	0,00839	0,08324	0,09788	0,10006	0,0866	0,09131
1222,64795	0,00853	0,08329	0,09799	0,10038	0,08672	0,09155
1220,71948	0,00878	0,0836	0,09817	0,10064	0,08699	0,09173
1218,79102	0,00936	0,08392	0,09816	0,10097	0,08726	0,09183
1216,86255	0,00975	0,08407	0,09829	0,10144	0,08737	0,09179
1214,93408	0,00992	0,08443	0,09873	0,10197	0,0874	0,09156
1213,00562	0,01034	0,08482	0,0992	0,10264	0,08738	0,09123
1211,07715	0,01086	0,08509	0,09961	0,10359	0,08745	0,091
1209,14868	0,01133	0,08549	0,10011	0,10499	0,08786	0,09106
1207,22021	0,01189	0,08592	0,10071	0,10666	0,08869	0,09161
1205,29175	0,01227	0,08621	0,10122	0,1082	0,08974	0,09255
1203,36328	0,01252	0,08656	0,10168	0,10925	0,0904	0,09322
1201,43481	0,01307	0,08695	0,10227	0,10958	0,09058	0,09347
1199,50635	0,01368	0,08721	0,10272	0,10965	0,09072	0,09361
1197,57788	0,01403	0,08764	0,10303	0,10995	0,09092	0,09365
1195,64941	0,01425	0,08824	0,1035	0,11038	0,09111	0,09364
1193,72095	0,01428	0,08869	0,10392	0,11055	0,09107	0,09351
1191,79248	0,01441	0,08906	0,10419	0,11028	0,09056	0,09293
1189,86401	0,01488	0,08939	0,10449	0,1099	0,08995	0,09207
1187,93555	0,01519	0,08975	0,10487	0,10974	0,08975	0,09145
1186,00708	0,01531	0,09027	0,10546	0,10992	0,08976	0,09118
1184,07861	0,01558	0,09089	0,10593	0,11046	0,08981	0,09092
1182,15015	0,01589	0,09145	0,10635	0,11112	0,09017	0,09085
1180,22168	0,01623	0,09187	0,10717	0,11179	0,09066	0,09112
1178,29321	0,01672	0,09247	0,10789	0,11258	0,09107	0,09135
1176,36475	0,01717	0,09319	0,10847	0,11338	0,09167	0,09161
1174,43628	0,01751	0,09363	0,10919	0,11409	0,09232	0,09194
1172,50781	0,01788	0,09397	0,10972	0,11475	0,09277	0,09217
1170,57935	0,01813	0,09431	0,11007	0,1153	0,09312	0,09241
1168,65088	0,01823	0,0946	0,11046	0,11566	0,09343	0,0926
1166,72241	0,01847	0,095	0,11098	0,11602	0,09372	0,09282
1164,79395	0,01865	0,09539	0,11167	0,11655	0,09412	0,09314
1162,86548	0,01867	0,09562	0,11229	0,11714	0,09473	0,09349
1160,93701	0,0188	0,09588	0,11279	0,11779	0,09531	0,09381
1159,00854	0,01891	0,09608	0,11325	0,11822	0,09569	0,09408
1157,08008	0,01907	0,09618	0,11353	0,11847	0,09601	0,0944
1155,15161	0,01931	0,09639	0,11363	0,11891	0,09633	0,0946
1153,22314	0,01936	0,09673	0,1137	0,11913	0,09663	0,09461
1151,29468	0,0194	0,09721	0,11388	0,11913	0,09694	0,09481
1149,36621	0,01963	0,09763	0,11429	0,1196	0,09741	0,09525
1147,43774	0,01983	0,09773	0,11467	0,12008	0,098	0,09568
1145,50928	0,02006	0,09794	0,11493	0,1204	0,09856	0,09616
1143,58081	0,02028	0,09835	0,11521	0,12092	0,09899	0,09659

1141,65234	0,02035	0,09864	0,11544	0,12112	0,09908	0,09675
1139,72388	0,02044	0,09893	0,11574	0,12131	0,09911	0,09693
1137,79541	0,02059	0,09925	0,11615	0,12186	0,09952	0,09717
1135,86694	0,02079	0,09951	0,11641	0,1221	0,09993	0,09724
1133,93848	0,02102	0,09967	0,11676	0,12249	0,10028	0,09756
1132,01001	0,02113	0,0998	0,11705	0,12314	0,10068	0,09798
1130,08154	0,0212	0,09989	0,11691	0,1234	0,10096	0,09815
1128,15308	0,02144	0,09989	0,1171	0,12386	0,10146	0,09867
1126,22461	0,02163	0,1001	0,11761	0,12425	0,10193	0,09925
1124,29614	0,02177	0,10037	0,11781	0,12407	0,10195	0,09932
1122,36768	0,02194	0,10047	0,11799	0,12407	0,10202	0,09924
1120,43921	0,02193	0,10054	0,11813	0,12426	0,10214	0,09911
1118,51074	0,022	0,10065	0,11821	0,12436	0,10211	0,09894
1116,58228	0,02233	0,10086	0,11831	0,12442	0,10202	0,0988
1114,65381	0,02264	0,10103	0,11836	0,12442	0,10189	0,09878
1112,72534	0,02282	0,10128	0,1186	0,12456	0,10185	0,09895
1110,79688	0,02287	0,10172	0,11878	0,12467	0,10189	0,099
1108,86841	0,02293	0,1018	0,11883	0,12491	0,1021	0,09907
1106,93994	0,02306	0,10178	0,11899	0,12519	0,10233	0,09922
1105,01147	0,02326	0,10207	0,11898	0,12499	0,10219	0,09921
1103,08301	0,02344	0,10217	0,11893	0,1249	0,10207	0,09924
1101,15454	0,02345	0,10212	0,11894	0,12498	0,10211	0,09925
1099,22607	0,02348	0,10221	0,1189	0,12481	0,10208	0,09932
1097,29761	0,02358	0,10216	0,11897	0,12496	0,10227	0,09962
1095,36914	0,02356	0,10224	0,11908	0,12522	0,10257	0,09984
1093,44067	0,02356	0,10249	0,11908	0,12527	0,10266	0,10003
1091,51221	0,0236	0,10242	0,11916	0,12551	0,10296	0,10031
1089,58374	0,02364	0,10236	0,11933	0,12568	0,10366	0,10057
1087,65527	0,02371	0,10257	0,11945	0,12569	0,10448	0,10081
1085,72681	0,02357	0,10255	0,11952	0,12589	0,10552	0,10087
1083,79834	0,02325	0,10233	0,11961	0,12609	0,10676	0,10068
1081,86987	0,02297	0,1023	0,11961	0,12627	0,1073	0,10063
1079,94141	0,02261	0,10228	0,11945	0,12659	0,10667	0,10074
1078,01294	0,02223	0,10209	0,1194	0,12674	0,10593	0,10083
1076,08447	0,02209	0,10189	0,11966	0,12678	0,10589	0,10112
1074,15601	0,02179	0,10164	0,11987	0,12709	0,10604	0,10136
1072,22754	0,02113	0,10142	0,11987	0,12712	0,10585	0,10126
1070,29907	0,02076	0,10145	0,11998	0,12683	0,10611	0,10111
1068,37061	0,02063	0,10128	0,12011	0,12685	0,10722	0,10115
1066,44214	0,02032	0,10077	0,12029	0,12692	0,10777	0,10154
1064,51367	0,0201	0,10045	0,1205	0,12692	0,1074	0,10202
1062,58521	0,02005	0,10029	0,12053	0,12691	0,10697	0,10216
1060,65674	0,01987	0,09991	0,12054	0,12675	0,10658	0,1023
1058,72827	0,01957	0,09941	0,12044	0,12667	0,10654	0,10273
1056,7998	0,01928	0,0992	0,12015	0,1266	0,10693	0,10333
1054,87134	0,01888	0,09908	0,11998	0,1264	0,10757	0,10433
1052,94287	0,01848	0,09878	0,11994	0,12623	0,10854	0,10589
1051,0144	0,01821	0,09863	0,11982	0,12624	0,10942	0,10794

1049,08594	0,01788	0,09844	0,11951	0,12651	0,11034	0,11022
1047,15747	0,01758	0,09818	0,11934	0,12655	0,11149	0,11192
1045,229	0,01756	0,09809	0,11952	0,12617	0,11211	0,11274
1043,30054	0,01754	0,09789	0,11959	0,12587	0,11224	0,11298
1041,37207	0,01736	0,09782	0,11942	0,12555	0,11237	0,1127
1039,4436	0,01724	0,09781	0,11939	0,12512	0,11247	0,11253
1037,51514	0,01714	0,09765	0,11951	0,12487	0,11267	0,11292
1035,58667	0,01689	0,09765	0,11958	0,12483	0,1133	0,11388
1033,6582	0,01659	0,09756	0,11958	0,12485	0,11428	0,11535
1031,72974	0,01647	0,09738	0,11948	0,12476	0,11527	0,11691
1029,80127	0,01659	0,09743	0,11938	0,12464	0,11632	0,11853
1027,8728	0,01653	0,09749	0,11941	0,12474	0,11747	0,12006
1025,94434	0,01637	0,09758	0,11933	0,12487	0,11838	0,12098
1024,01587	0,01639	0,09758	0,11925	0,12466	0,11858	0,12129
1022,0874	0,01629	0,09765	0,11922	0,12401	0,11802	0,12091
1020,15894	0,0162	0,09778	0,11906	0,1233	0,11697	0,11978
1018,23047	0,01617	0,0975	0,11913	0,12303	0,11573	0,11813
1016,302	0,0159	0,09724	0,11936	0,12294	0,11432	0,11586
1014,37354	0,01547	0,09716	0,11934	0,12265	0,11267	0,11322
1012,44507	0,01515	0,09691	0,11932	0,12228	0,11106	0,11068
1010,5166	0,01518	0,09671	0,11928	0,12199	0,10971	0,10837
1008,58813	0,01535	0,09648	0,11902	0,12186	0,10864	0,10653
1006,65967	0,01543	0,09619	0,11892	0,12178	0,10785	0,10495
1004,7312	0,01531	0,09627	0,11892	0,12172	0,10719	0,10346
1002,80273	0,01493	0,09629	0,11881	0,12151	0,10657	0,10228
1000,87427	0,01471	0,09585	0,11875	0,12107	0,10596	0,1011
998,9458	0,01471	0,09578	0,11876	0,12084	0,10543	0,09997
997,01733	0,01469	0,09594	0,11873	0,12071	0,10513	0,09901
995,08887	0,01471	0,09571	0,1186	0,12047	0,10485	0,09805
993,1604	0,01458	0,09557	0,11844	0,12039	0,1045	0,09751
991,23193	0,01441	0,09558	0,11823	0,12023	0,10429	0,09704
989,30347	0,0144	0,09553	0,11811	0,12	0,10426	0,09651
987,375	0,01419	0,09554	0,11813	0,1198	0,10429	0,09631
985,44653	0,01386	0,09547	0,11794	0,11948	0,10428	0,09606
983,51807	0,01383	0,09542	0,11773	0,11944	0,10435	0,09585
981,5896	0,01377	0,09545	0,11796	0,11951	0,10459	0,09581
979,66113	0,01353	0,09544	0,11814	0,11923	0,10469	0,09558
977,73267	0,01354	0,09525	0,11811	0,11904	0,10449	0,0953
975,8042	0,01364	0,0949	0,11824	0,11922	0,10444	0,0954
973,87573	0,01342	0,09493	0,11818	0,11925	0,1045	0,09575
971,94727	0,01323	0,09506	0,11806	0,11904	0,10426	0,09583
970,0188	0,01319	0,09499	0,11828	0,11913	0,10401	0,09562
968,09033	0,01294	0,09516	0,11821	0,11934	0,10384	0,09523
966,16187	0,01276	0,09516	0,11801	0,1192	0,10362	0,09482
964,2334	0,01275	0,09491	0,11795	0,1191	0,10346	0,09462
962,30493	0,01267	0,0949	0,11779	0,1191	0,10297	0,09436
960,37646	0,01254	0,09491	0,11786	0,11905	0,1023	0,09407
958,448	0,01252	0,09493	0,11797	0,11914	0,10208	0,09389

956,51953	0,01268	0,09494	0,11811	0,11903	0,10199	0,09374
954,59106	0,01277	0,09489	0,11843	0,11886	0,1019	0,0936
952,6626	0,01263	0,09488	0,11828	0,11889	0,10186	0,0934
950,73413	0,01265	0,09486	0,11799	0,11889	0,10184	0,09334
948,80566	0,01267	0,09493	0,11804	0,1189	0,10203	0,09342
946,8772	0,01234	0,09499	0,11789	0,11874	0,10196	0,09334
944,94873	0,01215	0,09484	0,11784	0,11857	0,10169	0,09324
943,02026	0,0122	0,09459	0,11817	0,11889	0,10173	0,09338
941,0918	0,0122	0,09443	0,11823	0,11908	0,10152	0,09354
939,16333	0,01241	0,09432	0,11812	0,11896	0,10102	0,09357
937,23486	0,01268	0,09423	0,11814	0,11891	0,1008	0,0936
935,3064	0,0126	0,09412	0,11787	0,11883	0,1005	0,09345
933,37793	0,01239	0,09381	0,11767	0,11891	0,10006	0,09327
931,44946	0,01242	0,09386	0,11799	0,11909	0,09996	0,09342
929,521	0,01264	0,09423	0,11825	0,11904	0,10009	0,09362
927,59253	0,01249	0,0943	0,11822	0,11888	0,09998	0,09359
925,66406	0,0123	0,09447	0,11842	0,11881	0,09969	0,09352
923,7356	0,01267	0,09446	0,11876	0,11893	0,09955	0,09357
921,80713	0,01271	0,09428	0,11859	0,1188	0,0992	0,09364
919,87866	0,01237	0,0947	0,11832	0,11854	0,09889	0,09377
917,9502	0,01254	0,09505	0,11846	0,11871	0,09885	0,09399
916,02173	0,01274	0,09498	0,11844	0,11885	0,0985	0,09411
914,09326	0,01265	0,09481	0,11846	0,11897	0,09841	0,09441
912,16479	0,01277	0,09444	0,11872	0,11924	0,09868	0,0949
910,23633	0,01298	0,09432	0,1186	0,1194	0,09853	0,09499
908,30786	0,01307	0,09444	0,11847	0,11951	0,09824	0,09464
906,37939	0,01305	0,09432	0,11868	0,11928	0,0977	0,09453
904,45093	0,01319	0,09432	0,11876	0,11895	0,09686	0,09462
902,52246	0,01347	0,0943	0,11871	0,11908	0,0961	0,09458
900,59399	0,01342	0,09405	0,11872	0,11932	0,09519	0,09457
898,66553	0,01327	0,09404	0,11889	0,11923	0,09458	0,09473
896,73706	0,01328	0,09417	0,1191	0,11917	0,09449	0,09493
894,80859	0,0133	0,09404	0,11915	0,1194	0,09412	0,09522
892,88013	0,01346	0,09378	0,11919	0,11928	0,09337	0,09538
890,95166	0,01351	0,09377	0,11929	0,11908	0,09289	0,09515
889,02319	0,01332	0,09398	0,11944	0,1193	0,09292	0,09507
887,09473	0,01338	0,09404	0,11956	0,11922	0,09314	0,09521
885,16626	0,01359	0,09416	0,1195	0,11921	0,09325	0,09521
883,23779	0,01368	0,09449	0,11967	0,11954	0,09341	0,09526
881,30933	0,01394	0,09472	0,11991	0,11968	0,0937	0,09539
879,38086	0,01444	0,09509	0,12024	0,12017	0,09394	0,09566
877,45239	0,0148	0,09577	0,12114	0,12108	0,09438	0,09617
875,52393	0,01523	0,09666	0,12212	0,12233	0,09516	0,09682
873,59546	0,01618	0,09777	0,12337	0,12443	0,09629	0,0978
871,66699	0,01751	0,09928	0,12549	0,12712	0,09796	0,09913
869,73853	0,01884	0,10121	0,12787	0,1301	0,0998	0,10065
867,81006	0,01978	0,10266	0,12999	0,13267	0,10136	0,1019
865,88159	0,02055	0,10341	0,13172	0,13427	0,1024	0,10271

863,95313	0,02137	0,1043	0,13282	0,13559	0,10295	0,10336
862,02466	0,02167	0,10509	0,13346	0,13642	0,10336	0,10375
860,09619	0,02137	0,10503	0,13368	0,13617	0,1034	0,10382
858,16772	0,02085	0,10458	0,13301	0,13526	0,10283	0,10338
856,23926	0,02022	0,10406	0,13174	0,13396	0,10221	0,10258
854,31079	0,01967	0,10299	0,1306	0,13238	0,10157	0,10187
852,38232	0,01942	0,10239	0,12976	0,13122	0,1009	0,10129
850,45386	0,01942	0,10301	0,12993	0,13155	0,101	0,10123
848,52539	0,02025	0,1047	0,13235	0,13443	0,10254	0,10254
846,59692	0,02229	0,10799	0,13658	0,13962	0,10542	0,10542
844,66846	0,02414	0,1109	0,14016	0,14448	0,10828	0,10838
842,73999	0,02615	0,11322	0,14368	0,14892	0,11086	0,11089
840,81152	0,02998	0,11818	0,15004	0,15676	0,11512	0,11544
838,88306	0,03423	0,12388	0,15713	0,16622	0,12051	0,12112
836,95459	0,03771	0,12834	0,16277	0,17388	0,12532	0,12583
835,02612	0,0407	0,1323	0,16781	0,18056	0,12933	0,13043
833,09766	0,04184	0,13372	0,1699	0,1833	0,13077	0,1325
831,16919	0,04147	0,13327	0,1693	0,1825	0,13049	0,13184
829,24072	0,0414	0,13294	0,16925	0,1825	0,13072	0,13171
827,31226	0,04147	0,13278	0,16927	0,18251	0,13067	0,13166
825,38379	0,0429	0,13492	0,17098	0,1851	0,13202	0,13353
823,45532	0,04547	0,13805	0,17488	0,19042	0,13499	0,13745
821,52686	0,04626	0,13859	0,17656	0,19204	0,13607	0,13881
819,59839	0,04609	0,13846	0,1763	0,19164	0,13581	0,13861
817,66992	0,04658	0,13925	0,17718	0,19286	0,13645	0,13974
815,74146	0,0476	0,14015	0,17891	0,19459	0,13783	0,14134
813,81299	0,04913	0,14138	0,18046	0,19667	0,13902	0,14265
811,88452	0,04999	0,14218	0,18112	0,1979	0,13958	0,14325
809,95605	0,04995	0,14214	0,18102	0,19754	0,13972	0,14316
808,02759	0,05036	0,14239	0,18132	0,19768	0,13977	0,14347
806,09912	0,05147	0,14342	0,18235	0,19905	0,14033	0,14446
804,17065	0,05231	0,14465	0,18335	0,20059	0,14136	0,14558
802,24219	0,0526	0,14536	0,18389	0,20149	0,14191	0,14659
800,31372	0,05373	0,14628	0,18473	0,20268	0,14268	0,14795
798,38525	0,05537	0,14754	0,1861	0,20452	0,14436	0,14974
796,45679	0,0559	0,14816	0,18692	0,2054	0,14546	0,15071
794,52832	0,05585	0,14854	0,1869	0,20557	0,14575	0,15069
792,59985	0,05562	0,14817	0,18638	0,2054	0,1461	0,15036
790,67139	0,05476	0,14658	0,18543	0,20401	0,14582	0,14919
788,74292	0,05389	0,14537	0,18457	0,20262	0,14537	0,14794
786,81445	0,05347	0,14513	0,18401	0,20204	0,14589	0,14737
784,88599	0,05252	0,14449	0,183	0,20058	0,14619	0,14611
782,95752	0,05108	0,14312	0,18173	0,19833	0,14584	0,14434
781,02905	0,05051	0,14214	0,1811	0,19708	0,14602	0,14345
779,10059	0,05074	0,14181	0,18091	0,19697	0,1467	0,14347
777,17212	0,05143	0,14232	0,18159	0,1981	0,14796	0,14434
775,24365	0,0528	0,14375	0,18344	0,20056	0,14996	0,14603
773,31519	0,05426	0,14482	0,18497	0,20293	0,15175	0,14798

771,38672	0,0551	0,14546	0,18583	0,20423	0,15301	0,14944
769,45825	0,05543	0,14601	0,18638	0,20458	0,15385	0,15016
767,52979	0,05588	0,14616	0,18662	0,20505	0,15458	0,15073
765,60132	0,05663	0,14662	0,18699	0,20587	0,15537	0,15133
763,67285	0,057	0,14708	0,18693	0,20613	0,15564	0,15138
761,74438	0,05627	0,14622	0,1859	0,20555	0,15541	0,15063
759,81592	0,05528	0,1451	0,18514	0,20438	0,1551	0,14979
757,88745	0,05486	0,14495	0,18511	0,20365	0,15494	0,14954
755,95898	0,05486	0,14488	0,18498	0,20347	0,15488	0,14913
754,03052	0,05512	0,14465	0,18488	0,20279	0,15469	0,14852
752,10205	0,05483	0,14422	0,1847	0,20199	0,15426	0,14819
750,17358	0,05451	0,14392	0,18444	0,20218	0,15414	0,14805
748,24512	0,05512	0,14451	0,18497	0,20338	0,15511	0,14877
746,31665	0,05564	0,14499	0,18536	0,20433	0,15603	0,14963
744,38818	0,05578	0,1454	0,18519	0,20482	0,15613	0,14984
742,45972	0,05589	0,14611	0,18547	0,20508	0,15649	0,15048
740,53125	0,05606	0,14615	0,18596	0,2051	0,15717	0,15111
738,60278	0,05677	0,14627	0,18647	0,2059	0,15783	0,15136
736,67432	0,0577	0,14714	0,18678	0,20682	0,15859	0,152
734,74585	0,05818	0,14772	0,18685	0,20698	0,15914	0,15236
732,81738	0,05804	0,14763	0,18711	0,20669	0,15908	0,15209
730,88892	0,05802	0,14771	0,18747	0,20642	0,15889	0,15211
728,96045	0,05881	0,14842	0,18818	0,20747	0,15927	0,15264
727,03198	0,05982	0,14924	0,18911	0,209	0,15996	0,15325
725,10352	0,06075	0,15016	0,19004	0,20965	0,16076	0,15405
723,17505	0,0615	0,15102	0,19077	0,21054	0,16165	0,15518
721,24658	0,06167	0,15142	0,19076	0,21125	0,16219	0,15606
719,31812	0,06204	0,1518	0,19124	0,2116	0,16276	0,15669
717,38965	0,06305	0,15252	0,19249	0,21268	0,16401	0,15751
715,46118	0,06382	0,1533	0,19314	0,21363	0,1651	0,15824
713,53271	0,06386	0,1536	0,19344	0,21409	0,16489	0,15859
711,60425	0,06346	0,15331	0,19354	0,21417	0,16424	0,15836
709,67578	0,06338	0,15307	0,19368	0,21413	0,16429	0,15823
707,74731	0,06396	0,15329	0,19404	0,21474	0,16459	0,15876
705,81885	0,06441	0,15384	0,19414	0,21485	0,16452	0,15884
703,89038	0,064	0,15415	0,19434	0,21441	0,16426	0,15827
701,96191	0,06355	0,15382	0,1944	0,21424	0,16376	0,15782
700,03345	0,06366	0,15381	0,1944	0,2143	0,16339	0,15783
698,10498	0,06366	0,15422	0,19514	0,21481	0,1638	0,15811
696,17651	0,0635	0,15438	0,19552	0,21503	0,16404	0,15821
694,24805	0,06355	0,15441	0,19546	0,21494	0,16399	0,15862
692,31958	0,06379	0,15454	0,19616	0,2155	0,16455	0,15968
690,39111	0,06451	0,15559	0,19667	0,21631	0,16504	0,16067
688,46265	0,06581	0,15703	0,19696	0,21714	0,16572	0,16127
686,53418	0,06679	0,15787	0,19777	0,2185	0,16702	0,16205
684,60571	0,06723	0,15818	0,19827	0,21966	0,16738	0,16263
682,67725	0,06803	0,15863	0,19879	0,22097	0,16758	0,16335
680,74878	0,06881	0,16015	0,19957	0,22261	0,16848	0,16471

678,82031	0,06973	0,16082	0,20021	0,22275	0,16852	0,16522
676,89185	0,07053	0,16106	0,20071	0,22308	0,16914	0,16596
674,96338	0,07126	0,16208	0,20157	0,22406	0,16935	0,16653
673,03491	0,07137	0,16205	0,20174	0,22438	0,16956	0,16682
671,10645	0,07145	0,16203	0,20192	0,2247	0,16977	0,16711
669,17798	0,07153	0,16201	0,2021	0,22502	0,16998	0,1674
667,24951	0,07161	0,16199	0,20228	0,22534	0,17019	0,16769
665,32104	0,07168	0,16197	0,20245	0,22566	0,1704	0,16798
663,39258	0,07176	0,16195	0,20263	0,22598	0,17061	0,16827
661,46411	0,07184	0,16193	0,20281	0,2263	0,17082	0,16856
659,53564	0,07192	0,1619	0,20298	0,22663	0,17102	0,16885
657,60718	0,072	0,16188	0,20316	0,22695	0,17123	0,16914
655,67871	0,07207	0,16186	0,20334	0,22727	0,17144	0,16943
653,75024	0,07189	0,16184	0,20352	0,22759	0,17165	0,16972
651,82178	0,07266	0,16205	0,20369	0,22791	0,17186	0,17001
649,89331	0,07272	0,16184	0,20387	0,22823	0,17207	0,1703
647,96484	0,0731	0,16215	0,20405	0,22855	0,17228	0,17059
646,03638	0,07413	0,16224	0,20422	0,22888	0,17278	0,17141
644,10791	0,07447	0,16178	0,20394	0,2287	0,17285	0,17125
642,17944	0,07454	0,16197	0,20333	0,2281	0,1726	0,17107
640,25098	0,07508	0,16226	0,2033	0,22793	0,17287	0,17111
638,32251	0,07495	0,16206	0,20307	0,22751	0,17305	0,17062
636,39404	0,07477	0,16181	0,20332	0,22727	0,17314	0,17054
634,46558	0,07496	0,16166	0,20337	0,22702	0,17278	0,17057
632,53711	0,07425	0,16176	0,20337	0,2276	0,17283	0,17088
630,60864	0,0738	0,16119	0,2035	0,22769	0,17268	0,17077
628,68018	0,07416	0,16025	0,20331	0,2274	0,17193	0,17026
626,75171	0,07477	0,16013	0,20302	0,22767	0,17204	0,17017
624,82324	0,07514	0,16029	0,20266	0,22763	0,1726	0,1703
622,89478	0,07523	0,16018	0,20233	0,22736	0,17265	0,17037
620,96631	0,07578	0,15972	0,20271	0,22759	0,17303	0,17031
619,03784	0,07625	0,15961	0,2028	0,2282	0,17409	0,17063
617,10938	0,07652	0,16026	0,20223	0,22853	0,17462	0,17133
615,18091	0,07671	0,16045	0,20225	0,22858	0,17438	0,17152
613,25244	0,07647	0,16027	0,20271	0,22835	0,17438	0,17144
611,32397	0,07661	0,16072	0,2035	0,22843	0,17512	0,17184
609,39551	0,07687	0,16036	0,20376	0,22882	0,17609	0,17226
607,46704	0,07689	0,15926	0,20292	0,22834	0,17613	0,17191
605,53857	0,07713	0,15903	0,20243	0,22784	0,17581	0,17131
603,61011	0,07689	0,15874	0,20246	0,22799	0,17623	0,17156
601,68164	0,07699	0,15861	0,20237	0,22774	0,17637	0,17209
599,75317	0,0774	0,15866	0,20212	0,22686	0,17588	0,17186
597,82471	0,07677	0,15783	0,20165	0,22646	0,17599	0,1714
595,89624	0,07635	0,15722	0,20145	0,22674	0,17648	0,17128
593,96777	0,0767	0,15762	0,20142	0,2265	0,1765	0,17102
592,03931	0,07736	0,15852	0,20097	0,22562	0,17623	0,17053
590,11084	0,0771	0,15857	0,20058	0,22551	0,17592	0,17058
588,18237	0,0761	0,15809	0,20039	0,22538	0,17565	0,17044

586,25391	0,0762	0,15802	0,20026	0,22457	0,17553	0,16977
584,32544	0,07669	0,1581	0,20078	0,2249	0,17578	0,1698
582,39697	0,07739	0,15884	0,20098	0,22494	0,1759	0,16974
580,46851	0,07735	0,15881	0,20054	0,22415	0,17557	0,16932
578,54004	0,0766	0,1582	0,20075	0,2243	0,17556	0,16958
576,61157	0,07754	0,15889	0,20125	0,22379	0,17563	0,16987
574,68311	0,07776	0,15894	0,20183	0,22377	0,17579	0,17021
572,75464	0,07732	0,159	0,20268	0,22573	0,17664	0,17108
570,82617	0,07844	0,16045	0,20313	0,22671	0,17684	0,17163
568,89771	0,07936	0,16141	0,20387	0,22724	0,17669	0,17217
566,96924	0,07965	0,16162	0,20497	0,22901	0,17768	0,17353
565,04077	0,07953	0,16214	0,20536	0,22959	0,1778	0,17366
563,1123	0,07898	0,16297	0,20545	0,22881	0,17704	0,1724
561,18384	0,07847	0,16336	0,20551	0,22909	0,17777	0,17246
559,25537	0,0786	0,164	0,20547	0,2297	0,17814	0,17335
557,3269	0,07931	0,16533	0,20567	0,22933	0,17679	0,17364
555,39844	0,07915	0,16612	0,20594	0,22987	0,17612	0,17364
553,46997	0,07846	0,16653	0,20626	0,23085	0,17593	0,17372
551,5415	0,07767	0,16625	0,20664	0,22965	0,1749	0,1733
549,61304	0,07639	0,16609	0,20674	0,22889	0,17476	0,17277
547,68457	0,07584	0,16678	0,20662	0,22914	0,17444	0,17252
545,7561	0,07571	0,16658	0,2058	0,22825	0,17294	0,17176
543,82764	0,07441	0,16653	0,20499	0,22875	0,17344	0,17223
541,89917	0,07328	0,1676	0,20549	0,22974	0,17387	0,17305
539,9707	0,07302	0,16829	0,20567	0,22944	0,1725	0,17189
538,04224	0,07114	0,16865	0,20461	0,2284	0,17216	0,17095
536,11377	0,06908	0,16946	0,204	0,22719	0,17162	0,17101
534,1853	0,06798	0,1704	0,20421	0,22765	0,17073	0,17126
532,25684	0,06501	0,17069	0,20439	0,22629	0,16935	0,17002
530,32837	0,0627	0,17133	0,20239	0,22375	0,16787	0,16882
528,3999	0,06016	0,17007	0,20047	0,2221	0,16671	0,16734
526,47144	0,05525	0,16714	0,19961	0,21704	0,16272	0,16283
524,54297	0,05186	0,16803	0,19627	0,21382	0,1604	0,16197
522,6145	0,04775	0,16928	0,19339	0,21401	0,16072	0,1635
520,68604	0,04193	0,16758	0,19176	0,21032	0,15723	0,15944
518,75757	0,03766	0,1668	0,18879	0,20398	0,15283	0,15382
516,8291	0,03316	0,16658	0,18451	0,19925	0,14968	0,15168
514,90063	0,02888	0,16544	0,17947	0,19612	0,14663	0,15017
512,97217	0,02409	0,16428	0,1752	0,19227	0,1438	0,14653
511,0437	0,01592	0,16299	0,17179	0,18857	0,14039	0,14413
509,11523	0,00946	0,16104	0,16813	0,18394	0,13721	0,14152
507,18677	0,00576	0,15928	0,16454	0,17809	0,13398	0,13749
505,2583	0,00119	0,15969	0,16298	0,17587	0,13141	0,13657
503,32983	-0,00236	0,15876	0,16109	0,17277	0,12892	0,13353
501,40137	-0,00607	0,15573	0,15666	0,16836	0,12628	0,12964
499,4729	-0,01001	0,15501	0,15268	0,16589	0,12425	0,12846



Figure 3.3 D						
n°spectre	Vd339	VD331	VD83	VD85	Vd86	Vd87
cm-1	cr.	cd.	$\theta=2.0$	$\theta=23.3$	$\theta=59.0$	$\theta=118.2$
4001,5686	0,03712	0,11956	0,08455	0,13198	0,12965	0,15307
3999,64014	0,03704	0,11934	0,08446	0,13197	0,12952	0,15288
3997,71167	0,03697	0,11925	0,08454	0,13201	0,12946	0,15293
3995,7832	0,037	0,11933	0,08443	0,13186	0,12945	0,15282
3993,85474	0,03696	0,11913	0,08419	0,13175	0,12934	0,15259
3991,92627	0,0369	0,11918	0,08423	0,13181	0,12924	0,15265
3989,9978	0,03691	0,11933	0,08423	0,13164	0,12926	0,15261
3988,06934	0,03681	0,11902	0,08405	0,13149	0,12913	0,15228
3986,14087	0,03668	0,11895	0,08398	0,13153	0,12897	0,15221
3984,2124	0,03676	0,119	0,08396	0,13141	0,12895	0,15219
3982,28394	0,03683	0,11875	0,08395	0,13132	0,1289	0,152
3980,35547	0,03664	0,11865	0,08382	0,1313	0,12878	0,15191
3978,427	0,03652	0,11863	0,08376	0,13124	0,12877	0,1518
3976,49854	0,03659	0,11858	0,08392	0,13123	0,12872	0,15177
3974,57007	0,03648	0,11857	0,08384	0,13115	0,12861	0,15178
3972,6416	0,03631	0,11846	0,08361	0,13107	0,12856	0,15163
3970,71313	0,03636	0,11839	0,08352	0,13105	0,12852	0,15146
3968,78467	0,03646	0,11846	0,08355	0,13092	0,12842	0,15138
3966,8562	0,03636	0,11811	0,08337	0,13078	0,12823	0,15115
3964,92773	0,03636	0,11801	0,0833	0,13083	0,12827	0,15104
3962,99927	0,03659	0,11853	0,08353	0,13083	0,12838	0,15123
3961,0708	0,03646	0,11819	0,08331	0,13063	0,128	0,15089
3959,14233	0,03631	0,11787	0,08315	0,13052	0,12788	0,15063
3957,21387	0,03635	0,11795	0,08322	0,13054	0,12807	0,15069
3955,2854	0,0363	0,11782	0,08311	0,13057	0,12793	0,15053
3953,35693	0,03638	0,11799	0,08301	0,13061	0,1278	0,15049
3951,42847	0,03626	0,11774	0,08309	0,13043	0,12783	0,15031
3949,5	0,0362	0,11773	0,08349	0,13019	0,12798	0,15052
3947,57153	0,03612	0,11743	0,08283	0,13006	0,12751	0,15022
3945,64307	0,03607	0,11729	0,08243	0,13012	0,12727	0,14974
3943,7146	0,03661	0,11838	0,08361	0,13036	0,12803	0,15077
3941,78613	0,03639	0,1176	0,08295	0,13007	0,12748	0,15014
3939,85767	0,03583	0,11675	0,08208	0,12983	0,12693	0,14912
3937,9292	0,03607	0,11738	0,08274	0,13007	0,12748	0,14981
3936,00073	0,03608	0,11713	0,0825	0,12997	0,12723	0,14945
3934,07227	0,03612	0,11755	0,08296	0,13002	0,12755	0,14977
3932,1438	0,03636	0,11803	0,08353	0,13002	0,12785	0,15056
3930,21533	0,03583	0,11671	0,08201	0,12939	0,1266	0,14905
3928,28687	0,03555	0,11639	0,08175	0,12935	0,12651	0,14842
3926,3584	0,03606	0,11753	0,08305	0,1298	0,12752	0,14965
3924,42993	0,03612	0,1175	0,08271	0,12958	0,12717	0,14965
3922,50146	0,03558	0,11634	0,08174	0,12918	0,12635	0,1485
3920,573	0,03574	0,11672	0,08244	0,12943	0,12689	0,14897
3918,64453	0,03597	0,11715	0,08303	0,12967	0,1274	0,1498
3916,71606	0,0355	0,11626	0,08224	0,1293	0,12676	0,14908
3914,7876	0,03495	0,11538	0,08118	0,12891	0,12597	0,14777

3912,85913	0,0353	0,11595	0,08141	0,12909	0,12627	0,14784
3910,93066	0,03574	0,11644	0,08211	0,12947	0,12688	0,14856
3909,0022	0,0354	0,11587	0,08137	0,12916	0,12619	0,14782
3907,07373	0,03569	0,11695	0,08221	0,12917	0,12662	0,1485
3905,14526	0,03619	0,11806	0,08403	0,12967	0,12803	0,1504
3903,2168	0,03513	0,11569	0,08255	0,1289	0,12687	0,14908
3901,28833	0,03451	0,11445	0,08162	0,12823	0,12588	0,14795
3899,35986	0,03485	0,11521	0,08193	0,12831	0,12613	0,14833
3897,4314	0,03436	0,11417	0,08054	0,12801	0,12535	0,14692
3895,50293	0,0347	0,11463	0,08007	0,12805	0,12483	0,14613
3893,57446	0,03585	0,1173	0,08263	0,12896	0,12668	0,14847
3891,646	0,0359	0,11737	0,08357	0,12935	0,12781	0,14988
3889,71753	0,03373	0,11243	0,07882	0,12762	0,12395	0,14502
3887,78906	0,0349	0,11555	0,08125	0,12829	0,1257	0,147
3885,8606	0,03604	0,11753	0,08465	0,1298	0,12887	0,15082
3883,93213	0,03332	0,11188	0,07815	0,12725	0,12339	0,14433
3882,00366	0,03495	0,1162	0,08144	0,12787	0,12535	0,14715
3880,0752	0,03613	0,11758	0,08381	0,12891	0,1274	0,15014
3878,14673	0,03338	0,11186	0,07796	0,12686	0,12279	0,1438
3876,21826	0,03488	0,1159	0,08172	0,12846	0,12601	0,1472
3874,28979	0,0356	0,11647	0,08232	0,12839	0,1262	0,14832
3872,36133	0,03435	0,1145	0,08009	0,12721	0,12432	0,14575
3870,43286	0,03482	0,11639	0,08331	0,12924	0,12793	0,1491
3868,50439	0,03315	0,11194	0,07862	0,1272	0,12387	0,14471
3866,57593	0,03357	0,11324	0,07932	0,12679	0,12371	0,14466
3864,64746	0,0351	0,11626	0,08279	0,12872	0,12716	0,14846
3862,71899	0,03409	0,11351	0,07903	0,12687	0,12362	0,1448
3860,79053	0,03384	0,11335	0,07974	0,12708	0,12409	0,14482
3858,86206	0,03452	0,11403	0,08005	0,12758	0,12464	0,14534
3856,93359	0,0355	0,11598	0,08064	0,12694	0,12424	0,14574
3855,00513	0,03477	0,11672	0,08536	0,13043	0,13039	0,15027
3853,07666	0,03254	0,11178	0,08078	0,12975	0,12847	0,14776
3851,14819	0,03038	0,10771	0,07324	0,12459	0,11983	0,1393
3849,21973	0,03346	0,11275	0,07834	0,1259	0,12255	0,14322
3847,29126	0,03434	0,11368	0,07978	0,12732	0,12417	0,14445
3845,36279	0,03508	0,11495	0,08056	0,12731	0,12442	0,14529
3843,43433	0,03498	0,11476	0,08106	0,12752	0,12501	0,1458
3841,50586	0,03475	0,11405	0,0801	0,12647	0,12375	0,14483
3839,57739	0,03477	0,11521	0,08109	0,12731	0,12527	0,14608
3837,64893	0,03315	0,11295	0,07945	0,12806	0,12569	0,14492
3835,72046	0,03195	0,10977	0,07643	0,12561	0,12184	0,14137
3833,79199	0,0338	0,11307	0,07951	0,12597	0,12313	0,14391
3831,86353	0,03413	0,11324	0,08039	0,12711	0,12447	0,14486
3829,93506	0,03339	0,11135	0,0777	0,12583	0,12203	0,14208
3828,00659	0,03456	0,11427	0,08023	0,12672	0,12407	0,14456
3826,07813	0,03433	0,11343	0,07948	0,12672	0,12366	0,14412
3824,14966	0,03399	0,11298	0,0783	0,12578	0,1223	0,14243
3822,22119	0,03526	0,1164	0,0838	0,12822	0,12738	0,14793
3820,29272	0,0333	0,11148	0,07821	0,12593	0,1228	0,14345
3818,36426	0,03255	0,11101	0,07686	0,1248	0,121	0,14088

3816,43579	0,03354	0,11395	0,08121	0,12801	0,12629	0,14557
3814,50732	0,03165	0,109	0,07575	0,12573	0,1218	0,14058
3812,57886	0,03276	0,11087	0,0768	0,12495	0,12102	0,14077
3810,65039	0,0341	0,11292	0,07916	0,12624	0,12289	0,14301
3808,72192	0,03438	0,11409	0,08053	0,12689	0,12435	0,14432
3806,79346	0,03331	0,11227	0,07983	0,12715	0,12463	0,14421
3804,86499	0,03207	0,10933	0,07557	0,12465	0,12026	0,13964
3802,93652	0,03425	0,11455	0,08098	0,12637	0,12442	0,14455
3801,00806	0,03328	0,11251	0,07934	0,1274	0,12517	0,14442
3799,07959	0,03104	0,10789	0,07391	0,12394	0,11917	0,138
3797,15112	0,03396	0,11359	0,07988	0,1254	0,12277	0,14329
3795,22266	0,03326	0,11124	0,07846	0,12577	0,12257	0,14242
3793,29419	0,03265	0,11017	0,07648	0,12472	0,12064	0,14001
3791,36572	0,03396	0,11256	0,07913	0,1259	0,12281	0,14245
3789,43726	0,03351	0,1112	0,07793	0,12554	0,12198	0,14136
3787,50879	0,03337	0,11161	0,07806	0,12532	0,12181	0,14125
3785,58032	0,03396	0,11294	0,07914	0,12571	0,12261	0,14243
3783,65186	0,0332	0,11099	0,07729	0,12502	0,12127	0,14055
3781,72339	0,03326	0,11139	0,07811	0,12535	0,12203	0,14125
3779,79492	0,03396	0,11272	0,07939	0,12556	0,1228	0,14279
3777,86646	0,03282	0,11021	0,07707	0,12466	0,121	0,1403
3775,93799	0,03273	0,11003	0,07705	0,1248	0,12106	0,14003
3774,00952	0,03322	0,11089	0,07754	0,12505	0,12143	0,14052
3772,08105	0,03348	0,11183	0,07859	0,12525	0,12214	0,1414
3770,15259	0,03349	0,11186	0,07935	0,12538	0,12273	0,14242
3768,22412	0,03214	0,10914	0,07658	0,12439	0,12069	0,13974
3766,29565	0,0328	0,11061	0,07791	0,12457	0,1214	0,14077
3764,36719	0,03283	0,11021	0,07767	0,1246	0,12121	0,14063
3762,43872	0,03229	0,10962	0,07621	0,12419	0,1202	0,13903
3760,51025	0,03345	0,11202	0,0793	0,12512	0,12251	0,14205
3758,58179	0,03294	0,1106	0,07775	0,12441	0,12128	0,14099
3756,65332	0,03204	0,10919	0,07612	0,12364	0,11981	0,139
3754,72485	0,03252	0,11044	0,07771	0,12442	0,12124	0,14033
3752,79639	0,03244	0,1114	0,07861	0,12523	0,12284	0,14146
3750,86792	0,0319	0,11072	0,07881	0,12606	0,12449	0,1428
3748,93945	0,02871	0,10371	0,07264	0,12292	0,11862	0,13629
3747,01099	0,03088	0,1088	0,07557	0,12269	0,1192	0,13811
3745,08252	0,0322	0,11141	0,08191	0,1264	0,12584	0,14481
3743,15405	0,02823	0,10258	0,07394	0,12328	0,11951	0,13765
3741,22559	0,02988	0,10685	0,07328	0,12087	0,11628	0,13606
3739,29712	0,03199	0,11124	0,07859	0,12343	0,12097	0,1412
3737,36865	0,03124	0,11036	0,0792	0,12426	0,1224	0,14231
3735,44019	0,03068	0,10987	0,07795	0,12225	0,12005	0,14142
3733,51172	0,03002	0,10863	0,07747	0,12217	0,11993	0,14093
3731,58325	0,02848	0,10566	0,07543	0,12207	0,11896	0,13845
3729,65479	0,0286	0,10667	0,07525	0,12137	0,11783	0,13793
3727,72632	0,02982	0,10947	0,07812	0,12229	0,11974	0,14073
3725,79785	0,02992	0,10899	0,07818	0,12242	0,11993	0,14082
3723,86938	0,02961	0,10809	0,07671	0,12163	0,11865	0,13935
3721,94092	0,0298	0,10842	0,07706	0,12205	0,11928	0,13964

3720,01245	0,02973	0,10752	0,07634	0,12205	0,11888	0,13856
3718,08398	0,02986	0,10741	0,07605	0,12236	0,11881	0,13814
3716,15552	0,03018	0,1073	0,07573	0,12253	0,11867	0,13762
3714,22705	0,03076	0,10843	0,07738	0,1232	0,1201	0,13903
3712,29858	0,03056	0,10892	0,07831	0,1237	0,12138	0,14064
3710,37012	0,02854	0,10541	0,07534	0,12171	0,11858	0,13788
3708,44165	0,02774	0,10476	0,07611	0,12143	0,11828	0,13843
3706,51318	0,02779	0,10502	0,0745	0,12124	0,11713	0,13711
3704,58472	0,02848	0,10612	0,07498	0,12122	0,11741	0,13684
3702,65625	0,02925	0,10743	0,07806	0,12222	0,11968	0,13974
3700,72778	0,028	0,1048	0,07554	0,12139	0,1178	0,13764
3698,79932	0,02734	0,10408	0,07464	0,12109	0,1171	0,13621
3696,87085	0,02791	0,10528	0,07619	0,12151	0,11807	0,1375
3694,94238	0,02747	0,10441	0,07537	0,12146	0,1178	0,13678
3693,01392	0,02708	0,10422	0,07566	0,12128	0,11776	0,13683
3691,08545	0,02737	0,10536	0,07756	0,12119	0,1187	0,13861
3689,15698	0,02537	0,10224	0,07535	0,12148	0,11875	0,13692
3687,22852	0,02306	0,09764	0,07141	0,12029	0,11582	0,13263
3685,30005	0,025	0,10012	0,0727	0,11954	0,11492	0,1333
3683,37158	0,02631	0,10237	0,07496	0,12079	0,11692	0,13532
3681,44312	0,02643	0,1025	0,07557	0,12161	0,11806	0,13608
3679,51465	0,02718	0,10298	0,07446	0,12056	0,11639	0,13518
3677,58618	0,02751	0,10484	0,07687	0,1219	0,11913	0,13743
3675,65771	0,0279	0,10558	0,07831	0,12291	0,12141	0,14015
3673,72925	0,02507	0,0982	0,07063	0,11931	0,11433	0,132
3671,80078	0,02639	0,10256	0,07424	0,12108	0,11736	0,13481
3669,87231	0,02729	0,10451	0,07697	0,12295	0,12037	0,13829
3667,94385	0,02575	0,09948	0,07139	0,11986	0,11479	0,1324
3666,01538	0,02696	0,102	0,07331	0,12064	0,11604	0,13373
3664,08691	0,0276	0,10325	0,07476	0,12196	0,11783	0,13535
3662,15845	0,02764	0,10285	0,07444	0,12151	0,11735	0,13494
3660,22998	0,02748	0,10257	0,0739	0,12133	0,11687	0,13418
3658,30151	0,02787	0,10384	0,07544	0,12182	0,11801	0,13569
3656,37305	0,02748	0,103	0,07606	0,12215	0,11892	0,1367
3654,44458	0,0258	0,09975	0,07185	0,12058	0,11563	0,13241
3652,51611	0,02736	0,10325	0,075	0,121	0,11716	0,13514
3650,58765	0,02844	0,10548	0,07864	0,12264	0,12067	0,1394
3648,65918	0,02614	0,10119	0,07351	0,12083	0,11742	0,13511
3646,73071	0,02516	0,09939	0,0719	0,11919	0,11488	0,13277
3644,80225	0,02561	0,09998	0,07283	0,11998	0,1155	0,13312
3642,87378	0,02582	0,10085	0,07352	0,12085	0,11646	0,13362
3640,94531	0,02608	0,10145	0,07453	0,12102	0,11711	0,13476
3639,01685	0,02547	0,1003	0,07373	0,12067	0,11633	0,13399
3637,08838	0,02524	0,10046	0,07389	0,12054	0,11621	0,13397
3635,15991	0,02521	0,10069	0,07517	0,12085	0,11726	0,13537
3633,23145	0,02442	0,09949	0,07349	0,11982	0,11567	0,13402
3631,30298	0,02419	0,10047	0,07505	0,1202	0,11698	0,13535
3629,37451	0,02433	0,1011	0,07871	0,12152	0,12034	0,13951
3627,44604	0,02144	0,09483	0,07154	0,11842	0,11436	0,13285
3625,51758	0,02195	0,0968	0,07153	0,11818	0,1137	0,13196

3623,58911	0,02281	0,09857	0,07448	0,11974	0,11621	0,13461
3621,66064	0,02269	0,0984	0,07432	0,11979	0,11624	0,13455
3619,73218	0,02301	0,09909	0,07577	0,12028	0,11762	0,13613
3617,80371	0,02177	0,09578	0,07309	0,1192	0,11534	0,13354
3615,87524	0,0215	0,09607	0,07251	0,11898	0,11465	0,13262
3613,94678	0,02243	0,09802	0,07493	0,12017	0,11693	0,13513
3612,01831	0,02155	0,09549	0,07319	0,11953	0,11572	0,13341
3610,08984	0,02053	0,09471	0,07366	0,11965	0,11598	0,13346
3608,16138	0,0204	0,09545	0,07457	0,11963	0,11634	0,13472
3606,23291	0,01964	0,094	0,07255	0,11861	0,11455	0,13293
3604,30444	0,01942	0,09407	0,07296	0,11899	0,11502	0,13296
3602,37598	0,01964	0,09514	0,07445	0,11954	0,11613	0,13449
3600,44751	0,01937	0,09494	0,07433	0,11946	0,11604	0,13492
3598,51904	0,01878	0,09385	0,07328	0,11903	0,11525	0,13377
3596,59058	0,01887	0,09429	0,07385	0,11895	0,11552	0,13393
3594,66211	0,01893	0,09454	0,0746	0,1192	0,11604	0,13473
3592,73364	0,01836	0,09307	0,07326	0,11884	0,11502	0,13335
3590,80518	0,01842	0,09325	0,07356	0,11921	0,11555	0,13344
3588,87671	0,01915	0,09458	0,07592	0,12003	0,11744	0,13592
3586,94824	0,01903	0,0936	0,07455	0,11912	0,11608	0,13489
3585,01978	0,01791	0,09147	0,0724	0,11846	0,11446	0,13221
3583,09131	0,01831	0,09238	0,0733	0,11928	0,11551	0,13294
3581,16284	0,01867	0,09262	0,07388	0,11961	0,11599	0,13345
3579,23438	0,01848	0,09231	0,07368	0,11959	0,11584	0,13317
3577,30591	0,01841	0,09226	0,0736	0,11968	0,11586	0,13316
3575,37744	0,01829	0,09215	0,07361	0,11965	0,11579	0,13312
3573,44897	0,01809	0,0918	0,07367	0,11967	0,11575	0,13312
3571,52051	0,01804	0,09146	0,07336	0,1196	0,11558	0,13271
3569,59204	0,01824	0,09227	0,07467	0,11983	0,11658	0,13395
3567,66357	0,01868	0,09343	0,07595	0,11963	0,11701	0,13558
3565,73511	0,01776	0,09132	0,07355	0,11861	0,11492	0,13305
3563,80664	0,01708	0,09028	0,07274	0,11879	0,11477	0,13182
3561,87817	0,01743	0,09084	0,07384	0,11945	0,11582	0,13282
3559,94971	0,0175	0,09061	0,07378	0,11938	0,11568	0,13276
3558,02124	0,01722	0,09013	0,0735	0,11927	0,11549	0,13238
3556,09277	0,01709	0,08983	0,07354	0,11936	0,11555	0,13214
3554,16431	0,01717	0,09025	0,074	0,11946	0,11582	0,13258
3552,23584	0,01716	0,0903	0,07409	0,11925	0,11572	0,13281
3550,30737	0,01659	0,08924	0,07318	0,11903	0,11515	0,13185
3548,37891	0,01662	0,08962	0,07384	0,11927	0,11563	0,13238
3546,45044	0,01705	0,09004	0,07449	0,11921	0,11586	0,1332
3544,52197	0,01648	0,08901	0,07338	0,11884	0,1151	0,13221
3542,59351	0,01606	0,0886	0,07314	0,11886	0,11501	0,13157
3540,66504	0,01614	0,08828	0,07339	0,11892	0,1152	0,13153
3538,73657	0,01608	0,0882	0,07351	0,11892	0,11532	0,13166
3536,80811	0,01599	0,08837	0,07373	0,11884	0,11538	0,13185
3534,87964	0,01572	0,08777	0,0734	0,11865	0,11506	0,1315
3532,95117	0,0155	0,08725	0,07311	0,11861	0,11494	0,13118
3531,02271	0,01545	0,08739	0,07346	0,11858	0,11516	0,13149
3529,09424	0,01528	0,08765	0,07359	0,11837	0,1151	0,13162

3527,16577	0,01501	0,08715	0,07319	0,11826	0,1148	0,13111
3525,2373	0,01492	0,08675	0,0732	0,11821	0,11482	0,13114
3523,30884	0,01479	0,08669	0,07321	0,11802	0,11475	0,13123
3521,38037	0,0144	0,086	0,07288	0,1179	0,11444	0,13065
3519,4519	0,01419	0,08563	0,07296	0,11784	0,11439	0,13045
3517,52344	0,01407	0,0856	0,07301	0,11773	0,11448	0,13054
3515,59497	0,01384	0,08541	0,07297	0,11776	0,11442	0,13046
3513,6665	0,01382	0,08512	0,07305	0,11776	0,1143	0,13027
3511,73804	0,01378	0,08497	0,07309	0,11777	0,11445	0,13039
3509,80957	0,01362	0,08507	0,0732	0,11765	0,11447	0,13062
3507,8811	0,01327	0,08435	0,07275	0,11733	0,11403	0,12994
3505,95264	0,01307	0,08403	0,07274	0,11737	0,11421	0,12983
3504,02417	0,01333	0,08471	0,07337	0,11747	0,11452	0,13052
3502,0957	0,0132	0,08424	0,07287	0,1172	0,11398	0,13002
3500,16724	0,01277	0,08349	0,07251	0,11714	0,11381	0,12951
3498,23877	0,01276	0,08363	0,07291	0,11731	0,11413	0,12986
3496,3103	0,01276	0,08358	0,07285	0,11731	0,11408	0,12992
3494,38184	0,01264	0,0833	0,07274	0,11722	0,11394	0,12962
3492,45337	0,0125	0,0831	0,07279	0,11719	0,11403	0,12946
3490,5249	0,01245	0,08308	0,07285	0,11727	0,11421	0,12965
3488,59644	0,01259	0,08312	0,07298	0,11733	0,1142	0,12981
3486,66797	0,01255	0,08283	0,0728	0,11715	0,11402	0,12954
3484,7395	0,01232	0,08269	0,0728	0,11705	0,11405	0,12937
3482,81104	0,01229	0,08286	0,07315	0,11717	0,11425	0,12962
3480,88257	0,01231	0,08253	0,07295	0,11703	0,11415	0,12938
3478,9541	0,01215	0,08214	0,07266	0,11691	0,11392	0,12907
3477,02563	0,01205	0,08229	0,07288	0,11707	0,11404	0,12939
3475,09717	0,01212	0,08218	0,07294	0,11698	0,11411	0,12931
3473,1687	0,01208	0,08194	0,07288	0,11693	0,11392	0,12905
3471,24023	0,01205	0,08198	0,0729	0,11712	0,11394	0,12921
3469,31177	0,0121	0,08197	0,07287	0,11703	0,1141	0,12923
3467,3833	0,01204	0,0818	0,07279	0,11694	0,11403	0,12912
3465,45483	0,01193	0,08156	0,07268	0,11693	0,11385	0,12903
3463,52637	0,0119	0,08154	0,07277	0,11674	0,11384	0,12905
3461,5979	0,01183	0,08145	0,07273	0,11672	0,11385	0,12896
3459,66943	0,01174	0,08124	0,07268	0,1168	0,11386	0,12877
3457,74097	0,01171	0,08117	0,07278	0,11673	0,11381	0,12874
3455,8125	0,01157	0,08106	0,07269	0,11671	0,11379	0,12874
3453,88403	0,01155	0,08107	0,07272	0,11673	0,11396	0,12883
3451,95557	0,0116	0,08095	0,07264	0,11665	0,11389	0,12866
3450,0271	0,01145	0,08092	0,0727	0,11668	0,11389	0,12868
3448,09863	0,01156	0,08132	0,0731	0,11672	0,11407	0,12911
3446,17017	0,01152	0,08097	0,07279	0,11649	0,11372	0,12879
3444,2417	0,01129	0,08064	0,07253	0,11648	0,11372	0,12854
3442,31323	0,01144	0,08095	0,07286	0,11666	0,11406	0,12881
3440,38477	0,01138	0,08074	0,07279	0,11665	0,11394	0,12865
3438,4563	0,01126	0,08067	0,07274	0,11671	0,11397	0,12866
3436,52783	0,01139	0,08083	0,07287	0,11667	0,11401	0,12877
3434,59937	0,0114	0,08082	0,07282	0,1166	0,11395	0,12873
3432,6709	0,01144	0,08103	0,07287	0,11672	0,11411	0,12884

3430,74243	0,01151	0,08095	0,0729	0,1167	0,11401	0,12865
3428,81396	0,01155	0,0809	0,07299	0,11671	0,114	0,12858
3426,8855	0,01162	0,08111	0,073	0,11678	0,11429	0,1288
3424,95703	0,01162	0,08107	0,07287	0,11672	0,11423	0,12871
3423,02856	0,01168	0,08127	0,07299	0,11679	0,1142	0,12879
3421,1001	0,01181	0,08158	0,07309	0,11688	0,11441	0,12907
3419,17163	0,01188	0,08142	0,07294	0,11688	0,11425	0,12881
3417,24316	0,0119	0,0814	0,07293	0,11695	0,1141	0,12867
3415,3147	0,01189	0,0817	0,07307	0,117	0,11434	0,12898
3413,38623	0,01199	0,08184	0,07299	0,11706	0,11444	0,12894
3411,45776	0,01213	0,08185	0,07289	0,11711	0,11437	0,12886
3409,5293	0,01217	0,08193	0,07301	0,11707	0,11431	0,12896
3407,60083	0,01226	0,08207	0,07306	0,11709	0,11433	0,12901
3405,67236	0,01229	0,08221	0,07302	0,11718	0,11446	0,12911
3403,7439	0,01223	0,08231	0,07308	0,11721	0,11447	0,12915
3401,81543	0,0123	0,08234	0,07309	0,11727	0,11451	0,12913
3399,88696	0,01246	0,08255	0,07307	0,11732	0,11466	0,12924
3397,9585	0,0125	0,08284	0,0731	0,11732	0,11464	0,12928
3396,03003	0,01249	0,08277	0,07304	0,11737	0,11458	0,1291
3394,10156	0,01248	0,08283	0,07301	0,11741	0,11465	0,12918
3392,1731	0,01253	0,08313	0,07294	0,11737	0,11466	0,12936
3390,24463	0,01272	0,08303	0,07277	0,11735	0,11463	0,12922
3388,31616	0,01265	0,08302	0,07281	0,11742	0,11461	0,12917
3386,3877	0,01256	0,08335	0,07293	0,1175	0,11463	0,12927
3384,45923	0,01276	0,08343	0,07294	0,11748	0,11467	0,1293
3382,53076	0,01274	0,08349	0,07288	0,11747	0,1146	0,12931
3380,60229	0,01278	0,08373	0,07281	0,11755	0,11463	0,12941
3378,67383	0,01297	0,08378	0,07274	0,11758	0,11472	0,12947
3376,74536	0,01287	0,0839	0,07264	0,11759	0,1147	0,12936
3374,81689	0,01294	0,08416	0,07258	0,11764	0,11468	0,12934
3372,88843	0,01313	0,08425	0,07252	0,11769	0,11465	0,12939
3370,95996	0,01308	0,08435	0,07245	0,1177	0,11466	0,12947
3369,03149	0,01311	0,08471	0,07247	0,11773	0,11472	0,12966
3367,10303	0,01327	0,08507	0,07248	0,11779	0,11474	0,12969
3365,17456	0,01329	0,08509	0,07231	0,11779	0,11468	0,12962
3363,24609	0,01333	0,08514	0,07212	0,11782	0,11462	0,12967
3361,31763	0,01354	0,08543	0,07202	0,11789	0,11463	0,12976
3359,38916	0,0136	0,08554	0,07193	0,11785	0,11453	0,12974
3357,46069	0,01363	0,0857	0,07199	0,11788	0,11453	0,12972
3355,53223	0,01382	0,08592	0,07194	0,11802	0,11467	0,12981
3353,60376	0,01389	0,08599	0,0718	0,11802	0,1146	0,12984
3351,67529	0,01385	0,08628	0,07177	0,11799	0,11451	0,12981
3349,74683	0,01395	0,08659	0,0717	0,11801	0,11459	0,12989
3347,81836	0,01406	0,08664	0,07168	0,118	0,11463	0,12988
3345,88989	0,01402	0,08675	0,07164	0,11804	0,11453	0,12976
3343,96143	0,01405	0,08708	0,07154	0,11809	0,11447	0,1298
3342,03296	0,01415	0,08722	0,07151	0,11808	0,11445	0,12986
3340,10449	0,01419	0,0871	0,07151	0,11811	0,11448	0,12984
3338,17603	0,01431	0,08733	0,07153	0,11815	0,11461	0,1299
3336,24756	0,01443	0,08765	0,07144	0,11815	0,11454	0,12997

3334,31909	0,01443	0,0876	0,07132	0,11814	0,11434	0,12988
3332,39063	0,01444	0,0877	0,07128	0,11815	0,11437	0,12973
3330,46216	0,01446	0,0879	0,07119	0,11813	0,11443	0,12981
3328,53369	0,01448	0,08796	0,0712	0,11818	0,11441	0,1299
3326,60522	0,01456	0,08817	0,07127	0,1183	0,11445	0,1299
3324,67676	0,01468	0,08836	0,0711	0,11827	0,1144	0,12994
3322,74829	0,01474	0,08835	0,07107	0,1182	0,11431	0,1298
3320,81982	0,01464	0,08847	0,07108	0,11819	0,11432	0,12974
3318,89136	0,01451	0,08867	0,07088	0,11816	0,11426	0,12986
3316,96289	0,0146	0,08862	0,07094	0,11817	0,11417	0,12981
3315,03442	0,01471	0,08863	0,07097	0,11819	0,11414	0,12974
3313,10596	0,0147	0,0888	0,07075	0,11811	0,11412	0,12981
3311,17749	0,01469	0,08891	0,07077	0,11805	0,11415	0,12981
3309,24902	0,01471	0,08904	0,07084	0,11806	0,11414	0,1298
3307,32056	0,01477	0,08905	0,0707	0,11805	0,11405	0,12978
3305,39209	0,0149	0,08908	0,07066	0,11802	0,11399	0,12968
3303,46362	0,01495	0,08913	0,07072	0,11801	0,11404	0,12968
3301,53516	0,01483	0,08903	0,07062	0,11799	0,11402	0,12971
3299,60669	0,01475	0,08915	0,07048	0,11797	0,11392	0,12961
3297,67822	0,01485	0,08925	0,07047	0,11793	0,11387	0,12955
3295,74976	0,01487	0,08919	0,07042	0,11787	0,11376	0,12955
3293,82129	0,01474	0,08935	0,07038	0,11782	0,11368	0,12945
3291,89282	0,01475	0,08943	0,07034	0,1179	0,11375	0,1294
3289,96436	0,01478	0,08937	0,07026	0,11793	0,11369	0,12938
3288,03589	0,01472	0,08941	0,07018	0,11764	0,11355	0,12922
3286,10742	0,01481	0,08939	0,07014	0,1176	0,11354	0,12921
3284,17896	0,01489	0,08933	0,07013	0,1178	0,11355	0,12935
3282,25049	0,01476	0,08935	0,07013	0,11762	0,11347	0,12927
3280,32202	0,01471	0,0894	0,07008	0,11756	0,11343	0,12918
3278,39355	0,0147	0,08932	0,06998	0,11768	0,11339	0,1292
3276,46509	0,01464	0,08939	0,06992	0,11754	0,11332	0,12914
3274,53662	0,01458	0,08952	0,06981	0,1175	0,11333	0,12905
3272,60815	0,01453	0,0894	0,06974	0,11758	0,11336	0,12906
3270,67969	0,01453	0,08944	0,06979	0,11752	0,11324	0,12903
3268,75122	0,0145	0,0895	0,06977	0,11743	0,11311	0,12886
3266,82275	0,01448	0,08938	0,06965	0,11741	0,11311	0,12879
3264,89429	0,01452	0,08937	0,06963	0,1174	0,11311	0,12881
3262,96582	0,0145	0,08938	0,06968	0,11734	0,11307	0,12876
3261,03735	0,01442	0,0894	0,06963	0,11723	0,113	0,12874
3259,10889	0,01443	0,08941	0,06953	0,11722	0,11288	0,12867
3257,18042	0,01443	0,08939	0,06953	0,11727	0,11295	0,12862
3255,25195	0,01435	0,08949	0,06948	0,11714	0,11298	0,12864
3253,32349	0,01439	0,08943	0,06941	0,11705	0,11277	0,12849
3251,39502	0,0144	0,08926	0,06939	0,11707	0,11272	0,12841
3249,46655	0,01431	0,08928	0,06929	0,11702	0,11278	0,12844
3247,53809	0,01427	0,08945	0,06929	0,11709	0,11272	0,12841
3245,60962	0,01425	0,08952	0,0693	0,11704	0,11265	0,12848
3243,68115	0,01424	0,08941	0,06911	0,11682	0,11257	0,12838
3241,75269	0,01419	0,08937	0,06907	0,11688	0,11253	0,12824
3239,82422	0,01419	0,08946	0,06911	0,11694	0,11252	0,1283



3237,89575	0,01424	0,08947	0,06906	0,11679	0,11243	0,1282
3235,96729	0,01417	0,08942	0,06903	0,11681	0,11242	0,12811
3234,03882	0,01421	0,08948	0,06906	0,11688	0,11244	0,12819
3232,11035	0,01423	0,08948	0,06912	0,11677	0,11239	0,12813
3230,18188	0,01406	0,08943	0,06896	0,1167	0,11234	0,12805
3228,25342	0,01403	0,08946	0,06879	0,11671	0,11224	0,12799
3226,32495	0,01407	0,08946	0,0688	0,11666	0,11213	0,12788
3224,39648	0,014	0,08942	0,06875	0,1166	0,11213	0,12784
3222,46802	0,01397	0,08947	0,06878	0,11651	0,11212	0,1278
3220,53955	0,01403	0,08959	0,06878	0,1164	0,11205	0,12779
3218,61108	0,014	0,08953	0,06859	0,11638	0,11198	0,12773
3216,68262	0,01392	0,08951	0,06852	0,11638	0,11198	0,12764
3214,75415	0,01393	0,0896	0,0685	0,11637	0,11194	0,12766
3212,82568	0,01387	0,08947	0,06839	0,11631	0,11177	0,12752
3210,89722	0,01379	0,08951	0,06839	0,1162	0,11175	0,12747
3208,96875	0,01376	0,08951	0,06836	0,11621	0,11178	0,12754
3207,04028	0,01377	0,0894	0,06824	0,11616	0,11167	0,12737
3205,11182	0,01379	0,08958	0,06826	0,11599	0,11162	0,12731
3203,18335	0,01376	0,0896	0,06824	0,11597	0,1116	0,12737
3201,25488	0,01374	0,08957	0,0682	0,11603	0,11165	0,12735
3199,32642	0,01371	0,08981	0,06829	0,11603	0,11162	0,12734
3197,39795	0,01367	0,08984	0,06825	0,11599	0,1115	0,12731
3195,46948	0,01363	0,08972	0,06811	0,11588	0,11147	0,12723
3193,54102	0,0136	0,08968	0,06809	0,11588	0,11146	0,12717
3191,61255	0,01367	0,08974	0,06809	0,11592	0,11148	0,12718
3189,68408	0,01366	0,08983	0,06805	0,11581	0,11144	0,12716
3187,75562	0,01362	0,08986	0,06803	0,11583	0,11138	0,12709
3185,82715	0,01368	0,08993	0,06799	0,11586	0,11137	0,12713
3183,89868	0,01363	0,08997	0,06792	0,1157	0,11129	0,12708
3181,97021	0,0136	0,08999	0,06789	0,11567	0,11123	0,12685
3180,04175	0,01369	0,09006	0,06794	0,11569	0,11121	0,12683
3178,11328	0,01366	0,09003	0,06786	0,11564	0,11115	0,12695
3176,18481	0,01359	0,08997	0,06768	0,11563	0,11109	0,12685
3174,25635	0,0136	0,09	0,06772	0,11557	0,11102	0,12676
3172,32788	0,01357	0,09006	0,06773	0,1155	0,11106	0,12678
3170,39941	0,01359	0,09016	0,06765	0,11547	0,11106	0,12671
3168,47095	0,0136	0,09016	0,06767	0,11544	0,11091	0,12665
3166,54248	0,01351	0,09011	0,06764	0,11532	0,11081	0,12656
3164,61401	0,01351	0,09018	0,06747	0,11521	0,11075	0,1265
3162,68555	0,01354	0,09021	0,06737	0,11531	0,11075	0,12652
3160,75708	0,01351	0,09017	0,06745	0,11528	0,11074	0,12649
3158,82861	0,01346	0,09018	0,06748	0,11513	0,11068	0,12638
3156,90015	0,01342	0,09016	0,06736	0,11515	0,11068	0,12635
3154,97168	0,01343	0,09013	0,0673	0,11511	0,11061	0,12639
3153,04321	0,01339	0,09023	0,06737	0,11507	0,11057	0,12639
3151,11475	0,01334	0,09031	0,06734	0,11509	0,11053	0,1263
3149,18628	0,01337	0,09025	0,06723	0,115	0,1104	0,12618
3147,25781	0,01332	0,09023	0,06718	0,11493	0,11045	0,12616
3145,32935	0,01324	0,09023	0,06713	0,11492	0,11048	0,12615
3143,40088	0,0132	0,09019	0,06707	0,11489	0,11031	0,12606

3141,47241	0,01316	0,09023	0,06711	0,11484	0,11024	0,12594
3139,54395	0,01323	0,09033	0,06714	0,11476	0,11021	0,1259
3137,61548	0,0132	0,09024	0,06702	0,11465	0,11011	0,12581
3135,68701	0,01315	0,09022	0,06696	0,11459	0,11	0,12569
3133,75854	0,01316	0,09035	0,06702	0,11451	0,10995	0,12566
3131,83008	0,01308	0,09014	0,06692	0,11448	0,10994	0,12558
3129,90161	0,01307	0,09009	0,06687	0,11452	0,10992	0,12558
3127,97314	0,01306	0,09023	0,06687	0,11441	0,10991	0,12561
3126,04468	0,01298	0,0901	0,06684	0,11432	0,10982	0,12548
3124,11621	0,013	0,09016	0,06684	0,11432	0,10975	0,12547
3122,18774	0,01302	0,09022	0,06669	0,11425	0,10975	0,12543
3120,25928	0,01296	0,09015	0,06661	0,1142	0,1097	0,12529
3118,33081	0,01294	0,09033	0,06664	0,11413	0,10964	0,12535
3116,40234	0,01289	0,09042	0,0666	0,11407	0,10959	0,12534
3114,47388	0,01281	0,09024	0,06658	0,11408	0,10955	0,12516
3112,54541	0,01277	0,09009	0,06648	0,11402	0,10954	0,12511
3110,61694	0,01269	0,09011	0,06637	0,11395	0,10956	0,12514
3108,68848	0,01262	0,09023	0,06643	0,11396	0,10952	0,12498
3106,76001	0,01264	0,0902	0,06642	0,11394	0,10945	0,12486
3104,83154	0,01269	0,09009	0,06636	0,11386	0,10943	0,12496
3102,90308	0,01265	0,09016	0,0664	0,11377	0,10943	0,12496
3100,97461	0,01258	0,09019	0,06629	0,11372	0,1093	0,12478
3099,04614	0,01256	0,09012	0,06619	0,11364	0,10915	0,1247
3097,11768	0,01255	0,09024	0,06623	0,11359	0,10917	0,12475
3095,18921	0,01243	0,09023	0,06611	0,11357	0,10916	0,12466
3093,26074	0,01243	0,09006	0,06604	0,11355	0,10906	0,12459
3091,33228	0,01245	0,09014	0,06613	0,11355	0,10905	0,12461
3089,40381	0,01235	0,0902	0,06615	0,11353	0,10905	0,12455
3087,47534	0,01237	0,09012	0,06608	0,11348	0,109	0,12453
3085,54688	0,01238	0,09012	0,06602	0,11339	0,10891	0,12448
3083,61841	0,01224	0,09014	0,06602	0,11338	0,10889	0,12444
3081,68994	0,01216	0,09014	0,06595	0,11333	0,10887	0,12443
3079,76147	0,01216	0,09022	0,06591	0,11324	0,10881	0,12433
3077,83301	0,01214	0,09022	0,06587	0,11325	0,10881	0,12432
3075,90454	0,01206	0,09006	0,06576	0,1132	0,10876	0,12426
3073,97607	0,01202	0,08998	0,06574	0,11312	0,10869	0,12412
3072,04761	0,01196	0,08996	0,0657	0,11308	0,10862	0,12407
3070,11914	0,01189	0,08998	0,06567	0,11301	0,10857	0,12402
3068,19067	0,01196	0,09011	0,06568	0,11298	0,10863	0,12411
3066,26221	0,0119	0,0901	0,0656	0,11291	0,10858	0,12409
3064,33374	0,01177	0,08994	0,06556	0,11282	0,10845	0,12392
3062,40527	0,01176	0,08982	0,06551	0,11279	0,10839	0,12386
3060,47681	0,01168	0,08986	0,06546	0,11273	0,10836	0,1238
3058,54834	0,01165	0,08995	0,06547	0,11273	0,10839	0,12382
3056,61987	0,01167	0,08994	0,06541	0,11267	0,10831	0,12376
3054,69141	0,01155	0,0899	0,06535	0,11255	0,10819	0,1236
3052,76294	0,01151	0,08989	0,06532	0,11257	0,10824	0,12365
3050,83447	0,01162	0,08989	0,06533	0,11257	0,10824	0,12368
3048,90601	0,0116	0,08985	0,06529	0,11253	0,10815	0,12359
3046,97754	0,01152	0,08974	0,06517	0,11251	0,1081	0,12357

3045,04907	0,01149	0,08968	0,0652	0,11248	0,10806	0,1235
3043,12061	0,01143	0,08974	0,06519	0,11245	0,10804	0,12346
3041,19214	0,01139	0,08978	0,06511	0,11238	0,10805	0,12348
3039,26367	0,01135	0,08968	0,06511	0,11229	0,10798	0,12339
3037,33521	0,01128	0,08966	0,06504	0,11223	0,10783	0,12325
3035,40674	0,0113	0,08982	0,065	0,11219	0,10782	0,12325
3033,47827	0,0113	0,08987	0,06508	0,11218	0,1079	0,12331
3031,5498	0,01119	0,08974	0,06503	0,11216	0,10782	0,12329
3029,62134	0,01116	0,0896	0,06487	0,11209	0,10771	0,12323
3027,69287	0,01116	0,08953	0,06484	0,11198	0,10765	0,12315
3025,7644	0,01114	0,08955	0,06489	0,11198	0,10765	0,12314
3023,83594	0,01116	0,08955	0,06487	0,11202	0,10771	0,1232
3021,90747	0,01112	0,0895	0,06486	0,11191	0,10769	0,12314
3019,979	0,01113	0,08955	0,06492	0,11188	0,10767	0,12318
3018,05054	0,01118	0,08956	0,06489	0,1119	0,10777	0,12336
3016,12207	0,01106	0,08952	0,06475	0,11174	0,10769	0,1233
3014,1936	0,01099	0,08958	0,06475	0,11166	0,1076	0,12322
3012,26514	0,01101	0,0896	0,0648	0,11175	0,10764	0,12326
3010,33667	0,01087	0,08947	0,06467	0,11173	0,10762	0,12324
3008,4082	0,01073	0,08938	0,06461	0,11168	0,10759	0,12322
3006,47974	0,01061	0,08941	0,06464	0,11165	0,10762	0,12331
3004,55127	0,01045	0,08936	0,06462	0,11161	0,10772	0,12344
3002,6228	0,01036	0,08923	0,06459	0,11163	0,10781	0,12351
3000,69434	0,01031	0,08924	0,06458	0,11166	0,10786	0,12363
2998,76587	0,01018	0,08926	0,06456	0,11163	0,10799	0,12381
2996,8374	0,01005	0,08922	0,06453	0,1116	0,10808	0,124
2994,90894	0,00995	0,08927	0,06443	0,11163	0,10814	0,12431
2992,98047	0,00982	0,08923	0,06434	0,11171	0,10834	0,12462
2991,052	0,00967	0,08914	0,06435	0,11174	0,10854	0,12487
2989,12354	0,00945	0,08913	0,06435	0,11173	0,10869	0,12519
2987,19507	0,00926	0,08907	0,06429	0,11174	0,10884	0,12553
2985,2666	0,00906	0,08897	0,06422	0,11177	0,10908	0,12595
2983,33813	0,00881	0,08892	0,06424	0,11188	0,1094	0,12644
2981,40967	0,00867	0,08896	0,06424	0,11202	0,10971	0,12699
2979,4812	0,00849	0,08893	0,06413	0,11211	0,11011	0,12769
2977,55273	0,0083	0,0888	0,0641	0,11225	0,11066	0,1285
2975,62427	0,00829	0,0888	0,06415	0,11249	0,11127	0,12943
2973,6958	0,0082	0,08873	0,06416	0,11272	0,11187	0,13053
2971,76733	0,00819	0,08855	0,06415	0,11289	0,11263	0,13181
2969,83887	0,00817	0,08852	0,06413	0,11325	0,11374	0,13347
2967,9104	0,00815	0,0885	0,06413	0,11382	0,11494	0,13538
2965,98193	0,00814	0,08841	0,06417	0,11426	0,11619	0,13732
2964,05347	0,00812	0,08842	0,06422	0,11473	0,11768	0,13949
2962,125	0,0081	0,08843	0,06426	0,11534	0,11908	0,14177
2960,19653	0,00809	0,08838	0,06434	0,11584	0,12029	0,14369
2958,26807	0,00807	0,08836	0,06439	0,11614	0,12119	0,14501
2956,3396	0,00805	0,08832	0,06429	0,11615	0,12139	0,1455
2954,41113	0,00804	0,08827	0,06421	0,11599	0,12112	0,14521
2952,48267	0,00802	0,08829	0,06426	0,11573	0,12049	0,14428
2950,5542	0,008	0,08828	0,06427	0,11529	0,11951	0,14287

2948,62573	0,00799	0,08825	0,06419	0,11494	0,11859	0,14143
2946,69727	0,00797	0,08827	0,06412	0,11466	0,11773	0,14004
2944,7688	0,00795	0,08833	0,0641	0,11432	0,11692	0,13866
2942,84033	0,00792	0,08833	0,06413	0,11408	0,11629	0,13766
2940,91187	0,0079	0,08824	0,06411	0,11388	0,11575	0,13697
2938,9834	0,00786	0,08823	0,06404	0,11376	0,11537	0,13633
2937,05493	0,00784	0,0883	0,06408	0,11372	0,11505	0,13582
2935,12646	0,00783	0,08827	0,06411	0,11356	0,1147	0,13533
2933,198	0,00782	0,08818	0,06412	0,11341	0,11439	0,13478
2931,26953	0,00783	0,08823	0,06425	0,11333	0,11402	0,13426
2929,34106	0,00786	0,08828	0,06429	0,11321	0,11372	0,13376
2927,4126	0,00784	0,0882	0,06426	0,11309	0,11349	0,13329
2925,48413	0,00782	0,08817	0,06431	0,11296	0,11315	0,13284
2923,55566	0,0078	0,08806	0,06421	0,11286	0,11285	0,1324
2921,6272	0,00778	0,08788	0,06409	0,11278	0,11269	0,13205
2919,69873	0,00776	0,0878	0,0641	0,11267	0,11255	0,13191
2917,77026	0,00774	0,08769	0,06399	0,11257	0,11239	0,13187
2915,8418	0,00772	0,08769	0,06388	0,1125	0,11234	0,13187
2913,91333	0,0077	0,08789	0,06387	0,11247	0,11244	0,13196
2911,98486	0,00768	0,08799	0,06376	0,11244	0,11252	0,13209
2910,0564	0,00766	0,08797	0,06369	0,11236	0,11258	0,13222
2908,12793	0,0076	0,088	0,06364	0,11234	0,11264	0,13234
2906,19946	0,00765	0,088	0,06354	0,11238	0,11264	0,13245
2904,271	0,00764	0,08795	0,06354	0,11237	0,11267	0,13251
2902,34253	0,0076	0,08791	0,06351	0,11223	0,11265	0,13242
2900,41406	0,00765	0,08791	0,06343	0,11213	0,11247	0,13227
2898,4856	0,00758	0,08797	0,06343	0,11207	0,11226	0,13198
2896,55713	0,00748	0,08803	0,06338	0,11192	0,11201	0,13152
2894,62866	0,00752	0,08797	0,06327	0,1118	0,11165	0,13102
2892,7002	0,00745	0,08786	0,06324	0,11168	0,11128	0,13046
2890,77173	0,00741	0,0878	0,0632	0,11148	0,11093	0,12986
2888,84326	0,00747	0,08781	0,06315	0,11135	0,11061	0,12931
2886,91479	0,00741	0,08782	0,0631	0,11126	0,11033	0,12884
2884,98633	0,0074	0,08776	0,06303	0,11112	0,11007	0,12849
2883,05786	0,00744	0,08773	0,06301	0,11106	0,10996	0,12823
2881,12939	0,00734	0,08771	0,06301	0,11102	0,10992	0,128
2879,20093	0,00723	0,08766	0,06295	0,11097	0,10987	0,12798
2877,27246	0,00722	0,08764	0,06293	0,11096	0,10997	0,12818
2875,34399	0,00729	0,08766	0,06296	0,111	0,11016	0,1285
2873,41553	0,00736	0,08772	0,06295	0,11105	0,1104	0,12898
2871,48706	0,00736	0,08776	0,0629	0,11106	0,11067	0,12945
2869,55859	0,00729	0,08764	0,06288	0,11105	0,11083	0,12971
2867,63013	0,00728	0,08763	0,06289	0,111	0,1108	0,12975
2865,70166	0,00729	0,08767	0,06292	0,11083	0,11053	0,12943
2863,77319	0,00723	0,08753	0,06293	0,11067	0,11009	0,12874
2861,84473	0,00722	0,08751	0,06284	0,11054	0,10959	0,1279
2859,91626	0,00721	0,08757	0,06281	0,11037	0,10908	0,12701
2857,98779	0,00711	0,08747	0,06287	0,11017	0,1086	0,12615
2856,05933	0,00707	0,08745	0,06285	0,11006	0,10826	0,12551
2854,13086	0,00716	0,08757	0,06282	0,11	0,10806	0,12521

2852,20239	0,00723	0,08763	0,06277	0,10986	0,10788	0,125
2850,27393	0,00728	0,08766	0,06273	0,10978	0,10775	0,12481
2848,34546	0,00729	0,08761	0,06271	0,10969	0,10761	0,12462
2846,41699	0,00725	0,0875	0,06255	0,10943	0,1073	0,12421
2844,48853	0,00723	0,08748	0,06241	0,10925	0,10699	0,12376
2842,56006	0,00717	0,08741	0,06242	0,10919	0,10679	0,12343
2840,63159	0,00713	0,08736	0,06241	0,10907	0,10656	0,12308
2838,70313	0,00715	0,0874	0,06239	0,10895	0,10634	0,12274
2836,77466	0,00714	0,08738	0,06233	0,10886	0,1062	0,12245
2834,84619	0,00715	0,0874	0,06227	0,10873	0,106	0,12211
2832,91772	0,00713	0,08738	0,06228	0,10866	0,10576	0,12177
2830,98926	0,00711	0,08732	0,0622	0,10856	0,10551	0,12153
2829,06079	0,00713	0,08732	0,06215	0,10846	0,10536	0,12129
2827,13232	0,00715	0,08727	0,06219	0,10844	0,10532	0,12101
2825,20386	0,00715	0,0873	0,06213	0,10836	0,10516	0,12079
2823,27539	0,00711	0,08737	0,06207	0,10825	0,10498	0,12065
2821,34692	0,0071	0,08733	0,06208	0,10824	0,10496	0,12052
2819,41846	0,00711	0,0873	0,06204	0,10815	0,10485	0,12034
2817,48999	0,00706	0,08732	0,062	0,10804	0,10471	0,12022
2815,56152	0,0071	0,08735	0,06197	0,10802	0,10468	0,12017
2813,63306	0,00712	0,08737	0,06193	0,108	0,10461	0,12009
2811,70459	0,00706	0,0874	0,06198	0,10796	0,10457	0,12002
2809,77612	0,00705	0,08744	0,06198	0,10796	0,10457	0,11995
2807,84766	0,00703	0,0874	0,06185	0,10787	0,10447	0,11981
2805,91919	0,00698	0,08734	0,06184	0,10776	0,10437	0,11972
2803,99072	0,007	0,08735	0,06183	0,10774	0,10431	0,11965
2802,06226	0,00706	0,08731	0,06181	0,10774	0,10429	0,11953
2800,13379	0,00707	0,08729	0,06189	0,10769	0,10424	0,11951
2798,20532	0,00709	0,08738	0,06187	0,10765	0,10417	0,11953
2796,27686	0,00711	0,08743	0,06177	0,10765	0,10412	0,11944
2794,34839	0,00709	0,08735	0,06178	0,10763	0,10406	0,11933
2792,41992	0,00712	0,08734	0,06181	0,10755	0,10403	0,11925
2790,49146	0,00715	0,08742	0,06178	0,1075	0,10406	0,11922
2788,56299	0,00714	0,08745	0,06177	0,10753	0,10404	0,11923
2786,63452	0,00709	0,08747	0,06177	0,10748	0,10397	0,11918
2784,70605	0,00702	0,0875	0,06175	0,10739	0,10388	0,11909
2782,77759	0,00704	0,08748	0,06179	0,10737	0,10386	0,11905
2780,84912	0,0071	0,0875	0,06179	0,10733	0,10388	0,11905
2778,92065	0,00711	0,08756	0,06174	0,10725	0,10383	0,11907
2776,99219	0,0071	0,08759	0,06177	0,10726	0,10379	0,11908
2775,06372	0,00709	0,0876	0,06176	0,10726	0,10378	0,11902
2773,13525	0,00706	0,08758	0,06169	0,10721	0,10374	0,11895
2771,20679	0,00706	0,08756	0,06169	0,10724	0,10373	0,11894
2769,27832	0,00712	0,0876	0,06169	0,10721	0,10375	0,1189
2767,34985	0,00711	0,08761	0,06169	0,10712	0,10373	0,11883
2765,42139	0,0071	0,0876	0,06171	0,10716	0,10376	0,11884
2763,49292	0,00712	0,08765	0,0617	0,10717	0,10378	0,11889
2761,56445	0,00708	0,08768	0,06167	0,1071	0,1037	0,11888
2759,63599	0,00709	0,08764	0,06166	0,1071	0,10371	0,11886
2757,70752	0,0071	0,08762	0,06163	0,10707	0,10372	0,1188

2755,77905	0,00701	0,08764	0,06161	0,10701	0,10364	0,11874
2753,85059	0,007	0,08764	0,06165	0,10701	0,10368	0,11882
2751,92212	0,00703	0,08768	0,06164	0,107	0,10373	0,11886
2749,99365	0,007	0,08771	0,06162	0,10701	0,10368	0,11881
2748,06519	0,00708	0,08769	0,0616	0,10705	0,10368	0,11886
2746,13672	0,00706	0,08772	0,06159	0,10697	0,10369	0,11887
2744,20825	0,00698	0,08778	0,06161	0,10691	0,10367	0,11884
2742,27979	0,00706	0,08772	0,06158	0,10688	0,10366	0,11885
2740,35132	0,00701	0,08761	0,06154	0,10684	0,10362	0,11879
2738,42285	0,00694	0,08764	0,06159	0,10683	0,10359	0,11872
2736,49438	0,00701	0,08772	0,06161	0,10681	0,10357	0,11871
2734,56592	0,00696	0,08771	0,06154	0,10678	0,10352	0,11867
2732,63745	0,00688	0,08769	0,06152	0,10677	0,10349	0,1186
2730,70898	0,00684	0,08769	0,06151	0,10671	0,10354	0,11863
2728,78052	0,00681	0,08774	0,06149	0,10669	0,10357	0,11868
2726,85205	0,00681	0,08781	0,06157	0,10668	0,10349	0,11855
2724,92358	0,0068	0,08778	0,06157	0,10666	0,10346	0,1185
2722,99512	0,00677	0,08778	0,0615	0,10667	0,10354	0,11858
2721,06665	0,00682	0,0878	0,06151	0,10661	0,10351	0,11854
2719,13818	0,00682	0,08778	0,06145	0,1066	0,10348	0,11852
2717,20972	0,00677	0,08778	0,06141	0,10665	0,10351	0,11859
2715,28125	0,00679	0,08777	0,06148	0,10658	0,10343	0,11856
2713,35278	0,00684	0,08775	0,06148	0,10654	0,1034	0,11852
2711,42432	0,00685	0,08776	0,06146	0,10657	0,10341	0,11851
2709,49585	0,00688	0,08775	0,06151	0,10656	0,10332	0,11846
2707,56738	0,00691	0,08778	0,06146	0,10651	0,10331	0,1184
2705,63892	0,00691	0,08782	0,06141	0,10646	0,10332	0,11835
2703,71045	0,00689	0,08783	0,06146	0,10644	0,10325	0,11834
2701,78198	0,00689	0,08784	0,06145	0,10644	0,10328	0,11836
2699,85352	0,00694	0,08786	0,06146	0,10641	0,10328	0,11831
2697,92505	0,00702	0,08792	0,06146	0,10637	0,10319	0,11825
2695,99658	0,00701	0,08796	0,06135	0,10636	0,1032	0,11823
2694,06812	0,00701	0,08799	0,06137	0,10633	0,10323	0,11821
2692,13965	0,00705	0,08804	0,06138	0,10628	0,10321	0,11822
2690,21118	0,00698	0,08805	0,06136	0,10628	0,10324	0,11821
2688,28271	0,0069	0,08807	0,06144	0,1063	0,10323	0,11815
2686,35425	0,00692	0,08813	0,06144	0,10629	0,10323	0,11817
2684,42578	0,00694	0,08813	0,06142	0,10632	0,10329	0,11816
2682,49731	0,00698	0,08814	0,06148	0,10628	0,10324	0,11809
2680,56885	0,00706	0,08825	0,06148	0,10623	0,1032	0,11811
2678,64038	0,00712	0,08829	0,06145	0,10628	0,10328	0,11815
2676,71191	0,00716	0,08832	0,06146	0,10623	0,10326	0,11807
2674,78345	0,00719	0,08848	0,06148	0,10619	0,10321	0,11806
2672,85498	0,00725	0,08855	0,06143	0,10623	0,10323	0,11812
2670,92651	0,00727	0,08854	0,06143	0,10621	0,10328	0,11811
2668,99805	0,00728	0,08864	0,06148	0,10619	0,10334	0,11813
2667,06958	0,00732	0,08871	0,06146	0,10622	0,10329	0,11813
2665,14111	0,00734	0,08877	0,06148	0,10619	0,10326	0,1181
2663,21265	0,00743	0,08883	0,06151	0,1062	0,10335	0,11812
2661,28418	0,0075	0,08889	0,06143	0,10621	0,10341	0,11814

2659,35571	0,00746	0,08902	0,06143	0,1062	0,10338	0,11814
2657,42725	0,00754	0,0891	0,06148	0,10623	0,1034	0,11819
2655,49878	0,00762	0,08915	0,06149	0,1062	0,10347	0,11822
2653,57031	0,00764	0,08929	0,06153	0,10619	0,10348	0,1182
2651,64185	0,00771	0,0894	0,06151	0,10626	0,10346	0,1182
2649,71338	0,00775	0,08944	0,06146	0,10624	0,10346	0,1182
2647,78491	0,00776	0,08955	0,06151	0,1062	0,10345	0,11817
2645,85645	0,00783	0,08964	0,06156	0,10618	0,10342	0,1182
2643,92798	0,00789	0,08965	0,06156	0,10616	0,1034	0,1182
2641,99951	0,00792	0,08967	0,06157	0,10618	0,10344	0,11819
2640,07104	0,00793	0,08972	0,06154	0,10618	0,10349	0,11823
2638,14258	0,00792	0,08978	0,06148	0,10619	0,1035	0,11821
2636,21411	0,00795	0,08986	0,06151	0,10619	0,10352	0,11814
2634,28564	0,00797	0,08991	0,0616	0,10616	0,10352	0,11816
2632,35718	0,00794	0,08986	0,06157	0,10614	0,10349	0,11822
2630,42871	0,00796	0,08985	0,0615	0,10606	0,10347	0,1182
2628,50024	0,00798	0,08989	0,0615	0,10602	0,10342	0,11811
2626,57178	0,00794	0,08992	0,06146	0,10605	0,1034	0,11804
2624,64331	0,00791	0,0899	0,0614	0,10602	0,10339	0,11804
2622,71484	0,00793	0,08981	0,06143	0,10597	0,10337	0,11803
2620,78638	0,00795	0,08981	0,06146	0,10595	0,10337	0,11796
2618,85791	0,00794	0,08982	0,06142	0,10597	0,10337	0,11792
2616,92944	0,00791	0,08973	0,06135	0,10591	0,10331	0,11788
2615,00098	0,00785	0,08968	0,0613	0,10579	0,10323	0,1178
2613,07251	0,0078	0,08962	0,06131	0,10583	0,10322	0,11783
2611,14404	0,00779	0,08955	0,06136	0,10581	0,1032	0,11784
2609,21558	0,00775	0,0895	0,0613	0,10572	0,10313	0,11774
2607,28711	0,00767	0,08937	0,06118	0,10573	0,10315	0,11769
2605,35864	0,00758	0,08926	0,0611	0,10567	0,10312	0,11769
2603,43018	0,00753	0,08922	0,06106	0,10554	0,10298	0,11761
2601,50171	0,00755	0,08911	0,06106	0,10546	0,10288	0,11752
2599,57324	0,00748	0,08899	0,06103	0,10543	0,10285	0,11742
2597,64478	0,00731	0,08885	0,06098	0,10545	0,10281	0,11734
2595,71631	0,00722	0,08871	0,06094	0,10543	0,10274	0,11728
2593,78784	0,00716	0,08862	0,06087	0,10532	0,10267	0,11718
2591,85938	0,00716	0,08848	0,06084	0,10528	0,10264	0,11708
2589,93091	0,00714	0,08835	0,06083	0,10528	0,10265	0,11709
2588,00244	0,00705	0,08828	0,06076	0,10522	0,1026	0,11711
2586,07397	0,00702	0,08813	0,06074	0,10516	0,10248	0,11699
2584,14551	0,00699	0,08797	0,06073	0,10513	0,10241	0,11687
2582,21704	0,00688	0,08787	0,06068	0,10508	0,10233	0,11684
2580,28857	0,00679	0,08777	0,06068	0,10502	0,10223	0,1168
2578,36011	0,00675	0,0877	0,06061	0,10499	0,10219	0,11675
2576,43164	0,0067	0,08761	0,06055	0,10492	0,10216	0,11666
2574,50317	0,00659	0,08749	0,06054	0,10487	0,10207	0,11657
2572,57471	0,0065	0,08738	0,06048	0,10485	0,10199	0,11653
2570,64624	0,00646	0,08725	0,0604	0,10478	0,10194	0,11648
2568,71777	0,00641	0,08713	0,06034	0,10474	0,10191	0,11637
2566,78931	0,00636	0,08705	0,06035	0,10469	0,10181	0,11626
2564,86084	0,00632	0,08697	0,06037	0,10462	0,10173	0,11623

2562,93237	0,0063	0,08682	0,06032	0,10457	0,10172	0,11622
2561,00391	0,00626	0,08667	0,06029	0,10455	0,10168	0,11614
2559,07544	0,00612	0,08664	0,06023	0,10456	0,10161	0,1161
2557,14697	0,00604	0,08655	0,06016	0,10458	0,10158	0,11608
2555,21851	0,00603	0,08639	0,06017	0,10457	0,10154	0,11603
2553,29004	0,00597	0,08635	0,06013	0,10449	0,10147	0,11597
2551,36157	0,0059	0,08632	0,06008	0,1044	0,10147	0,11588
2549,43311	0,00588	0,08621	0,06014	0,1044	0,1015	0,11587
2547,50464	0,00585	0,08614	0,06009	0,10438	0,10143	0,11586
2545,57617	0,00574	0,08607	0,06001	0,10436	0,10133	0,1158
2543,64771	0,00567	0,08596	0,06005	0,10438	0,10132	0,11575
2541,71924	0,00569	0,08587	0,06003	0,10435	0,10132	0,11572
2539,79077	0,00568	0,08581	0,05995	0,10429	0,10127	0,11568
2537,8623	0,0056	0,08576	0,05992	0,10429	0,10124	0,11563
2535,93384	0,00551	0,08572	0,05988	0,10433	0,10117	0,11558
2534,00537	0,00549	0,08569	0,05984	0,10432	0,10112	0,11558
2532,0769	0,00552	0,08567	0,05982	0,1043	0,10115	0,11561
2530,14844	0,00548	0,08563	0,0598	0,10428	0,10113	0,11555
2528,21997	0,00543	0,08556	0,05978	0,10421	0,10106	0,11547
2526,2915	0,00542	0,08547	0,05981	0,10421	0,10103	0,11546
2524,36304	0,00539	0,08541	0,0598	0,10422	0,10102	0,1155
2522,43457	0,00535	0,08537	0,05975	0,10414	0,10102	0,11543
2520,5061	0,00531	0,08536	0,05977	0,10412	0,10099	0,11535
2518,57764	0,00528	0,08536	0,05976	0,10412	0,10094	0,11544
2516,64917	0,00527	0,0853	0,05973	0,1041	0,10094	0,11543
2514,7207	0,00525	0,08521	0,05971	0,10411	0,1009	0,11532
2512,79224	0,00516	0,08517	0,05968	0,10405	0,10077	0,11531
2510,86377	0,00511	0,08516	0,05972	0,10398	0,10076	0,11527
2508,9353	0,00513	0,08519	0,05974	0,104	0,10082	0,11528
2507,00684	0,0051	0,08518	0,05971	0,10397	0,10079	0,11529
2505,07837	0,00506	0,08511	0,05967	0,10396	0,10075	0,11521
2503,1499	0,00508	0,08509	0,05968	0,10396	0,10074	0,11522
2501,22144	0,00509	0,08507	0,05972	0,10391	0,10076	0,11523
2499,29297	0,00513	0,08501	0,05972	0,10392	0,10075	0,11517
2497,3645	0,00522	0,08494	0,05967	0,10392	0,10067	0,11514
2495,43604	0,00524	0,08495	0,05965	0,1039	0,10065	0,1151
2493,50757	0,00518	0,08497	0,05962	0,10391	0,10066	0,11503
2491,5791	0,00518	0,08493	0,05961	0,10386	0,10058	0,11497
2489,65063	0,00522	0,0849	0,05962	0,1038	0,10055	0,11495
2487,72217	0,00523	0,0849	0,0596	0,10373	0,10054	0,11492
2485,7937	0,00525	0,0849	0,05958	0,10369	0,10053	0,11485
2483,86523	0,00522	0,08485	0,05962	0,10365	0,10051	0,11484
2481,93677	0,00518	0,08483	0,05961	0,10359	0,10048	0,11485
2480,0083	0,00519	0,08485	0,05956	0,10356	0,10049	0,1148
2478,07983	0,00524	0,08481	0,05956	0,10356	0,10047	0,11477
2476,15137	0,00531	0,08476	0,05962	0,10355	0,10046	0,11478
2474,2229	0,00537	0,08476	0,05962	0,10349	0,10046	0,11476
2472,29443	0,00536	0,08475	0,05956	0,10345	0,10041	0,11472
2470,36597	0,00537	0,08473	0,05954	0,10343	0,10037	0,11469
2468,4375	0,00542	0,08477	0,05948	0,10342	0,10038	0,11465



2466,50903	0,00545	0,08476	0,05943	0,10341	0,10039	0,11466
2464,58057	0,00545	0,08465	0,05946	0,10337	0,10039	0,11463
2462,6521	0,00545	0,08464	0,0595	0,10334	0,10033	0,11453
2460,72363	0,00546	0,08471	0,05951	0,10327	0,10025	0,11447
2458,79517	0,00549	0,08467	0,05947	0,1032	0,10019	0,11448
2456,8667	0,00549	0,08466	0,05943	0,10322	0,10019	0,11448
2454,93823	0,00541	0,08464	0,05942	0,1032	0,1002	0,11445
2453,00977	0,00533	0,0846	0,05942	0,10316	0,10022	0,11443
2451,0813	0,00531	0,0846	0,05945	0,10317	0,10021	0,11439
2449,15283	0,00531	0,0846	0,05943	0,10318	0,10018	0,11436
2447,22437	0,00531	0,08453	0,0594	0,10314	0,10016	0,11433
2445,2959	0,00533	0,08441	0,05944	0,10306	0,10013	0,11431
2443,36743	0,0053	0,08437	0,05945	0,103	0,10007	0,11429
2441,43896	0,00518	0,08438	0,05942	0,10301	0,10007	0,1143
2439,5105	0,00514	0,08438	0,05942	0,10304	0,10008	0,1143
2437,58203	0,00516	0,08438	0,05943	0,10302	0,10004	0,11424
2435,65356	0,00513	0,08438	0,05939	0,10298	0,10002	0,1142
2433,7251	0,00511	0,08441	0,05929	0,103	0,10003	0,11423
2431,79663	0,00511	0,08441	0,0593	0,10302	0,10005	0,11423
2429,86816	0,00511	0,08431	0,05935	0,10297	0,10001	0,11419
2427,9397	0,00511	0,08424	0,0593	0,10291	0,09991	0,11415
2426,01123	0,00509	0,08424	0,05929	0,1029	0,09992	0,11416
2424,08276	0,00514	0,08424	0,05927	0,10288	0,09995	0,1142
2422,1543	0,00521	0,08422	0,05923	0,10283	0,09992	0,11418
2420,22583	0,00521	0,08421	0,05927	0,10281	0,09993	0,11412
2418,29736	0,00514	0,08421	0,0593	0,10282	0,09993	0,11408
2416,3689	0,00514	0,08423	0,0593	0,1028	0,0999	0,11403
2414,44043	0,00522	0,08424	0,05931	0,1028	0,09989	0,11399
2412,51196	0,00527	0,08421	0,05932	0,10278	0,09987	0,11398
2410,5835	0,00533	0,08419	0,05931	0,10274	0,09987	0,11397
2408,65503	0,00534	0,0842	0,05929	0,10273	0,09991	0,11397
2406,72656	0,00534	0,08419	0,05933	0,1027	0,09988	0,11395
2404,7981	0,00535	0,08416	0,05938	0,10268	0,09983	0,1139
2402,86963	0,00536	0,08413	0,0593	0,10268	0,09983	0,11383
2400,94116	0,00536	0,08415	0,0592	0,10271	0,09981	0,11382
2399,0127	0,00537	0,08412	0,05927	0,10272	0,09979	0,1138
2397,08423	0,00538	0,08411	0,05933	0,10273	0,09982	0,11378
2395,15576	0,00538	0,08417	0,05926	0,1027	0,09979	0,11376
2393,22729	0,00539	0,08413	0,05927	0,10268	0,09975	0,11375
2391,29883	0,0054	0,08412	0,05927	0,10266	0,09979	0,11373
2389,37036	0,0054	0,08412	0,05928	0,10264	0,09971	0,11371
2387,44189	0,00541	0,08411	0,05929	0,10263	0,0997	0,11369
2385,51343	0,00542	0,0841	0,05929	0,10261	0,09969	0,11368
2383,58496	0,00542	0,0841	0,0593	0,10259	0,09967	0,11366
2381,65649	0,00543	0,08409	0,05931	0,10257	0,09966	0,11364
2379,72803	0,00544	0,08409	0,05931	0,10256	0,09965	0,11363
2377,79956	0,00544	0,08408	0,05932	0,10254	0,09963	0,11361
2375,87109	0,00545	0,08407	0,05932	0,10252	0,09962	0,11359
2373,94263	0,00546	0,08407	0,05933	0,10251	0,09961	0,11357
2372,01416	0,00546	0,08406	0,05934	0,10249	0,09959	0,11356

2370,08569	0,00547	0,08406	0,05934	0,10247	0,09958	0,11354
2368,15723	0,00548	0,08405	0,05935	0,10246	0,09957	0,11352
2366,22876	0,00548	0,08404	0,05935	0,10244	0,09955	0,11351
2364,30029	0,00549	0,08404	0,05936	0,10242	0,09954	0,11349
2362,37183	0,0055	0,08403	0,05937	0,1024	0,09953	0,11347
2360,44336	0,00551	0,08403	0,05937	0,10239	0,09951	0,11345
2358,51489	0,00551	0,08402	0,05938	0,10237	0,0995	0,11344
2356,58643	0,00552	0,08401	0,05938	0,10235	0,09949	0,11342
2354,65796	0,00553	0,08401	0,05939	0,10234	0,09947	0,1134
2352,72949	0,00553	0,084	0,0594	0,10232	0,09946	0,11338
2350,80103	0,00554	0,084	0,0594	0,1023	0,09945	0,11337
2348,87256	0,00555	0,08399	0,05941	0,10229	0,09943	0,11335
2346,94409	0,00555	0,08398	0,05942	0,10227	0,09942	0,11333
2345,01563	0,00556	0,08398	0,05942	0,10225	0,09941	0,11332
2343,08716	0,00557	0,08397	0,05943	0,10223	0,09939	0,1133
2341,15869	0,00557	0,08397	0,05943	0,10222	0,09938	0,11328
2339,23022	0,00558	0,08396	0,05944	0,1022	0,09937	0,11326
2337,30176	0,00559	0,08395	0,05945	0,10218	0,09935	0,11325
2335,37329	0,00559	0,08395	0,05945	0,10217	0,09934	0,11323
2333,44482	0,0056	0,08394	0,05946	0,10215	0,09933	0,11321
2331,51636	0,00561	0,08394	0,05946	0,10213	0,09931	0,1132
2329,58789	0,00561	0,08393	0,05947	0,10212	0,0993	0,11318
2327,65942	0,00562	0,08392	0,05948	0,1021	0,09928	0,11316
2325,73096	0,00563	0,08392	0,05948	0,10208	0,09927	0,11314
2323,80249	0,00563	0,08391	0,05949	0,10206	0,09926	0,11313
2321,87402	0,00564	0,08391	0,05949	0,10205	0,09924	0,11311
2319,94556	0,00565	0,0839	0,0595	0,10203	0,09923	0,11309
2318,01709	0,00565	0,08389	0,05951	0,10201	0,09922	0,11307
2316,08862	0,00566	0,08389	0,05951	0,102	0,0992	0,11306
2314,16016	0,00567	0,08388	0,05952	0,10198	0,09919	0,11304
2312,23169	0,00567	0,08388	0,05952	0,10196	0,09918	0,11302
2310,30322	0,00568	0,08387	0,05953	0,10195	0,09916	0,11301
2308,37476	0,00569	0,08386	0,05954	0,10193	0,09915	0,11299
2306,44629	0,00569	0,08386	0,05954	0,10191	0,09914	0,11297
2304,51782	0,0057	0,08385	0,05955	0,10189	0,09912	0,11295
2302,58936	0,00571	0,08384	0,05956	0,10188	0,09911	0,11294
2300,66089	0,00571	0,08384	0,05956	0,10186	0,0991	0,11292
2298,73242	0,00572	0,08383	0,05957	0,10184	0,09908	0,1129
2296,80396	0,00573	0,08383	0,05957	0,10183	0,09907	0,11289
2294,87549	0,00573	0,08382	0,05958	0,10181	0,09906	0,11287
2292,94702	0,00574	0,08381	0,05959	0,10179	0,09904	0,11285
2291,01855	0,00575	0,08381	0,05959	0,10178	0,09903	0,11283
2289,09009	0,00576	0,0838	0,0596	0,10176	0,09902	0,11282
2287,16162	0,00576	0,0838	0,0596	0,10174	0,099	0,1128
2285,23315	0,00577	0,08379	0,05961	0,10172	0,09899	0,11278
2283,30469	0,00578	0,08378	0,05962	0,10171	0,09898	0,11276
2281,37622	0,00578	0,08378	0,05962	0,10169	0,09896	0,11275
2279,44775	0,00579	0,08377	0,05963	0,10167	0,09895	0,11273
2277,51929	0,0058	0,08377	0,05963	0,10166	0,09894	0,11271
2275,59082	0,0058	0,08376	0,05964	0,10164	0,09892	0,1127

2273,66235	0,00581	0,08375	0,05965	0,10162	0,09891	0,11271
2271,73389	0,00582	0,08374	0,05965	0,10161	0,0989	0,11277
2269,80542	0,00582	0,08366	0,05966	0,10159	0,09888	0,11264
2267,87695	0,00583	0,08369	0,05967	0,10157	0,09887	0,11265
2265,94849	0,00584	0,08371	0,05961	0,10155	0,09885	0,11265
2264,02002	0,00584	0,08369	0,05954	0,10158	0,09887	0,11264
2262,09155	0,00585	0,08366	0,05955	0,10159	0,09893	0,11261
2260,16309	0,00586	0,08363	0,05956	0,10158	0,09883	0,11253
2258,23462	0,00586	0,0836	0,05957	0,10157	0,09877	0,11248
2256,30615	0,00587	0,08356	0,05952	0,10158	0,0988	0,11248
2254,37769	0,00588	0,08351	0,05946	0,10159	0,09882	0,11243
2252,44922	0,00588	0,08347	0,05946	0,10157	0,09882	0,11235
2250,52075	0,00589	0,08344	0,05945	0,10157	0,09878	0,11236
2248,59229	0,00592	0,08342	0,05942	0,1016	0,09875	0,11235
2246,66382	0,00592	0,08346	0,05941	0,10163	0,09879	0,11225
2244,73535	0,00591	0,08347	0,05938	0,10163	0,09882	0,11222
2242,80688	0,00592	0,08336	0,05938	0,10166	0,09884	0,11224
2240,87842	0,00591	0,08331	0,05941	0,10169	0,09885	0,11224
2238,94995	0,00596	0,08329	0,05941	0,10164	0,09884	0,11224
2237,02148	0,00595	0,08328	0,0594	0,10163	0,09881	0,11221
2235,09302	0,00588	0,08328	0,05939	0,10161	0,09872	0,11215
2233,16455	0,00589	0,08322	0,05936	0,10157	0,09867	0,11207
2231,23608	0,00585	0,08319	0,05935	0,10159	0,09867	0,11202
2229,30762	0,00575	0,08321	0,05937	0,1016	0,09866	0,11208
2227,37915	0,00573	0,08315	0,05939	0,10158	0,09866	0,11209
2225,45068	0,00576	0,08304	0,05938	0,10156	0,09859	0,11202
2223,52222	0,00575	0,08303	0,05928	0,10152	0,09849	0,11199
2221,59375	0,00572	0,08309	0,0592	0,10154	0,09853	0,11198
2219,66528	0,0058	0,08314	0,05923	0,10154	0,0985	0,11194
2217,73682	0,00589	0,08314	0,05926	0,1015	0,09845	0,11194
2215,80835	0,00593	0,08309	0,05927	0,10151	0,09848	0,11193
2213,87988	0,00599	0,0831	0,05922	0,10153	0,09844	0,11189
2211,95142	0,00599	0,08312	0,05908	0,10154	0,09839	0,11187
2210,02295	0,00594	0,08308	0,059	0,10151	0,09835	0,11178
2208,09448	0,00594	0,08308	0,05899	0,10143	0,09827	0,11163
2206,16602	0,0059	0,08304	0,05893	0,10141	0,09827	0,11163
2204,23755	0,00584	0,08293	0,05888	0,10144	0,09827	0,11168
2202,30908	0,00587	0,0829	0,05886	0,10147	0,0982	0,11164
2200,38062	0,00583	0,08292	0,05886	0,10148	0,09819	0,11163
2198,45215	0,00577	0,08288	0,05884	0,10147	0,0982	0,11165
2196,52368	0,00576	0,08285	0,0588	0,10145	0,09819	0,11159
2194,59521	0,00571	0,08284	0,05875	0,10142	0,09816	0,11153
2192,66675	0,00568	0,08281	0,05872	0,10144	0,09811	0,11154
2190,73828	0,00574	0,08279	0,05875	0,10149	0,0981	0,11154
2188,80981	0,00574	0,08274	0,05879	0,10143	0,09807	0,11154
2186,88135	0,00571	0,08268	0,05877	0,10137	0,09801	0,11151
2184,95288	0,00573	0,08269	0,05875	0,10138	0,09802	0,11146
2183,02441	0,00573	0,08268	0,05881	0,10136	0,09804	0,11152
2181,09595	0,00567	0,08264	0,05879	0,10142	0,09807	0,11154
2179,16748	0,00566	0,08267	0,05877	0,1015	0,09808	0,11145

2177,23901	0,00561	0,08271	0,05877	0,1014	0,09799	0,11141
2175,31055	0,00552	0,08268	0,05873	0,10138	0,09796	0,11141
2173,38208	0,00557	0,08266	0,05873	0,10145	0,09802	0,11142
2171,45361	0,00547	0,08248	0,05865	0,10134	0,09795	0,11135
2169,52515	0,0052	0,08226	0,05857	0,10124	0,09781	0,11124
2167,59668	0,00532	0,08241	0,05871	0,10135	0,09783	0,11131
2165,66821	0,00546	0,08255	0,05885	0,10141	0,09791	0,11139
2163,73975	0,00542	0,08248	0,05882	0,10134	0,09787	0,11136
2161,81128	0,00544	0,08244	0,05878	0,10136	0,09786	0,11138
2159,88281	0,00537	0,08239	0,05877	0,10141	0,09788	0,1114
2157,95435	0,00532	0,08236	0,05875	0,10137	0,09785	0,11141
2156,02588	0,00531	0,08235	0,0587	0,10134	0,09783	0,11139
2154,09741	0,00516	0,08227	0,05866	0,10133	0,09781	0,1113
2152,16895	0,00506	0,08226	0,05873	0,10132	0,09782	0,1113
2150,24048	0,00502	0,08229	0,05881	0,10134	0,09781	0,11136
2148,31201	0,005	0,08224	0,05878	0,10135	0,09783	0,11138
2146,38354	0,00498	0,08212	0,05877	0,10136	0,09787	0,11136
2144,45508	0,00491	0,08208	0,05879	0,10132	0,09777	0,11132
2142,52661	0,00483	0,08213	0,05885	0,1013	0,09771	0,11132
2140,59814	0,00481	0,08204	0,0589	0,10131	0,09777	0,11137
2138,66968	0,0048	0,08194	0,05893	0,10125	0,09773	0,11137
2136,74121	0,00481	0,0819	0,05897	0,10122	0,0977	0,11133
2134,81274	0,00474	0,08185	0,0589	0,10128	0,09774	0,11137
2132,88428	0,00459	0,08183	0,05887	0,1013	0,09776	0,11138
2130,95581	0,00449	0,08178	0,05892	0,10128	0,09775	0,11133
2129,02734	0,00446	0,08173	0,05885	0,10122	0,09765	0,11128
2127,09888	0,00443	0,08176	0,05882	0,10115	0,09758	0,1112
2125,17041	0,00437	0,08175	0,05885	0,10113	0,0976	0,11115
2123,24194	0,00432	0,08172	0,05878	0,1011	0,09756	0,11119
2121,31348	0,00433	0,08167	0,05871	0,10107	0,09749	0,11118
2119,38501	0,00438	0,0816	0,05867	0,10109	0,09753	0,11111
2117,45654	0,00439	0,08156	0,0587	0,10109	0,09755	0,1111
2115,52808	0,00431	0,08154	0,05881	0,10109	0,09749	0,11114
2113,59961	0,0042	0,08149	0,05878	0,10106	0,09747	0,11118
2111,67114	0,00414	0,08141	0,05874	0,10104	0,09746	0,11117
2109,74268	0,00408	0,08135	0,05879	0,10105	0,09741	0,1111
2107,81421	0,00401	0,08127	0,0588	0,10105	0,09741	0,1111
2105,88574	0,00389	0,08117	0,05885	0,10104	0,09743	0,11114
2103,95728	0,00373	0,08108	0,05886	0,10102	0,09741	0,11115
2102,02881	0,0036	0,08101	0,05885	0,10106	0,09741	0,11117
2100,10034	0,00349	0,08095	0,05884	0,10107	0,09738	0,11118
2098,17188	0,00338	0,08085	0,05878	0,10103	0,09733	0,1112
2096,24341	0,00326	0,08077	0,05879	0,10106	0,0974	0,11125
2094,31494	0,00314	0,08073	0,05889	0,10103	0,09743	0,11125
2092,38647	0,0031	0,08074	0,05888	0,10096	0,09739	0,11127
2090,45801	0,00303	0,08077	0,05887	0,10096	0,09741	0,11127
2088,52954	0,00284	0,08064	0,05894	0,10092	0,09741	0,1112
2086,60107	0,00269	0,08051	0,05888	0,10089	0,09736	0,11121
2084,67261	0,00262	0,0805	0,0588	0,10087	0,09735	0,1112
2082,74414	0,00252	0,08043	0,05889	0,1009	0,09735	0,11115

2080,81567	0,00248	0,08033	0,05896	0,10096	0,09733	0,11122
2078,88721	0,00242	0,0803	0,05896	0,10091	0,09732	0,11127
2076,95874	0,00237	0,08027	0,059	0,10085	0,09731	0,11124
2075,03027	0,00241	0,08017	0,05898	0,10085	0,09727	0,1112
2073,10181	0,00245	0,0802	0,05892	0,10083	0,0973	0,1112
2071,17334	0,00249	0,08027	0,05891	0,10082	0,09729	0,1112
2069,24487	0,00249	0,08013	0,05889	0,10082	0,09725	0,11111
2067,31641	0,00255	0,08023	0,05897	0,10077	0,09728	0,11111
2065,38794	0,00269	0,08041	0,05909	0,10071	0,09722	0,1112
2063,45947	0,00264	0,08023	0,05905	0,10071	0,09714	0,11111
2061,53101	0,00262	0,08019	0,05904	0,10074	0,09717	0,11103
2059,60254	0,00273	0,08023	0,05904	0,10066	0,09716	0,11101
2057,67407	0,00277	0,08013	0,05905	0,10062	0,09709	0,11092
2055,74561	0,00281	0,08013	0,05922	0,10068	0,09711	0,11092
2053,81714	0,00286	0,08016	0,05933	0,10074	0,09719	0,11098
2051,88867	0,00293	0,08017	0,05934	0,10071	0,09723	0,111
2049,96021	0,003	0,08021	0,05936	0,10066	0,09722	0,11094
2048,03174	0,00308	0,08027	0,05944	0,10068	0,09719	0,1109
2046,10327	0,00313	0,08025	0,05955	0,1007	0,09719	0,1109
2044,1748	0,00314	0,08029	0,05967	0,10066	0,09723	0,11087
2042,24634	0,00325	0,08041	0,05991	0,10062	0,09726	0,11089
2040,31787	0,00329	0,08026	0,06009	0,10053	0,09724	0,11078
2038,3894	0,00319	0,08015	0,06017	0,10054	0,09729	0,11067
2036,46094	0,00313	0,08021	0,06036	0,10058	0,09739	0,11074
2034,53247	0,00309	0,08014	0,06057	0,10058	0,09742	0,11071
2032,604	0,003	0,08012	0,06065	0,10064	0,09739	0,11069
2030,67554	0,00289	0,0801	0,06072	0,10065	0,09735	0,11075
2028,74707	0,00283	0,08005	0,06089	0,10061	0,09737	0,11076
2026,8186	0,00275	0,07997	0,06093	0,10063	0,09739	0,11072
2024,89014	0,00271	0,07996	0,06098	0,10062	0,09736	0,11073
2022,96167	0,00271	0,08	0,06113	0,10054	0,09736	0,11073
2021,0332	0,00264	0,07992	0,06111	0,10055	0,09737	0,11065
2019,10474	0,00275	0,08016	0,06125	0,1006	0,09741	0,11081
2017,17627	0,00289	0,08032	0,06136	0,10055	0,09739	0,11089
2015,2478	0,00285	0,07994	0,0612	0,10053	0,09727	0,11061
2013,31934	0,00292	0,0799	0,06135	0,10056	0,09728	0,11055
2011,39087	0,00297	0,08004	0,06157	0,10052	0,0973	0,11058
2009,4624	0,00303	0,07999	0,06164	0,10057	0,09728	0,11054
2007,53394	0,00317	0,08002	0,06175	0,1006	0,09732	0,11058
2005,60547	0,00315	0,08003	0,06181	0,10056	0,09731	0,1105
2003,677	0,00314	0,08003	0,06193	0,10056	0,09728	0,11046
2001,74854	0,0032	0,07994	0,06199	0,10056	0,09731	0,11044
1999,82007	0,00325	0,08002	0,06202	0,1006	0,09738	0,11048
1997,8916	0,00323	0,08005	0,06205	0,10053	0,09727	0,11045
1995,96313	0,00312	0,07984	0,06194	0,10048	0,0972	0,11028
1994,03467	0,00331	0,08024	0,06227	0,10058	0,09737	0,11066
1992,1062	0,00347	0,08046	0,06241	0,10041	0,09719	0,11078
1990,17773	0,00326	0,08001	0,062	0,10022	0,09693	0,11025
1988,24927	0,00326	0,0801	0,062	0,10033	0,09708	0,11029
1986,3208	0,00332	0,08003	0,06201	0,10037	0,0971	0,11033

1984,39233	0,00326	0,07983	0,06189	0,10033	0,09709	0,11021
1982,46387	0,0033	0,07999	0,06194	0,10028	0,09712	0,11032
1980,5354	0,00332	0,07996	0,06193	0,10016	0,09705	0,11022
1978,60693	0,00332	0,07996	0,06196	0,10009	0,09702	0,11017
1976,67847	0,00333	0,07995	0,06187	0,10004	0,097	0,11017
1974,75	0,00339	0,0799	0,06185	0,10004	0,09703	0,11017
1972,82153	0,0034	0,07991	0,06187	0,10004	0,09703	0,11018
1970,89307	0,00331	0,07984	0,06172	0,10001	0,09699	0,11015
1968,9646	0,00349	0,0802	0,06194	0,09997	0,09708	0,11041
1967,03613	0,00363	0,08043	0,0619	0,09982	0,09693	0,11043
1965,10767	0,00333	0,07986	0,06147	0,09975	0,09678	0,11004
1963,1792	0,00325	0,07983	0,06152	0,09986	0,09693	0,11014
1961,25073	0,00333	0,08006	0,06153	0,09986	0,09691	0,11028
1959,32227	0,00329	0,07986	0,06132	0,09978	0,09686	0,11012
1957,3938	0,00329	0,07991	0,06143	0,09976	0,09691	0,11011
1955,46533	0,00321	0,08002	0,06151	0,09978	0,09685	0,11018
1953,53687	0,00315	0,07991	0,06144	0,09976	0,0968	0,1102
1951,6084	0,00305	0,07975	0,0614	0,09973	0,09678	0,11023
1949,67993	0,00297	0,07981	0,0615	0,09969	0,09682	0,1103
1947,75146	0,00297	0,07983	0,06143	0,0996	0,09671	0,11023
1945,823	0,003	0,07981	0,06133	0,09965	0,09668	0,11017
1943,89453	0,00331	0,08042	0,06187	0,09969	0,09683	0,11062
1941,96606	0,00326	0,08022	0,06172	0,09948	0,09647	0,11043
1940,0376	0,00282	0,07944	0,06111	0,09953	0,09641	0,10987
1938,10913	0,00285	0,07967	0,06133	0,09966	0,09672	0,11007
1936,18066	0,00285	0,07971	0,06135	0,09961	0,09664	0,11013
1934,2522	0,0028	0,07977	0,06129	0,09968	0,09668	0,11017
1932,32373	0,0028	0,07981	0,06126	0,09966	0,09663	0,1101
1930,39526	0,00282	0,07982	0,06127	0,09961	0,09661	0,11009
1928,4668	0,00278	0,07974	0,06129	0,09955	0,0966	0,11008
1926,53833	0,00262	0,07943	0,06103	0,09957	0,09658	0,10986
1924,60986	0,00297	0,08015	0,06159	0,09969	0,09689	0,11055
1922,6814	0,00298	0,08028	0,06146	0,09936	0,09649	0,1104
1920,75293	0,00257	0,07975	0,06121	0,09935	0,09644	0,10999
1918,82446	0,00272	0,08018	0,0622	0,09963	0,09697	0,11084
1916,896	0,00246	0,07954	0,06163	0,09934	0,09635	0,11027
1914,96753	0,00219	0,07916	0,06111	0,09933	0,09622	0,10975
1913,03906	0,00235	0,07963	0,06189	0,09957	0,09682	0,11039
1911,1106	0,00238	0,07976	0,06211	0,09952	0,09684	0,11047
1909,18213	0,00235	0,07989	0,06224	0,0994	0,09666	0,1104
1907,25366	0,0021	0,07953	0,06229	0,09938	0,09665	0,11031
1905,3252	0,00183	0,07929	0,06234	0,09942	0,09675	0,1103
1903,39673	0,00171	0,07937	0,06261	0,09941	0,09687	0,11038
1901,46826	0,00162	0,07937	0,06283	0,09944	0,09691	0,11037
1899,53979	0,00143	0,07909	0,06286	0,09944	0,09674	0,11028
1897,61133	0,00139	0,07919	0,06305	0,09946	0,09684	0,11049
1895,68286	0,00154	0,07977	0,06343	0,09942	0,09691	0,11089
1893,75439	0,00107	0,07915	0,06298	0,09929	0,09663	0,11032
1891,82593	0,00103	0,07938	0,06335	0,0995	0,09702	0,1106
1889,89746	0,00142	0,0801	0,0641	0,09936	0,09704	0,11123

1887,96899	0,00091	0,07896	0,06319	0,09901	0,09652	0,11028
1886,04053	0,00087	0,07905	0,06323	0,09928	0,09685	0,11036
1884,11206	0,00113	0,07941	0,06365	0,09936	0,09692	0,11067
1882,18359	0,00098	0,07898	0,06333	0,09933	0,09678	0,1103
1880,25513	0,00103	0,07917	0,06361	0,09937	0,0969	0,11053
1878,32666	0,00108	0,07915	0,06359	0,09924	0,09675	0,11049
1876,39819	0,00113	0,07916	0,06359	0,09933	0,09681	0,11053
1874,46973	0,0012	0,07914	0,06365	0,09926	0,09677	0,1105
1872,54126	0,00122	0,07916	0,06347	0,09919	0,09675	0,11041
1870,61279	0,00161	0,08011	0,06447	0,09941	0,0972	0,11151
1868,68433	0,00201	0,08064	0,06463	0,09899	0,09661	0,11158
1866,75586	0,00148	0,07928	0,06324	0,09864	0,0959	0,11007
1864,82739	0,00143	0,07922	0,06335	0,09915	0,09654	0,11019
1862,89893	0,00165	0,0794	0,06365	0,09935	0,09675	0,11049
1860,97046	0,00186	0,07944	0,06342	0,09928	0,09661	0,11039
1859,04199	0,00206	0,07953	0,06344	0,09927	0,09658	0,11041
1857,11353	0,00215	0,07938	0,0632	0,09919	0,09645	0,11026
1855,18506	0,00225	0,07934	0,0631	0,09926	0,09656	0,1103
1853,25659	0,00229	0,07937	0,06279	0,09924	0,09639	0,11013
1851,32813	0,00229	0,0794	0,0628	0,09938	0,09657	0,1103
1849,39966	0,00238	0,07941	0,06264	0,09923	0,09642	0,11036
1847,47119	0,0026	0,08009	0,06238	0,09914	0,0963	0,11049
1845,54272	0,00267	0,08048	0,06365	0,09957	0,09704	0,11167
1843,61426	0,00215	0,07894	0,06267	0,09884	0,09586	0,11058
1841,68579	0,00189	0,07848	0,06092	0,09857	0,09525	0,10921
1839,75732	0,00235	0,07953	0,06166	0,09921	0,09625	0,11025
1837,82886	0,00242	0,07969	0,06182	0,09922	0,09631	0,11055
1835,90039	0,00248	0,07957	0,06153	0,09903	0,09598	0,11026
1833,97192	0,00225	0,07905	0,06116	0,09911	0,09596	0,10986
1832,04346	0,00267	0,0801	0,06216	0,09938	0,0966	0,11095
1830,11499	0,00316	0,08093	0,06266	0,09903	0,09615	0,11153
1828,18652	0,0022	0,07912	0,06106	0,09871	0,09538	0,10989
1826,25806	0,00252	0,07983	0,06203	0,09915	0,09631	0,1108
1824,32959	0,00275	0,07983	0,06221	0,09885	0,09593	0,11082
1822,40112	0,00208	0,07876	0,06095	0,09881	0,09555	0,1096
1820,47266	0,00225	0,0793	0,06164	0,09925	0,09623	0,11026
1818,54419	0,00236	0,07941	0,0619	0,09911	0,0961	0,11045
1816,61572	0,0022	0,07906	0,06169	0,09902	0,09604	0,11023
1814,68726	0,00216	0,0789	0,06178	0,09913	0,09616	0,11027
1812,75879	0,00233	0,07957	0,06226	0,09918	0,09618	0,11075
1810,83032	0,00238	0,07988	0,06247	0,099	0,09597	0,11085
1808,90186	0,00206	0,07911	0,062	0,09888	0,09579	0,11026
1806,97339	0,00191	0,07907	0,06207	0,09908	0,09605	0,11035
1805,04492	0,00163	0,07903	0,06217	0,09918	0,09614	0,11049
1803,11646	0,00143	0,07935	0,06268	0,09923	0,0963	0,11102
1801,18799	0,00136	0,07985	0,06316	0,09906	0,09616	0,11151
1799,25952	0,00071	0,07885	0,0625	0,09886	0,09582	0,11081
1797,33105	0,00068	0,07872	0,06211	0,09879	0,09576	0,11037
1795,40259	0,00104	0,07954	0,0626	0,09898	0,0961	0,11078
1793,47412	0,00088	0,07975	0,06374	0,09946	0,09674	0,11171

1791,54565	0,00103	0,07917	0,06299	0,09876	0,09553	0,11098
1789,61719	0,00092	0,07794	0,0614	0,09847	0,0949	0,10939
1787,68872	0,00146	0,07887	0,06226	0,09936	0,0961	0,11033
1785,76025	0,00165	0,07905	0,06291	0,09938	0,09609	0,11091
1783,83179	0,00112	0,07832	0,06207	0,09905	0,09556	0,11011
1781,90332	0,00145	0,07925	0,06229	0,09902	0,09572	0,11046
1779,97485	0,00156	0,07949	0,06244	0,09897	0,09578	0,1107
1778,04639	0,00093	0,07819	0,06161	0,099	0,0956	0,10997
1776,11792	0,00131	0,07912	0,06184	0,09898	0,09567	0,11045
1774,18945	0,00126	0,08018	0,06304	0,09966	0,09667	0,11169
1772,26099	0,00065	0,07881	0,062	0,09914	0,09562	0,11069
1770,33252	0,00032	0,07773	0,06074	0,09836	0,09462	0,10964
1768,40405	0,00057	0,07888	0,06197	0,09912	0,09585	0,11116
1766,47559	-0,00033	0,07728	0,06028	0,09881	0,09501	0,10963
1764,54712	0,00025	0,07855	0,0605	0,09906	0,09561	0,1102
1762,61865	0,00057	0,0796	0,06255	0,09965	0,09663	0,11217
1760,69019	-0,00055	0,07726	0,06019	0,09855	0,09471	0,11
1758,76172	-0,00004	0,07871	0,06068	0,099	0,09566	0,11097
1756,83325	0,00023	0,0791	0,0617	0,0992	0,09613	0,11216
1754,90479	-0,00041	0,07759	0,05971	0,09856	0,09502	0,1106
1752,97632	-0,00017	0,07892	0,06083	0,09949	0,09656	0,11226
1751,04785	0,00009	0,0794	0,06193	0,09944	0,09677	0,11364
1749,11938	-0,00004	0,07876	0,06027	0,09822	0,09505	0,11223
1747,19092	0,00008	0,07943	0,06076	0,09873	0,09595	0,11298
1745,26245	-0,00033	0,07878	0,06075	0,09907	0,09627	0,11311
1743,33398	-0,00019	0,07897	0,06036	0,09875	0,09571	0,11263
1741,40552	-0,00021	0,07956	0,06176	0,09955	0,09698	0,11368
1739,47705	-0,00101	0,07771	0,0607	0,09904	0,09588	0,11221
1737,54858	-0,00071	0,07833	0,05958	0,09852	0,09512	0,11104
1735,62012	-0,00063	0,07986	0,06291	0,10032	0,09806	0,11389
1733,69165	-0,00129	0,07752	0,06146	0,09937	0,09605	0,11206
1731,76318	-0,00186	0,07635	0,05814	0,09811	0,09391	0,10884
1729,83472	-0,00002	0,07977	0,06145	0,09914	0,09607	0,11229
1727,90625	-0,00124	0,07712	0,05988	0,09909	0,09541	0,11047
1725,97778	-0,00076	0,07802	0,06009	0,09918	0,09578	0,11079
1724,04932	-0,00045	0,07866	0,06125	0,09946	0,09633	0,11182
1722,12085	-0,00104	0,07747	0,05962	0,09895	0,09532	0,11037
1720,19238	-0,00036	0,07914	0,062	0,0996	0,09671	0,11271
1718,26392	-0,00029	0,07999	0,06293	0,10007	0,09718	0,11378
1716,33545	-0,00174	0,07697	0,05963	0,09872	0,09481	0,11049
1714,40698	-0,00109	0,07746	0,06056	0,09846	0,09489	0,11107
1712,47852	-0,00081	0,07791	0,06136	0,0993	0,096	0,1118
1710,55005	-0,00123	0,07718	0,0604	0,09935	0,09575	0,11077
1708,62158	-0,00043	0,07873	0,06147	0,09948	0,09622	0,11172
1706,69312	-0,00019	0,0792	0,06307	0,0999	0,09691	0,11299
1704,76465	-0,00063	0,07752	0,0608	0,09847	0,09459	0,11049
1702,83618	-0,00033	0,07901	0,06248	0,09964	0,0967	0,11218
1700,90771	0,00003	0,07854	0,06674	0,10048	0,09869	0,1157
1698,97925	-0,00264	0,07363	0,06004	0,09762	0,09329	0,10872
1697,05078	-0,00153	0,0784	0,06115	0,09967	0,09605	0,11089



1695,12231	-0,0016	0,07637	0,06179	0,09996	0,09613	0,11106
1693,19385	-0,0018	0,07524	0,05972	0,09851	0,09414	0,10844
1691,26538	-0,00034	0,07919	0,06315	0,10038	0,09726	0,11216
1689,33691	-0,00071	0,07775	0,06253	0,09974	0,09604	0,11117
1687,40845	-0,00055	0,07866	0,06224	0,09967	0,09618	0,11109
1685,47998	-0,00115	0,07977	0,06466	0,10195	0,09916	0,11362
1683,55151	-0,00101	0,07697	0,0612	0,09933	0,09489	0,11029
1681,62305	-0,00115	0,07676	0,06165	0,09886	0,09495	0,11011
1679,69458	-0,00102	0,07799	0,06194	0,09999	0,09635	0,11082
1677,76611	-0,0013	0,07749	0,06186	0,10022	0,09663	0,11085
1675,83765	-0,00126	0,07732	0,06387	0,10048	0,09738	0,11255
1673,90918	-0,00215	0,07535	0,06132	0,09942	0,09538	0,11005
1671,98071	-0,00131	0,07747	0,0615	0,09977	0,09613	0,11075
1670,05225	-0,00033	0,07943	0,06416	0,10061	0,09767	0,11363
1668,12378	-0,00198	0,07526	0,06075	0,09918	0,09504	0,1098
1666,19531	-0,00165	0,07658	0,06038	0,09977	0,09606	0,10986
1664,26685	-0,00137	0,07758	0,0626	0,10092	0,09788	0,11212
1662,33838	-0,00148	0,07654	0,06149	0,09978	0,09608	0,11079
1660,40991	-0,00162	0,07617	0,06098	0,1	0,0964	0,11035
1658,48145	-0,00186	0,07564	0,06077	0,10042	0,09684	0,11024
1656,55298	-0,00096	0,0773	0,06206	0,09995	0,09679	0,11144
1654,62451	-0,00121	0,07898	0,06576	0,10198	0,09999	0,11515
1652,69604	-0,001	0,07738	0,06076	0,10099	0,09683	0,1119
1650,76758	-0,00446	0,07073	0,05726	0,09852	0,09355	0,10609
1648,83911	-0,00065	0,07806	0,06413	0,10008	0,09761	0,11324
1646,91064	-0,00068	0,07853	0,06428	0,1006	0,09788	0,11379
1644,98218	-0,00372	0,07139	0,05975	0,09889	0,0947	0,10817
1643,05371	-0,00231	0,07434	0,06196	0,0999	0,09674	0,11076
1641,12524	-0,00266	0,07356	0,06227	0,10023	0,09706	0,11082
1639,19678	-0,00217	0,07426	0,06236	0,09974	0,09647	0,11073
1637,26831	-0,00189	0,07603	0,06474	0,10056	0,09802	0,11303
1635,33984	-0,00241	0,07435	0,06376	0,09968	0,0965	0,11171
1633,41138	-0,00401	0,07075	0,06095	0,09847	0,0945	0,1082
1631,48291	-0,00312	0,07335	0,06243	0,09947	0,09632	0,11014
1629,55444	-0,0034	0,07354	0,06367	0,09983	0,09698	0,11117
1627,62598	-0,00379	0,07261	0,06269	0,09896	0,09573	0,11007
1625,69751	-0,00419	0,07243	0,06323	0,09919	0,0963	0,1103
1623,76904	-0,00416	0,073	0,06452	0,0993	0,09661	0,11131
1621,84058	-0,00503	0,07108	0,06224	0,09832	0,09475	0,1091
1619,91211	-0,00472	0,07229	0,06288	0,09887	0,09574	0,1099
1617,98364	-0,00516	0,07323	0,06468	0,10026	0,09755	0,11153
1616,05518	-0,00572	0,07134	0,06197	0,09923	0,09527	0,10875
1614,12671	-0,00457	0,07226	0,06205	0,09877	0,0951	0,10886
1612,19824	-0,00339	0,07456	0,06398	0,09977	0,09682	0,11099
1610,26978	-0,00332	0,07481	0,06356	0,09989	0,09663	0,11084
1608,34131	-0,00292	0,07543	0,06357	0,09969	0,09631	0,11096
1606,41284	-0,00291	0,07543	0,06353	0,09994	0,09651	0,11082
1604,48438	-0,00264	0,07571	0,06335	0,09997	0,09653	0,11082
1602,55591	-0,00223	0,07644	0,06349	0,10005	0,09661	0,11125
1600,62744	-0,00224	0,07639	0,0632	0,10012	0,09649	0,11101

1598,69897	-0,0021	0,07651	0,06329	0,10013	0,09659	0,11102
1596,77051	-0,00185	0,07703	0,06353	0,10013	0,09663	0,11128
1594,84204	-0,00167	0,07731	0,0634	0,10006	0,09643	0,11136
1592,91357	-0,00175	0,07711	0,06321	0,10019	0,0965	0,11131
1590,98511	-0,00175	0,07724	0,06302	0,10025	0,09654	0,11135
1589,05664	-0,00158	0,07767	0,06295	0,10031	0,09658	0,11149
1587,12817	-0,00185	0,0774	0,06264	0,10039	0,09655	0,11126
1585,19971	-0,0018	0,07775	0,0625	0,1002	0,09634	0,11132
1583,27124	-0,00169	0,07825	0,06266	0,10044	0,0966	0,11153
1581,34277	-0,00193	0,07758	0,0622	0,10025	0,09621	0,11094
1579,41431	-0,00133	0,07876	0,06262	0,10009	0,09626	0,11165
1577,48584	-0,00173	0,0799	0,06351	0,1014	0,09781	0,11283
1575,55737	-0,00267	0,07733	0,06103	0,10039	0,09565	0,11034
1573,62891	-0,00211	0,0768	0,06013	0,09937	0,09469	0,10945
1571,70044	-0,0006	0,08019	0,06345	0,10083	0,09744	0,11292
1569,77197	-0,00053	0,07974	0,06337	0,10015	0,09636	0,11252
1567,84351	-0,00143	0,07754	0,06103	0,09933	0,09484	0,11017
1565,91504	-0,00089	0,07936	0,06248	0,10059	0,09665	0,11201
1563,98657	-0,00096	0,0784	0,06143	0,09984	0,09544	0,11106
1562,05811	-0,00066	0,07958	0,06203	0,10058	0,09669	0,11199
1560,12964	0,00073	0,08321	0,0669	0,10246	0,09989	0,11706
1558,20117	-0,00008	0,07812	0,0601	0,09901	0,09358	0,11099
1556,27271	-0,00164	0,07689	0,06059	0,09905	0,09429	0,11
1554,34424	-0,00099	0,07876	0,06203	0,1003	0,0962	0,11186
1552,41577	-0,00141	0,07745	0,06076	0,10002	0,09551	0,11064
1550,4873	0,00019	0,0802	0,06237	0,09999	0,09603	0,11236
1548,55884	-0,00038	0,07892	0,06171	0,09995	0,09582	0,11159
1546,63037	-0,00068	0,07883	0,06181	0,10045	0,09639	0,11166
1544,7019	0,00054	0,08125	0,06364	0,10033	0,09653	0,11346
1542,77344	0,00004	0,08007	0,06344	0,10012	0,09631	0,11301
1540,84497	0,00006	0,08089	0,06482	0,10134	0,09808	0,11459
1538,9165	-0,00134	0,07787	0,0599	0,09968	0,09446	0,11
1536,98804	-0,00168	0,07687	0,06007	0,09945	0,0946	0,10936
1535,05957	0,00025	0,08053	0,06449	0,10087	0,09739	0,11354
1533,1311	0,00061	0,08052	0,06427	0,10003	0,096	0,11308
1531,20264	-0,00101	0,0776	0,06184	0,09953	0,09503	0,11043
1529,27417	-0,00004	0,07998	0,06361	0,1007	0,09688	0,11247
1527,3457	0,00041	0,0805	0,06451	0,10055	0,09656	0,11312
1525,41724	-0,00055	0,07851	0,06305	0,09986	0,09548	0,11146
1523,48877	0,00012	0,08034	0,06466	0,10076	0,09702	0,1133
1521,5603	-0,00003	0,07991	0,06404	0,10058	0,09631	0,11284
1519,63184	-0,00163	0,0767	0,06209	0,09957	0,09486	0,11037
1517,70337	0,00044	0,08034	0,06456	0,09997	0,09605	0,11322
1515,7749	0,00024	0,07953	0,06341	0,09971	0,09533	0,11243
1513,84644	-0,00079	0,07804	0,06249	0,10009	0,09578	0,11158
1511,91797	-0,00073	0,0783	0,06321	0,10051	0,09636	0,11226
1509,9895	0,00031	0,08013	0,06351	0,09999	0,0958	0,11274
1508,06104	0,00126	0,08307	0,06584	0,10101	0,09759	0,11543
1506,13257	0,00028	0,08013	0,06228	0,10012	0,09516	0,11259
1504,2041	-0,00259	0,07451	0,05947	0,09928	0,09361	0,10847

1502,27563	-0,00035	0,07876	0,06233	0,10055	0,09604	0,11183
1500,34717	-0,00063	0,07841	0,06286	0,10065	0,09624	0,11231
1498,4187	-0,0006	0,07868	0,06323	0,10063	0,09633	0,11269
1496,49023	-0,00126	0,07746	0,06257	0,10079	0,0962	0,11203
1494,56177	-0,00193	0,07577	0,0605	0,10023	0,09513	0,11012
1492,6333	-0,0004	0,07839	0,06256	0,10083	0,09656	0,11246
1490,70483	0,00022	0,07968	0,06415	0,10087	0,09696	0,11425
1488,77637	-0,00024	0,07886	0,0628	0,10004	0,0956	0,11324
1486,8479	-0,00085	0,07764	0,06204	0,10043	0,09601	0,11288
1484,91943	-0,00126	0,07702	0,06153	0,10113	0,09708	0,11335
1482,99097	-0,0009	0,07765	0,06198	0,10144	0,09797	0,1148
1481,0625	-0,00077	0,07771	0,06194	0,10154	0,0987	0,11652
1479,13403	-0,00117	0,07717	0,06166	0,10197	0,1	0,11849
1477,20557	-0,00064	0,07788	0,06263	0,10206	0,10096	0,12107
1475,2771	-0,00038	0,07839	0,06303	0,10205	0,1011	0,12179
1473,34863	-0,00099	0,07792	0,06323	0,10229	0,10127	0,12142
1471,42017	-0,00133	0,07648	0,06182	0,10153	0,10013	0,1206
1469,4917	-0,00127	0,07639	0,06071	0,10189	0,10075	0,1208
1467,56323	-0,00101	0,07761	0,06177	0,10298	0,10259	0,12253
1465,63477	-0,00062	0,07818	0,06292	0,10267	0,10216	0,1231
1463,7063	-0,00148	0,07615	0,0615	0,10212	0,10053	0,12052
1461,77783	-0,00144	0,07657	0,06068	0,10221	0,10029	0,11933
1459,84937	-0,00004	0,07956	0,06316	0,10262	0,10124	0,12152
1457,9209	0,00031	0,08045	0,06458	0,10282	0,1014	0,12279
1455,99243	-0,00243	0,07362	0,06066	0,10117	0,0982	0,11753
1454,06396	-0,0011	0,07651	0,06058	0,1014	0,09853	0,11753
1452,1355	-0,00077	0,07714	0,0615	0,10214	0,09935	0,11784
1450,20703	-0,00125	0,07644	0,06107	0,10211	0,0988	0,11659
1448,27856	-0,00066	0,07745	0,06194	0,10179	0,0985	0,11714
1446,3501	-0,00127	0,07604	0,06063	0,10143	0,09759	0,11544
1444,42163	-0,00124	0,0764	0,06024	0,10171	0,09769	0,11475
1442,49316	-0,00115	0,0764	0,06091	0,10176	0,09752	0,11474
1440,5647	-0,00107	0,07623	0,06008	0,1015	0,09673	0,11389
1438,63623	-0,0008	0,07706	0,06153	0,10211	0,09782	0,1152
1436,70776	-0,00077	0,07637	0,06273	0,10153	0,09721	0,11561
1434,7793	-0,00176	0,0747	0,05964	0,10083	0,09545	0,11267
1432,85083	-0,0009	0,07676	0,06033	0,10168	0,09686	0,11393
1430,92236	-0,00068	0,0771	0,06171	0,10184	0,09742	0,11526
1428,9939	-0,00111	0,07598	0,06041	0,10125	0,09626	0,11403
1427,06543	-0,00133	0,07596	0,06032	0,10173	0,09679	0,11372
1425,13696	-0,00099	0,07662	0,06126	0,10164	0,09673	0,11413
1423,2085	-0,0009	0,07664	0,06044	0,10095	0,0956	0,11305
1421,28003	-0,00151	0,07629	0,06108	0,10168	0,09666	0,11329
1419,35156	-0,00133	0,07636	0,06252	0,10136	0,09646	0,11407
1417,4231	-0,00141	0,07555	0,06043	0,10017	0,09446	0,11201
1415,49463	-0,00143	0,07606	0,06033	0,10084	0,09537	0,11217
1413,56616	-0,00195	0,07582	0,06043	0,10129	0,09586	0,1123
1411,6377	-0,00189	0,07614	0,06034	0,10104	0,09552	0,11225
1409,70923	-0,00206	0,07589	0,06031	0,10105	0,09558	0,11219
1407,78076	-0,00228	0,07572	0,06013	0,10121	0,09581	0,11212

1405,85229	-0,00178	0,07666	0,0611	0,10119	0,09596	0,11302
1403,92383	-0,00205	0,07569	0,06041	0,10095	0,09547	0,11266
1401,99536	-0,00223	0,07569	0,05996	0,10135	0,09611	0,11293
1400,06689	-0,00182	0,07657	0,06121	0,10139	0,09674	0,1145
1398,13843	-0,00191	0,07622	0,06071	0,10103	0,09658	0,11499
1396,20996	-0,00196	0,07674	0,06091	0,10153	0,09781	0,11688
1394,28149	-0,00215	0,07645	0,06117	0,10156	0,09865	0,11892
1392,35303	-0,00281	0,07517	0,05964	0,10132	0,09818	0,1176
1390,42456	-0,00244	0,07629	0,06004	0,1017	0,09854	0,11743
1388,49609	-0,00244	0,07646	0,06109	0,10164	0,09864	0,118
1386,56763	-0,00325	0,07524	0,06018	0,101	0,09778	0,11724
1384,63916	-0,00388	0,07465	0,05928	0,1009	0,09776	0,11697
1382,71069	-0,00357	0,07499	0,05959	0,10133	0,09864	0,1179
1380,78223	-0,00275	0,07593	0,06018	0,10165	0,09919	0,11874
1378,85376	-0,00272	0,07621	0,06017	0,10163	0,09899	0,1182
1376,92529	-0,00273	0,07657	0,0605	0,10164	0,0987	0,11729
1374,99683	-0,00208	0,0777	0,06141	0,10137	0,09802	0,1168
1373,06836	-0,00246	0,07681	0,0609	0,10105	0,09709	0,1155
1371,13989	-0,00276	0,0763	0,06051	0,10149	0,09753	0,11539
1369,21143	-0,00211	0,07728	0,06126	0,10188	0,09872	0,11742
1367,28296	-0,00228	0,07656	0,06083	0,10225	0,10074	0,12089
1365,35449	-0,00242	0,07642	0,06098	0,10284	0,10296	0,12465
1363,42603	-0,00186	0,07752	0,06214	0,10237	0,10255	0,12516
1361,49756	-0,00218	0,07649	0,06156	0,10151	0,10022	0,12122
1359,56909	-0,00258	0,07559	0,06104	0,10162	0,09945	0,11882
1357,64063	-0,00238	0,07607	0,06147	0,1017	0,09888	0,11777
1355,71216	-0,00229	0,07623	0,06164	0,10147	0,09815	0,1167
1353,78369	-0,00236	0,07592	0,06155	0,10134	0,09774	0,11579
1351,85522	-0,00238	0,07592	0,06157	0,10133	0,09725	0,11493
1349,92676	-0,00224	0,07612	0,06167	0,10123	0,09688	0,11442
1347,99829	-0,00209	0,07602	0,06168	0,10106	0,09671	0,1142
1346,06982	-0,002	0,0761	0,06166	0,10108	0,09655	0,11416
1344,14136	-0,0021	0,07603	0,06147	0,10111	0,09651	0,11385
1342,21289	-0,00198	0,07641	0,06184	0,10102	0,09666	0,11385
1340,28442	-0,00149	0,07743	0,06266	0,10079	0,0964	0,11422
1338,35596	-0,00152	0,07692	0,06238	0,10059	0,09591	0,11392
1336,42749	-0,00176	0,07624	0,06185	0,10079	0,09607	0,11365
1334,49902	-0,00156	0,07636	0,06189	0,10104	0,09636	0,11369
1332,57056	-0,00123	0,07631	0,06191	0,10104	0,09652	0,11373
1330,64209	-0,00108	0,07649	0,06203	0,101	0,09668	0,1139
1328,71362	-0,00109	0,07654	0,06213	0,10101	0,09664	0,11395
1326,78516	-0,00102	0,07653	0,06212	0,10108	0,0967	0,11401
1324,85669	-0,00094	0,07663	0,0622	0,10114	0,09673	0,11412
1322,92822	-0,00081	0,07636	0,06229	0,10115	0,09671	0,11423
1320,99976	-0,00053	0,07658	0,06256	0,10121	0,09694	0,11462
1319,07129	-0,0005	0,0769	0,06271	0,1012	0,09692	0,11492
1317,14282	-0,00069	0,07651	0,06255	0,1012	0,09689	0,11498
1315,21436	-0,00062	0,07656	0,06274	0,10137	0,09726	0,11538
1313,28589	-0,00047	0,07674	0,063	0,10142	0,09751	0,11589
1311,35742	-0,00046	0,07647	0,06294	0,10143	0,09773	0,11611

1309,42896	-0,00036	0,07677	0,06306	0,10172	0,09807	0,1165
1307,50049	-0,00021	0,07701	0,06329	0,10195	0,09837	0,11709
1305,57202	-0,00006	0,07692	0,06346	0,10204	0,09878	0,11755
1303,64355	0,00009	0,07734	0,06369	0,10226	0,09915	0,11795
1301,71509	0,00008	0,07761	0,06389	0,10245	0,09941	0,11852
1299,78662	0,00003	0,0777	0,06405	0,10257	0,09978	0,11921
1297,85815	0,00011	0,07806	0,06421	0,10279	0,10016	0,12008
1295,92969	0,00014	0,07832	0,06442	0,10304	0,10064	0,12115
1294,00122	0,00012	0,07852	0,06455	0,10328	0,10135	0,12205
1292,07275	0,0003	0,07873	0,06455	0,1036	0,1021	0,12291
1290,14429	0,00044	0,07878	0,06457	0,10381	0,10277	0,12409
1288,21582	0,00041	0,07886	0,0646	0,10389	0,10348	0,1253
1286,28735	0,0005	0,07882	0,0646	0,10414	0,1042	0,12653
1284,35889	0,00076	0,07875	0,06463	0,10449	0,10505	0,12798
1282,43042	0,001	0,07898	0,06477	0,10488	0,10635	0,12994
1280,50195	0,00123	0,07936	0,06509	0,10554	0,10814	0,13285
1278,57349	0,00145	0,07974	0,06533	0,10618	0,11008	0,1363
1276,64502	0,00164	0,08005	0,06542	0,10679	0,11217	0,13981
1274,71655	0,00187	0,08028	0,06561	0,10752	0,11423	0,14317
1272,78809	0,00209	0,08064	0,06591	0,1081	0,11583	0,146
1270,85962	0,0023	0,08089	0,06607	0,10847	0,11714	0,14816
1268,93115	0,00251	0,08099	0,06617	0,10878	0,11819	0,14971
1267,00269	0,00261	0,08109	0,06628	0,10905	0,11875	0,15078
1265,07422	0,00261	0,08098	0,06616	0,10914	0,11879	0,15105
1263,14575	0,00269	0,08091	0,06601	0,10896	0,11821	0,15034
1261,21729	0,00289	0,08109	0,066	0,10866	0,1173	0,14912
1259,28882	0,00301	0,08116	0,066	0,10839	0,1163	0,1474
1257,36035	0,0031	0,08108	0,06605	0,10825	0,11524	0,14549
1255,43188	0,00327	0,08116	0,06596	0,10808	0,11408	0,14387
1253,50342	0,00338	0,08137	0,06586	0,10778	0,11322	0,14263
1251,57495	0,00356	0,08151	0,06597	0,10767	0,11302	0,14225
1249,64648	0,00386	0,08165	0,06607	0,10784	0,11308	0,14249
1247,71802	0,00411	0,08182	0,06618	0,10807	0,11306	0,14239
1245,78955	0,00448	0,08196	0,06639	0,10815	0,11269	0,14167
1243,86108	0,00496	0,08203	0,06655	0,10809	0,11194	0,14047
1241,93262	0,00532	0,08206	0,06668	0,10803	0,11116	0,13914
1240,00415	0,00555	0,08219	0,06673	0,10796	0,11045	0,13803
1238,07568	0,00573	0,08231	0,0667	0,10798	0,10987	0,13715
1236,14722	0,00606	0,08252	0,06667	0,10802	0,10934	0,13644
1234,21875	0,00653	0,08277	0,06666	0,10799	0,10882	0,13577
1232,29028	0,00692	0,08289	0,06686	0,10812	0,10859	0,13512
1230,36182	0,00715	0,08297	0,06719	0,10828	0,10841	0,13455
1228,43335	0,00739	0,08298	0,06727	0,10831	0,10819	0,13407
1226,50488	0,00791	0,0831	0,06716	0,10839	0,1082	0,13387
1224,57642	0,00839	0,08324	0,0671	0,10864	0,10833	0,13407
1222,64795	0,00853	0,08329	0,06703	0,10897	0,10861	0,13451
1220,71948	0,00878	0,0836	0,06705	0,10919	0,10906	0,13507
1218,79102	0,00936	0,08392	0,06725	0,10937	0,10948	0,13563
1216,86255	0,00975	0,08407	0,06749	0,10962	0,10971	0,13602
1214,93408	0,00992	0,08443	0,06777	0,10981	0,10978	0,13604

1213,00562	0,01034	0,08482	0,06802	0,10991	0,10964	0,13565
1211,07715	0,01086	0,08509	0,06827	0,11005	0,10932	0,13499
1209,14868	0,01133	0,08549	0,06868	0,11029	0,10908	0,13424
1207,22021	0,01189	0,08592	0,06913	0,11066	0,10897	0,13363
1205,29175	0,01227	0,08621	0,06955	0,11092	0,10889	0,13339
1203,36328	0,01252	0,08656	0,06981	0,11109	0,10906	0,13336
1201,43481	0,01307	0,08695	0,06994	0,11151	0,10941	0,13335
1199,50635	0,01368	0,08721	0,07033	0,11187	0,10964	0,13344
1197,57788	0,01403	0,08764	0,07076	0,1121	0,1097	0,1336
1195,64941	0,01425	0,08824	0,07113	0,1125	0,10982	0,1338
1193,72095	0,01428	0,08869	0,07152	0,11275	0,11004	0,13398
1191,79248	0,01441	0,08906	0,07178	0,11287	0,11022	0,13406
1189,86401	0,01488	0,08939	0,07221	0,11322	0,11037	0,13409
1187,93555	0,01519	0,08975	0,07277	0,11361	0,11062	0,13428
1186,00708	0,01531	0,09027	0,07315	0,11386	0,11087	0,13441
1184,07861	0,01558	0,09089	0,07346	0,11407	0,11097	0,13441
1182,15015	0,01589	0,09145	0,07391	0,11439	0,1112	0,13484
1180,22168	0,01623	0,09187	0,07452	0,11473	0,11163	0,13539
1178,29321	0,01672	0,09247	0,0752	0,11505	0,11187	0,13564
1176,36475	0,01717	0,09319	0,07572	0,11546	0,11218	0,13605
1174,43628	0,01751	0,09363	0,07609	0,11581	0,11253	0,13655
1172,50781	0,01788	0,09397	0,07648	0,11609	0,11263	0,13686
1170,57935	0,01813	0,09431	0,07682	0,1163	0,11289	0,13718
1168,65088	0,01823	0,0946	0,07717	0,11629	0,11316	0,13731
1166,72241	0,01847	0,095	0,07758	0,11626	0,11327	0,13737
1164,79395	0,01865	0,09539	0,07796	0,11643	0,11355	0,1378
1162,86548	0,01867	0,09562	0,07849	0,11672	0,11386	0,1382
1160,93701	0,0188	0,09588	0,079	0,1169	0,11411	0,13843
1159,00854	0,01891	0,09608	0,07922	0,11687	0,1143	0,13876
1157,08008	0,01907	0,09618	0,07926	0,11696	0,11446	0,13912
1155,15161	0,01931	0,09639	0,07918	0,11714	0,11462	0,1394
1153,22314	0,01936	0,09673	0,07909	0,11712	0,11464	0,13953
1151,29468	0,0194	0,09721	0,07916	0,11719	0,1147	0,13981
1149,36621	0,01963	0,09763	0,07933	0,11751	0,11496	0,14041
1147,43774	0,01983	0,09773	0,07945	0,11772	0,11534	0,1409
1145,50928	0,02006	0,09794	0,07949	0,1179	0,1158	0,14133
1143,58081	0,02028	0,09835	0,07971	0,11816	0,11611	0,14195
1141,65234	0,02035	0,09864	0,08006	0,1182	0,11627	0,14237
1139,72388	0,02044	0,09893	0,08014	0,11818	0,11647	0,14256
1137,79541	0,02059	0,09925	0,08013	0,11833	0,11657	0,14275
1135,86694	0,02079	0,09951	0,08033	0,11843	0,11663	0,14282
1133,93848	0,02102	0,09967	0,08056	0,11863	0,11681	0,14302
1132,01001	0,02113	0,0998	0,08067	0,11879	0,1168	0,14316
1130,08154	0,0212	0,09989	0,0807	0,11858	0,11662	0,14286
1128,15308	0,02144	0,09989	0,08079	0,11862	0,11668	0,14281
1126,22461	0,02163	0,1001	0,08096	0,11882	0,11684	0,143
1124,29614	0,02177	0,10037	0,08122	0,1187	0,11689	0,14291
1122,36768	0,02194	0,10047	0,0814	0,11873	0,11696	0,14279
1120,43921	0,02193	0,10054	0,08134	0,11876	0,11706	0,14265
1118,51074	0,022	0,10065	0,0814	0,11873	0,11711	0,14252

1116,58228	0,02233	0,10086	0,08162	0,1189	0,11707	0,14247
1114,65381	0,02264	0,10103	0,08183	0,11902	0,11711	0,14258
1112,72534	0,02282	0,10128	0,08202	0,11922	0,11739	0,14295
1110,79688	0,02287	0,10172	0,08201	0,11937	0,11777	0,14338
1108,86841	0,02293	0,1018	0,08195	0,11944	0,11814	0,14392
1106,93994	0,02306	0,10178	0,08205	0,11966	0,11823	0,14429
1105,01147	0,02326	0,10207	0,08227	0,11971	0,11805	0,14431
1103,08301	0,02344	0,10217	0,08247	0,11966	0,11806	0,14435
1101,15454	0,02345	0,10212	0,08249	0,11969	0,1181	0,1443
1099,22607	0,02348	0,10221	0,08256	0,11968	0,11811	0,14417
1097,29761	0,02358	0,10216	0,08269	0,11975	0,11833	0,14436
1095,36914	0,02356	0,10224	0,08273	0,11975	0,11844	0,14462
1093,44067	0,02356	0,10249	0,0828	0,11961	0,11829	0,14447
1091,51221	0,0236	0,10242	0,08283	0,11962	0,11816	0,14419
1089,58374	0,02364	0,10236	0,08291	0,11973	0,11819	0,14429
1087,65527	0,02371	0,10257	0,08301	0,11988	0,11837	0,14463
1085,72681	0,02357	0,10255	0,08288	0,11998	0,11833	0,1448
1083,79834	0,02325	0,10233	0,08279	0,11977	0,1181	0,14466
1081,86987	0,02297	0,1023	0,08291	0,1195	0,118	0,14446
1079,94141	0,02261	0,10228	0,08304	0,11949	0,11789	0,1445
1078,01294	0,02223	0,10209	0,0831	0,11947	0,1178	0,14461
1076,08447	0,02209	0,10189	0,08317	0,11946	0,1181	0,14477
1074,15601	0,02179	0,10164	0,08326	0,11952	0,11832	0,14505
1072,22754	0,02113	0,10142	0,08332	0,11938	0,11808	0,14523
1070,29907	0,02076	0,10145	0,08348	0,11935	0,11809	0,14537
1068,37061	0,02063	0,10128	0,08356	0,11962	0,11849	0,14571
1066,44214	0,02032	0,10077	0,08354	0,11982	0,11879	0,1464
1064,51367	0,0201	0,10045	0,08381	0,11989	0,11921	0,14718
1062,58521	0,02005	0,10029	0,08421	0,12	0,11975	0,14784
1060,65674	0,01987	0,09991	0,08449	0,12004	0,12008	0,14843
1058,72827	0,01957	0,09941	0,08464	0,11987	0,12031	0,14875
1056,7998	0,01928	0,0992	0,08471	0,11976	0,12057	0,14937
1054,87134	0,01888	0,09908	0,08478	0,11996	0,12111	0,15055
1052,94287	0,01848	0,09878	0,08475	0,12014	0,122	0,15191
1051,0144	0,01821	0,09863	0,08461	0,12023	0,1231	0,15379
1049,08594	0,01788	0,09844	0,08467	0,12049	0,12441	0,15586
1047,15747	0,01758	0,09818	0,08489	0,12088	0,12556	0,15751
1045,229	0,01756	0,09809	0,08495	0,12123	0,12632	0,15878
1043,30054	0,01754	0,09789	0,08509	0,12147	0,12679	0,15934
1041,37207	0,01736	0,09782	0,0853	0,12162	0,12695	0,15932
1039,4436	0,01724	0,09781	0,08532	0,12174	0,12691	0,15942
1037,51514	0,01714	0,09765	0,08529	0,1219	0,12712	0,15985
1035,58667	0,01689	0,09765	0,08539	0,12225	0,12782	0,16062
1033,6582	0,01659	0,09756	0,0856	0,12254	0,12865	0,16163
1031,72974	0,01647	0,09738	0,08576	0,12266	0,12953	0,16298
1029,80127	0,01659	0,09743	0,08592	0,12296	0,13093	0,16492
1027,8728	0,01653	0,09749	0,08589	0,12332	0,1324	0,1671
1025,94434	0,01637	0,09758	0,08562	0,12337	0,13331	0,16875
1024,01587	0,01639	0,09758	0,08575	0,12332	0,13378	0,16924
1022,0874	0,01629	0,09765	0,08609	0,12327	0,13346	0,16876

1020,15894	0,0162	0,09778	0,08618	0,12292	0,13224	0,16729
1018,23047	0,01617	0,0975	0,08611	0,12239	0,13058	0,16464
1016,302	0,0159	0,09724	0,08611	0,12177	0,12868	0,16171
1014,37354	0,01547	0,09716	0,08621	0,12112	0,12721	0,15943
1012,44507	0,01515	0,09691	0,08612	0,12077	0,12617	0,1577
1010,5166	0,01518	0,09671	0,08604	0,12041	0,12461	0,15578
1008,58813	0,01535	0,09648	0,08616	0,11998	0,12312	0,15366
1006,65967	0,01543	0,09619	0,08638	0,11968	0,12223	0,15214
1004,7312	0,01531	0,09627	0,08669	0,11924	0,12148	0,15113
1002,80273	0,01493	0,09629	0,08665	0,11893	0,12095	0,15023
1000,87427	0,01471	0,09585	0,0866	0,11883	0,12059	0,14934
998,9458	0,01471	0,09578	0,08679	0,1186	0,12026	0,14844
997,01733	0,01469	0,09594	0,08653	0,11847	0,11992	0,14786
995,08887	0,01471	0,09571	0,08653	0,11839	0,11956	0,14762
993,1604	0,01458	0,09557	0,08702	0,11826	0,11943	0,14738
991,23193	0,01441	0,09558	0,08703	0,11825	0,1193	0,1471
989,30347	0,0144	0,09553	0,08691	0,11833	0,11891	0,14676
987,375	0,01419	0,09554	0,087	0,11825	0,1186	0,1463
985,44653	0,01386	0,09547	0,08716	0,11804	0,11843	0,14591
983,51807	0,01383	0,09542	0,08732	0,1179	0,11823	0,14557
981,5896	0,01377	0,09545	0,08719	0,11792	0,11817	0,14525
979,66113	0,01353	0,09544	0,08706	0,11798	0,11817	0,14518
977,73267	0,01354	0,09525	0,08712	0,11792	0,11807	0,14527
975,8042	0,01364	0,0949	0,08717	0,11803	0,118	0,14519
973,87573	0,01342	0,09493	0,08727	0,11821	0,11787	0,14499
971,94727	0,01323	0,09506	0,08731	0,11805	0,11769	0,14486
970,0188	0,01319	0,09499	0,08711	0,11801	0,11762	0,14485
968,09033	0,01294	0,09516	0,08701	0,118	0,11764	0,14486
966,16187	0,01276	0,09516	0,08731	0,11787	0,11776	0,14491
964,2334	0,01275	0,09491	0,08748	0,11799	0,11789	0,145
962,30493	0,01267	0,0949	0,08742	0,11807	0,11797	0,14509
960,37646	0,01254	0,09491	0,08734	0,11807	0,11811	0,14523
958,448	0,01252	0,09493	0,0871	0,11813	0,11813	0,14532
956,51953	0,01268	0,09494	0,0872	0,11807	0,11808	0,14544
954,59106	0,01277	0,09489	0,08756	0,11795	0,11813	0,14566
952,6626	0,01263	0,09488	0,08769	0,11778	0,11813	0,14564
950,73413	0,01265	0,09486	0,08776	0,1179	0,1181	0,14551
948,80566	0,01267	0,09493	0,08774	0,11818	0,11821	0,14551
946,8772	0,01234	0,09499	0,08761	0,11806	0,1182	0,1455
944,94873	0,01215	0,09484	0,08749	0,11792	0,11809	0,14556
943,02026	0,0122	0,09459	0,08736	0,11807	0,11804	0,14557
941,0918	0,0122	0,09443	0,08743	0,11803	0,11778	0,14539
939,16333	0,01241	0,09432	0,08765	0,11773	0,11758	0,14538
937,23486	0,01268	0,09423	0,08777	0,11767	0,11772	0,14557
935,3064	0,0126	0,09412	0,08784	0,11776	0,1179	0,14563
933,37793	0,01239	0,09381	0,08795	0,11766	0,11811	0,14572
931,44946	0,01242	0,09386	0,08805	0,11772	0,11835	0,14618
929,521	0,01264	0,09423	0,08829	0,11811	0,11873	0,14685
927,59253	0,01249	0,0943	0,08858	0,11842	0,11912	0,14727
925,66406	0,0123	0,09447	0,08858	0,11848	0,11923	0,14748



923,7356	0,01267	0,09446	0,08851	0,11848	0,11943	0,14786
921,80713	0,01271	0,09428	0,08848	0,11842	0,11967	0,14814
919,87866	0,01237	0,0947	0,08843	0,11831	0,11976	0,14835
917,9502	0,01254	0,09505	0,08859	0,11825	0,12	0,14879
916,02173	0,01274	0,09498	0,08879	0,11812	0,12015	0,149
914,09326	0,01265	0,09481	0,08877	0,11821	0,12003	0,14889
912,16479	0,01277	0,09444	0,08874	0,11851	0,11975	0,14865
910,23633	0,01298	0,09432	0,08888	0,11849	0,11942	0,14811
908,30786	0,01307	0,09444	0,08907	0,1184	0,11918	0,14763
906,37939	0,01305	0,09432	0,08915	0,11839	0,119	0,14766
904,45093	0,01319	0,09432	0,08909	0,11814	0,1189	0,14763
902,52246	0,01347	0,0943	0,08898	0,11806	0,1189	0,14736
900,59399	0,01342	0,09405	0,08916	0,11816	0,11894	0,14734
898,66553	0,01327	0,09404	0,08945	0,11811	0,11896	0,14735
896,73706	0,01328	0,09417	0,08942	0,11824	0,11897	0,14727
894,80859	0,0133	0,09404	0,08962	0,11841	0,11903	0,14738
892,88013	0,01346	0,09378	0,08989	0,11843	0,11909	0,14761
890,95166	0,01351	0,09377	0,08984	0,11853	0,11911	0,14795
889,02319	0,01332	0,09398	0,09002	0,11853	0,11904	0,14794
887,09473	0,01338	0,09404	0,09002	0,11844	0,11901	0,14763
885,16626	0,01359	0,09416	0,09007	0,11844	0,11911	0,14775
883,23779	0,01368	0,09449	0,09068	0,11856	0,11914	0,14815
881,30933	0,01394	0,09472	0,09077	0,11881	0,11926	0,14851
879,38086	0,01444	0,09509	0,0907	0,11909	0,11977	0,14909
877,45239	0,0148	0,09577	0,09142	0,1194	0,12036	0,14984
875,52393	0,01523	0,09666	0,09225	0,11989	0,12097	0,15077
873,59546	0,01618	0,09777	0,09316	0,12059	0,12199	0,15231
871,66699	0,01751	0,09928	0,09479	0,12151	0,1233	0,15434
869,73853	0,01884	0,10121	0,09641	0,12272	0,12479	0,15645
867,81006	0,01978	0,10266	0,09737	0,12372	0,12624	0,15827
865,88159	0,02055	0,10341	0,09818	0,12432	0,12708	0,15952
863,95313	0,02137	0,1043	0,09886	0,125	0,12771	0,16048
862,02466	0,02167	0,10509	0,09924	0,12525	0,12831	0,16115
860,09619	0,02137	0,10503	0,09921	0,12492	0,12822	0,16113
858,16772	0,02085	0,10458	0,09872	0,12459	0,12771	0,16055
856,23926	0,02022	0,10406	0,09844	0,1242	0,12711	0,15974
854,31079	0,01967	0,10299	0,09807	0,12378	0,1264	0,15861
852,38232	0,01942	0,10239	0,09774	0,12344	0,12609	0,15767
850,45386	0,01942	0,10301	0,09823	0,12353	0,12626	0,15806
848,52539	0,02025	0,1047	0,09937	0,12467	0,12748	0,16008
846,59692	0,02229	0,10799	0,10162	0,12648	0,13023	0,16327
844,66846	0,02414	0,1109	0,10388	0,12817	0,13292	0,16651
842,73999	0,02615	0,11322	0,10549	0,13008	0,13549	0,16987
840,81152	0,02998	0,11818	0,10898	0,1328	0,13972	0,17518
838,88306	0,03423	0,12388	0,11341	0,13576	0,14445	0,18135
836,95459	0,03771	0,12834	0,11671	0,13862	0,14838	0,1868
835,02612	0,0407	0,1323	0,11971	0,1412	0,15207	0,19176
833,09766	0,04184	0,13372	0,12106	0,14218	0,15373	0,19388
831,16919	0,04147	0,13327	0,12074	0,14193	0,1532	0,19342
829,24072	0,0414	0,13294	0,12084	0,14174	0,15291	0,19307

827,31226	0,04147	0,13278	0,12094	0,14166	0,15294	0,193
825,38379	0,0429	0,13492	0,12227	0,1428	0,15459	0,19523
823,45532	0,04547	0,13805	0,12493	0,14484	0,15772	0,19936
821,52686	0,04626	0,13859	0,12581	0,14545	0,1585	0,20077
819,59839	0,04609	0,13846	0,12563	0,14541	0,15799	0,20023
817,66992	0,04658	0,13925	0,12632	0,14599	0,15888	0,20078
815,74146	0,0476	0,14015	0,12725	0,14665	0,16011	0,20177
813,81299	0,04913	0,14138	0,12794	0,14737	0,16114	0,20288
811,88452	0,04999	0,14218	0,12812	0,14764	0,16162	0,20379
809,95605	0,04995	0,14214	0,12797	0,14734	0,16112	0,2036
808,02759	0,05036	0,14239	0,1281	0,14765	0,16104	0,20386
806,09912	0,05147	0,14342	0,12846	0,14832	0,16178	0,20518
804,17065	0,05231	0,14465	0,12881	0,14871	0,16241	0,20618
802,24219	0,0526	0,14536	0,12916	0,14908	0,16301	0,20678
800,31372	0,05373	0,14628	0,12998	0,14967	0,16406	0,20768
798,38525	0,05537	0,14754	0,1311	0,15043	0,16537	0,20908
796,45679	0,0559	0,14816	0,13189	0,15088	0,16618	0,21027
794,52832	0,05585	0,14854	0,13216	0,15085	0,16623	0,21079
792,59985	0,05562	0,14817	0,13173	0,15069	0,16601	0,21067
790,67139	0,05476	0,14658	0,13083	0,15007	0,16514	0,20952
788,74292	0,05389	0,14537	0,13011	0,14934	0,16385	0,20844
786,81445	0,05347	0,14513	0,12974	0,14919	0,16317	0,20824
784,88599	0,05252	0,14449	0,129	0,1487	0,1623	0,20717
782,95752	0,05108	0,14312	0,12782	0,14773	0,16102	0,20533
781,02905	0,05051	0,14214	0,12722	0,14733	0,16047	0,20455
779,10059	0,05074	0,14181	0,12737	0,14727	0,16049	0,2048
777,17212	0,05143	0,14232	0,12783	0,14759	0,16109	0,20582
775,24365	0,0528	0,14375	0,12877	0,14854	0,16248	0,20748
773,31519	0,05426	0,14482	0,13017	0,14953	0,16389	0,20918
771,38672	0,0551	0,14546	0,13114	0,15015	0,16476	0,21052
769,45825	0,05543	0,14601	0,13155	0,15043	0,16517	0,21111
767,52979	0,05588	0,14616	0,13215	0,15095	0,16559	0,21161
765,60132	0,05663	0,14662	0,13277	0,15156	0,16592	0,21248
763,67285	0,057	0,14708	0,13305	0,15131	0,16576	0,21267
761,74438	0,05627	0,14622	0,13287	0,15059	0,16524	0,21214
759,81592	0,05528	0,1451	0,13235	0,1502	0,16444	0,21151
757,88745	0,05486	0,14495	0,13235	0,15018	0,16393	0,21089
755,95898	0,05486	0,14488	0,13261	0,15026	0,16406	0,2106
754,03052	0,05512	0,14465	0,13231	0,15015	0,16408	0,21069
752,10205	0,05483	0,14422	0,1317	0,14981	0,16359	0,21044
750,17358	0,05451	0,14392	0,1314	0,14971	0,16338	0,2101
748,24512	0,05512	0,14451	0,13203	0,15019	0,16386	0,2108
746,31665	0,05564	0,14499	0,13271	0,1505	0,16422	0,21166
744,38818	0,05578	0,1454	0,13246	0,15045	0,16461	0,21206
742,45972	0,05589	0,14611	0,13257	0,1505	0,16542	0,21246
740,53125	0,05606	0,14615	0,13314	0,15062	0,16589	0,21282
738,60278	0,05677	0,14627	0,13327	0,1511	0,16618	0,21337
736,67432	0,0577	0,14714	0,13379	0,15157	0,16644	0,21389
734,74585	0,05818	0,14772	0,13424	0,15152	0,16645	0,21402
732,81738	0,05804	0,14763	0,13396	0,15162	0,16658	0,21391

730,88892	0,05802	0,14771	0,13401	0,15202	0,16668	0,21387
728,96045	0,05881	0,14842	0,13437	0,15257	0,16704	0,21446
727,03198	0,05982	0,14924	0,1349	0,15291	0,16805	0,21525
725,10352	0,06075	0,15016	0,13541	0,15314	0,16918	0,21554
723,17505	0,0615	0,15102	0,13576	0,15355	0,16991	0,2161
721,24658	0,06167	0,15142	0,13654	0,15361	0,1703	0,21708
719,31812	0,06204	0,1518	0,13692	0,15415	0,17097	0,21734
717,38965	0,06305	0,15252	0,13708	0,15545	0,17158	0,21743
715,46118	0,06382	0,1533	0,1378	0,15614	0,17211	0,21819
713,53271	0,06386	0,1536	0,13811	0,1563	0,17288	0,21854
711,60425	0,06346	0,15331	0,13812	0,15629	0,17286	0,21811
709,67578	0,06338	0,15307	0,13836	0,15642	0,17272	0,21789
707,74731	0,06396	0,15329	0,13845	0,15685	0,1732	0,2181
705,81885	0,06441	0,15384	0,13859	0,15668	0,17326	0,21774
703,89038	0,064	0,15415	0,13878	0,15621	0,17298	0,21707
701,96191	0,06355	0,15382	0,13882	0,15617	0,17261	0,21678
700,03345	0,06366	0,15381	0,13915	0,15606	0,17251	0,21698
698,10498	0,06366	0,15422	0,13957	0,15627	0,17285	0,21773
696,17651	0,0635	0,15438	0,13952	0,15663	0,173	0,21783
694,24805	0,06355	0,15441	0,1395	0,15647	0,17343	0,21744
692,31958	0,06379	0,15454	0,13987	0,15683	0,17427	0,21809
690,39111	0,06451	0,15559	0,14037	0,1575	0,17456	0,2192
688,46265	0,06581	0,15703	0,14082	0,15769	0,17483	0,21992
686,53418	0,06679	0,15787	0,1414	0,15806	0,17556	0,22079
684,60571	0,06723	0,15818	0,14112	0,15844	0,17585	0,2211
682,67725	0,06803	0,15863	0,14115	0,15879	0,17652	0,22134
680,74878	0,06881	0,16015	0,14237	0,15946	0,17768	0,22235
678,82031	0,06973	0,16082	0,14203	0,16018	0,17828	0,22247
676,89185	0,07053	0,16106	0,14293	0,16015	0,17912	0,22383
674,96338	0,07126	0,16208	0,14301	0,1605	0,17983	0,22395
673,03491	0,07137	0,16205	0,1431	0,16136	0,1798	0,22408
671,10645	0,07145	0,16203	0,14318	0,16149	0,18	0,22421
669,17798	0,07153	0,16201	0,14326	0,16162	0,18012	0,22434
667,24951	0,07161	0,16199	0,14334	0,16174	0,18024	0,22447
665,32104	0,07168	0,16197	0,14343	0,16187	0,18037	0,2246
663,39258	0,07176	0,16195	0,14351	0,16199	0,18049	0,22473
661,46411	0,07184	0,16193	0,14359	0,16212	0,18061	0,22486
659,53564	0,07192	0,1619	0,14368	0,16224	0,18074	0,22498
657,60718	0,072	0,16188	0,14376	0,16237	0,18086	0,22511
655,67871	0,07207	0,16186	0,14384	0,16249	0,18098	0,22524
653,75024	0,07189	0,16184	0,14392	0,16262	0,18111	0,22537
651,82178	0,07266	0,16205	0,14401	0,16274	0,18123	0,2255
649,89331	0,07272	0,16184	0,14409	0,16287	0,18135	0,22563
647,96484	0,0731	0,16215	0,14417	0,16299	0,18148	0,22576
646,03638	0,07413	0,16224	0,14433	0,16312	0,1816	0,22596
644,10791	0,07447	0,16178	0,14442	0,16324	0,18172	0,2261
642,17944	0,07454	0,16197	0,14451	0,16297	0,18138	0,22589
640,25098	0,07508	0,16226	0,14421	0,16286	0,1815	0,22596
638,32251	0,07495	0,16206	0,14396	0,16282	0,18139	0,2258
636,39404	0,07477	0,16181	0,14444	0,16304	0,18181	0,22566

634,46558	0,07496	0,16166	0,14409	0,16312	0,18193	0,22562
632,53711	0,07425	0,16176	0,14376	0,1632	0,18158	0,22591
630,60864	0,0738	0,16119	0,14373	0,1628	0,18115	0,22565
628,68018	0,07416	0,16025	0,14332	0,16212	0,18034	0,22545
626,75171	0,07477	0,16013	0,1428	0,16255	0,18032	0,22559
624,82324	0,07514	0,16029	0,14293	0,16276	0,18046	0,22552
622,89478	0,07523	0,16018	0,14304	0,16218	0,17999	0,22576
620,96631	0,07578	0,15972	0,14266	0,16236	0,18031	0,22613
619,03784	0,07625	0,15961	0,14342	0,16261	0,1806	0,2272
617,10938	0,07652	0,16026	0,14424	0,16282	0,18079	0,22831
615,18091	0,07671	0,16045	0,14418	0,16306	0,18132	0,22812
613,25244	0,07647	0,16027	0,14488	0,16269	0,18095	0,22814
611,32397	0,07661	0,16072	0,14533	0,16307	0,18078	0,22892
609,39551	0,07687	0,16036	0,1451	0,16359	0,18105	0,22916
607,46704	0,07689	0,15926	0,14531	0,16268	0,1805	0,22876
605,53857	0,07713	0,15903	0,14488	0,16188	0,18019	0,22894
603,61011	0,07689	0,15874	0,14408	0,16221	0,18032	0,22954
601,68164	0,07699	0,15861	0,14434	0,16258	0,18005	0,22976
599,75317	0,0774	0,15866	0,14512	0,16226	0,17979	0,22972
597,82471	0,07677	0,15783	0,14558	0,16176	0,17979	0,22948
595,89624	0,07635	0,15722	0,14515	0,16177	0,17975	0,22979
593,96777	0,0767	0,15762	0,14469	0,16199	0,18013	0,23028
592,03931	0,07736	0,15852	0,14541	0,16191	0,18058	0,23001
590,11084	0,0771	0,15857	0,14595	0,16134	0,18009	0,23012
588,18237	0,0761	0,15809	0,14575	0,16118	0,17953	0,23052
586,25391	0,0762	0,15802	0,14593	0,16152	0,17938	0,23078
584,32544	0,07669	0,1581	0,14616	0,16142	0,17903	0,23101
582,39697	0,07739	0,15884	0,14602	0,1616	0,17909	0,2303
580,46851	0,07735	0,15881	0,14603	0,16172	0,17939	0,22981
578,54004	0,0766	0,1582	0,14631	0,16162	0,17934	0,23006
576,61157	0,07754	0,15889	0,14646	0,16235	0,17999	0,23006
574,68311	0,07776	0,15894	0,14648	0,16246	0,18085	0,23077
572,75464	0,07732	0,159	0,14692	0,16229	0,18116	0,23169
570,82617	0,07844	0,16045	0,14733	0,16295	0,18137	0,23169
568,89771	0,07936	0,16141	0,14714	0,16359	0,18193	0,23168
566,96924	0,07965	0,16162	0,1477	0,16446	0,18323	0,2324
565,04077	0,07953	0,16214	0,14847	0,16473	0,18397	0,23259
563,1123	0,07898	0,16297	0,14796	0,16454	0,18396	0,23165
561,18384	0,07847	0,16336	0,14804	0,16533	0,18447	0,23144
559,25537	0,0786	0,164	0,14869	0,16587	0,18479	0,23168
557,3269	0,07931	0,16533	0,14783	0,16606	0,18489	0,23138
555,39844	0,07915	0,16612	0,14724	0,16709	0,18547	0,23148
553,46997	0,07846	0,16653	0,1473	0,16773	0,18605	0,23133
551,5415	0,07767	0,16625	0,14672	0,16777	0,18628	0,23091
549,61304	0,07639	0,16609	0,14662	0,16882	0,18652	0,23075
547,68457	0,07584	0,16678	0,14516	0,17016	0,1866	0,2284
545,7561	0,07571	0,16658	0,14355	0,17022	0,18591	0,2268
543,82764	0,07441	0,16653	0,14438	0,17072	0,18604	0,22873
541,89917	0,07328	0,1676	0,14368	0,17297	0,18733	0,22888
539,9707	0,07302	0,16829	0,14204	0,17442	0,18814	0,2279

538,04224	0,07114	0,16865	0,1408	0,17486	0,18895	0,22657
536,11377	0,06908	0,16946	0,13912	0,17712	0,18938	0,22395
534,1853	0,06798	0,1704	0,13956	0,17965	0,19015	0,22507
532,25684	0,06501	0,17069	0,137	0,18109	0,19165	0,22397
530,32837	0,0627	0,17133	0,13399	0,18288	0,19106	0,2224
528,3999	0,06016	0,17007	0,13083	0,18663	0,19095	0,22162
526,47144	0,05525	0,16714	0,12125	0,19152	0,19226	0,21348
524,54297	0,05186	0,16803	0,11847	0,19358	0,19144	0,2119
522,6145	0,04775	0,16928	0,11919	0,19437	0,19084	0,21601
520,68604	0,04193	0,16758	0,11094	0,19748	0,19109	0,21116
518,75757	0,03766	0,1668	0,10301	0,20295	0,19019	0,20421
516,8291	0,03316	0,16658	0,09931	0,20738	0,18993	0,20168
514,90063	0,02888	0,16544	0,09761	0,20691	0,19024	0,20108
512,97217	0,02409	0,16428	0,09338	0,20822	0,18942	0,19859
511,0437	0,01592	0,16299	0,08595	0,21327	0,18858	0,19652
509,11523	0,00946	0,16104	0,07992	0,21634	0,18749	0,19359
507,18677	0,00576	0,15928	0,07321	0,22096	0,18607	0,18933
505,2583	0,00119	0,15969	0,06861	0,22427	0,18669	0,18865
503,32983	-0,00236	0,15876	0,06391	0,22558	0,1874	0,18453
501,40137	-0,00607	0,15573	0,05961	0,22819	0,18648	0,18091
499,4729	-0,01001	0,15501	0,05914	0,22752	0,18516	0,18152

Figure 3.4 A						
n°spectre	VD340	VD338	VD332	Vd333	VD335	VD337
cm-1	crushedF3	pHnat-F3	$\Theta=5,5\text{-F3}$	$\Theta=10,7\text{-F3}$	$\Theta=24,9\text{-F3}$	$\Theta=27,3\text{-F3}$
4001,5686	0,01181	0,05761	0,07857	0,05189	0,07366	0,07157
3999,64014	0,01164	0,05755	0,07847	0,0518	0,07364	0,07142
3997,71167	0,01164	0,0575	0,07854	0,05174	0,07358	0,07146
3995,7832	0,01181	0,05751	0,07861	0,05173	0,07358	0,07139
3993,85474	0,01175	0,05744	0,07852	0,0517	0,07355	0,07133
3991,92627	0,0117	0,05758	0,07854	0,0518	0,07359	0,07135
3989,9978	0,01165	0,05765	0,07853	0,05179	0,07356	0,07132
3988,06934	0,01151	0,05738	0,07838	0,05159	0,07339	0,0713
3986,14087	0,01155	0,05742	0,07836	0,05161	0,07339	0,07131
3984,2124	0,01166	0,05748	0,07839	0,05166	0,07337	0,07122
3982,28394	0,01164	0,05731	0,07841	0,05164	0,07324	0,07105
3980,35547	0,01146	0,05729	0,07828	0,05153	0,07317	0,07103
3978,427	0,01139	0,05724	0,07815	0,05142	0,07313	0,07102
3976,49854	0,01165	0,05731	0,07837	0,05156	0,07323	0,0709
3974,57007	0,01171	0,05738	0,07841	0,05157	0,07322	0,07083
3972,6416	0,01151	0,05715	0,07822	0,05146	0,07303	0,07073
3970,71313	0,01145	0,05712	0,07823	0,05153	0,07305	0,07079
3968,78467	0,01147	0,05727	0,07824	0,05154	0,0731	0,07092
3966,8562	0,01132	0,05706	0,07793	0,05132	0,07286	0,07075
3964,92773	0,0113	0,05707	0,07793	0,05138	0,07289	0,07077
3962,99927	0,01165	0,0575	0,07838	0,05163	0,07314	0,07084
3961,0708	0,01161	0,05722	0,07817	0,05139	0,07289	0,07059
3959,14233	0,0114	0,05705	0,07798	0,05131	0,07275	0,07061
3957,21387	0,01147	0,05725	0,07805	0,05136	0,0727	0,07061
3955,2854	0,01149	0,05708	0,07786	0,05125	0,07263	0,07047
3953,35693	0,01134	0,05714	0,07793	0,05135	0,07282	0,07058
3951,42847	0,01143	0,05713	0,07788	0,0512	0,07265	0,07027
3949,5	0,01212	0,0572	0,07819	0,0513	0,0725	0,06972
3947,57153	0,01158	0,05687	0,07789	0,05118	0,0722	0,06993
3945,64307	0,01096	0,05674	0,07759	0,05107	0,07234	0,07037
3943,7146	0,01211	0,05766	0,07866	0,05179	0,073	0,07023
3941,78613	0,01185	0,05711	0,07802	0,0513	0,07222	0,0699
3939,85767	0,01083	0,05648	0,07711	0,05075	0,072	0,07011
3937,9292	0,01117	0,05709	0,07766	0,05126	0,07264	0,07032
3936,00073	0,01119	0,05688	0,07758	0,05118	0,07235	0,07016
3934,07227	0,01151	0,05717	0,07803	0,05148	0,07278	0,07029
3932,1438	0,01223	0,05763	0,07864	0,05178	0,07294	0,07009
3930,21533	0,01143	0,05647	0,07748	0,05073	0,07159	0,06937
3928,28687	0,01072	0,05622	0,07704	0,05059	0,07171	0,06966
3926,3584	0,01159	0,05735	0,0781	0,05154	0,07276	0,07009
3924,42993	0,01205	0,05727	0,07813	0,05136	0,07229	0,06956
3922,50146	0,01113	0,05634	0,07726	0,0506	0,07159	0,0694
3920,573	0,01118	0,05684	0,07773	0,05104	0,07223	0,06981
3918,64453	0,01165	0,0573	0,07816	0,05138	0,07255	0,06993

3916,71606	0,01119	0,05657	0,0775	0,05078	0,07179	0,06953
3914,7876	0,01038	0,05573	0,07659	0,05016	0,07116	0,06927
3912,85913	0,0107	0,05623	0,07696	0,05056	0,07166	0,06956
3910,93066	0,01103	0,05684	0,07748	0,05107	0,0722	0,06991
3909,0022	0,01062	0,05633	0,07686	0,05063	0,07163	0,06955
3907,07373	0,01154	0,0572	0,07797	0,05129	0,07233	0,06955
3905,14526	0,01264	0,05825	0,07942	0,05229	0,07328	0,07
3903,2168	0,01127	0,05624	0,07753	0,0508	0,07149	0,06937
3901,28833	0,01044	0,05535	0,0766	0,0501	0,07086	0,06891
3899,35986	0,01108	0,05593	0,07704	0,0505	0,07113	0,0687
3897,4314	0,01006	0,05504	0,07589	0,04969	0,07027	0,06863
3895,50293	0,01015	0,05541	0,07611	0,04974	0,07049	0,06854
3893,57446	0,01187	0,05777	0,07859	0,05166	0,07275	0,0694
3891,646	0,01213	0,05786	0,07891	0,05213	0,07306	0,06999
3889,71753	0,00895	0,05372	0,07432	0,0486	0,06903	0,06834
3887,78906	0,01074	0,05647	0,07718	0,05056	0,07157	0,06888
3885,8606	0,01207	0,05852	0,07958	0,05295	0,07401	0,07082
3883,93213	0,00856	0,0535	0,07417	0,04843	0,06871	0,06826
3882,00366	0,01159	0,05688	0,078	0,05072	0,07167	0,06827
3880,0752	0,01334	0,05793	0,07931	0,05204	0,07245	0,06876
3878,14673	0,00887	0,05343	0,07397	0,04814	0,06841	0,0676
3876,21826	0,01071	0,05713	0,07787	0,05123	0,07242	0,06931
3874,28979	0,01233	0,05723	0,0781	0,05142	0,07178	0,06873
3872,36133	0,01095	0,05548	0,07643	0,04964	0,07012	0,06767
3870,43286	0,01084	0,05774	0,0792	0,05234	0,0735	0,07032
3868,50439	0,00883	0,05371	0,07469	0,04891	0,0688	0,06813
3866,57593	0,00966	0,0549	0,0757	0,04925	0,06983	0,06784
3864,64746	0,01137	0,05774	0,07885	0,05215	0,07292	0,06971
3862,71899	0,0107	0,05475	0,07566	0,04935	0,06904	0,06715
3860,79053	0,00983	0,05508	0,07573	0,04959	0,07008	0,06802
3858,86206	0,0102	0,05589	0,07627	0,05039	0,0708	0,06883
3856,93359	0,01261	0,05703	0,07754	0,05058	0,07078	0,06729
3855,00513	0,00992	0,05918	0,08011	0,05397	0,07595	0,07279
3853,07666	0,00626	0,05447	0,07607	0,05153	0,07188	0,07286
3851,14819	0,00563	0,0503	0,07152	0,04605	0,06551	0,06654
3849,21973	0,00983	0,05468	0,07551	0,04889	0,06898	0,06681
3847,29126	0,00996	0,05592	0,07625	0,05024	0,07068	0,0687
3845,36279	0,01136	0,05685	0,07731	0,05087	0,07128	0,06836
3843,43433	0,01123	0,05687	0,07746	0,05108	0,07146	0,06862
3841,50586	0,01159	0,05591	0,07661	0,05002	0,06997	0,06734
3839,57739	0,0118	0,057	0,07804	0,05102	0,0713	0,0678
3837,64893	0,00862	0,05561	0,07667	0,0508	0,07125	0,0696
3835,72046	0,00735	0,05265	0,07343	0,04799	0,06792	0,06781
3833,79199	0,01044	0,05538	0,07614	0,04968	0,06973	0,0673
3831,86353	0,01029	0,05589	0,07647	0,05064	0,07069	0,06845
3829,93506	0,00924	0,05406	0,07447	0,04873	0,06869	0,06736
3828,00659	0,011	0,05665	0,07712	0,05063	0,07105	0,06804

3826,07813	0,01077	0,05593	0,07612	0,05023	0,07013	0,0678
3824,14966	0,01059	0,05542	0,07568	0,04932	0,0694	0,06684
3822,22119	0,012	0,05899	0,07993	0,05317	0,07406	0,07004
3820,29272	0,01041	0,05386	0,07482	0,04898	0,06788	0,06662
3818,36426	0,00926	0,05372	0,0744	0,04812	0,068	0,06607
3816,43579	0,00927	0,05717	0,07799	0,05202	0,07292	0,07009
3814,50732	0,00689	0,0527	0,07309	0,04827	0,06802	0,06806
3812,57886	0,00893	0,054	0,07429	0,04839	0,06828	0,0666
3810,65039	0,01042	0,05598	0,07604	0,05006	0,07025	0,06761
3808,72192	0,01089	0,05711	0,07732	0,05124	0,07183	0,06868
3806,79346	0,00914	0,05579	0,07624	0,05065	0,07094	0,06919
3804,86499	0,00818	0,05301	0,07317	0,04766	0,06739	0,06643
3802,93652	0,0115	0,05752	0,07824	0,05146	0,07198	0,06773
3801,00806	0,00937	0,05586	0,07677	0,05099	0,07072	0,06869
3799,07959	0,00691	0,05176	0,07212	0,04683	0,06634	0,06602
3797,15112	0,01144	0,05654	0,0772	0,05052	0,07047	0,06653
3795,22266	0,00969	0,0549	0,07519	0,04956	0,06919	0,06718
3793,29419	0,00878	0,05395	0,07396	0,04836	0,06823	0,06654
3791,36572	0,01032	0,05624	0,07624	0,05036	0,07051	0,06754
3789,43726	0,00963	0,05513	0,07496	0,04946	0,06936	0,06732
3787,50879	0,00969	0,05544	0,07533	0,04953	0,06974	0,06721
3785,58032	0,01083	0,05647	0,07646	0,05041	0,07047	0,06721
3783,65186	0,00983	0,05483	0,07471	0,04901	0,06865	0,06649
3781,72339	0,00974	0,05548	0,07543	0,04963	0,06969	0,06717
3779,79492	0,01107	0,05639	0,07655	0,05048	0,07041	0,06704
3777,86646	0,00943	0,05433	0,07432	0,04865	0,06831	0,06618
3775,93799	0,0089	0,05448	0,07442	0,04877	0,06876	0,06669
3774,00952	0,00954	0,05516	0,07504	0,04929	0,06933	0,06693
3772,08105	0,01012	0,05605	0,07596	0,04998	0,0701	0,06716
3770,15259	0,01043	0,05601	0,07626	0,05033	0,07016	0,06716
3768,22412	0,00881	0,05365	0,0739	0,04837	0,06799	0,06621
3766,29565	0,00991	0,05512	0,0753	0,04923	0,06912	0,06623
3764,36719	0,00974	0,05478	0,07476	0,04904	0,06871	0,06625
3762,43872	0,009	0,05411	0,07409	0,04849	0,06831	0,06605
3760,51025	0,01068	0,05633	0,07665	0,05044	0,07064	0,06689
3758,58179	0,01051	0,05494	0,07526	0,04908	0,06856	0,0656
3756,65332	0,00942	0,05382	0,074	0,04809	0,06751	0,06509
3754,72485	0,00968	0,05513	0,07533	0,04938	0,06919	0,06623
3752,79639	0,00972	0,05613	0,07658	0,05042	0,07052	0,06717
3750,86792	0,00895	0,05572	0,07677	0,05086	0,07068	0,06799
3748,93945	0,00448	0,0497	0,07034	0,04577	0,06488	0,06588
3747,01099	0,00861	0,05361	0,07427	0,04783	0,06729	0,06458
3745,08252	0,00896	0,05727	0,07837	0,05216	0,07259	0,06947
3743,15405	0,0034	0,0498	0,07063	0,04614	0,06517	0,06772
3741,22559	0,00792	0,05222	0,07291	0,04592	0,06443	0,06301
3739,29712	0,01032	0,05659	0,07735	0,04942	0,06852	0,06502
3737,36865	0,00885	0,05681	0,0778	0,05016	0,0692	0,06737
3735,44019	0,01009	0,05591	0,0777	0,0486	0,06638	0,0646



3733,51172	0,00924	0,05484	0,0768	0,0478	0,06563	0,0643
3731,58325	0,00571	0,05316	0,07436	0,04671	0,06496	0,0657
3729,65479	0,00611	0,05439	0,07551	0,04686	0,0649	0,06532
3727,72632	0,00831	0,05698	0,0784	0,04872	0,06682	0,06576
3725,79785	0,00836	0,05671	0,07797	0,04863	0,06667	0,06582
3723,86938	0,00808	0,05553	0,07678	0,04759	0,06556	0,06466
3721,94092	0,00834	0,05561	0,07677	0,04798	0,06613	0,0647
3720,01245	0,00781	0,05464	0,07549	0,04747	0,06587	0,06462
3718,08398	0,00754	0,05415	0,07484	0,04752	0,06626	0,0647
3716,15552	0,00778	0,05371	0,07392	0,04754	0,06659	0,06445
3714,22705	0,00861	0,05473	0,07496	0,0485	0,06805	0,06479
3712,29858	0,00869	0,05546	0,07642	0,04945	0,06867	0,06566
3710,37012	0,00712	0,05256	0,0739	0,04643	0,06447	0,06335
3708,44165	0,00629	0,05228	0,07359	0,04575	0,06407	0,06288
3706,51318	0,00584	0,0527	0,07376	0,04592	0,06427	0,06352
3704,58472	0,00656	0,05392	0,07487	0,0466	0,0651	0,0639
3702,65625	0,00792	0,05523	0,07636	0,04778	0,06636	0,06424
3700,72778	0,00645	0,05273	0,07368	0,04585	0,06401	0,06313
3698,79932	0,00539	0,05227	0,07309	0,04527	0,06368	0,06288
3696,87085	0,00641	0,05336	0,0742	0,04609	0,06463	0,06283
3694,94238	0,00583	0,05242	0,0732	0,04562	0,06412	0,06248
3693,01392	0,00564	0,05211	0,07306	0,04542	0,064	0,06203
3691,08545	0,00719	0,05278	0,07417	0,04591	0,0644	0,06099
3689,15698	0,00424	0,04992	0,07143	0,04449	0,06304	0,06075
3687,22852	0,00027	0,04637	0,06749	0,04195	0,06063	0,06063
3685,30005	0,00362	0,04803	0,06898	0,04237	0,06074	0,05889
3683,37158	0,00495	0,04993	0,07075	0,04401	0,06292	0,05995
3681,44312	0,00445	0,05039	0,07119	0,04495	0,06415	0,06146
3679,51465	0,00638	0,05018	0,07102	0,0444	0,06295	0,05953
3677,58618	0,00667	0,05212	0,07334	0,04641	0,06578	0,06137
3675,65771	0,0072	0,05262	0,07458	0,04763	0,06654	0,06249
3673,72925	0,00333	0,046	0,06709	0,04174	0,06012	0,05948
3671,80078	0,00485	0,05009	0,07136	0,04501	0,06454	0,0613
3669,87231	0,00581	0,052	0,07355	0,04734	0,06661	0,06309
3667,94385	0,00403	0,04719	0,06797	0,04271	0,06125	0,05992
3666,01538	0,0052	0,0495	0,07011	0,04426	0,06353	0,0605
3664,08691	0,00556	0,05096	0,07138	0,04571	0,06532	0,06195
3662,15845	0,00584	0,05048	0,07085	0,04522	0,06459	0,06145
3660,22998	0,0055	0,05023	0,07061	0,04487	0,06423	0,0612
3658,30151	0,00632	0,05144	0,07206	0,04595	0,06558	0,06162
3656,37305	0,0058	0,05096	0,07175	0,04621	0,06555	0,06212
3654,44458	0,00349	0,04815	0,06859	0,04359	0,06263	0,06087
3652,51611	0,0064	0,05082	0,07166	0,04534	0,06473	0,06042
3650,58765	0,0081	0,05275	0,07432	0,04769	0,06685	0,06139
3648,65918	0,00569	0,04864	0,07049	0,04421	0,06242	0,05929
3646,73071	0,00464	0,04724	0,06873	0,04252	0,06107	0,05828
3644,80225	0,0044	0,04816	0,06913	0,04319	0,06205	0,05906
3642,87378	0,00423	0,0492	0,07007	0,04404	0,06324	0,05999

3640,94531	0,00483	0,04974	0,07077	0,0445	0,06367	0,06007
3639,01685	0,00407	0,04891	0,0699	0,04368	0,0626	0,05966
3637,08838	0,00401	0,04922	0,07037	0,04365	0,06264	0,05941
3635,15991	0,00408	0,04977	0,07117	0,0442	0,06324	0,05994
3633,23145	0,00368	0,04869	0,0702	0,04287	0,06138	0,05868
3631,30298	0,00385	0,04975	0,07174	0,04374	0,06266	0,05905
3629,37451	0,00404	0,05091	0,07376	0,04566	0,06454	0,06109
3627,44604	0,00055	0,04538	0,06779	0,04049	0,05806	0,05801
3625,51758	0,00149	0,04678	0,069	0,04092	0,05908	0,0571
3623,58911	0,0023	0,04858	0,07081	0,04258	0,06113	0,05828
3621,66064	0,00231	0,0482	0,07036	0,04246	0,06116	0,05798
3619,73218	0,00332	0,04836	0,07092	0,04316	0,06215	0,05756
3617,80371	0,00185	0,04532	0,06773	0,04069	0,05919	0,05613
3615,87524	0,00149	0,04539	0,06773	0,04052	0,05939	0,05569
3613,94678	0,00303	0,04674	0,0694	0,04213	0,06146	0,05587
3612,01831	0,00175	0,04454	0,067	0,04046	0,05963	0,05522
3610,08984	0,00004	0,04452	0,06705	0,04041	0,05999	0,05618
3608,16138	0,00086	0,04532	0,06835	0,04083	0,06004	0,05581
3606,23291	0,0004	0,0439	0,06701	0,03917	0,05795	0,05426
3604,30444	-0,00036	0,04415	0,06724	0,03937	0,05868	0,05483
3602,37598	0,00023	0,04512	0,06851	0,04028	0,05961	0,05506
3600,44751	0,00052	0,04476	0,06844	0,03989	0,05877	0,0541
3598,51904	-0,0003	0,04391	0,06751	0,03928	0,05822	0,05409
3596,59058	0,00002	0,04428	0,06801	0,03967	0,05884	0,0542
3594,66211	0,0005	0,04448	0,06839	0,03975	0,05884	0,05382
3592,73364	-0,00057	0,04324	0,06696	0,03879	0,05788	0,05361
3590,80518	-0,00088	0,04334	0,06708	0,03911	0,05878	0,05404
3588,87671	0,00043	0,04448	0,06857	0,04036	0,06025	0,05436
3586,94824	0,0009	0,04323	0,06744	0,03928	0,05834	0,05268
3585,01978	-0,00113	0,04157	0,06551	0,03802	0,05736	0,05262
3583,09131	-0,001	0,04236	0,06624	0,03889	0,05868	0,0532
3581,16284	-0,00057	0,04246	0,06629	0,03911	0,05892	0,05313
3579,23438	-0,00072	0,0422	0,06605	0,03887	0,05875	0,053
3577,30591	-0,0009	0,04214	0,06601	0,03887	0,05878	0,05298
3575,37744	-0,00087	0,04195	0,06583	0,03871	0,05869	0,05269
3573,44897	-0,00095	0,04168	0,06567	0,03851	0,05864	0,0525
3571,52051	-0,00135	0,04139	0,06536	0,03831	0,05835	0,05235
3569,59204	-0,00079	0,04208	0,06632	0,03894	0,05913	0,05243
3567,66357	0,00117	0,04279	0,06767	0,03941	0,05924	0,05153
3565,73511	-0,00004	0,04081	0,06549	0,03773	0,05698	0,05043
3563,80664	-0,00183	0,04021	0,06451	0,0374	0,05714	0,05098
3561,87817	-0,00157	0,04094	0,06531	0,03813	0,05818	0,05154
3559,94971	-0,00147	0,04072	0,06512	0,03794	0,058	0,05141
3558,02124	-0,00196	0,04034	0,0646	0,03762	0,05776	0,05128
3556,09277	-0,00226	0,04019	0,0644	0,03758	0,05776	0,05132
3554,16431	-0,00195	0,04049	0,06486	0,03776	0,058	0,05107
3552,23584	-0,00161	0,04042	0,06493	0,03767	0,05767	0,05056
3550,30737	-0,00244	0,03954	0,06391	0,03708	0,0571	0,05054

3548,37891	-0,00237	0,03998	0,06438	0,03736	0,05765	0,05064
3546,45044	-0,00142	0,0404	0,06504	0,03765	0,05755	0,05006
3544,52197	-0,00206	0,03948	0,06416	0,03706	0,05679	0,04971
3542,59351	-0,00281	0,03913	0,0637	0,03686	0,05685	0,04993
3540,66504	-0,00302	0,03896	0,06351	0,03681	0,05685	0,05005
3538,73657	-0,00306	0,03895	0,0635	0,03676	0,05691	0,04989
3536,80811	-0,00288	0,03907	0,06363	0,03672	0,05689	0,04959
3534,87964	-0,00328	0,03855	0,06321	0,0364	0,05649	0,04943
3532,95117	-0,00373	0,03821	0,06284	0,03617	0,0563	0,04931
3531,02271	-0,00352	0,03837	0,06303	0,03623	0,05635	0,04904
3529,09424	-0,00321	0,03834	0,06325	0,03624	0,05617	0,04865
3527,16577	-0,00356	0,0379	0,06288	0,0359	0,05574	0,04839
3525,2373	-0,00378	0,0378	0,06271	0,03576	0,05573	0,04822
3523,30884	-0,00368	0,03769	0,06262	0,03566	0,05563	0,04794
3521,38037	-0,00431	0,03716	0,0621	0,03537	0,05524	0,04794
3519,4519	-0,00467	0,03705	0,06199	0,03532	0,05526	0,04797
3517,52344	-0,00464	0,03699	0,06201	0,03522	0,05526	0,04783
3515,59497	-0,00499	0,03677	0,06184	0,03511	0,05514	0,04775
3513,6665	-0,00508	0,03657	0,06164	0,03503	0,05498	0,04759
3511,73804	-0,00488	0,0364	0,06169	0,03487	0,05484	0,04728
3509,80957	-0,00478	0,03645	0,06182	0,03478	0,05466	0,04686
3507,8811	-0,00531	0,03597	0,0611	0,03439	0,05411	0,04672
3505,95264	-0,00565	0,03577	0,06101	0,03434	0,05424	0,04681
3504,02417	-0,00506	0,03615	0,06174	0,03467	0,05454	0,04638
3502,0957	-0,00516	0,03573	0,06125	0,03437	0,054	0,04611
3500,16724	-0,00577	0,03536	0,0607	0,03408	0,05389	0,04644
3498,23877	-0,00562	0,03553	0,06098	0,03417	0,05409	0,04637
3496,3103	-0,00557	0,03541	0,06094	0,03416	0,05392	0,04618
3494,38184	-0,0059	0,03524	0,06068	0,0341	0,05383	0,04616
3492,45337	-0,0061	0,03508	0,06053	0,03397	0,05376	0,04605
3490,5249	-0,00607	0,035	0,06056	0,03394	0,05376	0,04604
3488,59644	-0,00593	0,03511	0,06071	0,03403	0,05378	0,04594
3486,66797	-0,00603	0,03497	0,06058	0,03399	0,05362	0,04583
3484,7395	-0,00623	0,03486	0,06053	0,03399	0,05363	0,0459
3482,81104	-0,00602	0,035	0,06073	0,03404	0,05366	0,0457
3480,88257	-0,00598	0,0348	0,06057	0,03383	0,05333	0,04539
3478,9541	-0,00638	0,03458	0,06024	0,03362	0,0533	0,04553
3477,02563	-0,00646	0,03468	0,06027	0,03367	0,05349	0,04559
3475,09717	-0,00639	0,03458	0,06035	0,03375	0,05336	0,04543
3473,1687	-0,00648	0,03447	0,06029	0,03369	0,05329	0,04544
3471,24023	-0,00657	0,03447	0,06019	0,03365	0,05335	0,04551
3469,31177	-0,00655	0,03444	0,06023	0,03373	0,05335	0,04542
3467,3833	-0,00648	0,0344	0,06028	0,03367	0,05325	0,04527
3465,45483	-0,00664	0,03427	0,06013	0,03353	0,05312	0,04518
3463,52637	-0,00668	0,03423	0,06008	0,0336	0,05313	0,04499
3461,5979	-0,00665	0,03417	0,06004	0,03356	0,05307	0,04491
3459,66943	-0,00679	0,03405	0,05994	0,03342	0,05302	0,04502
3457,74097	-0,00684	0,03399	0,05989	0,03339	0,05301	0,04494

3455,8125	-0,00701	0,03392	0,05989	0,03339	0,05292	0,0449
3453,88403	-0,00707	0,03396	0,05998	0,03342	0,05298	0,04491
3451,95557	-0,00701	0,03381	0,05978	0,03335	0,05293	0,04487
3450,0271	-0,00701	0,03376	0,05979	0,03338	0,05295	0,04478
3448,09863	-0,00664	0,03405	0,06023	0,03351	0,05306	0,0445
3446,17017	-0,0067	0,03383	0,05997	0,03334	0,05278	0,04452
3444,2417	-0,00704	0,03371	0,05977	0,03334	0,0528	0,04477
3442,31323	-0,00693	0,034	0,06012	0,03345	0,0531	0,04474
3440,38477	-0,00709	0,03383	0,06	0,03334	0,05302	0,04476
3438,4563	-0,00718	0,03377	0,05996	0,03341	0,053	0,04489
3436,52783	-0,00708	0,03401	0,06012	0,03349	0,05311	0,04496
3434,59937	-0,00715	0,03401	0,06009	0,03349	0,05312	0,04495
3432,6709	-0,00696	0,03401	0,06015	0,03358	0,05319	0,04485
3430,74243	-0,00687	0,03409	0,06013	0,03355	0,05319	0,04486
3428,81396	-0,00692	0,03422	0,06024	0,0336	0,05326	0,04505
3426,8855	-0,00684	0,0343	0,0604	0,03373	0,05337	0,04517
3424,95703	-0,0069	0,03427	0,06037	0,0337	0,05345	0,04515
3423,02856	-0,00676	0,0344	0,06054	0,03378	0,05361	0,04513
3421,1001	-0,0064	0,03457	0,0607	0,03388	0,05365	0,04513
3419,17163	-0,00642	0,03447	0,06057	0,03381	0,0536	0,04519
3417,24316	-0,00655	0,03447	0,06059	0,03393	0,05374	0,04541
3415,3147	-0,00658	0,03475	0,06086	0,03417	0,05394	0,04564
3413,38623	-0,00656	0,03494	0,06095	0,03415	0,05402	0,04569
3411,45776	-0,00639	0,03497	0,0609	0,03421	0,05411	0,04574
3409,5293	-0,00623	0,03503	0,061	0,03432	0,05421	0,04583
3407,60083	-0,00622	0,03505	0,06102	0,03431	0,05425	0,04587
3405,67236	-0,00619	0,03513	0,06111	0,03447	0,05441	0,046
3403,7439	-0,00608	0,03531	0,06127	0,03454	0,05452	0,04607
3401,81543	-0,00604	0,03538	0,06127	0,03442	0,05445	0,04609
3399,88696	-0,00595	0,03549	0,06141	0,03452	0,05457	0,04623
3397,9585	-0,00576	0,03564	0,06155	0,03472	0,05469	0,04634
3396,03003	-0,00578	0,0356	0,06151	0,03468	0,05468	0,04638
3394,10156	-0,00582	0,0357	0,06173	0,03469	0,05489	0,04643
3392,1731	-0,00567	0,03595	0,06188	0,03483	0,0551	0,04652
3390,24463	-0,00558	0,03591	0,06167	0,03476	0,05503	0,04664
3388,31616	-0,00564	0,03589	0,06169	0,03483	0,05509	0,04676
3386,3877	-0,00558	0,03615	0,062	0,03511	0,0554	0,04694
3384,45923	-0,00542	0,03625	0,06211	0,03501	0,05546	0,047
3382,53076	-0,00547	0,03623	0,06206	0,03495	0,05539	0,04703
3380,60229	-0,00539	0,03638	0,06214	0,03521	0,05559	0,04722
3378,67383	-0,00524	0,03644	0,06222	0,03523	0,05573	0,04734
3376,74536	-0,00525	0,03654	0,06226	0,03521	0,05578	0,04741
3374,81689	-0,0051	0,03671	0,06239	0,03537	0,05592	0,04754
3372,88843	-0,00496	0,03674	0,06246	0,03535	0,05598	0,04763
3370,95996	-0,00494	0,03689	0,0625	0,03542	0,05609	0,04781
3369,03149	-0,00487	0,0372	0,06271	0,03571	0,05635	0,04804
3367,10303	-0,00482	0,03735	0,06288	0,03584	0,05649	0,04816
3365,17456	-0,00474	0,03737	0,06287	0,03576	0,05658	0,0482

3363,24609	-0,00467	0,03746	0,06298	0,03583	0,05674	0,04835
3361,31763	-0,00453	0,0376	0,06316	0,03599	0,05681	0,04857
3359,38916	-0,00438	0,03771	0,06313	0,03595	0,05692	0,04872
3357,46069	-0,00427	0,03782	0,06322	0,03598	0,05712	0,04878
3355,53223	-0,00416	0,03784	0,06331	0,03607	0,0572	0,04885
3353,60376	-0,00411	0,0379	0,06328	0,03607	0,05726	0,04896
3351,67529	-0,00407	0,0382	0,06351	0,03624	0,05752	0,0492
3349,74683	-0,00399	0,03844	0,06372	0,03642	0,05771	0,04945
3347,81836	-0,0039	0,03843	0,06366	0,03635	0,05773	0,0494
3345,88989	-0,00382	0,03855	0,06368	0,03643	0,05786	0,04951
3343,96143	-0,00372	0,03883	0,06387	0,03667	0,05812	0,04985
3342,03296	-0,00363	0,0389	0,06388	0,03666	0,05819	0,04987
3340,10449	-0,00364	0,03888	0,06384	0,03663	0,0581	0,04981
3338,17603	-0,00345	0,03906	0,0641	0,03682	0,05824	0,04997
3336,24756	-0,00324	0,03924	0,06428	0,03689	0,0585	0,05012
3334,31909	-0,00333	0,03921	0,06415	0,03684	0,05848	0,05019
3332,39063	-0,00328	0,03925	0,06419	0,03691	0,05849	0,05031
3330,46216	-0,00318	0,03935	0,0643	0,037	0,05864	0,05043
3328,53369	-0,0032	0,03937	0,06429	0,03702	0,05868	0,05044
3326,60522	-0,00306	0,03956	0,06452	0,03711	0,05877	0,05062
3324,67676	-0,0029	0,03976	0,06465	0,03722	0,05896	0,05081
3322,74829	-0,00287	0,03969	0,06448	0,03725	0,05901	0,05073
3320,81982	-0,00291	0,03976	0,06461	0,03728	0,05901	0,05084
3318,89136	-0,00288	0,03995	0,06481	0,03736	0,05909	0,05099
3316,96289	-0,00276	0,03988	0,0647	0,03733	0,05912	0,05091
3315,03442	-0,00271	0,0399	0,06474	0,03733	0,05919	0,05092
3313,10596	-0,00269	0,04011	0,06488	0,03745	0,05932	0,05103
3311,17749	-0,00265	0,04017	0,06495	0,03749	0,05936	0,0511
3309,24902	-0,00261	0,0402	0,06506	0,03748	0,05941	0,05117
3307,32056	-0,00259	0,04034	0,06507	0,03754	0,05943	0,0513
3305,39209	-0,00254	0,04043	0,06517	0,03761	0,05948	0,05146
3303,46362	-0,00244	0,04043	0,06522	0,03761	0,05961	0,05143
3301,53516	-0,00247	0,0404	0,06508	0,03758	0,05964	0,05137
3299,60669	-0,00246	0,04049	0,06521	0,03766	0,05975	0,05146
3297,67822	-0,00234	0,04049	0,06524	0,03764	0,05976	0,05148
3295,74976	-0,0024	0,04047	0,06519	0,03761	0,05966	0,05148
3293,82129	-0,00245	0,04064	0,06543	0,03774	0,05975	0,05159
3291,89282	-0,00232	0,04066	0,06541	0,03777	0,05981	0,05159
3289,96436	-0,00228	0,04061	0,06529	0,03772	0,05984	0,05153
3288,03589	-0,00234	0,04068	0,06543	0,03775	0,05987	0,05158
3286,10742	-0,00227	0,04074	0,06547	0,03775	0,05985	0,05165
3284,17896	-0,00217	0,04074	0,06545	0,03763	0,05989	0,05159
3282,25049	-0,00225	0,04067	0,06541	0,03756	0,05978	0,05155
3280,32202	-0,00226	0,04069	0,06533	0,03761	0,05971	0,05157
3278,39355	-0,0022	0,04069	0,06534	0,03763	0,05976	0,05153
3276,46509	-0,00226	0,04075	0,06552	0,0377	0,0598	0,05159
3274,53662	-0,00231	0,0409	0,06566	0,03769	0,05984	0,05158
3272,60815	-0,00231	0,04082	0,06558	0,03758	0,05975	0,05147

3270,67969	-0,00238	0,04082	0,06558	0,03769	0,05981	0,05164
3268,75122	-0,00241	0,04091	0,06557	0,03773	0,05995	0,05177
3266,82275	-0,00235	0,04085	0,06553	0,03766	0,05983	0,05171
3264,89429	-0,00231	0,04088	0,06559	0,03772	0,05978	0,05171
3262,96582	-0,00237	0,0409	0,0656	0,03767	0,05985	0,05174
3261,03735	-0,00237	0,04091	0,06567	0,03762	0,05986	0,05175
3259,10889	-0,00228	0,0409	0,06563	0,03761	0,05982	0,05174
3257,18042	-0,00229	0,04091	0,06554	0,03759	0,05981	0,0517
3255,25195	-0,00234	0,04099	0,06569	0,03766	0,05986	0,05173
3253,32349	-0,00234	0,0409	0,06569	0,03761	0,0598	0,05176
3251,39502	-0,00238	0,0408	0,06552	0,03749	0,05971	0,05169
3249,46655	-0,00243	0,04088	0,06556	0,03754	0,05973	0,05174
3247,53809	-0,0024	0,04104	0,06575	0,03767	0,05981	0,05188
3245,60962	-0,00233	0,04109	0,06579	0,03768	0,05987	0,05181
3243,68115	-0,00235	0,04099	0,06561	0,03758	0,05974	0,05168
3241,75269	-0,00242	0,04101	0,06557	0,03751	0,05967	0,05173
3239,82422	-0,00236	0,04108	0,06573	0,03756	0,05976	0,05182
3237,89575	-0,00237	0,04111	0,06582	0,0376	0,0598	0,05184
3235,96729	-0,00251	0,04113	0,06583	0,03758	0,05979	0,05185
3234,03882	-0,00249	0,04111	0,06586	0,03759	0,05977	0,05184
3232,11035	-0,0024	0,04117	0,0658	0,03762	0,05976	0,05177
3230,18188	-0,00246	0,04118	0,06572	0,03761	0,05974	0,05176
3228,25342	-0,00239	0,04114	0,06577	0,03761	0,05973	0,05184
3226,32495	-0,00233	0,04118	0,06583	0,03759	0,05975	0,05184
3224,39648	-0,00251	0,04113	0,06575	0,03753	0,05974	0,05181
3222,46802	-0,00251	0,04119	0,06579	0,03754	0,05979	0,05193
3220,53955	-0,00237	0,04131	0,06593	0,03763	0,05984	0,05192
3218,61108	-0,00245	0,04116	0,06579	0,03752	0,05974	0,05181
3216,68262	-0,00241	0,04117	0,06573	0,03747	0,05971	0,05192
3214,75415	-0,00231	0,0413	0,06586	0,03758	0,05975	0,05192
3212,82568	-0,00244	0,04119	0,06578	0,03746	0,05965	0,05181
3210,89722	-0,00245	0,04126	0,06578	0,03742	0,05965	0,05186
3208,96875	-0,0024	0,04132	0,06583	0,03752	0,05967	0,05189
3207,04028	-0,0025	0,04123	0,0658	0,0375	0,05962	0,05198
3205,11182	-0,0025	0,04133	0,06589	0,03751	0,05968	0,05203
3203,18335	-0,00244	0,04138	0,06592	0,03752	0,0597	0,05199
3201,25488	-0,00245	0,04139	0,06591	0,03757	0,05971	0,05214
3199,32642	-0,00236	0,04149	0,06594	0,03767	0,05976	0,05213
3197,39795	-0,00226	0,04149	0,06593	0,03767	0,05975	0,05201
3195,46948	-0,00242	0,04142	0,06593	0,03764	0,05974	0,05214
3193,54102	-0,00248	0,04144	0,06597	0,03763	0,05976	0,05223
3191,61255	-0,00234	0,04157	0,06603	0,0377	0,05986	0,05225
3189,68408	-0,00237	0,0416	0,06601	0,03776	0,05992	0,05231
3187,75562	-0,00238	0,04159	0,06602	0,03769	0,05982	0,05235
3185,82715	-0,00229	0,04166	0,06615	0,03768	0,05984	0,05232
3183,89868	-0,00227	0,04167	0,06615	0,03773	0,05984	0,05229
3181,97021	-0,00224	0,04174	0,06614	0,03772	0,05987	0,05238
3180,04175	-0,00217	0,04184	0,06626	0,03776	0,05998	0,05238

3178,11328	-0,00219	0,04176	0,06627	0,03778	0,05986	0,05225
3176,18481	-0,00225	0,04174	0,06619	0,03771	0,0598	0,0523
3174,25635	-0,00224	0,04183	0,06625	0,03776	0,05995	0,05244
3172,32788	-0,00221	0,04188	0,06631	0,03785	0,05991	0,05246
3170,39941	-0,0022	0,04197	0,06635	0,03785	0,0599	0,05248
3168,47095	-0,00221	0,04196	0,06634	0,03786	0,05998	0,05249
3166,54248	-0,00228	0,04191	0,0663	0,03789	0,05997	0,05246
3164,61401	-0,00226	0,04206	0,06641	0,03794	0,05999	0,0525
3162,68555	-0,00217	0,04211	0,06643	0,03795	0,06004	0,05255
3160,75708	-0,00218	0,042	0,06632	0,03788	0,05999	0,05253
3158,82861	-0,00224	0,04201	0,06635	0,03789	0,05993	0,05253
3156,90015	-0,00217	0,04201	0,06635	0,03789	0,05998	0,05252
3154,97168	-0,00217	0,04195	0,06625	0,0378	0,05993	0,05247
3153,04321	-0,00232	0,04201	0,06631	0,03788	0,0599	0,05253
3151,11475	-0,00227	0,04207	0,06641	0,038	0,05999	0,05262
3149,18628	-0,00217	0,04203	0,06638	0,03789	0,05994	0,05255
3147,25781	-0,00223	0,04204	0,06634	0,03786	0,05985	0,05251
3145,32935	-0,00227	0,042	0,0663	0,0379	0,05986	0,05252
3143,40088	-0,00231	0,04197	0,06624	0,03784	0,05983	0,05245
3141,47241	-0,0023	0,04206	0,06626	0,03786	0,05984	0,05249
3139,54395	-0,0022	0,04202	0,0663	0,03787	0,05979	0,05254
3137,61548	-0,00222	0,04189	0,06623	0,03779	0,05972	0,05248
3135,68701	-0,00227	0,04196	0,06618	0,03783	0,05978	0,05245
3133,75854	-0,00223	0,04202	0,06623	0,03785	0,05979	0,05236
3131,83008	-0,00231	0,04187	0,06616	0,03775	0,05963	0,05232
3129,90161	-0,00235	0,04189	0,0662	0,03779	0,05967	0,05243
3127,97314	-0,00233	0,042	0,0663	0,0378	0,05971	0,05241
3126,04468	-0,0024	0,04193	0,06622	0,03772	0,05959	0,05236
3124,11621	-0,00235	0,04196	0,06629	0,03777	0,05964	0,05243
3122,18774	-0,00226	0,04194	0,06629	0,03778	0,05965	0,05239
3120,25928	-0,00229	0,04193	0,06619	0,03775	0,05958	0,05238
3118,33081	-0,00227	0,04204	0,06634	0,03781	0,05967	0,05243
3116,40234	-0,00227	0,04198	0,0664	0,0378	0,05966	0,05238
3114,47388	-0,00235	0,04186	0,06629	0,03773	0,05954	0,05228
3112,54541	-0,0024	0,04178	0,06615	0,03762	0,05945	0,05221
3110,61694	-0,00241	0,04178	0,06611	0,03757	0,05949	0,05225
3108,68848	-0,00245	0,04184	0,06624	0,03765	0,05959	0,0523
3106,76001	-0,00244	0,04177	0,06618	0,03764	0,05951	0,05224
3104,83154	-0,00232	0,04167	0,06605	0,03755	0,05942	0,05216
3102,90308	-0,00231	0,04171	0,06611	0,03758	0,05941	0,05207
3100,97461	-0,00241	0,04176	0,06611	0,03762	0,05936	0,05209
3099,04614	-0,00244	0,04169	0,06604	0,03755	0,05935	0,05218
3097,11768	-0,00236	0,04175	0,06611	0,03758	0,05939	0,0521
3095,18921	-0,00235	0,04174	0,06609	0,03756	0,05934	0,05204
3093,26074	-0,00247	0,04155	0,06595	0,03747	0,05928	0,0521
3091,33228	-0,00256	0,04161	0,06598	0,03756	0,05929	0,05212
3089,40381	-0,00259	0,04167	0,06599	0,03754	0,05931	0,05211
3087,47534	-0,0025	0,04162	0,06598	0,03745	0,05927	0,05206

3085,54688	-0,00245	0,04167	0,06601	0,03747	0,05924	0,05201
3083,61841	-0,00252	0,04164	0,06597	0,03741	0,05932	0,052
3081,68994	-0,00252	0,0416	0,06593	0,03737	0,05931	0,05192
3079,76147	-0,00249	0,04165	0,06591	0,03739	0,05921	0,05182
3077,83301	-0,00252	0,04161	0,06585	0,03734	0,05918	0,05182
3075,90454	-0,00256	0,04147	0,06581	0,03726	0,05916	0,05182
3073,97607	-0,00255	0,04138	0,06578	0,03722	0,05912	0,0518
3072,04761	-0,00258	0,04137	0,0657	0,0372	0,05904	0,05178
3070,11914	-0,00262	0,04136	0,06571	0,03718	0,05904	0,05179
3068,19067	-0,00252	0,04142	0,06585	0,03724	0,05911	0,05176
3066,26221	-0,00252	0,0414	0,06584	0,03724	0,05903	0,05169
3064,33374	-0,00261	0,04127	0,06571	0,03714	0,05892	0,05166
3062,40527	-0,00266	0,04117	0,0656	0,03708	0,05893	0,05162
3060,47681	-0,00266	0,04115	0,06554	0,03704	0,05892	0,0516
3058,54834	-0,00261	0,04128	0,06563	0,03707	0,0589	0,05165
3056,61987	-0,00263	0,04129	0,06563	0,03709	0,05889	0,05159
3054,69141	-0,00269	0,04118	0,06552	0,03698	0,05887	0,05157
3052,76294	-0,00267	0,04117	0,06554	0,03697	0,05889	0,05162
3050,83447	-0,00262	0,04122	0,06559	0,03703	0,0589	0,0516
3048,90601	-0,00261	0,04121	0,06558	0,03696	0,05883	0,05154
3046,97754	-0,00265	0,0411	0,0655	0,03692	0,05876	0,05146
3045,04907	-0,00273	0,0411	0,06548	0,03694	0,05874	0,05146
3043,12061	-0,00274	0,04117	0,06551	0,03686	0,05874	0,05146
3041,19214	-0,00275	0,04113	0,06546	0,03685	0,05874	0,05141
3039,26367	-0,00281	0,04113	0,06543	0,03692	0,05874	0,05142
3037,33521	-0,00284	0,04111	0,06542	0,03689	0,05875	0,05139
3035,40674	-0,00285	0,04109	0,06546	0,03687	0,05878	0,05139
3033,47827	-0,00278	0,04118	0,06557	0,03686	0,05875	0,0514
3031,5498	-0,00275	0,04113	0,06552	0,03678	0,05864	0,05127
3029,62134	-0,00292	0,04096	0,06541	0,03678	0,05857	0,05123
3027,69287	-0,003	0,04096	0,0654	0,03679	0,05861	0,05128
3025,7644	-0,00303	0,041	0,06538	0,03676	0,05864	0,05123
3023,83594	-0,00304	0,04103	0,0654	0,03681	0,05863	0,05122
3021,90747	-0,00299	0,04104	0,06542	0,03682	0,05864	0,05129
3019,979	-0,003	0,0411	0,06545	0,03685	0,05868	0,05133
3018,05054	-0,00297	0,04127	0,06559	0,03699	0,0587	0,05126
3016,12207	-0,00303	0,04122	0,06558	0,03691	0,05861	0,05116
3014,1936	-0,00313	0,04107	0,06551	0,0368	0,05859	0,05121
3012,26514	-0,00314	0,04116	0,06559	0,03683	0,05867	0,05124
3010,33667	-0,00315	0,04111	0,06552	0,03678	0,05862	0,05117
3008,4082	-0,00317	0,04096	0,06541	0,03676	0,05864	0,05131
3006,47974	-0,00319	0,04099	0,06546	0,03676	0,0587	0,05138
3004,55127	-0,0032	0,041	0,06542	0,03668	0,05864	0,05127
3002,6228	-0,00322	0,04089	0,0653	0,03663	0,05863	0,05123
3000,69434	-0,00323	0,04085	0,06532	0,03658	0,05863	0,05128
2998,76587	-0,00325	0,04092	0,06531	0,03661	0,05862	0,05135
2996,8374	-0,00326	0,04094	0,06525	0,03663	0,05871	0,05139
2994,90894	-0,00328	0,04089	0,06528	0,0366	0,0587	0,0514



2992,98047	-0,00329	0,04082	0,06526	0,03659	0,05869	0,05146
2991,052	-0,00331	0,04078	0,06519	0,03657	0,0588	0,05152
2989,12354	-0,00332	0,04077	0,06517	0,03654	0,05878	0,05152
2987,19507	-0,00334	0,04071	0,06514	0,03652	0,05871	0,0515
2985,2666	-0,00335	0,04066	0,0651	0,03646	0,05878	0,05151
2983,33813	-0,00337	0,04061	0,06509	0,03638	0,05881	0,0515
2981,40967	-0,00338	0,04061	0,06514	0,03645	0,05884	0,05157
2979,4812	-0,0034	0,04063	0,0652	0,03649	0,0588	0,05157
2977,55273	-0,00341	0,04049	0,0651	0,03636	0,05864	0,05133
2975,62427	-0,00343	0,04042	0,06498	0,03631	0,05861	0,05125
2973,6958	-0,00344	0,04037	0,06493	0,03623	0,05858	0,05122
2971,76733	-0,00346	0,04015	0,06485	0,03607	0,05842	0,05098
2969,83887	-0,00347	0,04013	0,06483	0,03604	0,0584	0,05087
2967,9104	-0,00349	0,04018	0,06479	0,03599	0,05842	0,0508
2965,98193	-0,0035	0,04005	0,06471	0,03591	0,05834	0,05068
2964,05347	-0,00352	0,04006	0,0647	0,03592	0,05831	0,05068
2962,125	-0,00353	0,04011	0,06469	0,03595	0,05836	0,05067
2960,19653	-0,00355	0,04008	0,06471	0,03595	0,05835	0,05064
2958,26807	-0,00357	0,04011	0,0647	0,03594	0,05831	0,05064
2956,3396	-0,00358	0,04014	0,06465	0,03591	0,05833	0,05065
2954,41113	-0,0036	0,04012	0,06467	0,03591	0,05832	0,05063
2952,48267	-0,00361	0,04011	0,06466	0,03591	0,05835	0,05064
2950,5542	-0,00363	0,04015	0,06469	0,03595	0,05847	0,05067
2948,62573	-0,00364	0,04022	0,06476	0,03602	0,05849	0,05068
2946,69727	-0,00366	0,04015	0,06478	0,03601	0,0585	0,0507
2944,7688	-0,00367	0,04011	0,0648	0,03604	0,05859	0,05076
2942,84033	-0,00369	0,04016	0,06476	0,03606	0,05859	0,05073
2940,91187	-0,0037	0,04007	0,06468	0,036	0,05854	0,05061
2938,9834	-0,00372	0,04002	0,06472	0,03601	0,05858	0,05062
2937,05493	-0,00373	0,04006	0,06473	0,03607	0,05867	0,05073
2935,12646	-0,00375	0,04004	0,0647	0,03611	0,0587	0,05071
2933,198	-0,00376	0,04002	0,06469	0,03614	0,05865	0,05063
2931,26953	-0,00378	0,04004	0,06469	0,03616	0,05864	0,05062
2929,34106	-0,00379	0,04004	0,06475	0,03622	0,05868	0,05062
2927,4126	-0,00381	0,03997	0,06473	0,03617	0,05863	0,05056
2925,48413	-0,00382	0,0399	0,06466	0,03608	0,05862	0,05045
2923,55566	-0,00384	0,03983	0,06461	0,03602	0,0586	0,05039
2921,6272	-0,00385	0,03971	0,06447	0,03589	0,05845	0,05029
2919,69873	-0,00387	0,03965	0,06436	0,03578	0,05839	0,05016
2917,77026	-0,00388	0,0396	0,0643	0,03573	0,05832	0,05007
2915,8418	-0,0039	0,03957	0,06428	0,03566	0,05825	0,05005
2913,91333	-0,00391	0,03971	0,06443	0,0357	0,05842	0,05018
2911,98486	-0,00393	0,03987	0,06464	0,03582	0,05857	0,05031
2910,0564	-0,00395	0,03989	0,06463	0,03585	0,05859	0,05032
2908,12793	-0,00396	0,03992	0,06456	0,03585	0,0586	0,0503
2906,19946	-0,00398	0,03996	0,06456	0,03582	0,0586	0,05027
2904,271	-0,00399	0,03994	0,06455	0,03579	0,05862	0,05026
2902,34253	-0,00401	0,03995	0,06457	0,03576	0,05861	0,05026

2900,41406	-0,00402	0,03994	0,06454	0,0357	0,05859	0,05023
2898,4856	-0,00404	0,03994	0,06455	0,03575	0,05865	0,05027
2896,55713	-0,00405	0,04003	0,06467	0,03586	0,05872	0,05034
2894,62866	-0,00407	0,04004	0,06464	0,03578	0,05869	0,05033
2892,7002	-0,00408	0,03998	0,06459	0,0357	0,05865	0,05028
2890,77173	-0,0041	0,03993	0,06463	0,03568	0,05858	0,05021
2888,84326	-0,00411	0,03989	0,06458	0,03566	0,05847	0,05015
2886,91479	-0,00413	0,03988	0,06452	0,03562	0,05846	0,05014
2884,98633	-0,00414	0,03985	0,0645	0,03552	0,05849	0,05009
2883,05786	-0,00416	0,03983	0,06445	0,03546	0,05844	0,05002
2881,12939	-0,00417	0,03978	0,06443	0,03547	0,05837	0,04997
2879,20093	-0,00419	0,03974	0,06443	0,03542	0,05833	0,04992
2877,27246	-0,0042	0,03975	0,06438	0,03541	0,05832	0,0499
2875,34399	-0,00422	0,03973	0,0643	0,03542	0,0583	0,04988
2873,41553	-0,00423	0,03976	0,06435	0,03542	0,05831	0,04986
2871,48706	-0,00425	0,03984	0,06443	0,03546	0,05831	0,04988
2869,55859	-0,00426	0,03979	0,06433	0,03539	0,05823	0,04985
2867,63013	-0,00428	0,03971	0,06424	0,03532	0,05819	0,04981
2865,70166	-0,0043	0,03972	0,06426	0,03538	0,05821	0,04985
2863,77319	-0,00431	0,0397	0,06422	0,03534	0,05816	0,04982
2861,84473	-0,00433	0,03968	0,06423	0,03529	0,05815	0,04978
2859,91626	-0,00434	0,03971	0,06429	0,03536	0,05813	0,04984
2857,98779	-0,00436	0,03964	0,06424	0,03533	0,05803	0,04975
2856,05933	-0,00437	0,0396	0,06423	0,03528	0,05799	0,04968
2854,13086	-0,00439	0,0397	0,06429	0,03529	0,05804	0,04971
2852,20239	-0,0044	0,03973	0,06435	0,0353	0,05808	0,04976
2850,27393	-0,00442	0,03976	0,06443	0,03537	0,05814	0,04981
2848,34546	-0,00443	0,03977	0,0644	0,03532	0,0581	0,04978
2846,41699	-0,00445	0,03967	0,06429	0,0352	0,05798	0,04972
2844,48853	-0,00446	0,03965	0,0643	0,03522	0,05793	0,04968
2842,56006	-0,00448	0,03967	0,06426	0,03519	0,05788	0,04959
2840,63159	-0,00449	0,03963	0,06416	0,03512	0,05781	0,04959
2838,70313	-0,00451	0,03964	0,0642	0,03514	0,05781	0,04962
2836,77466	-0,00452	0,03964	0,06422	0,03508	0,05779	0,04956
2834,84619	-0,00454	0,03962	0,06416	0,03501	0,05774	0,04954
2832,91772	-0,00455	0,03967	0,06417	0,03506	0,05775	0,04957
2830,98926	-0,00457	0,03971	0,06421	0,03506	0,05772	0,04956
2829,06079	-0,00458	0,03966	0,06424	0,03499	0,05767	0,04952
2827,13232	-0,0046	0,03964	0,06425	0,03497	0,05766	0,04954
2825,20386	-0,00455	0,03965	0,06427	0,03496	0,05771	0,04955
2823,27539	-0,00454	0,03968	0,06429	0,03498	0,0577	0,0495
2821,34692	-0,00455	0,03973	0,06427	0,03499	0,05764	0,04951
2819,41846	-0,00454	0,03973	0,06422	0,03493	0,05765	0,04956
2817,48999	-0,00456	0,03971	0,06419	0,03496	0,05767	0,04952
2815,56152	-0,00452	0,03972	0,06423	0,03504	0,05767	0,04949
2813,63306	-0,00449	0,03974	0,06426	0,03501	0,05764	0,04949
2811,70459	-0,00456	0,03979	0,06428	0,03501	0,05761	0,04947
2809,77612	-0,00453	0,03982	0,06435	0,03504	0,05759	0,04948

2807,84766	-0,00447	0,03978	0,06435	0,035	0,05758	0,04948
2805,91919	-0,00448	0,03975	0,06431	0,03497	0,05757	0,04943
2803,99072	-0,00442	0,03977	0,06433	0,03499	0,0576	0,04943
2802,06226	-0,00438	0,03974	0,06428	0,03498	0,05757	0,04936
2800,13379	-0,00443	0,03969	0,06428	0,03495	0,05754	0,04933
2798,20532	-0,00445	0,03976	0,06439	0,035	0,0576	0,04942
2796,27686	-0,0044	0,03981	0,0644	0,03504	0,05761	0,04946
2794,34839	-0,00439	0,03973	0,06431	0,03495	0,05752	0,04942
2792,41992	-0,00442	0,0397	0,06429	0,03492	0,05748	0,04943
2790,49146	-0,00441	0,03978	0,06431	0,03501	0,05748	0,04946
2788,56299	-0,00438	0,0398	0,06432	0,035	0,05748	0,04946
2786,63452	-0,00441	0,03977	0,06433	0,03499	0,05752	0,04948
2784,70605	-0,0045	0,03979	0,06437	0,03505	0,05757	0,0495
2782,77759	-0,00446	0,03978	0,06437	0,03501	0,05758	0,04946
2780,84912	-0,00435	0,03979	0,06435	0,03496	0,05756	0,04946
2778,92065	-0,00434	0,03986	0,06439	0,03503	0,0576	0,0495
2776,99219	-0,00432	0,03985	0,06442	0,03509	0,05767	0,04948
2775,06372	-0,0043	0,03988	0,06442	0,03511	0,05768	0,04954
2773,13525	-0,00432	0,03989	0,06444	0,03509	0,05766	0,04957
2771,20679	-0,00427	0,03981	0,06441	0,03499	0,05764	0,04947
2769,27832	-0,00424	0,03987	0,0644	0,035	0,05765	0,04946
2767,34985	-0,00431	0,03992	0,06438	0,03505	0,05761	0,0495
2765,42139	-0,00428	0,03988	0,06437	0,03498	0,05759	0,04945
2763,49292	-0,00424	0,03992	0,06445	0,035	0,05766	0,04948
2761,56445	-0,00426	0,03992	0,06449	0,0351	0,05771	0,04953
2759,63599	-0,00423	0,03986	0,06443	0,03509	0,05765	0,04947
2757,70752	-0,00423	0,03986	0,06442	0,03502	0,05761	0,04946
2755,77905	-0,00429	0,03983	0,06444	0,035	0,05759	0,04943
2753,85059	-0,00426	0,0398	0,06439	0,03502	0,05757	0,04935
2751,92212	-0,00427	0,03979	0,0644	0,03504	0,0576	0,04937
2749,99365	-0,00434	0,03981	0,06448	0,03501	0,05762	0,04941
2748,06519	-0,00431	0,03985	0,06449	0,035	0,05758	0,04938
2746,13672	-0,0043	0,03986	0,0645	0,03503	0,05759	0,04935
2744,20825	-0,00431	0,03983	0,06449	0,035	0,0576	0,04933
2742,27979	-0,00424	0,03977	0,06439	0,03496	0,05757	0,04933
2740,35132	-0,00426	0,03973	0,06437	0,03494	0,05761	0,04932
2738,42285	-0,00426	0,03979	0,06441	0,03493	0,05764	0,04931
2736,49438	-0,0042	0,03984	0,06443	0,03498	0,05765	0,04936
2734,56592	-0,00425	0,03984	0,06449	0,035	0,05767	0,04936
2732,63745	-0,00428	0,03979	0,06449	0,03492	0,05764	0,04931
2730,70898	-0,00424	0,03973	0,06442	0,03489	0,05761	0,04931
2728,78052	-0,00427	0,03977	0,06451	0,03494	0,05765	0,04934
2726,85205	-0,00432	0,03982	0,06457	0,03494	0,05767	0,04937
2724,92358	-0,00429	0,0398	0,06451	0,03495	0,05764	0,04936
2722,99512	-0,00427	0,03981	0,06451	0,03498	0,05767	0,04935
2721,06665	-0,00429	0,03984	0,0645	0,03498	0,05767	0,04934
2719,13818	-0,00426	0,03987	0,06451	0,035	0,05765	0,0493
2717,20972	-0,00422	0,03991	0,06456	0,035	0,05769	0,04928

2715,28125	-0,00416	0,03986	0,06454	0,03497	0,0577	0,04928
2713,35278	-0,00413	0,03984	0,06456	0,03499	0,05768	0,04927
2711,42432	-0,0042	0,03983	0,06459	0,035	0,0577	0,04925
2709,49585	-0,00419	0,03977	0,06456	0,03496	0,05769	0,04926
2707,56738	-0,00412	0,03981	0,06453	0,03498	0,05766	0,0493
2705,63892	-0,00413	0,03987	0,06452	0,03501	0,05769	0,04929
2703,71045	-0,00415	0,03985	0,06455	0,03499	0,05772	0,04928
2701,78198	-0,00412	0,03984	0,06456	0,03499	0,05769	0,04927
2699,85352	-0,004	0,03987	0,06454	0,03502	0,05768	0,04926
2697,92505	-0,00393	0,03989	0,06457	0,03503	0,05771	0,04931
2695,99658	-0,00397	0,0399	0,06463	0,03504	0,05771	0,0493
2694,06812	-0,00397	0,03992	0,06463	0,035	0,05774	0,04927
2692,13965	-0,00395	0,03993	0,06467	0,03496	0,05775	0,04929
2690,21118	-0,00397	0,0399	0,06473	0,03504	0,05773	0,0493
2688,28271	-0,004	0,0399	0,06465	0,03508	0,05773	0,04927
2686,35425	-0,00401	0,03995	0,06461	0,03505	0,05771	0,04927
2684,42578	-0,00398	0,03998	0,06469	0,03506	0,05771	0,04928
2682,49731	-0,00393	0,03997	0,0647	0,03507	0,05775	0,04927
2680,56885	-0,00388	0,03997	0,06468	0,03506	0,05779	0,04929
2678,64038	-0,00384	0,03997	0,06468	0,03503	0,05778	0,04929
2676,71191	-0,00382	0,03998	0,06467	0,03503	0,05778	0,04926
2674,78345	-0,00383	0,04002	0,06473	0,03512	0,05786	0,04929
2672,85498	-0,00376	0,04003	0,06472	0,03514	0,05788	0,04932
2670,92651	-0,00367	0,04002	0,06471	0,03512	0,05784	0,04932
2668,99805	-0,00365	0,04004	0,06478	0,03515	0,05786	0,04934
2667,06958	-0,00367	0,04006	0,06481	0,03517	0,05796	0,04934
2665,14111	-0,00367	0,04007	0,06484	0,03517	0,05801	0,04935
2663,21265	-0,00361	0,04006	0,06485	0,03516	0,05799	0,04939
2661,28418	-0,00355	0,04006	0,06481	0,03514	0,05797	0,04937
2659,35571	-0,00359	0,04009	0,06485	0,03516	0,058	0,04935
2657,42725	-0,00354	0,04013	0,06497	0,03523	0,05803	0,0494
2655,49878	-0,00345	0,04014	0,06498	0,03528	0,05802	0,04943
2653,57031	-0,00344	0,04016	0,06493	0,03529	0,05803	0,04946
2651,64185	-0,00342	0,04022	0,06493	0,03531	0,05809	0,0495
2649,71338	-0,00337	0,04023	0,06496	0,03532	0,05811	0,0495
2647,78491	-0,00334	0,04024	0,06499	0,03533	0,05814	0,04954
2645,85645	-0,00328	0,04025	0,065	0,03535	0,05816	0,04958
2643,92798	-0,00321	0,04024	0,06504	0,03532	0,05814	0,04959
2641,99951	-0,00322	0,04025	0,06505	0,03527	0,05818	0,04962
2640,07104	-0,00321	0,04028	0,06505	0,03529	0,05823	0,04966
2638,14258	-0,00316	0,04031	0,06512	0,0354	0,05827	0,04968
2636,21411	-0,00317	0,04036	0,06516	0,03543	0,05828	0,04968
2634,28564	-0,00319	0,04039	0,06512	0,03538	0,05825	0,04969
2632,35718	-0,00318	0,0404	0,0651	0,03535	0,0583	0,04969
2630,42871	-0,0032	0,04042	0,06514	0,03534	0,05832	0,04968
2628,50024	-0,0032	0,04045	0,06518	0,03532	0,05825	0,04966
2626,57178	-0,00317	0,04045	0,06512	0,03535	0,05826	0,04965
2624,64331	-0,00316	0,04042	0,06506	0,03538	0,05825	0,04961

2622,71484	-0,00315	0,04038	0,06504	0,03534	0,05819	0,04957
2620,78638	-0,0031	0,04038	0,06501	0,03533	0,05823	0,04958
2618,85791	-0,00309	0,04039	0,06498	0,03532	0,05822	0,04954
2616,92944	-0,00311	0,04038	0,06498	0,0353	0,05818	0,04951
2615,00098	-0,00317	0,0404	0,06501	0,03535	0,05818	0,04953
2613,07251	-0,00323	0,04035	0,06495	0,03532	0,05815	0,04946
2611,14404	-0,00327	0,04029	0,06491	0,03529	0,05817	0,04941
2609,21558	-0,00336	0,04031	0,06489	0,0353	0,05818	0,04941
2607,28711	-0,0034	0,04028	0,06482	0,03522	0,05811	0,04932
2605,35864	-0,00346	0,04025	0,06484	0,03517	0,05807	0,04932
2603,43018	-0,00358	0,04023	0,06482	0,03516	0,05802	0,04931
2601,50171	-0,00355	0,04016	0,06473	0,03511	0,05796	0,04921
2599,57324	-0,00356	0,04017	0,06474	0,03506	0,05794	0,04918
2597,64478	-0,0037	0,04015	0,06466	0,03497	0,05789	0,0491
2595,71631	-0,00377	0,04009	0,06458	0,03487	0,05784	0,04904
2593,78784	-0,00377	0,0401	0,06462	0,03488	0,05781	0,04906
2591,85938	-0,00378	0,04007	0,06458	0,0349	0,05781	0,04899
2589,93091	-0,00385	0,04003	0,06451	0,03486	0,05779	0,04897
2588,00244	-0,00391	0,04002	0,0645	0,03482	0,05774	0,04898
2586,07397	-0,00394	0,03995	0,06445	0,03479	0,05766	0,04888
2584,14551	-0,00399	0,03989	0,06441	0,03473	0,05759	0,04882
2582,21704	-0,00408	0,0399	0,06436	0,03468	0,05755	0,04876
2580,28857	-0,00416	0,03989	0,06427	0,03473	0,0575	0,0487
2578,36011	-0,00415	0,03987	0,06429	0,03476	0,0575	0,04871
2576,43164	-0,00417	0,03985	0,06428	0,03471	0,0575	0,0487
2574,50317	-0,00426	0,0398	0,06421	0,03467	0,05746	0,04862
2572,57471	-0,0043	0,03977	0,06416	0,03463	0,05742	0,04861
2570,64624	-0,00439	0,03979	0,0641	0,03456	0,05737	0,0486
2568,71777	-0,00446	0,03977	0,06402	0,03449	0,05731	0,04849
2566,78931	-0,00447	0,03969	0,06399	0,03443	0,05728	0,04842
2564,86084	-0,00453	0,0397	0,06399	0,03443	0,0573	0,04843
2562,93237	-0,00452	0,03967	0,06393	0,0344	0,05723	0,04836
2561,00391	-0,00458	0,03958	0,06384	0,03433	0,05715	0,04829
2559,07544	-0,00475	0,03958	0,06381	0,03431	0,0572	0,04826
2557,14697	-0,00474	0,03954	0,0638	0,03429	0,0572	0,04821
2555,21851	-0,00471	0,03946	0,06379	0,03425	0,05712	0,04819
2553,29004	-0,00481	0,03948	0,06378	0,03424	0,05708	0,04823
2551,36157	-0,00483	0,03947	0,06378	0,03422	0,05709	0,0482
2549,43311	-0,00486	0,03943	0,06379	0,03419	0,05707	0,04811
2547,50464	-0,00494	0,03943	0,06379	0,03416	0,05704	0,04809
2545,57617	-0,00496	0,03945	0,06375	0,03413	0,05705	0,04806
2543,64771	-0,005	0,03947	0,06369	0,03414	0,05701	0,048
2541,71924	-0,00505	0,03943	0,0637	0,03413	0,05695	0,04801
2539,79077	-0,00506	0,03939	0,06367	0,03408	0,05691	0,04801
2537,8623	-0,00513	0,03944	0,06358	0,03407	0,05689	0,04796
2535,93384	-0,00519	0,03942	0,06359	0,03407	0,05687	0,04795
2534,00537	-0,00522	0,03938	0,06363	0,03402	0,05689	0,04796
2532,0769	-0,00526	0,03942	0,06361	0,03401	0,05693	0,04791

2530,14844	-0,0053	0,03941	0,06357	0,034	0,0569	0,04788
2528,21997	-0,00537	0,03937	0,06355	0,03394	0,05683	0,04784
2526,2915	-0,00539	0,03936	0,06354	0,03391	0,0568	0,04779
2524,36304	-0,00535	0,03935	0,06348	0,03389	0,05679	0,0478
2522,43457	-0,00541	0,0393	0,06343	0,03386	0,05676	0,04779
2520,5061	-0,00548	0,03925	0,06344	0,03388	0,05674	0,04774
2518,57764	-0,00548	0,03928	0,06347	0,03392	0,05677	0,04774
2516,64917	-0,0055	0,03925	0,06346	0,0339	0,05678	0,04768
2514,7207	-0,00547	0,03917	0,06343	0,03383	0,05673	0,04758
2512,79224	-0,00548	0,03915	0,06346	0,0338	0,05671	0,04757
2510,86377	-0,00559	0,03919	0,06349	0,03383	0,05671	0,04763
2508,9353	-0,00564	0,03928	0,06351	0,03385	0,05674	0,04766
2507,00684	-0,00566	0,03932	0,06353	0,03387	0,05676	0,0477
2505,07837	-0,0057	0,0393	0,06348	0,03387	0,05669	0,04769
2503,1499	-0,00567	0,03929	0,06341	0,03384	0,0566	0,0476
2501,22144	-0,00564	0,03929	0,06343	0,03385	0,05662	0,04757
2499,29297	-0,00566	0,0393	0,06345	0,03383	0,05661	0,04753
2497,3645	-0,00568	0,03928	0,06342	0,03371	0,05653	0,04746
2495,43604	-0,00569	0,03927	0,06343	0,03371	0,05654	0,04752
2493,50757	-0,0057	0,03931	0,06345	0,03378	0,05658	0,04753
2491,5791	-0,00571	0,03931	0,06338	0,03377	0,05653	0,04743
2489,65063	-0,00575	0,03929	0,06335	0,03379	0,0565	0,0474
2487,72217	-0,00579	0,03933	0,06338	0,03379	0,05647	0,04746
2485,7937	-0,00577	0,03937	0,06335	0,03375	0,05646	0,04747
2483,86523	-0,00577	0,03937	0,06333	0,03374	0,05649	0,04743
2481,93677	-0,00581	0,03937	0,06341	0,03378	0,0565	0,04746
2480,0083	-0,00583	0,03936	0,06341	0,03383	0,0565	0,04743
2478,07983	-0,00582	0,03929	0,06331	0,03381	0,05643	0,04733
2476,15137	-0,00575	0,03929	0,06332	0,0338	0,05644	0,04734
2474,2229	-0,00572	0,03938	0,06339	0,03388	0,05652	0,04738
2472,29443	-0,00577	0,0394	0,06334	0,03396	0,0565	0,04739
2470,36597	-0,00575	0,03936	0,06332	0,03395	0,05647	0,04736
2468,4375	-0,00573	0,03939	0,06336	0,0339	0,05651	0,04735
2466,50903	-0,00578	0,0394	0,06337	0,03388	0,05644	0,04736
2464,58057	-0,00582	0,03939	0,06339	0,03388	0,05635	0,04736
2462,6521	-0,00584	0,03944	0,06344	0,03392	0,05642	0,04735
2460,72363	-0,00584	0,03946	0,06344	0,03396	0,05648	0,04736
2458,79517	-0,00589	0,03946	0,06342	0,03394	0,05648	0,04736
2456,8667	-0,00592	0,03949	0,06341	0,03397	0,05647	0,04736
2454,93823	-0,00589	0,03944	0,06338	0,03398	0,05641	0,04736
2453,00977	-0,0059	0,03943	0,06335	0,03395	0,05639	0,04732
2451,0813	-0,0059	0,03952	0,06336	0,03394	0,05644	0,0473
2449,15283	-0,00588	0,03954	0,06338	0,03392	0,05645	0,04734
2447,22437	-0,00591	0,03947	0,06335	0,03384	0,05638	0,04728
2445,2959	-0,00588	0,03942	0,06329	0,03378	0,05634	0,0472
2443,36743	-0,0059	0,0394	0,06329	0,03381	0,05636	0,04721
2441,43896	-0,00599	0,03939	0,06329	0,03382	0,05634	0,04719
2439,5105	-0,00598	0,03942	0,06332	0,03379	0,05632	0,04719

2437,58203	-0,00598	0,03942	0,06335	0,03379	0,05635	0,0472
2435,65356	-0,00604	0,0394	0,06334	0,03384	0,05632	0,04712
2433,7251	-0,00606	0,03945	0,06341	0,03385	0,05629	0,04708
2431,79663	-0,00608	0,03942	0,06341	0,0338	0,05631	0,04709
2429,86816	-0,00608	0,03936	0,06335	0,03377	0,05629	0,04704
2427,9397	-0,00608	0,03936	0,06336	0,03375	0,05626	0,047
2426,01123	-0,00609	0,03939	0,06332	0,03374	0,05622	0,04699
2424,08276	-0,0061	0,03946	0,06334	0,03381	0,05624	0,04698
2422,1543	-0,00609	0,03951	0,06337	0,03383	0,05626	0,04698
2420,22583	-0,0061	0,03947	0,0633	0,03379	0,05625	0,04703
2418,29736	-0,00611	0,03948	0,06331	0,03386	0,05623	0,04707
2416,3689	-0,00606	0,03955	0,06335	0,03393	0,05624	0,0471
2414,44043	-0,00603	0,0396	0,06336	0,03394	0,05631	0,04713
2412,51196	-0,00605	0,03962	0,06336	0,03397	0,05629	0,0471
2410,5835	-0,00604	0,03959	0,06331	0,03396	0,05615	0,04705
2408,65503	-0,00604	0,03955	0,06332	0,03394	0,05612	0,04706
2406,72656	-0,00605	0,03957	0,06337	0,03399	0,05618	0,04709
2404,7981	-0,00604	0,03963	0,06334	0,03399	0,05618	0,04707
2402,86963	-0,00605	0,03966	0,06332	0,03396	0,05617	0,04711
2400,94116	-0,00605	0,03966	0,06332	0,034	0,05622	0,04712
2399,0127	-0,00602	0,03966	0,06329	0,03403	0,0562	0,04707
2397,08423	-0,00601	0,03968	0,06327	0,03403	0,05618	0,0471
2395,15576	-0,00597	0,03968	0,06328	0,03406	0,0562	0,04711
2393,22729	-0,00595	0,03969	0,06328	0,03406	0,05615	0,04705
2391,29883	-0,00595	0,03971	0,06328	0,03407	0,05617	0,04711
2389,37036	-0,00595	0,03972	0,06329	0,03409	0,05621	0,04715
2387,44189	-0,00595	0,03974	0,06329	0,03407	0,0562	0,04712
2385,51343	-0,00595	0,03975	0,06329	0,03411	0,0562	0,04717
2383,58496	-0,00595	0,03976	0,0633	0,03411	0,0562	0,04724
2381,65649	-0,00595	0,03978	0,0633	0,03411	0,05619	0,04723
2379,72803	-0,00596	0,03979	0,06331	0,03412	0,05619	0,04723
2377,79956	-0,00596	0,03981	0,06331	0,03412	0,05618	0,04722
2375,87109	-0,00596	0,03982	0,06331	0,03412	0,05618	0,04722
2373,94263	-0,00596	0,03983	0,06332	0,03412	0,05618	0,04721
2372,01416	-0,00596	0,03985	0,06332	0,03412	0,05617	0,04721
2370,08569	-0,00596	0,03986	0,06332	0,03413	0,05617	0,0472
2368,15723	-0,00596	0,03988	0,06333	0,03413	0,05616	0,0472
2366,22876	-0,00596	0,03989	0,06333	0,03413	0,05616	0,04719
2364,30029	-0,00596	0,0399	0,06334	0,03413	0,05615	0,04719
2362,37183	-0,00596	0,03992	0,06334	0,03413	0,05615	0,04718
2360,44336	-0,00597	0,03993	0,06334	0,03414	0,05615	0,04718
2358,51489	-0,00597	0,03994	0,06335	0,03414	0,05614	0,04717
2356,58643	-0,00597	0,03996	0,06335	0,03414	0,05614	0,04717
2354,65796	-0,00597	0,03997	0,06335	0,03414	0,05613	0,04716
2352,72949	-0,00597	0,03999	0,06336	0,03414	0,05613	0,04716
2350,80103	-0,00597	0,04	0,06336	0,03415	0,05613	0,04715
2348,87256	-0,00597	0,04001	0,06337	0,03415	0,05612	0,04715
2346,94409	-0,00597	0,04003	0,06337	0,03415	0,05612	0,04714

2345,01563	-0,00597	0,04004	0,06337	0,03415	0,05611	0,04714
2343,08716	-0,00598	0,04006	0,06338	0,03415	0,05611	0,04713
2341,15869	-0,00598	0,04007	0,06338	0,03416	0,0561	0,04713
2339,23022	-0,00598	0,04008	0,06339	0,03416	0,0561	0,04712
2337,30176	-0,00598	0,0401	0,06339	0,03416	0,0561	0,04712
2335,37329	-0,00598	0,04011	0,06339	0,03416	0,05609	0,04711
2333,44482	-0,00598	0,04013	0,0634	0,03416	0,05609	0,04711
2331,51636	-0,00598	0,04014	0,0634	0,03416	0,05608	0,0471
2329,58789	-0,00598	0,04015	0,0634	0,03417	0,05608	0,0471
2327,65942	-0,00598	0,04017	0,06341	0,03417	0,05608	0,04709
2325,73096	-0,00598	0,04018	0,06341	0,03417	0,05607	0,04709
2323,80249	-0,00599	0,0402	0,06342	0,03417	0,05607	0,04708
2321,87402	-0,00599	0,04021	0,06342	0,03417	0,05606	0,04708
2319,94556	-0,00599	0,04022	0,06342	0,03418	0,05606	0,04707
2318,01709	-0,00599	0,04024	0,06343	0,03418	0,05605	0,04707
2316,08862	-0,00599	0,04025	0,06343	0,03418	0,05605	0,04706
2314,16016	-0,00599	0,04027	0,06343	0,03418	0,05605	0,04706
2312,23169	-0,00599	0,04028	0,06344	0,03418	0,05604	0,04705
2310,30322	-0,00599	0,04029	0,06344	0,03414	0,05604	0,04704
2308,37476	-0,00599	0,04031	0,06345	0,03409	0,05603	0,04704
2306,44629	-0,00599	0,04032	0,06345	0,03413	0,05603	0,04703
2304,51782	-0,006	0,04034	0,06345	0,03416	0,05603	0,04703
2302,58936	-0,00599	0,04035	0,06346	0,03414	0,05602	0,04702
2300,66089	-0,00601	0,04036	0,06346	0,03417	0,05602	0,04702
2298,73242	-0,00608	0,04038	0,06346	0,03418	0,05601	0,04701
2296,80396	-0,00611	0,04039	0,06347	0,03412	0,05601	0,04701
2294,87549	-0,00612	0,0404	0,06347	0,03411	0,056	0,047
2292,94702	-0,00619	0,04042	0,06348	0,03414	0,056	0,047
2291,01855	-0,0062	0,04043	0,06348	0,0342	0,056	0,04699
2289,09009	-0,0062	0,04045	0,06348	0,03422	0,05599	0,04699
2287,16162	-0,00626	0,04046	0,06349	0,03417	0,05599	0,04698
2285,23315	-0,00623	0,04047	0,06349	0,03416	0,05598	0,04698
2283,30469	-0,00632	0,04049	0,06349	0,03418	0,05598	0,04697
2281,37622	-0,00645	0,0405	0,0635	0,03409	0,05598	0,04686
2279,44775	-0,00628	0,04052	0,0635	0,03423	0,05597	0,04699
2277,51929	-0,00617	0,04053	0,06351	0,03439	0,05597	0,04707
2275,59082	-0,0063	0,04054	0,06351	0,03428	0,05596	0,04694
2273,66235	-0,00635	0,04056	0,06351	0,03427	0,05596	0,04696
2271,73389	-0,00632	0,04057	0,06352	0,03427	0,05595	0,04699
2269,80542	-0,00625	0,04059	0,06352	0,03423	0,05595	0,04691
2267,87695	-0,00623	0,0406	0,06353	0,03428	0,05595	0,04693
2265,94849	-0,00629	0,0406	0,06353	0,0343	0,05594	0,04699
2264,02002	-0,00634	0,04063	0,06353	0,03432	0,05594	0,04702
2262,09155	-0,00635	0,04063	0,06354	0,03433	0,05593	0,04701
2260,16309	-0,00633	0,04061	0,06354	0,03432	0,05593	0,047
2258,23462	-0,00632	0,04062	0,06354	0,03436	0,05593	0,04699
2256,30615	-0,00632	0,04057	0,06355	0,0344	0,05592	0,04697
2254,37769	-0,00631	0,04049	0,06355	0,03437	0,05592	0,04696



2252,44922	-0,00632	0,04052	0,06356	0,03435	0,05591	0,04696
2250,52075	-0,00633	0,04051	0,06356	0,03437	0,05591	0,04694
2248,59229	-0,00632	0,04045	0,06356	0,03434	0,0559	0,04692
2246,66382	-0,00632	0,04048	0,06357	0,03436	0,0559	0,04693
2244,73535	-0,00636	0,04049	0,06357	0,03443	0,05595	0,04696
2242,80688	-0,00639	0,04042	0,06357	0,0344	0,05587	0,04693
2240,87842	-0,00634	0,04044	0,06358	0,0344	0,05584	0,04686
2238,94995	-0,0063	0,04043	0,06358	0,03442	0,05589	0,04689
2237,02148	-0,00636	0,04039	0,06357	0,03442	0,05588	0,04695
2235,09302	-0,0064	0,04043	0,06357	0,03442	0,05581	0,0469
2233,16455	-0,00643	0,0404	0,06353	0,03436	0,05577	0,04681
2231,23608	-0,00645	0,04037	0,06346	0,03436	0,05578	0,04682
2229,30762	-0,00643	0,04042	0,06346	0,03437	0,05583	0,04686
2227,37915	-0,00652	0,04039	0,06344	0,03426	0,05579	0,04681
2225,45068	-0,00663	0,04038	0,06338	0,03421	0,05574	0,0468
2223,52222	-0,00666	0,04042	0,06337	0,03424	0,05577	0,04679
2221,59375	-0,00671	0,04039	0,06337	0,03424	0,05578	0,04677
2219,66528	-0,0067	0,04037	0,06337	0,03428	0,05577	0,0468
2217,73682	-0,00668	0,04045	0,06343	0,03436	0,05576	0,0468
2215,80835	-0,00675	0,04048	0,06344	0,03437	0,05574	0,04677
2213,87988	-0,0067	0,04048	0,06339	0,03438	0,05579	0,04679
2211,95142	-0,00661	0,04053	0,06341	0,03443	0,0558	0,04677
2210,02295	-0,00664	0,04047	0,06341	0,0344	0,05574	0,04671
2208,09448	-0,00665	0,04042	0,06338	0,03436	0,05575	0,04668
2206,16602	-0,00666	0,04042	0,06335	0,03433	0,05574	0,04664
2204,23755	-0,00668	0,04037	0,06331	0,0343	0,05565	0,04657
2202,30908	-0,00669	0,04042	0,06334	0,03432	0,05568	0,04663
2200,38062	-0,00672	0,04047	0,06335	0,03431	0,0557	0,04667
2198,45215	-0,00676	0,04044	0,06335	0,03424	0,05561	0,04659
2196,52368	-0,00682	0,04044	0,06341	0,03424	0,05557	0,04658
2194,59521	-0,00689	0,04037	0,06336	0,03424	0,05557	0,0466
2192,66675	-0,00693	0,0403	0,0633	0,03422	0,05556	0,04656
2190,73828	-0,00691	0,04038	0,06332	0,03424	0,05556	0,04653
2188,80981	-0,00688	0,04039	0,06327	0,03423	0,05551	0,04647
2186,88135	-0,00689	0,04033	0,06322	0,03417	0,05546	0,04645
2184,95288	-0,00688	0,04034	0,06326	0,03416	0,05545	0,04645
2183,02441	-0,00688	0,04036	0,06327	0,03416	0,05545	0,0464
2181,09595	-0,00692	0,0403	0,06319	0,03414	0,05545	0,04639
2179,16748	-0,00695	0,04029	0,06317	0,0342	0,05547	0,04645
2177,23901	-0,00701	0,04032	0,0632	0,0342	0,05547	0,04643
2175,31055	-0,00705	0,0403	0,06316	0,03414	0,05544	0,04638
2173,38208	-0,00697	0,0403	0,06316	0,03416	0,05547	0,04643
2171,45361	-0,00709	0,04015	0,06302	0,03398	0,05537	0,04631
2169,52515	-0,00731	0,03991	0,06281	0,03377	0,05519	0,04612
2167,59668	-0,00723	0,04001	0,06298	0,03394	0,0553	0,04624
2165,66821	-0,00712	0,04016	0,06314	0,03407	0,05542	0,04633
2163,73975	-0,00715	0,04017	0,06306	0,03406	0,05537	0,04628
2161,81128	-0,00717	0,04016	0,06309	0,03412	0,0554	0,04628

2159,88281	-0,00725	0,04008	0,06308	0,03404	0,05542	0,04625
2157,95435	-0,00729	0,04004	0,06304	0,03397	0,05538	0,04622
2156,02588	-0,00728	0,04002	0,06306	0,03403	0,05537	0,0462
2154,09741	-0,00731	0,03997	0,06306	0,03402	0,05538	0,04616
2152,16895	-0,00732	0,03998	0,06306	0,03399	0,0554	0,04619
2150,24048	-0,00732	0,03994	0,06302	0,03398	0,0554	0,04617
2148,31201	-0,00732	0,03988	0,06303	0,03396	0,0554	0,04608
2146,38354	-0,00733	0,03987	0,06309	0,0339	0,05537	0,04603
2144,45508	-0,00741	0,03986	0,06307	0,03388	0,05535	0,04603
2142,52661	-0,00742	0,03985	0,06307	0,03389	0,05535	0,046
2140,59814	-0,0074	0,03978	0,06308	0,03382	0,05528	0,04592
2138,66968	-0,00743	0,03971	0,06303	0,03378	0,05523	0,04588
2136,74121	-0,00741	0,03972	0,06301	0,03385	0,05524	0,04582
2134,81274	-0,00741	0,03971	0,063	0,03385	0,05527	0,04576
2132,88428	-0,00751	0,03967	0,06294	0,03383	0,05529	0,04579
2130,95581	-0,00758	0,03964	0,0629	0,03381	0,05528	0,04576
2129,02734	-0,00767	0,03963	0,06292	0,03376	0,05527	0,04574
2127,09888	-0,00775	0,03964	0,06291	0,03375	0,05526	0,04574
2125,17041	-0,0078	0,0396	0,06284	0,03373	0,05524	0,04571
2123,24194	-0,00788	0,03952	0,0628	0,03362	0,05516	0,04566
2121,31348	-0,00791	0,03945	0,0628	0,03351	0,05509	0,04558
2119,38501	-0,00791	0,03942	0,06281	0,03343	0,05506	0,04555
2117,45654	-0,00793	0,03943	0,0628	0,03342	0,05499	0,04554
2115,52808	-0,00799	0,03948	0,06282	0,03347	0,05499	0,0455
2113,59961	-0,00809	0,03945	0,0628	0,03343	0,05495	0,04549
2111,67114	-0,00818	0,0394	0,06274	0,03337	0,05487	0,04547
2109,74268	-0,00824	0,03941	0,06276	0,03337	0,05488	0,04542
2107,81421	-0,00827	0,03933	0,06273	0,03329	0,05479	0,04533
2105,88574	-0,00831	0,03924	0,06268	0,03318	0,0547	0,04522
2103,95728	-0,00838	0,03916	0,06265	0,03312	0,05472	0,04517
2102,02881	-0,00847	0,03906	0,06257	0,03306	0,05467	0,04511
2100,10034	-0,00858	0,039	0,06248	0,03298	0,05461	0,04502
2098,17188	-0,00865	0,0389	0,06243	0,03287	0,05455	0,04494
2096,24341	-0,00864	0,03882	0,06244	0,03278	0,05448	0,04487
2094,31494	-0,0087	0,03872	0,06247	0,03272	0,05445	0,04486
2092,38647	-0,00872	0,0386	0,06243	0,03268	0,05447	0,04481
2090,45801	-0,00867	0,03858	0,06241	0,03266	0,05449	0,04472
2088,52954	-0,00874	0,03852	0,06235	0,03255	0,05441	0,04467
2086,60107	-0,00888	0,03846	0,06225	0,03245	0,05437	0,04462
2084,67261	-0,00896	0,03846	0,06229	0,03243	0,05437	0,04461
2082,74414	-0,00899	0,03839	0,06237	0,03237	0,05436	0,04462
2080,81567	-0,00903	0,03831	0,06229	0,03236	0,05436	0,04454
2078,88721	-0,00909	0,03828	0,06231	0,0324	0,05429	0,04451
2076,95874	-0,00909	0,03828	0,06241	0,03237	0,05421	0,04444
2075,03027	-0,00914	0,03823	0,0623	0,03232	0,05424	0,04434
2073,10181	-0,00915	0,03828	0,06225	0,03238	0,05431	0,04442
2071,17334	-0,00904	0,03833	0,06233	0,03239	0,05426	0,04443
2069,24487	-0,00914	0,03822	0,06228	0,03231	0,05417	0,04439

2067,31641	-0,00918	0,03833	0,06235	0,03238	0,05422	0,04446
2065,38794	-0,00897	0,03846	0,06239	0,03241	0,05421	0,04435
2063,45947	-0,00908	0,03833	0,06227	0,03232	0,05411	0,04428
2061,53101	-0,00919	0,03836	0,06233	0,03242	0,05414	0,04439
2059,60254	-0,00909	0,03841	0,06233	0,03247	0,05415	0,04435
2057,67407	-0,00909	0,03837	0,06225	0,03238	0,05411	0,04437
2055,74561	-0,00903	0,03844	0,06228	0,03245	0,05412	0,04446
2053,81714	-0,009	0,03848	0,06228	0,0325	0,05415	0,04441
2051,88867	-0,00907	0,0385	0,06233	0,03249	0,05417	0,04443
2049,96021	-0,00911	0,03856	0,06239	0,03256	0,05417	0,04451
2048,03174	-0,00914	0,03866	0,06242	0,03262	0,05419	0,04457
2046,10327	-0,00918	0,03876	0,06245	0,03263	0,0542	0,04466
2044,1748	-0,00913	0,03883	0,06249	0,03265	0,05418	0,04466
2042,24634	-0,00895	0,03892	0,06254	0,03273	0,05422	0,04461
2040,31787	-0,00895	0,03884	0,06251	0,03274	0,05418	0,04462
2038,3894	-0,00912	0,03876	0,06247	0,03268	0,05413	0,04464
2036,46094	-0,0092	0,03878	0,06249	0,03263	0,05416	0,04461
2034,53247	-0,00924	0,03866	0,06248	0,03257	0,05415	0,04457
2032,604	-0,00924	0,03858	0,06244	0,03258	0,05412	0,04456
2030,67554	-0,00931	0,0386	0,06244	0,03259	0,05405	0,04452
2028,74707	-0,00937	0,03858	0,0625	0,03255	0,05402	0,04443
2026,8186	-0,00936	0,03857	0,06251	0,03253	0,05405	0,04444
2024,89014	-0,00936	0,03856	0,06254	0,03254	0,05407	0,04444
2022,96167	-0,0094	0,03851	0,0625	0,03249	0,05406	0,04438
2021,0332	-0,00949	0,03847	0,06239	0,03244	0,05405	0,04445
2019,10474	-0,0093	0,03863	0,06261	0,03256	0,05413	0,04446
2017,17627	-0,00911	0,03873	0,06273	0,03265	0,05407	0,0443
2015,2478	-0,00934	0,03854	0,06241	0,03253	0,05393	0,04438
2013,31934	-0,00934	0,03853	0,06239	0,03251	0,05397	0,0445
2011,39087	-0,00929	0,03863	0,06249	0,03255	0,05401	0,04442
2009,4624	-0,00936	0,03862	0,06237	0,03255	0,054	0,04436
2007,53394	-0,00929	0,03863	0,06231	0,03256	0,054	0,04439
2005,60547	-0,00933	0,03863	0,06235	0,03257	0,05399	0,04441
2003,677	-0,00937	0,03863	0,06234	0,03263	0,05394	0,04442
2001,74854	-0,00934	0,03859	0,06224	0,03263	0,05383	0,0444
1999,82007	-0,00925	0,03868	0,06237	0,03266	0,05386	0,04434
1997,8916	-0,00919	0,03871	0,06246	0,03268	0,05389	0,04429
1995,96313	-0,00937	0,03856	0,06228	0,03257	0,05384	0,04439
1994,03467	-0,00906	0,03887	0,0627	0,03274	0,05406	0,04437
1992,1062	-0,00872	0,03901	0,06295	0,03277	0,05403	0,0441
1990,17773	-0,00913	0,03867	0,0625	0,03252	0,05376	0,04413
1988,24927	-0,0092	0,03879	0,06252	0,03259	0,0539	0,0443
1986,3208	-0,00919	0,03874	0,06248	0,03257	0,05394	0,04429
1984,39233	-0,00935	0,03858	0,06234	0,03252	0,05388	0,04434
1982,46387	-0,00924	0,0388	0,06241	0,0326	0,05397	0,04442
1980,5354	-0,00924	0,03881	0,06233	0,0326	0,05394	0,0444
1978,60693	-0,00926	0,03877	0,06234	0,03265	0,05386	0,04441
1976,67847	-0,00925	0,03883	0,06233	0,03261	0,05385	0,04443

1974,75	-0,00924	0,03888	0,06237	0,03262	0,05396	0,04445
1972,82153	-0,0092	0,03887	0,06249	0,03269	0,05399	0,04447
1970,89307	-0,00933	0,03882	0,06246	0,03257	0,05395	0,04457
1968,9646	-0,009	0,03911	0,06274	0,03269	0,05412	0,04451
1967,03613	-0,00866	0,03924	0,06286	0,03271	0,05403	0,04419
1965,10767	-0,00922	0,03888	0,06237	0,03241	0,05379	0,04429
1963,1792	-0,00939	0,03892	0,06237	0,03252	0,05397	0,04453
1961,25073	-0,00921	0,03903	0,06253	0,03264	0,05402	0,04449
1959,32227	-0,00933	0,03893	0,06235	0,03251	0,05389	0,0445
1957,3938	-0,00931	0,03897	0,06231	0,03258	0,05397	0,04452
1955,46533	-0,00931	0,039	0,06238	0,03261	0,05403	0,04449
1953,53687	-0,00936	0,03891	0,06235	0,03246	0,05399	0,04447
1951,6084	-0,00943	0,03878	0,06222	0,03235	0,05393	0,04445
1949,67993	-0,00943	0,03886	0,06229	0,03241	0,05401	0,04444
1947,75146	-0,00944	0,03885	0,06231	0,03236	0,05393	0,04432
1945,823	-0,00952	0,03877	0,06229	0,03233	0,05384	0,04425
1943,89453	-0,00885	0,03916	0,06285	0,03261	0,05408	0,04406
1941,96606	-0,00876	0,03898	0,06267	0,03237	0,05376	0,04379
1940,0376	-0,00967	0,03858	0,06205	0,03213	0,0536	0,04419
1938,10913	-0,00963	0,03886	0,06233	0,03239	0,05391	0,0444
1936,18066	-0,00951	0,03888	0,0624	0,03241	0,05388	0,04433
1934,2522	-0,0096	0,0389	0,06238	0,03246	0,05397	0,04439
1932,32373	-0,00959	0,03883	0,06238	0,03245	0,05397	0,04435
1930,39526	-0,00957	0,03877	0,06245	0,03243	0,05395	0,04435
1928,4668	-0,00957	0,03872	0,06243	0,03236	0,05384	0,04427
1926,53833	-0,00974	0,03853	0,06222	0,03213	0,0537	0,04422
1924,60986	-0,00915	0,03903	0,06281	0,03246	0,05414	0,04418
1922,6814	-0,00886	0,03903	0,0628	0,03233	0,05385	0,04365
1920,75293	-0,00954	0,03875	0,06242	0,03214	0,0537	0,04386
1918,82446	-0,00943	0,03905	0,06288	0,0325	0,05426	0,04427
1916,896	-0,00958	0,03842	0,0623	0,0319	0,05357	0,04384
1914,96753	-0,01	0,03826	0,06204	0,03174	0,05335	0,04389
1913,03906	-0,00982	0,03869	0,06254	0,03219	0,05386	0,04418
1911,1106	-0,00951	0,03871	0,06263	0,03214	0,05382	0,0439
1909,18213	-0,00928	0,0387	0,06276	0,03207	0,05376	0,04367
1907,25366	-0,00963	0,03842	0,06257	0,03196	0,05371	0,04379
1905,3252	-0,00995	0,03827	0,06231	0,03188	0,05365	0,04377
1903,39673	-0,00996	0,03825	0,0623	0,03188	0,05372	0,04369
1901,46826	-0,00994	0,03814	0,06226	0,03179	0,05377	0,04362
1899,53979	-0,01012	0,03798	0,06207	0,03163	0,05366	0,04359
1897,61133	-0,01004	0,0381	0,06223	0,0317	0,05379	0,04361
1895,68286	-0,0095	0,03835	0,0626	0,03183	0,05391	0,04337
1893,75439	-0,01011	0,03786	0,06209	0,03147	0,05351	0,04341
1891,82593	-0,01023	0,03806	0,06242	0,03172	0,05387	0,04369
1889,89746	-0,00936	0,03841	0,06298	0,03192	0,05405	0,04325
1887,96899	-0,01016	0,03764	0,06203	0,03126	0,05339	0,04321
1886,04053	-0,01043	0,03782	0,06212	0,03147	0,0537	0,04365
1884,11206	-0,01002	0,03803	0,06241	0,03169	0,05388	0,04365

1882,18359	-0,01037	0,03785	0,06214	0,03154	0,0537	0,04372
1880,25513	-0,01041	0,03809	0,06235	0,03171	0,05386	0,04384
1878,32666	-0,01037	0,038	0,06225	0,03169	0,05371	0,04376
1876,39819	-0,01041	0,03804	0,06221	0,03177	0,05373	0,04384
1874,46973	-0,01035	0,03808	0,06223	0,03177	0,05367	0,04379
1872,54126	-0,01029	0,03819	0,06228	0,03174	0,05362	0,04377
1870,61279	-0,00966	0,03892	0,06314	0,03237	0,05433	0,04404
1868,68433	-0,00864	0,03904	0,0635	0,03228	0,05394	0,04307
1866,75586	-0,00957	0,03817	0,06238	0,03145	0,05303	0,04283
1864,82739	-0,01022	0,0384	0,06238	0,03182	0,05353	0,04371
1862,89893	-0,01021	0,03869	0,06254	0,03215	0,05381	0,04406
1860,97046	-0,01004	0,03881	0,06254	0,03211	0,05375	0,04396
1859,04199	-0,01	0,03887	0,06255	0,03215	0,05381	0,04403
1857,11353	-0,01005	0,03881	0,06242	0,03215	0,05367	0,04396
1855,18506	-0,01008	0,0388	0,0625	0,03223	0,05374	0,04411
1853,25659	-0,00994	0,03878	0,06249	0,03214	0,05366	0,04403
1851,32813	-0,00997	0,03897	0,06248	0,03229	0,0538	0,04416
1849,39966	-0,00978	0,03894	0,06241	0,03226	0,05369	0,04399
1847,47119	-0,00904	0,03933	0,06288	0,03239	0,05375	0,04354
1845,54272	-0,00923	0,03976	0,06346	0,03311	0,05478	0,04445
1843,61426	-0,00999	0,03845	0,0622	0,0321	0,05368	0,04409
1841,68579	-0,01015	0,03823	0,06167	0,03145	0,05292	0,04353
1839,75732	-0,00973	0,03922	0,06254	0,03223	0,05376	0,04398
1837,82886	-0,00969	0,03937	0,0627	0,03243	0,05392	0,04411
1835,90039	-0,00952	0,03916	0,06255	0,03225	0,0536	0,04375
1833,97192	-0,0101	0,0388	0,06209	0,03206	0,05346	0,04396
1832,04346	-0,00945	0,03957	0,06289	0,03271	0,05424	0,04426
1830,11499	-0,00833	0,03975	0,06332	0,03274	0,05403	0,04344
1828,18652	-0,00973	0,03848	0,06193	0,03174	0,05299	0,04327
1826,25806	-0,00945	0,03931	0,0627	0,03244	0,05387	0,04387
1824,32959	-0,00917	0,0392	0,0627	0,03235	0,05372	0,04367
1822,40112	-0,01025	0,03848	0,06182	0,03174	0,05314	0,04371
1820,47266	-0,01019	0,03908	0,06227	0,03222	0,05372	0,0442
1818,54419	-0,00993	0,03916	0,0624	0,03226	0,0537	0,04405
1816,61572	-0,0101	0,03884	0,06216	0,03198	0,05348	0,04384
1814,68726	-0,01029	0,03878	0,06215	0,03198	0,05358	0,04402
1812,75879	-0,0098	0,03926	0,06277	0,0323	0,05391	0,04392
1810,83032	-0,00938	0,03926	0,06291	0,03222	0,05373	0,04346
1808,90186	-0,00997	0,03861	0,0623	0,03177	0,05337	0,04349
1806,97339	-0,01025	0,03863	0,06226	0,03176	0,05351	0,04368
1805,04492	-0,01045	0,03856	0,06219	0,03167	0,0535	0,04366
1803,11646	-0,01028	0,03865	0,06267	0,03181	0,05381	0,0436
1801,18799	-0,00967	0,03855	0,06303	0,03162	0,05374	0,04295
1799,25952	-0,01049	0,0376	0,06206	0,03089	0,05313	0,04282
1797,33105	-0,01058	0,03766	0,062	0,03082	0,05305	0,04275
1795,40259	-0,01001	0,03838	0,06274	0,03125	0,05342	0,04275
1793,47412	-0,01057	0,0386	0,06315	0,03182	0,05435	0,04378
1791,54565	-0,01021	0,0379	0,06258	0,03107	0,0533	0,04269

1789,61719	-0,01076	0,03742	0,06154	0,03053	0,05244	0,04259
1787,68872	-0,01056	0,03845	0,06235	0,03157	0,05355	0,04352
1785,76025	-0,01033	0,0386	0,06258	0,0317	0,05374	0,04363
1783,83179	-0,01084	0,03803	0,06195	0,03121	0,05319	0,04348
1781,90332	-0,01004	0,03856	0,06253	0,03158	0,05345	0,04312
1779,97485	-0,0097	0,03868	0,06271	0,03152	0,0534	0,04279
1778,04639	-0,01087	0,03788	0,06176	0,03104	0,05301	0,04321
1776,11792	-0,00986	0,03843	0,06243	0,03135	0,05317	0,04265
1774,18945	-0,01007	0,03926	0,06352	0,03231	0,05455	0,04358
1772,26099	-0,01102	0,03775	0,06221	0,03129	0,05347	0,04318
1770,33252	-0,01088	0,03696	0,06123	0,03024	0,05229	0,04213
1768,40405	-0,01046	0,03815	0,06237	0,03122	0,05364	0,04299
1766,47559	-0,01177	0,03696	0,061	0,03035	0,05284	0,04309
1764,54712	-0,01057	0,03787	0,06193	0,03079	0,0532	0,04251
1762,61865	-0,01037	0,03868	0,06297	0,03167	0,05448	0,04348
1760,69019	-0,0117	0,03659	0,06084	0,02983	0,05242	0,0426
1758,76172	-0,01076	0,03773	0,06196	0,03056	0,05321	0,04252
1756,83325	-0,01058	0,03795	0,0623	0,03093	0,05369	0,04299
1754,90479	-0,01137	0,03669	0,06091	0,02973	0,05226	0,04225
1752,97632	-0,01124	0,03797	0,06215	0,03084	0,05383	0,0432
1751,04785	-0,01078	0,03823	0,06262	0,0312	0,05433	0,04343
1749,11938	-0,00988	0,03714	0,06176	0,02985	0,0523	0,04111
1747,19092	-0,00962	0,03776	0,06226	0,03029	0,05291	0,04136
1745,26245	-0,01067	0,03759	0,06191	0,03037	0,05325	0,04232
1743,33398	-0,0101	0,03749	0,06182	0,03001	0,05277	0,04151
1741,40552	-0,01055	0,0379	0,06233	0,03074	0,05403	0,04271
1739,47705	-0,01202	0,03645	0,06081	0,02979	0,05308	0,04306
1737,54858	-0,01077	0,03687	0,061	0,02938	0,05233	0,04152
1735,62012	-0,01168	0,0385	0,06277	0,0315	0,05548	0,0443
1733,69165	-0,01287	0,03615	0,06087	0,02974	0,05342	0,04358
1731,76318	-0,01252	0,03545	0,05969	0,02813	0,05145	0,04148
1729,83472	-0,00956	0,03803	0,06232	0,03	0,05327	0,04133
1727,90625	-0,01236	0,03639	0,06024	0,02912	0,05263	0,04258
1725,97778	-0,01149	0,03691	0,06084	0,02943	0,05282	0,04211
1724,04932	-0,01122	0,03724	0,06143	0,02995	0,05341	0,04238
1722,12085	-0,01191	0,03633	0,06034	0,02903	0,05225	0,04183
1720,19238	-0,01072	0,03759	0,06181	0,0301	0,05352	0,04211
1718,26392	-0,01082	0,03785	0,06269	0,03068	0,05438	0,04256
1716,33545	-0,0128	0,03546	0,06008	0,02846	0,05187	0,04145
1714,40698	-0,0115	0,03603	0,06029	0,02847	0,05169	0,04072
1712,47852	-0,01155	0,03667	0,06067	0,02903	0,05251	0,04151
1710,55005	-0,01233	0,03623	0,06001	0,02871	0,05224	0,04183
1708,62158	-0,0107	0,03721	0,06116	0,0293	0,05267	0,04121
1706,69312	-0,0108	0,03751	0,06175	0,02999	0,05372	0,04223
1704,76465	-0,01074	0,03583	0,05988	0,02809	0,0512	0,04027
1702,83618	-0,01056	0,03734	0,06139	0,02945	0,05298	0,04124
1700,90771	-0,0118	0,03707	0,06176	0,03083	0,05538	0,04447
1698,97925	-0,01421	0,03268	0,05706	0,02629	0,05	0,04095

1697,05078	-0,01206	0,03648	0,06095	0,02893	0,0528	0,04102
1695,12231	-0,01358	0,03506	0,05954	0,02864	0,0528	0,04263
1693,19385	-0,0129	0,03427	0,05813	0,02703	0,05061	0,04069
1691,26538	-0,01062	0,03734	0,06132	0,0294	0,0532	0,0411
1689,33691	-0,01128	0,03603	0,05995	0,02834	0,05212	0,04085
1687,40845	-0,01029	0,03657	0,06056	0,02832	0,05197	0,03989
1685,47998	-0,01252	0,03771	0,06214	0,03053	0,05545	0,04353
1683,55151	-0,01123	0,03405	0,05897	0,02687	0,05035	0,0393
1681,62305	-0,01104	0,03477	0,05894	0,02688	0,05061	0,03938
1679,69458	-0,01114	0,03594	0,05979	0,02774	0,0518	0,04014
1677,76611	-0,01197	0,03557	0,05943	0,02774	0,05208	0,04085
1675,83765	-0,01234	0,03545	0,05961	0,02824	0,05292	0,04187
1673,90918	-0,0133	0,03369	0,0577	0,02646	0,05086	0,04076
1671,98071	-0,01143	0,03515	0,05927	0,0272	0,05146	0,03985
1670,05225	-0,01016	0,03643	0,06113	0,02865	0,05314	0,04037
1668,12378	-0,01282	0,03325	0,05763	0,02601	0,05011	0,03975
1666,19531	-0,01221	0,03451	0,05856	0,02667	0,05069	0,03966
1664,26685	-0,01251	0,03549	0,05963	0,02799	0,05259	0,04128
1662,33838	-0,01222	0,03414	0,05852	0,02668	0,0508	0,03978
1660,40991	-0,01253	0,03415	0,05842	0,02658	0,05078	0,03986
1658,48145	-0,01345	0,03412	0,05822	0,02674	0,05116	0,04065
1656,55298	-0,01105	0,03497	0,05939	0,02694	0,05087	0,0388
1654,62451	-0,01217	0,03633	0,06159	0,0292	0,05432	0,04146
1652,69604	-0,01187	0,03248	0,05904	0,02618	0,04912	0,03711
1650,76758	-0,01699	0,03016	0,05457	0,02383	0,04782	0,03925
1648,83911	-0,0099	0,03528	0,06032	0,0272	0,05086	0,03731
1646,91064	-0,01042	0,03494	0,0607	0,0274	0,05084	0,03718
1644,98218	-0,0159	0,03087	0,05544	0,02431	0,04802	0,03858
1643,05371	-0,0133	0,03327	0,05779	0,02591	0,04949	0,03811
1641,12524	-0,01433	0,03292	0,05733	0,02598	0,04965	0,03885
1639,19678	-0,01311	0,03325	0,05781	0,0259	0,04917	0,03758
1637,26831	-0,0127	0,03435	0,05946	0,02717	0,05087	0,03813
1635,33984	-0,01339	0,03243	0,05777	0,02588	0,04924	0,03737
1633,41138	-0,01577	0,03072	0,05518	0,02425	0,04754	0,0377
1631,48291	-0,01404	0,03271	0,0573	0,02552	0,04872	0,0373
1629,55444	-0,01469	0,03277	0,05766	0,02598	0,0495	0,03809
1627,62598	-0,01455	0,03184	0,05677	0,02495	0,04801	0,03673
1625,69751	-0,01498	0,0319	0,05673	0,0249	0,04817	0,03683
1623,76904	-0,01497	0,032	0,05716	0,02516	0,04866	0,03695
1621,84058	-0,01591	0,03048	0,05537	0,02368	0,04666	0,03607
1619,91211	-0,01516	0,03168	0,0563	0,02429	0,04741	0,0362
1617,98364	-0,01651	0,03248	0,05739	0,02559	0,04976	0,03853
1616,05518	-0,01754	0,03069	0,05559	0,02429	0,04811	0,03837
1614,12671	-0,01563	0,03173	0,05604	0,02458	0,04808	0,03781
1612,19824	-0,01414	0,03354	0,05778	0,02603	0,0498	0,03866
1610,26978	-0,0142	0,03368	0,05789	0,02626	0,05015	0,03933
1608,34131	-0,01335	0,03407	0,05823	0,02628	0,05007	0,03893
1606,41284	-0,0138	0,03421	0,05832	0,02656	0,05054	0,0399

1604,48438	-0,01365	0,03446	0,05851	0,0269	0,05084	0,04037
1602,55591	-0,01303	0,03499	0,059	0,0272	0,05116	0,04046
1600,62744	-0,0132	0,03494	0,05896	0,02706	0,05119	0,04085
1598,69897	-0,01314	0,03505	0,05905	0,02719	0,05141	0,04115
1596,77051	-0,01277	0,03547	0,05938	0,02751	0,05169	0,04129
1594,84204	-0,01246	0,03575	0,05952	0,02755	0,05158	0,04123
1592,91357	-0,01274	0,03581	0,0594	0,02765	0,05168	0,04159
1590,98511	-0,01272	0,03585	0,05939	0,02777	0,05184	0,04183
1589,05664	-0,01247	0,03609	0,05953	0,0278	0,05201	0,04199
1587,12817	-0,01302	0,036	0,05934	0,02775	0,05213	0,0424
1585,19971	-0,01263	0,03615	0,05954	0,02781	0,05204	0,04216
1583,27124	-0,01251	0,03649	0,05979	0,02813	0,05247	0,04253
1581,34277	-0,01296	0,03607	0,05919	0,02788	0,05223	0,0426
1579,41431	-0,01149	0,03685	0,06009	0,0282	0,05229	0,04179
1577,48584	-0,01263	0,03787	0,06135	0,02954	0,05444	0,04389
1575,55737	-0,01433	0,03548	0,05916	0,02776	0,05236	0,04319
1573,62891	-0,01307	0,03544	0,05872	0,027	0,05104	0,04174
1571,70044	-0,01112	0,03814	0,06154	0,02929	0,05373	0,04283
1569,77197	-0,01116	0,03733	0,06106	0,0289	0,05317	0,04249
1567,84351	-0,01204	0,0361	0,05935	0,02742	0,05152	0,04178
1565,91504	-0,01148	0,0378	0,06097	0,02886	0,05334	0,04302
1563,98657	-0,01139	0,03685	0,06009	0,02805	0,05205	0,04214
1562,05811	-0,01081	0,03787	0,06109	0,02887	0,05314	0,04237
1560,12964	-0,00967	0,04026	0,06441	0,03208	0,05743	0,04507
1558,20117	-0,00928	0,03418	0,05918	0,02616	0,04892	0,03787
1556,27271	-0,01228	0,03559	0,05898	0,02719	0,05152	0,04178
1554,34424	-0,01168	0,03727	0,06042	0,02864	0,05321	0,04298
1552,41577	-0,01244	0,03638	0,05931	0,028	0,05258	0,04329
1550,4873	-0,00932	0,03816	0,06128	0,02884	0,0531	0,04193
1548,55884	-0,01064	0,03742	0,06039	0,02837	0,05272	0,04244
1546,63037	-0,01147	0,03757	0,06049	0,02878	0,05342	0,04354
1544,7019	-0,00892	0,03903	0,06235	0,0297	0,05396	0,0425
1542,77344	-0,00972	0,03813	0,06154	0,02907	0,05329	0,04224
1540,84497	-0,01054	0,03842	0,0624	0,0302	0,055	0,04389
1538,9165	-0,01143	0,03529	0,05966	0,02732	0,05081	0,04059
1536,98804	-0,01214	0,03592	0,05915	0,0274	0,05156	0,04204
1535,05957	-0,00967	0,03875	0,06209	0,02971	0,05439	0,04309
1533,1311	-0,00874	0,03809	0,06185	0,02912	0,05326	0,04156
1531,20264	-0,01137	0,03654	0,05961	0,02789	0,052	0,04208
1529,27417	-0,01013	0,03849	0,06142	0,02937	0,0538	0,04276
1527,3457	-0,00929	0,03865	0,06187	0,02942	0,05387	0,04231
1525,41724	-0,01059	0,03724	0,06044	0,02822	0,05254	0,04205
1523,48877	-0,0098	0,03852	0,06187	0,02942	0,05407	0,04271
1521,5603	-0,01007	0,03782	0,06145	0,02893	0,05334	0,04211
1519,63184	-0,01263	0,03598	0,05913	0,02763	0,05224	0,0427
1517,70337	-0,00892	0,03827	0,06168	0,02901	0,05341	0,0416
1515,7749	-0,00917	0,03766	0,06104	0,02828	0,05256	0,0411
1513,84644	-0,01125	0,03718	0,06006	0,02818	0,05287	0,04244



1511,91797	-0,01144	0,03764	0,06034	0,02867	0,05356	0,04313
1509,9895	-0,00897	0,03857	0,06161	0,0287	0,05317	0,04134
1508,06104	-0,00764	0,0403	0,06402	0,03038	0,05524	0,04192
1506,13257	-0,009	0,03707	0,06132	0,02796	0,05159	0,0395
1504,2041	-0,0142	0,03468	0,05745	0,02627	0,05097	0,04232
1502,27563	-0,01054	0,03781	0,06051	0,02826	0,05289	0,0421
1500,34717	-0,01122	0,03771	0,06035	0,02845	0,05333	0,04301
1498,4187	-0,01103	0,03772	0,06056	0,02852	0,05343	0,04267
1496,49023	-0,01237	0,03686	0,05983	0,02815	0,05323	0,04314
1494,56177	-0,0134	0,03586	0,05841	0,0271	0,05201	0,04298
1492,6333	-0,01094	0,03773	0,0602	0,02826	0,05307	0,04263
1490,70483	-0,00971	0,03848	0,06128	0,02888	0,0537	0,04241
1488,77637	-0,00967	0,03754	0,06056	0,02779	0,05225	0,04094
1486,8479	-0,01109	0,03703	0,05972	0,02754	0,05225	0,04184
1484,91943	-0,01226	0,03692	0,05929	0,02762	0,05268	0,04291
1482,99097	-0,01188	0,03731	0,05965	0,02783	0,053	0,04282
1481,0625	-0,0117	0,03722	0,05971	0,02777	0,05281	0,04234
1479,13403	-0,01245	0,03699	0,05939	0,02772	0,05299	0,04278
1477,20557	-0,01145	0,03746	0,05988	0,02796	0,05335	0,04252
1475,2771	-0,01075	0,03766	0,06034	0,02818	0,05346	0,04213
1473,34863	-0,01198	0,03732	0,06019	0,02841	0,05399	0,04305
1471,42017	-0,01245	0,03603	0,05886	0,02724	0,05258	0,04204
1469,4917	-0,01235	0,03625	0,05866	0,02712	0,05235	0,04195
1467,56323	-0,01223	0,03745	0,05974	0,02816	0,05381	0,04305
1465,63477	-0,01149	0,03758	0,06017	0,0283	0,05404	0,04263
1463,7063	-0,01294	0,03602	0,05858	0,02732	0,05298	0,04258
1461,77783	-0,01272	0,03642	0,05882	0,02743	0,053	0,04246
1459,84937	-0,01003	0,03834	0,06113	0,02862	0,05428	0,04167
1457,9209	-0,00957	0,03841	0,06202	0,0291	0,05495	0,04157
1455,99243	-0,01461	0,03413	0,05706	0,02606	0,05214	0,04259
1454,06396	-0,0117	0,03629	0,05886	0,02672	0,05245	0,04096
1452,1355	-0,01145	0,03692	0,05931	0,02728	0,05328	0,04149
1450,20703	-0,01245	0,03652	0,05882	0,02725	0,05351	0,04231
1448,27856	-0,01112	0,03712	0,0596	0,02752	0,0537	0,04177
1446,3501	-0,01219	0,03624	0,05853	0,02679	0,05296	0,04181
1444,42163	-0,01233	0,03658	0,05872	0,02706	0,05335	0,04212
1442,49316	-0,01235	0,03669	0,05889	0,02722	0,05383	0,0426
1440,5647	-0,01187	0,03643	0,0587	0,0268	0,05325	0,04183
1438,63623	-0,01179	0,03715	0,05946	0,02768	0,05457	0,04269
1436,70776	-0,01191	0,03638	0,05896	0,02744	0,05441	0,04274
1434,7793	-0,01282	0,03498	0,05726	0,02591	0,0523	0,04128
1432,85083	-0,01135	0,03666	0,05877	0,02691	0,05324	0,04097
1430,92236	-0,01131	0,03701	0,05929	0,02732	0,05391	0,04149
1428,9939	-0,01161	0,03598	0,05828	0,02623	0,05262	0,04073
1427,06543	-0,012	0,03625	0,05831	0,02654	0,05311	0,04136
1425,13696	-0,01153	0,03673	0,05896	0,02704	0,05364	0,04146
1423,2085	-0,011	0,03644	0,05878	0,02649	0,05266	0,04025
1421,28003	-0,01241	0,03653	0,05873	0,02703	0,05369	0,04182

1419,35156	-0,01212	0,03645	0,05898	0,02725	0,05405	0,04208
1417,4231	-0,01158	0,03552	0,05814	0,0259	0,05204	0,04011
1415,49463	-0,01178	0,03614	0,05842	0,02634	0,05259	0,04061
1413,56616	-0,01273	0,03612	0,05817	0,02651	0,05301	0,0415
1411,6377	-0,01221	0,03614	0,05834	0,02636	0,05267	0,04096
1409,70923	-0,01251	0,03592	0,05816	0,02627	0,05255	0,04105
1407,78076	-0,01295	0,03588	0,05794	0,02619	0,05251	0,04117
1405,85229	-0,01194	0,03645	0,05857	0,02642	0,05273	0,04072
1403,92383	-0,01233	0,03566	0,05772	0,02585	0,05205	0,04055
1401,99536	-0,01278	0,03582	0,05777	0,02602	0,05237	0,04103
1400,06689	-0,01206	0,03645	0,05859	0,02641	0,05307	0,04111
1398,13843	-0,01184	0,03595	0,05825	0,02591	0,05238	0,04035
1396,20996	-0,01191	0,03636	0,05865	0,02638	0,05291	0,04073
1394,28149	-0,01231	0,03613	0,05837	0,02635	0,05302	0,04115
1392,35303	-0,01348	0,0353	0,05728	0,02569	0,0522	0,04128
1390,42456	-0,01283	0,0362	0,05814	0,02629	0,05285	0,04142
1388,49609	-0,01266	0,03645	0,05848	0,0265	0,05343	0,04184
1386,56763	-0,01291	0,03549	0,05754	0,02555	0,05236	0,04109
1384,63916	-0,01306	0,03501	0,05685	0,02508	0,05171	0,04069
1382,71069	-0,01316	0,03526	0,05694	0,02538	0,05228	0,0412
1380,78223	-0,01273	0,03588	0,05768	0,02585	0,05302	0,04144
1378,85376	-0,01282	0,03615	0,05793	0,02593	0,05308	0,04155
1376,92529	-0,01293	0,0365	0,05816	0,02624	0,05339	0,04187
1374,99683	-0,01163	0,03705	0,05898	0,0266	0,05374	0,04132
1373,06836	-0,01211	0,03635	0,05826	0,02618	0,05333	0,04143
1371,13989	-0,01304	0,03616	0,05784	0,02637	0,0536	0,04238
1369,21143	-0,01223	0,03682	0,05861	0,02684	0,05412	0,04236
1367,28296	-0,01259	0,03639	0,0581	0,02644	0,05378	0,0423
1365,35449	-0,01275	0,03634	0,05807	0,02655	0,05391	0,04243
1363,42603	-0,01135	0,03702	0,05914	0,02682	0,05403	0,04166
1361,49756	-0,01182	0,03646	0,05856	0,02618	0,05333	0,04138
1359,56909	-0,01296	0,03596	0,05789	0,02603	0,05328	0,04192
1357,64063	-0,01274	0,03627	0,05817	0,02628	0,05347	0,04182
1355,71216	-0,01244	0,03646	0,05826	0,02637	0,05342	0,04156
1353,78369	-0,01251	0,03628	0,05813	0,02636	0,05329	0,04156
1351,85522	-0,01254	0,03618	0,05806	0,02627	0,05324	0,0416
1349,92676	-0,0124	0,03631	0,05801	0,02618	0,05317	0,04149
1347,99829	-0,01247	0,03641	0,05797	0,02619	0,05309	0,0415
1346,06982	-0,01256	0,03659	0,05806	0,02631	0,05327	0,04161
1344,14136	-0,01272	0,03661	0,05791	0,02633	0,05335	0,04168
1342,21289	-0,01243	0,03696	0,05824	0,02655	0,05358	0,04166
1340,28442	-0,01134	0,0376	0,05906	0,02679	0,05375	0,04103
1338,35596	-0,01133	0,03712	0,05863	0,02645	0,05329	0,04067
1336,42749	-0,01222	0,03665	0,05811	0,0264	0,05328	0,04139
1334,49902	-0,01234	0,03683	0,05828	0,02668	0,05365	0,04192
1332,57056	-0,01205	0,03682	0,05822	0,02675	0,05372	0,04197
1330,64209	-0,0119	0,03688	0,05836	0,02686	0,05385	0,04203
1328,71362	-0,01202	0,03697	0,05856	0,02686	0,05398	0,04209

1326,78516	-0,0121	0,03699	0,05859	0,02675	0,05401	0,04205
1324,85669	-0,01203	0,03698	0,05864	0,0267	0,05403	0,04194
1322,92822	-0,01198	0,03691	0,05856	0,0266	0,05396	0,04188
1320,99976	-0,01171	0,03714	0,05881	0,02664	0,05408	0,0419
1319,07129	-0,01143	0,03741	0,05912	0,02668	0,05415	0,04183
1317,14282	-0,01168	0,03729	0,05883	0,02651	0,05402	0,04195
1315,21436	-0,01174	0,0372	0,05876	0,0264	0,05402	0,04202
1313,28589	-0,01145	0,03719	0,05886	0,02636	0,05397	0,04176
1311,35742	-0,01159	0,03702	0,05857	0,02633	0,05386	0,0419
1309,42896	-0,01165	0,03708	0,05862	0,02644	0,05397	0,0423
1307,50049	-0,01144	0,03722	0,05889	0,0265	0,05401	0,04233
1305,57202	-0,01143	0,03722	0,059	0,02657	0,05391	0,04249
1303,64355	-0,01136	0,0374	0,05918	0,02676	0,05407	0,0428
1301,71509	-0,01132	0,03742	0,05915	0,02684	0,05426	0,04285
1299,78662	-0,01131	0,03739	0,05916	0,02699	0,05445	0,04311
1297,85815	-0,01116	0,03767	0,0594	0,02719	0,05472	0,04352
1295,92969	-0,01114	0,03786	0,05945	0,02728	0,05483	0,04379
1294,00122	-0,01123	0,03804	0,05953	0,02747	0,05498	0,04425
1292,07275	-0,01122	0,03822	0,05975	0,02764	0,0552	0,04458
1290,14429	-0,01123	0,03832	0,05979	0,02773	0,05524	0,04455
1288,21582	-0,01111	0,03846	0,05985	0,02784	0,05533	0,04459
1286,28735	-0,01092	0,03849	0,05995	0,02786	0,05548	0,04482
1284,35889	-0,01088	0,03846	0,05985	0,02791	0,0556	0,04505
1282,43042	-0,01073	0,03848	0,05978	0,02796	0,05577	0,04528
1280,50195	-0,01058	0,0385	0,0599	0,02802	0,05606	0,04567
1278,57349	-0,01058	0,03852	0,06002	0,02824	0,05636	0,04607
1276,64502	-0,01057	0,03862	0,06011	0,02846	0,05656	0,04635
1274,71655	-0,01049	0,03887	0,06023	0,02856	0,05675	0,04674
1272,78809	-0,01034	0,0391	0,06043	0,02861	0,0569	0,04701
1270,85962	-0,01032	0,03929	0,06044	0,02867	0,05704	0,04709
1268,93115	-0,0103	0,03946	0,06033	0,02878	0,05721	0,04731
1267,00269	-0,0102	0,03947	0,06049	0,02894	0,05723	0,04751
1265,07422	-0,01021	0,03942	0,06062	0,02906	0,05721	0,04753
1263,14575	-0,01008	0,03946	0,06061	0,02919	0,05734	0,04756
1261,21729	-0,00976	0,03956	0,06076	0,02938	0,05745	0,04751
1259,28882	-0,00967	0,03972	0,06087	0,02953	0,05753	0,04742
1257,36035	-0,00974	0,03984	0,06075	0,02956	0,05755	0,04739
1255,43188	-0,0097	0,03986	0,06068	0,02967	0,05757	0,0474
1253,50342	-0,00959	0,03989	0,06078	0,02987	0,0578	0,04746
1251,57495	-0,00942	0,03989	0,06097	0,02997	0,05799	0,04755
1249,64648	-0,00933	0,03994	0,06115	0,03005	0,05819	0,04767
1247,71802	-0,00924	0,04007	0,0613	0,03026	0,05851	0,04782
1245,78955	-0,00899	0,04018	0,06147	0,03054	0,05868	0,04799
1243,86108	-0,00884	0,04034	0,06162	0,0307	0,0588	0,04804
1241,93262	-0,00871	0,04055	0,0617	0,03072	0,05894	0,04793
1240,00415	-0,00858	0,04061	0,06186	0,03089	0,059	0,04788
1238,07568	-0,00857	0,04067	0,06203	0,03111	0,05912	0,04791
1236,14722	-0,00839	0,04097	0,06211	0,03124	0,05925	0,04796

1234,21875	-0,00811	0,04131	0,06216	0,03142	0,05932	0,04805
1232,29028	-0,00802	0,04152	0,06217	0,03158	0,05949	0,04804
1230,36182	-0,0079	0,04155	0,06222	0,03169	0,0596	0,04796
1228,43335	-0,00756	0,04145	0,0622	0,03178	0,05958	0,04791
1226,50488	-0,00717	0,04155	0,06222	0,03194	0,05973	0,04802
1224,57642	-0,00697	0,04178	0,0624	0,03222	0,05991	0,04824
1222,64795	-0,00695	0,04192	0,06256	0,03239	0,05998	0,04844
1220,71948	-0,00673	0,04229	0,06274	0,0327	0,06029	0,0487
1218,79102	-0,00635	0,04277	0,06299	0,03321	0,06076	0,04901
1216,86255	-0,00616	0,04284	0,06319	0,03348	0,06115	0,04919
1214,93408	-0,00597	0,04283	0,06341	0,03371	0,06148	0,04929
1213,00562	-0,00563	0,04301	0,06361	0,03404	0,06167	0,04941
1211,07715	-0,00544	0,04316	0,06376	0,03419	0,06196	0,04966
1209,14868	-0,00528	0,04346	0,06405	0,03448	0,06256	0,05003
1207,22021	-0,00495	0,04384	0,06445	0,03498	0,06309	0,05042
1205,29175	-0,00474	0,04406	0,06469	0,03527	0,06348	0,05083
1203,36328	-0,00461	0,04423	0,06477	0,03555	0,06401	0,05134
1201,43481	-0,00428	0,04445	0,06507	0,03603	0,06461	0,05192
1199,50635	-0,00395	0,04475	0,06544	0,03638	0,06518	0,05242
1197,57788	-0,00378	0,04498	0,06547	0,03656	0,06551	0,05262
1195,64941	-0,00371	0,04513	0,06552	0,03668	0,06551	0,05255
1193,72095	-0,00367	0,04537	0,06568	0,0368	0,06562	0,05251
1191,79248	-0,00349	0,04561	0,06563	0,03699	0,06579	0,05265
1189,86401	-0,00315	0,04588	0,06559	0,03705	0,06581	0,05282
1187,93555	-0,00289	0,04608	0,0657	0,03707	0,0659	0,05284
1186,00708	-0,00273	0,04623	0,06585	0,03724	0,06602	0,0528
1184,07861	-0,00253	0,04659	0,066	0,03735	0,06607	0,05278
1182,15015	-0,0023	0,04691	0,06606	0,03728	0,0661	0,05258
1180,22168	-0,00203	0,04707	0,06623	0,03732	0,06606	0,05244
1178,29321	-0,00175	0,04729	0,0665	0,03753	0,06623	0,0525
1176,36475	-0,00154	0,04769	0,06669	0,03769	0,06665	0,05249
1174,43628	-0,00135	0,04813	0,0669	0,03799	0,06693	0,05275
1172,50781	-0,00119	0,04831	0,06706	0,03839	0,0671	0,053
1170,57935	-0,00109	0,04843	0,06716	0,03859	0,0674	0,05291
1168,65088	-0,00098	0,04867	0,06741	0,0387	0,06768	0,05313
1166,72241	-0,00087	0,04883	0,06767	0,0388	0,06783	0,05333
1164,79395	-0,00082	0,04901	0,06775	0,03892	0,06794	0,05323
1162,86548	-0,00076	0,0492	0,06772	0,039	0,06802	0,05335
1160,93701	-0,0007	0,04935	0,06772	0,03893	0,06812	0,05359
1159,00854	-0,00069	0,04948	0,06768	0,03886	0,0682	0,05367
1157,08008	-0,00065	0,04946	0,06776	0,03893	0,06833	0,05365
1155,15161	-0,00055	0,04952	0,06801	0,03914	0,06858	0,05374
1153,22314	-0,00047	0,04975	0,06824	0,03933	0,06881	0,05403
1151,29468	-0,00035	0,04991	0,06842	0,03952	0,06902	0,05429
1149,36621	-0,0001	0,0501	0,06857	0,0396	0,06925	0,0545
1147,43774	0,00008	0,05033	0,06864	0,03957	0,06948	0,05477
1145,50928	0,00016	0,05045	0,06881	0,0399	0,06966	0,05496
1143,58081	0,0002	0,05065	0,06904	0,04028	0,06984	0,05517

1141,65234	0,00022	0,05091	0,06924	0,04039	0,07002	0,0554
1139,72388	0,00037	0,05109	0,06935	0,04062	0,07011	0,05544
1137,79541	0,0006	0,05135	0,0695	0,04099	0,07033	0,05555
1135,86694	0,00083	0,05155	0,06968	0,04122	0,07073	0,05577
1133,93848	0,00109	0,05154	0,0697	0,04127	0,07112	0,05583
1132,01001	0,00118	0,05171	0,06974	0,04152	0,07155	0,05597
1130,08154	0,0011	0,05193	0,0699	0,04199	0,07193	0,05635
1128,15308	0,00124	0,05196	0,07006	0,04242	0,07238	0,05685
1126,22461	0,00136	0,0521	0,07038	0,04293	0,07303	0,05746
1124,29614	0,0014	0,05233	0,07072	0,04342	0,07348	0,05796
1122,36768	0,00162	0,05248	0,07088	0,04358	0,07371	0,05809
1120,43921	0,00171	0,05266	0,07092	0,0436	0,07379	0,05792
1118,51074	0,00187	0,05281	0,07098	0,04376	0,0739	0,05783
1116,58228	0,00221	0,05296	0,07113	0,04401	0,07432	0,05801
1114,65381	0,00233	0,0533	0,07125	0,04431	0,07469	0,05821
1112,72534	0,00248	0,05363	0,07143	0,04472	0,07501	0,05838
1110,79688	0,00264	0,05381	0,07179	0,04503	0,07535	0,0586
1108,86841	0,00262	0,05396	0,072	0,0452	0,07547	0,05857
1106,93994	0,00272	0,05412	0,07208	0,04549	0,07561	0,05844
1105,01147	0,0029	0,05438	0,07223	0,04579	0,07576	0,05852
1103,08301	0,00287	0,05463	0,07228	0,04601	0,07577	0,05859
1101,15454	0,00277	0,05475	0,07233	0,04613	0,07574	0,05848
1099,22607	0,0028	0,05476	0,0725	0,0461	0,0757	0,05836
1097,29761	0,00279	0,05484	0,07254	0,04624	0,07577	0,05844
1095,36914	0,00276	0,05498	0,07261	0,04659	0,07584	0,05863
1093,44067	0,00283	0,05497	0,07286	0,0467	0,0758	0,05872
1091,51221	0,00277	0,05489	0,07286	0,04647	0,07569	0,05862
1089,58374	0,00253	0,05492	0,07261	0,04632	0,07557	0,05839
1087,65527	0,00245	0,05503	0,07259	0,04643	0,07555	0,05828
1085,72681	0,00242	0,05495	0,07257	0,04628	0,07535	0,05821
1083,79834	0,00214	0,05462	0,07254	0,04585	0,07498	0,05794
1081,86987	0,00184	0,05446	0,07252	0,04561	0,07475	0,05778
1079,94141	0,00164	0,05437	0,07239	0,04547	0,07451	0,05769
1078,01294	0,00133	0,05405	0,07221	0,04523	0,07418	0,05734
1076,08447	0,0011	0,05373	0,07176	0,04479	0,07364	0,05697
1074,15601	0,0009	0,05329	0,07122	0,04408	0,07303	0,05668
1072,22754	0,00049	0,05285	0,07114	0,04348	0,07273	0,05634
1070,29907	0,0002	0,05264	0,07122	0,04312	0,07243	0,056
1068,37061	0,00005	0,05237	0,07121	0,0427	0,0719	0,05575
1066,44214	-0,00027	0,052	0,07121	0,04221	0,07144	0,05546
1064,51367	-0,00048	0,0515	0,07094	0,04168	0,07088	0,05503
1062,58521	-0,00061	0,05103	0,07061	0,04116	0,07038	0,05467
1060,65674	-0,00097	0,05094	0,07049	0,04073	0,07012	0,05438
1058,72827	-0,00122	0,05071	0,07009	0,04017	0,06957	0,05396
1056,7998	-0,00137	0,05013	0,06964	0,03963	0,06907	0,05365
1054,87134	-0,00174	0,04984	0,06954	0,03948	0,06896	0,05356
1052,94287	-0,00208	0,04967	0,06955	0,03943	0,06886	0,05355
1051,0144	-0,0022	0,04933	0,06962	0,03927	0,06895	0,05375

1049,08594	-0,00239	0,04918	0,0695	0,03903	0,0691	0,05407
1047,15747	-0,00258	0,04915	0,06925	0,03866	0,06883	0,05415
1045,229	-0,0026	0,04895	0,06916	0,03846	0,0685	0,05389
1043,30054	-0,00267	0,04874	0,06909	0,03839	0,06835	0,05356
1041,37207	-0,00283	0,04871	0,06912	0,0383	0,06835	0,05362
1039,4436	-0,00293	0,0487	0,06912	0,03833	0,06845	0,05393
1037,51514	-0,00324	0,04858	0,06911	0,03846	0,06867	0,05425
1035,58667	-0,00354	0,04853	0,06927	0,03859	0,06905	0,05472
1033,6582	-0,00359	0,04857	0,06908	0,0383	0,06896	0,05483
1031,72974	-0,00375	0,04856	0,06871	0,03776	0,06847	0,05441
1029,80127	-0,00383	0,04866	0,06868	0,03752	0,06843	0,05435
1027,8728	-0,00397	0,04871	0,0687	0,03737	0,06854	0,05457
1025,94434	-0,00423	0,04851	0,06856	0,03728	0,0683	0,05441
1024,01587	-0,00418	0,04844	0,06849	0,0372	0,06803	0,05423
1022,0874	-0,00398	0,04854	0,06859	0,03704	0,06802	0,05436
1020,15894	-0,00395	0,04835	0,06866	0,03695	0,06788	0,05421
1018,23047	-0,00404	0,04803	0,06846	0,03675	0,06729	0,05349
1016,302	-0,00416	0,04793	0,06815	0,03655	0,06669	0,05266
1014,37354	-0,00443	0,0478	0,068	0,03636	0,06637	0,05194
1012,44507	-0,00485	0,04759	0,068	0,03607	0,06599	0,05145
1010,5166	-0,00507	0,04745	0,06797	0,03584	0,06561	0,05123
1008,58813	-0,00523	0,04731	0,06796	0,03548	0,06536	0,051
1006,65967	-0,00547	0,04723	0,06802	0,0352	0,06502	0,05063
1004,7312	-0,00565	0,04727	0,06805	0,03514	0,06475	0,05032
1002,80273	-0,00584	0,04726	0,06809	0,0349	0,06461	0,05013
1000,87427	-0,00587	0,04713	0,06801	0,03463	0,06433	0,04988
998,9458	-0,00585	0,04694	0,0679	0,03458	0,06413	0,04965
997,01733	-0,0061	0,04682	0,06807	0,03455	0,06413	0,04954
995,08887	-0,00619	0,04692	0,0682	0,03452	0,064	0,04942
993,1604	-0,00608	0,04698	0,06812	0,03461	0,06377	0,04926
991,23193	-0,00612	0,04678	0,06811	0,03445	0,06363	0,04908
989,30347	-0,00615	0,04666	0,06808	0,03409	0,06346	0,04875
987,375	-0,00627	0,04667	0,06801	0,0339	0,06324	0,04852
985,44653	-0,00653	0,04661	0,06808	0,03379	0,0632	0,04869
983,51807	-0,00659	0,04663	0,06805	0,03382	0,06318	0,04873
981,5896	-0,00662	0,04673	0,06799	0,03375	0,06303	0,04845
979,66113	-0,00672	0,0467	0,06805	0,0335	0,06284	0,0483
977,73267	-0,00669	0,04644	0,06784	0,03344	0,06241	0,04798
975,8042	-0,00675	0,0462	0,06758	0,03325	0,06198	0,04752
973,87573	-0,00694	0,04628	0,06768	0,03315	0,06193	0,04765
971,94727	-0,00694	0,0463	0,06785	0,03335	0,06198	0,04784
970,0188	-0,00708	0,0462	0,06795	0,03335	0,06195	0,04756
968,09033	-0,00748	0,04625	0,06808	0,03337	0,06188	0,04734
966,16187	-0,00761	0,04636	0,06821	0,03342	0,06182	0,04743
964,2334	-0,00752	0,04641	0,06821	0,03316	0,06179	0,04741
962,30493	-0,00745	0,04635	0,06816	0,03294	0,06151	0,0472
960,37646	-0,00757	0,04637	0,06819	0,03303	0,06111	0,04717
958,448	-0,00764	0,04643	0,06817	0,03303	0,06091	0,04723

956,51953	-0,00747	0,04631	0,06831	0,03279	0,06072	0,04715
954,59106	-0,00759	0,04635	0,06847	0,03283	0,06073	0,04707
952,6626	-0,00779	0,04657	0,06838	0,03289	0,06079	0,04706
950,73413	-0,00778	0,04646	0,06842	0,03264	0,06073	0,04701
948,80566	-0,00791	0,04623	0,06856	0,03256	0,06089	0,04703
946,8772	-0,0079	0,04619	0,06863	0,03257	0,06096	0,04708
944,94873	-0,00783	0,04631	0,06873	0,03245	0,06084	0,04695
943,02026	-0,00795	0,04633	0,06861	0,03231	0,0606	0,04666
941,0918	-0,00796	0,04632	0,06847	0,03217	0,0603	0,04655
939,16333	-0,00795	0,0464	0,06838	0,03201	0,06028	0,04658
937,23486	-0,00796	0,04634	0,06812	0,03193	0,06024	0,04655
935,3064	-0,00817	0,04614	0,06796	0,03205	0,06012	0,04659
933,37793	-0,00858	0,04584	0,06779	0,03203	0,05999	0,0466
931,44946	-0,00864	0,04584	0,06756	0,03175	0,05982	0,0466
929,521	-0,00845	0,0462	0,06758	0,03163	0,05994	0,04664
927,59253	-0,00837	0,04634	0,06769	0,03175	0,05997	0,04659
925,66406	-0,00826	0,04621	0,06763	0,0317	0,05967	0,04657
923,7356	-0,00818	0,04608	0,06766	0,0316	0,0596	0,04646
921,80713	-0,00829	0,04615	0,06786	0,0319	0,05957	0,0465
919,87866	-0,00838	0,04624	0,06797	0,03206	0,05957	0,04671
917,9502	-0,00832	0,04626	0,06818	0,03215	0,05994	0,04661
916,02173	-0,00842	0,04654	0,06829	0,03251	0,06016	0,04672
914,09326	-0,00848	0,04657	0,06802	0,03254	0,06007	0,04687
912,16479	-0,00823	0,04636	0,06791	0,03239	0,05994	0,04658
910,23633	-0,00802	0,04649	0,06804	0,03234	0,05966	0,04638
908,30786	-0,00799	0,04653	0,06806	0,03214	0,05959	0,04633
906,37939	-0,0081	0,04652	0,06819	0,03212	0,05982	0,04637
904,45093	-0,00812	0,04675	0,06852	0,03227	0,05988	0,04642
902,52246	-0,00798	0,04667	0,06865	0,03215	0,05981	0,04627
900,59399	-0,00814	0,04637	0,06866	0,03194	0,05966	0,0463
898,66553	-0,00837	0,04634	0,06885	0,03185	0,05952	0,04648
896,73706	-0,00836	0,04639	0,06889	0,03183	0,05951	0,04646
894,80859	-0,00833	0,04635	0,0688	0,03202	0,05952	0,0464
892,88013	-0,00812	0,04634	0,06885	0,03227	0,05938	0,04626
890,95166	-0,00796	0,04646	0,06894	0,03241	0,0592	0,0462
889,02319	-0,0082	0,04661	0,06914	0,03259	0,05916	0,04648
887,09473	-0,00848	0,0466	0,06929	0,03253	0,05909	0,04664
885,16626	-0,0086	0,04668	0,06935	0,03247	0,05915	0,04645
883,23779	-0,00852	0,04689	0,06967	0,03271	0,05936	0,04639
881,30933	-0,00818	0,04707	0,06983	0,03279	0,05946	0,04673
879,38086	-0,00779	0,04731	0,06991	0,03263	0,05977	0,04714
877,45239	-0,00767	0,04766	0,07026	0,03269	0,06015	0,04737
875,52393	-0,00751	0,04827	0,07055	0,03307	0,06037	0,04774
873,59546	-0,00705	0,04876	0,07102	0,03355	0,06068	0,04835
871,66699	-0,00659	0,04912	0,07161	0,03409	0,06112	0,04912
869,73853	-0,00605	0,04966	0,07196	0,03461	0,06171	0,05007
867,81006	-0,00551	0,04998	0,07224	0,03485	0,06212	0,05066
865,88159	-0,00519	0,05023	0,07234	0,03514	0,06239	0,0508

863,95313	-0,00487	0,05064	0,0724	0,0356	0,06272	0,05112
862,02466	-0,00485	0,05092	0,07261	0,03586	0,06289	0,05138
860,09619	-0,005	0,05088	0,07248	0,03587	0,06287	0,05132
858,16772	-0,00497	0,05058	0,07229	0,03575	0,06268	0,0511
856,23926	-0,00515	0,0504	0,07229	0,03568	0,06257	0,05081
854,31079	-0,00546	0,05028	0,07191	0,03567	0,06264	0,05052
852,38232	-0,00566	0,05011	0,07171	0,03583	0,06275	0,05025
850,45386	-0,00574	0,0502	0,07195	0,03585	0,0628	0,05024
848,52539	-0,00527	0,05103	0,0724	0,03601	0,06309	0,05122
846,59692	-0,00424	0,05245	0,07343	0,03716	0,06427	0,05293
844,66846	-0,00336	0,05327	0,07422	0,03804	0,06546	0,054
842,73999	-0,00234	0,05373	0,07476	0,0383	0,06622	0,05488
840,81152	-0,00053	0,0552	0,07614	0,03964	0,06802	0,05704
838,88306	0,00138	0,05707	0,07769	0,04169	0,07048	0,05983
836,95459	0,00324	0,0587	0,0791	0,0435	0,07257	0,06252
835,02612	0,00492	0,06028	0,08041	0,04495	0,07466	0,06482
833,09766	0,0055	0,06091	0,08081	0,04553	0,07578	0,06577
831,16919	0,00561	0,06067	0,08059	0,04538	0,07545	0,06583
829,24072	0,00581	0,06062	0,0804	0,04503	0,07508	0,0656
827,31226	0,00598	0,06062	0,08039	0,04496	0,07508	0,06525
825,38379	0,00696	0,06133	0,08103	0,04608	0,07598	0,06637
823,45532	0,0082	0,06297	0,08205	0,04769	0,07766	0,06835
821,52686	0,00867	0,0638	0,0826	0,04824	0,07833	0,06913
819,59839	0,00879	0,06382	0,08285	0,04837	0,07831	0,06922
817,66992	0,00899	0,06414	0,08314	0,04896	0,07879	0,06946
815,74146	0,00959	0,06486	0,08343	0,04983	0,07972	0,07008
813,81299	0,0105	0,06563	0,08398	0,05082	0,0808	0,07102
811,88452	0,01093	0,0662	0,08458	0,05145	0,08136	0,07163
809,95605	0,01084	0,06666	0,08479	0,05161	0,08139	0,07187
808,02759	0,01111	0,06695	0,08489	0,05193	0,08173	0,0722
806,09912	0,01208	0,06737	0,08555	0,05294	0,0828	0,07306
804,17065	0,01289	0,06804	0,08618	0,05389	0,0837	0,07397
802,24219	0,01307	0,06868	0,08618	0,05439	0,08386	0,07446
800,31372	0,01344	0,0695	0,0867	0,05551	0,0846	0,07543
798,38525	0,01415	0,07015	0,08764	0,05673	0,08586	0,07654
796,45679	0,01455	0,07045	0,08795	0,05701	0,08655	0,07688
794,52832	0,01455	0,07072	0,08809	0,0569	0,08683	0,07686
792,59985	0,01434	0,07039	0,08795	0,05641	0,08642	0,07655
790,67139	0,01392	0,06952	0,08715	0,05532	0,08527	0,07555
788,74292	0,01342	0,06899	0,08645	0,05439	0,08433	0,07441
786,81445	0,01309	0,06893	0,08643	0,05411	0,08391	0,07401
784,88599	0,01245	0,06852	0,08623	0,05369	0,08333	0,07362
782,95752	0,01159	0,06773	0,08568	0,05295	0,08218	0,07253
781,02905	0,01122	0,06742	0,08561	0,05246	0,08121	0,07188
779,10059	0,01097	0,06719	0,08557	0,05217	0,08071	0,07169
777,17212	0,01116	0,06702	0,08562	0,05227	0,08087	0,07185
775,24365	0,01188	0,06767	0,0862	0,05295	0,08167	0,07282
773,31519	0,01223	0,06819	0,08629	0,05347	0,08228	0,07356



771,38672	0,01255	0,06826	0,08624	0,05371	0,08275	0,07388
769,45825	0,01279	0,06851	0,08655	0,05412	0,08321	0,07417
767,52979	0,01287	0,06862	0,08648	0,0544	0,08347	0,07414
765,60132	0,01337	0,06879	0,0865	0,0544	0,08375	0,07427
763,67285	0,01357	0,06919	0,0867	0,05467	0,08389	0,07448
761,74438	0,01329	0,06908	0,08639	0,05468	0,0834	0,07398
759,81592	0,01302	0,06847	0,08584	0,0541	0,08263	0,07324
757,88745	0,01254	0,06792	0,08548	0,05372	0,08211	0,0729
755,95898	0,01232	0,06767	0,08515	0,05331	0,08174	0,07273
754,03052	0,01263	0,06738	0,08483	0,05274	0,0814	0,0724
752,10205	0,01237	0,06688	0,08453	0,0524	0,08095	0,07194
750,17358	0,01199	0,06701	0,08463	0,05253	0,08076	0,07208
748,24512	0,01254	0,06745	0,08501	0,05307	0,08105	0,07251
746,31665	0,01306	0,0675	0,085	0,05328	0,0811	0,07255
744,38818	0,01293	0,06811	0,08515	0,0533	0,08137	0,07296
742,45972	0,01278	0,06872	0,08548	0,05339	0,08203	0,0732
740,53125	0,0128	0,06838	0,08535	0,05332	0,08209	0,07282
738,60278	0,01307	0,06832	0,08556	0,05357	0,08229	0,07334
736,67432	0,01352	0,06899	0,08625	0,05412	0,08312	0,07406
734,74585	0,01371	0,06929	0,08661	0,0546	0,08353	0,07379
732,81738	0,01344	0,06911	0,08665	0,05449	0,08331	0,07338
730,88892	0,01333	0,06919	0,08663	0,05415	0,08319	0,07352
728,96045	0,01363	0,06914	0,08658	0,05468	0,08351	0,074
727,03198	0,01418	0,06936	0,08687	0,05523	0,08396	0,07427
725,10352	0,01491	0,07012	0,08695	0,0557	0,08489	0,07486
723,17505	0,01537	0,07089	0,08702	0,05668	0,08563	0,07585
721,24658	0,01574	0,07203	0,08803	0,05689	0,08527	0,07597
719,31812	0,01634	0,07228	0,08786	0,05679	0,08561	0,07582
717,38965	0,01678	0,07178	0,08675	0,05734	0,08686	0,07625
715,46118	0,01736	0,07226	0,08707	0,05772	0,0875	0,07673
713,53271	0,01792	0,0725	0,08731	0,05767	0,08755	0,07702
711,60425	0,0178	0,07228	0,08699	0,0574	0,08723	0,07695
709,67578	0,01779	0,07237	0,08728	0,05716	0,0872	0,0769
707,74731	0,0182	0,07219	0,08733	0,05707	0,08755	0,07684
705,81885	0,01816	0,07213	0,08721	0,05736	0,08765	0,07643
703,89038	0,01764	0,0727	0,08762	0,05755	0,08743	0,07629
701,96191	0,01713	0,07298	0,0876	0,05693	0,08719	0,07626
700,03345	0,01691	0,07313	0,08752	0,05667	0,08733	0,07623
698,10498	0,01687	0,07374	0,08781	0,05714	0,08744	0,07651
696,17651	0,01692	0,07397	0,08788	0,05741	0,08727	0,07651
694,24805	0,017	0,07383	0,088	0,05724	0,08688	0,07626
692,31958	0,01705	0,07414	0,08822	0,05695	0,08645	0,07624
690,39111	0,0179	0,07486	0,08874	0,05752	0,08671	0,07626
688,46265	0,01898	0,07549	0,08933	0,05817	0,08745	0,07668
686,53418	0,0193	0,07623	0,0903	0,05848	0,08803	0,07748
684,60571	0,0198	0,07631	0,09085	0,05899	0,08859	0,07766
682,67725	0,02047	0,0764	0,0909	0,05923	0,08917	0,07785
680,74878	0,02081	0,07784	0,09198	0,05997	0,0898	0,07862

678,82031	0,02131	0,07803	0,0917	0,06077	0,09047	0,07917
676,89185	0,02189	0,07864	0,09278	0,06099	0,09013	0,07984
674,96338	0,02208	0,07874	0,09296	0,06175	0,09109	0,08069
673,03491	0,0221	0,07878	0,09306	0,06174	0,09226	0,08075
671,10645	0,02213	0,07883	0,09316	0,06143	0,0925	0,08081
669,17798	0,02216	0,07888	0,09326	0,06217	0,09274	0,08087
667,24951	0,02218	0,07892	0,09336	0,06224	0,09299	0,08093
665,32104	0,02221	0,07897	0,09346	0,06236	0,09323	0,08099
663,39258	0,02224	0,07902	0,09356	0,06276	0,09347	0,08105
661,46411	0,02226	0,07906	0,09366	0,0626	0,09371	0,08111
659,53564	0,02229	0,07911	0,09376	0,0624	0,09197	0,08117
657,60718	0,02232	0,07915	0,09386	0,06245	0,09318	0,08123
655,67871	0,02242	0,0792	0,09396	0,0621	0,09182	0,08129
653,75024	0,02261	0,07925	0,09406	0,06202	0,09087	0,08135
651,82178	0,02271	0,07929	0,09317	0,06193	0,09143	0,08142
649,89331	0,0229	0,07934	0,09373	0,06221	0,09145	0,08098
647,96484	0,02303	0,07939	0,09446	0,06323	0,09274	0,08119
646,03638	0,02301	0,07943	0,09371	0,06434	0,09366	0,08191
644,10791	0,02294	0,07934	0,09345	0,06494	0,09331	0,0819
642,17944	0,02295	0,07929	0,09367	0,06519	0,09345	0,08151
640,25098	0,02274	0,07894	0,09301	0,06562	0,09337	0,08114
638,32251	0,02241	0,07897	0,09268	0,06555	0,09289	0,08131
636,39404	0,02266	0,07863	0,0927	0,06511	0,09318	0,08144
634,46558	0,02251	0,07828	0,09245	0,06502	0,09331	0,081
632,53711	0,02183	0,07835	0,09266	0,06451	0,09263	0,08068
630,60864	0,02129	0,07794	0,09234	0,0637	0,09207	0,08028
628,68018	0,02083	0,07764	0,09214	0,0636	0,09149	0,07972
626,75171	0,02117	0,07746	0,09206	0,06396	0,09157	0,07965
624,82324	0,0215	0,07767	0,09243	0,06429	0,0917	0,07987
622,89478	0,02116	0,07755	0,09319	0,06441	0,09118	0,07973
620,96631	0,02135	0,07711	0,09262	0,0643	0,09121	0,07942
619,03784	0,02186	0,0783	0,0933	0,06473	0,091	0,0794
617,10938	0,02206	0,07896	0,09477	0,06567	0,09095	0,07961
615,18091	0,02202	0,07868	0,09403	0,06565	0,09128	0,0798
613,25244	0,02184	0,07925	0,09342	0,06543	0,09117	0,08002
611,32397	0,02185	0,07922	0,09354	0,06603	0,09175	0,0804
609,39551	0,0219	0,07871	0,09322	0,06635	0,09158	0,0807
607,46704	0,02215	0,07857	0,09308	0,06638	0,09089	0,08064
605,53857	0,02232	0,07857	0,09344	0,06658	0,0913	0,08049
603,61011	0,02176	0,0783	0,09356	0,06643	0,09067	0,08014
601,68164	0,02213	0,07764	0,09307	0,06613	0,08983	0,07958
599,75317	0,02238	0,07755	0,09291	0,06592	0,08994	0,07933
597,82471	0,02112	0,0778	0,09298	0,06582	0,08948	0,07899
595,89624	0,02105	0,07786	0,09253	0,06571	0,08903	0,07848
593,96777	0,02216	0,07763	0,0921	0,06572	0,0894	0,07798
592,03931	0,02233	0,07724	0,09177	0,06628	0,08996	0,07765
590,11084	0,02107	0,07784	0,0922	0,06642	0,08932	0,07811
588,18237	0,02027	0,07824	0,0928	0,06599	0,08857	0,07808

586,25391	0,02025	0,07765	0,09245	0,06576	0,08861	0,07764
584,32544	0,01937	0,07816	0,09255	0,06534	0,08834	0,0783
582,39697	0,02007	0,0788	0,09256	0,06481	0,08897	0,07849
580,46851	0,02115	0,07862	0,09235	0,06437	0,08918	0,07807
578,54004	0,02071	0,07867	0,09235	0,06436	0,08851	0,07809
576,61157	0,02205	0,07829	0,0917	0,06465	0,08941	0,07807
574,68311	0,0222	0,07801	0,09232	0,06423	0,08934	0,0788
572,75464	0,02071	0,07855	0,09344	0,06404	0,08887	0,07939
570,82617	0,02166	0,07866	0,09328	0,06462	0,09027	0,07922
568,89771	0,02267	0,07853	0,09331	0,06469	0,09122	0,07947
566,96924	0,02256	0,0788	0,09338	0,06469	0,09137	0,07976
565,04077	0,02239	0,07934	0,09332	0,06521	0,09122	0,08022
563,1123	0,02224	0,07977	0,09358	0,06542	0,09138	0,08084
561,18384	0,02258	0,07988	0,09388	0,06524	0,09229	0,08095
559,25537	0,02277	0,08013	0,09405	0,06506	0,09251	0,08128
557,3269	0,02282	0,08061	0,09409	0,06523	0,09267	0,0817
555,39844	0,0226	0,08107	0,09433	0,06581	0,09344	0,08211
553,46997	0,02225	0,08168	0,09466	0,06607	0,0939	0,08278
551,5415	0,02233	0,0815	0,09465	0,06543	0,09397	0,08282
549,61304	0,0214	0,0803	0,09437	0,06442	0,09406	0,08263
547,68457	0,0196	0,07955	0,09393	0,06371	0,0951	0,08288
545,7561	0,01978	0,07983	0,09442	0,06295	0,09549	0,08259
543,82764	0,02075	0,08055	0,09577	0,06258	0,09423	0,08248
541,89917	0,0202	0,08071	0,09682	0,0629	0,09447	0,08371
539,9707	0,01939	0,08063	0,09795	0,06322	0,09545	0,08525
538,04224	0,01821	0,08036	0,09743	0,0637	0,09557	0,08634
536,11377	0,01667	0,07935	0,0966	0,06372	0,09664	0,08675
534,1853	0,01559	0,07905	0,09906	0,06341	0,09779	0,08732
532,25684	0,01342	0,07888	0,09969	0,06396	0,09926	0,08923
530,32837	0,0126	0,07913	0,1007	0,06425	0,09933	0,09018
528,3999	0,0102	0,07695	0,10095	0,06391	0,09918	0,09086
526,47144	0,00521	0,07231	0,09641	0,06375	0,10283	0,09324
524,54297	0,00402	0,07392	0,09915	0,06365	0,10371	0,09441
522,6145	0,00254	0,07584	0,10399	0,06328	0,10151	0,09438
520,68604	-0,00155	0,07173	0,10231	0,06314	0,10228	0,09577
518,75757	-0,0062	0,06779	0,1015	0,06375	0,10395	0,09765
516,8291	-0,01007	0,06614	0,10262	0,06359	0,10438	0,09871
514,90063	-0,01151	0,06652	0,10589	0,06313	0,10322	0,10011
512,97217	-0,01549	0,06555	0,10795	0,06311	0,10198	0,1011
511,0437	-0,02165	0,06266	0,10783	0,06251	0,10236	0,10114
509,11523	-0,02624	0,0604	0,10893	0,06174	0,1038	0,10291
507,18677	-0,02998	0,05769	0,10905	0,06098	0,10338	0,10449
505,2583	-0,03296	0,0572	0,10998	0,06122	0,10296	0,10463
503,32983	-0,03624	0,05651	0,11118	0,06147	0,10515	0,10571
501,40137	-0,03872	0,05447	0,11183	0,06071	0,10431	0,10643
499,4729	-0,04078	0,0547	0,11384	0,06048	0,10274	0,10724

Figure 3.4 B						
n°spectre	Vd340	Vd338	VD43	VD44	VD45	VD46
cm-1	crushedF3	pHnat-F3	$\Theta=0,6-F3$	$\Theta=5,8-F3$	$\Theta=11,6-F3$	$\Theta=27,3-F3$
4001,5686	0,01181	0,05761	0,07861	0,04764	0,04816	0,04522
3999,64014	0,01164	0,05755	0,07856	0,04756	0,04816	0,04515
3997,71167	0,01164	0,0575	0,07855	0,0476	0,04815	0,04518
3995,7832	0,01181	0,05751	0,07856	0,0476	0,04807	0,04532
3993,85474	0,01175	0,05744	0,07848	0,04748	0,04804	0,04526
3991,92627	0,0117	0,05758	0,07842	0,0474	0,048	0,04522
3989,9978	0,01165	0,05765	0,07834	0,04743	0,04787	0,04532
3988,06934	0,01151	0,05738	0,07829	0,04737	0,04784	0,04505
3986,14087	0,01155	0,05742	0,07839	0,04725	0,04789	0,04494
3984,2124	0,01166	0,05748	0,07837	0,04716	0,04782	0,04501
3982,28394	0,01164	0,05731	0,07829	0,04717	0,04772	0,04496
3980,35547	0,01146	0,05729	0,07836	0,04725	0,04779	0,045
3978,427	0,01139	0,05724	0,07836	0,04713	0,04781	0,0449
3976,49854	0,01165	0,05731	0,07822	0,04708	0,04758	0,04506
3974,57007	0,01171	0,05738	0,07817	0,04719	0,04749	0,04529
3972,6416	0,01151	0,05715	0,07818	0,04712	0,04752	0,04516
3970,71313	0,01145	0,05712	0,07816	0,0471	0,0475	0,04509
3968,78467	0,01147	0,05727	0,07811	0,04716	0,04747	0,04509
3966,8562	0,01132	0,05706	0,07812	0,04707	0,04751	0,04484
3964,92773	0,0113	0,05707	0,07819	0,04697	0,0476	0,04476
3962,99927	0,01165	0,0575	0,07811	0,04706	0,04746	0,04536
3961,0708	0,01161	0,05722	0,07802	0,04715	0,04727	0,04541
3959,14233	0,0114	0,05705	0,07805	0,04705	0,04732	0,04505
3957,21387	0,01147	0,05725	0,07805	0,04704	0,04741	0,04517
3955,2854	0,01149	0,05708	0,07806	0,04708	0,0474	0,04522
3953,35693	0,01134	0,05714	0,07795	0,04704	0,0473	0,0452
3951,42847	0,01143	0,05713	0,07791	0,04702	0,0473	0,04547
3949,5	0,01212	0,0572	0,07792	0,04708	0,04701	0,04643
3947,57153	0,01158	0,05687	0,07752	0,04713	0,04679	0,04567
3945,64307	0,01096	0,05674	0,07765	0,04691	0,04712	0,04473
3943,7146	0,01211	0,05766	0,07803	0,04698	0,04707	0,04647
3941,78613	0,01185	0,05711	0,07752	0,04718	0,04682	0,04609
3939,85767	0,01083	0,05648	0,07752	0,04688	0,04701	0,04461
3937,9292	0,01117	0,05709	0,07789	0,04687	0,0472	0,0452
3936,00073	0,01119	0,05688	0,07775	0,04699	0,04721	0,04513
3934,07227	0,01151	0,05717	0,07793	0,04694	0,04705	0,04556
3932,1438	0,01223	0,05763	0,07776	0,04706	0,04657	0,04664
3930,21533	0,01143	0,05647	0,0771	0,04693	0,04629	0,04577
3928,28687	0,01072	0,05622	0,07746	0,04666	0,04673	0,04475
3926,3584	0,01159	0,05735	0,07785	0,04672	0,04684	0,04574
3924,42993	0,01205	0,05727	0,07735	0,04698	0,04631	0,04657
3922,50146	0,01113	0,05634	0,07721	0,04671	0,04638	0,04518
3920,573	0,01118	0,05684	0,07763	0,04653	0,04669	0,04521
3918,64453	0,01165	0,0573	0,07769	0,0468	0,04665	0,04588

3916,71606	0,01119	0,05657	0,07728	0,04672	0,04643	0,04522
3914,7876	0,01038	0,05573	0,07697	0,04644	0,04637	0,04424
3912,85913	0,0107	0,05623	0,07735	0,04641	0,0466	0,04466
3910,93066	0,01103	0,05684	0,07782	0,04656	0,04698	0,04499
3909,0022	0,01062	0,05633	0,0775	0,04663	0,04695	0,04455
3907,07373	0,01154	0,0572	0,07768	0,04645	0,04659	0,04611
3905,14526	0,01264	0,05825	0,07806	0,04672	0,04655	0,04747
3903,2168	0,01127	0,05624	0,07714	0,04676	0,04632	0,04511
3901,28833	0,01044	0,05535	0,07671	0,04619	0,04589	0,04401
3899,35986	0,01108	0,05593	0,07687	0,04637	0,04576	0,04526
3897,4314	0,01006	0,05504	0,07662	0,04628	0,04593	0,04375
3895,50293	0,01015	0,05541	0,07668	0,046	0,04591	0,04412
3893,57446	0,01187	0,05777	0,07773	0,04606	0,04622	0,04678
3891,646	0,01213	0,05786	0,07792	0,04675	0,04677	0,04672
3889,71753	0,00895	0,05372	0,07607	0,04642	0,04605	0,04209
3887,78906	0,01074	0,05647	0,07749	0,04554	0,046	0,04508
3885,8606	0,01207	0,05852	0,07864	0,04641	0,04712	0,04636
3883,93213	0,00856	0,0535	0,07561	0,04624	0,04574	0,04142
3882,00366	0,01159	0,05688	0,07705	0,04532	0,04521	0,04634
3880,0752	0,01334	0,05793	0,07741	0,04698	0,04579	0,04892
3878,14673	0,00887	0,05343	0,07544	0,04604	0,04533	0,04221
3876,21826	0,01071	0,05713	0,07771	0,04518	0,04615	0,04515
3874,28979	0,01233	0,05723	0,07717	0,04691	0,04596	0,04772
3872,36133	0,01095	0,05548	0,07626	0,04592	0,04515	0,04552
3870,43286	0,01084	0,05774	0,07831	0,04552	0,04677	0,04495
3868,50439	0,00883	0,05371	0,0759	0,04652	0,04583	0,04222
3866,57593	0,00966	0,0549	0,07631	0,04531	0,04517	0,0438
3864,64746	0,01137	0,05774	0,07793	0,0459	0,04645	0,04613
3862,71899	0,0107	0,05475	0,07571	0,04657	0,04505	0,04533
3860,79053	0,00983	0,05508	0,07651	0,04555	0,04541	0,04398
3858,86206	0,0102	0,05589	0,07684	0,04614	0,04612	0,04446
3856,93359	0,01261	0,05703	0,07644	0,04636	0,04489	0,04866
3855,00513	0,00992	0,05918	0,08026	0,04549	0,0488	0,04352
3853,07666	0,00626	0,05447	0,07875	0,04777	0,05038	0,0372
3851,14819	0,00563	0,0503	0,0741	0,0455	0,04475	0,03802
3849,21973	0,00983	0,05468	0,07575	0,04505	0,04441	0,0448
3847,29126	0,00996	0,05592	0,07672	0,04557	0,04593	0,0444
3845,36279	0,01136	0,05685	0,0768	0,04602	0,04571	0,04649
3843,43433	0,01123	0,05687	0,07715	0,04622	0,04606	0,04634
3841,50586	0,01159	0,05591	0,07624	0,0464	0,04507	0,04682
3839,57739	0,0118	0,057	0,07697	0,04595	0,04524	0,04741
3837,64893	0,00862	0,05561	0,07754	0,04579	0,04705	0,04233
3835,72046	0,00735	0,05265	0,07554	0,04553	0,04565	0,04047
3833,79199	0,01044	0,05538	0,07616	0,04536	0,04476	0,04547
3831,86353	0,01029	0,05589	0,07697	0,04592	0,04594	0,04482
3829,93506	0,00924	0,05406	0,07576	0,04583	0,04533	0,04355
3828,00659	0,011	0,05665	0,07689	0,04539	0,04536	0,04635

3826,07813	0,01077	0,05593	0,07634	0,04629	0,04553	0,04604
3824,14966	0,01059	0,05542	0,0758	0,04566	0,04475	0,04598
3822,22119	0,012	0,05899	0,0787	0,0456	0,04667	0,04725
3820,29272	0,01041	0,05386	0,07548	0,04755	0,04549	0,04527
3818,36426	0,00926	0,05372	0,07515	0,04511	0,0441	0,044
3816,43579	0,00927	0,05717	0,07829	0,04485	0,04687	0,04371
3814,50732	0,00689	0,0527	0,07556	0,04574	0,04605	0,03982
3812,57886	0,00893	0,054	0,0753	0,04496	0,04439	0,04361
3810,65039	0,01042	0,05598	0,07642	0,04535	0,04523	0,04578
3808,72192	0,01089	0,05711	0,07738	0,04534	0,04598	0,04587
3806,79346	0,00914	0,05579	0,07726	0,04591	0,04669	0,04321
3804,86499	0,00818	0,05301	0,07493	0,04539	0,04469	0,04217
3802,93652	0,0115	0,05752	0,07729	0,04461	0,04495	0,04724
3801,00806	0,00937	0,05586	0,07721	0,04633	0,04681	0,04397
3799,07959	0,00691	0,05176	0,07442	0,04501	0,04433	0,04055
3797,15112	0,01144	0,05654	0,0764	0,04469	0,04398	0,04766
3795,22266	0,00969	0,0549	0,07604	0,04575	0,04525	0,04453
3793,29419	0,00878	0,05395	0,07537	0,04497	0,04471	0,04335
3791,36572	0,01032	0,05624	0,07659	0,04484	0,04518	0,04556
3789,43726	0,00963	0,05513	0,07601	0,04536	0,04533	0,04435
3787,50879	0,00969	0,05544	0,07604	0,04497	0,04501	0,04474
3785,58032	0,01083	0,05647	0,07628	0,04534	0,04491	0,04665
3783,65186	0,00983	0,05483	0,07549	0,04544	0,04469	0,04517
3781,72339	0,00974	0,05548	0,07616	0,04486	0,04488	0,04484
3779,79492	0,01107	0,05639	0,07641	0,04549	0,04478	0,04699
3777,86646	0,00943	0,05433	0,07537	0,04543	0,04456	0,04471
3775,93799	0,0089	0,05448	0,07566	0,04482	0,04473	0,04389
3774,00952	0,00954	0,05516	0,07594	0,04504	0,04495	0,0448
3772,08105	0,01012	0,05605	0,07633	0,04494	0,04499	0,04563
3770,15259	0,01043	0,05601	0,07638	0,04528	0,04501	0,04604
3768,22412	0,00881	0,05365	0,07525	0,04502	0,04457	0,0434
3766,29565	0,00991	0,05512	0,07574	0,04454	0,04418	0,04528
3764,36719	0,00974	0,05478	0,07553	0,045	0,04443	0,04511
3762,43872	0,009	0,05411	0,07523	0,04451	0,04438	0,04397
3760,51025	0,01068	0,05633	0,07646	0,04458	0,04463	0,04656
3758,58179	0,01051	0,05494	0,07534	0,04546	0,04419	0,04641
3756,65332	0,00942	0,05382	0,07478	0,04461	0,04357	0,04484
3754,72485	0,00968	0,05513	0,07586	0,04445	0,04418	0,04544
3752,79639	0,00972	0,05613	0,07666	0,04448	0,04498	0,04521
3750,86792	0,00895	0,05572	0,07725	0,04493	0,04629	0,04318
3748,93945	0,00448	0,0497	0,07413	0,04449	0,04484	0,03678
3747,01099	0,00861	0,05361	0,07454	0,04332	0,04266	0,044
3745,08252	0,00896	0,05727	0,07793	0,04351	0,04585	0,04297
3743,15405	0,0034	0,0498	0,07418	0,0444	0,04554	0,03395
3741,22559	0,00792	0,05222	0,07235	0,04289	0,04106	0,04309
3739,29712	0,01032	0,05659	0,07464	0,04247	0,04211	0,04661
3737,36865	0,00885	0,05681	0,07513	0,04272	0,04372	0,04309
3735,44019	0,01009	0,05591	0,07273	0,04247	0,04101	0,04505

3733,51172	0,00924	0,05484	0,0726	0,04201	0,04089	0,0438
3731,58325	0,00571	0,05316	0,0728	0,04158	0,04228	0,03869
3729,65479	0,00611	0,05439	0,07201	0,04059	0,04107	0,0396
3727,72632	0,00831	0,05698	0,07269	0,04026	0,04077	0,04248
3725,79785	0,00836	0,05671	0,07259	0,04087	0,04113	0,04237
3723,86938	0,00808	0,05553	0,07203	0,04093	0,04051	0,04258
3721,94092	0,00834	0,05561	0,07274	0,04127	0,04101	0,04317
3720,01245	0,00781	0,05464	0,07298	0,04168	0,04156	0,04253
3718,08398	0,00754	0,05415	0,07353	0,04186	0,04203	0,04261
3716,15552	0,00778	0,05371	0,07407	0,04267	0,04263	0,04328
3714,22705	0,00861	0,05473	0,07512	0,04247	0,04286	0,04434
3712,29858	0,00869	0,05546	0,07517	0,04256	0,04324	0,04366
3710,37012	0,00712	0,05256	0,07285	0,04205	0,04173	0,04129
3708,44165	0,00629	0,05228	0,0727	0,03972	0,04007	0,04072
3706,51318	0,00584	0,0527	0,07202	0,03945	0,0402	0,03911
3704,58472	0,00656	0,05392	0,07234	0,04011	0,04084	0,04064
3702,65625	0,00792	0,05523	0,07349	0,04044	0,04119	0,04295
3700,72778	0,00645	0,05273	0,07222	0,04081	0,0408	0,04084
3698,79932	0,00539	0,05227	0,07218	0,0401	0,04076	0,03956
3696,87085	0,00641	0,05336	0,07279	0,04008	0,04069	0,04152
3694,94238	0,00583	0,05242	0,07262	0,04026	0,04083	0,04093
3693,01392	0,00564	0,05211	0,07264	0,03992	0,04063	0,04092
3691,08545	0,00719	0,05278	0,07286	0,04007	0,03993	0,04379
3689,15698	0,00424	0,04992	0,07297	0,04006	0,04092	0,03986
3687,22852	0,00027	0,04637	0,07187	0,03911	0,04101	0,03368
3685,30005	0,00362	0,04803	0,07137	0,03941	0,03937	0,0393
3683,37158	0,00495	0,04993	0,07282	0,03978	0,04028	0,04155
3681,44312	0,00445	0,05039	0,07368	0,04019	0,04157	0,04035
3679,51465	0,00638	0,05018	0,07264	0,04106	0,04029	0,04336
3677,58618	0,00667	0,05212	0,07458	0,04035	0,04125	0,0434
3675,65771	0,0072	0,05262	0,07532	0,0419	0,04275	0,04359
3673,72925	0,00333	0,046	0,07152	0,04154	0,04066	0,03781
3671,80078	0,00485	0,05009	0,07401	0,03979	0,04115	0,04044
3669,87231	0,00581	0,052	0,07528	0,04126	0,04277	0,04166
3667,94385	0,00403	0,04719	0,0721	0,04155	0,0409	0,03893
3666,01538	0,0052	0,0495	0,0734	0,04063	0,04105	0,0414
3664,08691	0,00556	0,05096	0,07447	0,0411	0,04226	0,0418
3662,15845	0,00584	0,05048	0,07396	0,04139	0,04196	0,04202
3660,22998	0,0055	0,05023	0,07388	0,04132	0,04185	0,04199
3658,30151	0,00632	0,05144	0,07464	0,04119	0,0419	0,04309
3656,37305	0,0058	0,05096	0,07467	0,04143	0,04237	0,04174
3654,44458	0,00349	0,04815	0,07307	0,04121	0,04187	0,03871
3652,51611	0,0064	0,05082	0,07408	0,04078	0,04101	0,04381
3650,58765	0,0081	0,05275	0,07538	0,04134	0,04183	0,04573
3648,65918	0,00569	0,04864	0,07312	0,04177	0,04129	0,04173
3646,73071	0,00464	0,04724	0,07193	0,04071	0,03968	0,04112
3644,80225	0,0044	0,04816	0,07259	0,04016	0,04013	0,04097
3642,87378	0,00423	0,0492	0,0734	0,03992	0,04089	0,04095

3640,94531	0,00483	0,04974	0,07351	0,03998	0,04086	0,04183
3639,01685	0,00407	0,04891	0,07299	0,03979	0,04074	0,04059
3637,08838	0,00401	0,04922	0,07294	0,0392	0,04034	0,04073
3635,15991	0,00408	0,04977	0,07312	0,03884	0,04037	0,0405
3633,23145	0,00368	0,04869	0,07188	0,03867	0,03947	0,04013
3631,30298	0,00385	0,04975	0,07259	0,0376	0,03924	0,0404
3629,37451	0,00404	0,05091	0,07367	0,03769	0,04038	0,03943
3627,44604	0,00055	0,04538	0,07	0,03775	0,03876	0,03455
3625,51758	0,00149	0,04678	0,0704	0,0365	0,03767	0,03732
3623,58911	0,0023	0,04858	0,07178	0,03639	0,03849	0,03866
3621,66064	0,00231	0,0482	0,07192	0,03666	0,03874	0,0387
3619,73218	0,00332	0,04836	0,07267	0,03709	0,03886	0,04043
3617,80371	0,00185	0,04532	0,07128	0,03733	0,03828	0,03812
3615,87524	0,00149	0,04539	0,07145	0,03637	0,03788	0,03838
3613,94678	0,00303	0,04674	0,07273	0,03685	0,03838	0,04122
3612,01831	0,00175	0,04454	0,0721	0,03703	0,03846	0,03877
3610,08984	0,00004	0,04452	0,07251	0,03558	0,03875	0,03603
3608,16138	0,00086	0,04532	0,07204	0,03529	0,03809	0,03719
3606,23291	0,0004	0,0439	0,07077	0,03474	0,03696	0,0366
3604,30444	-0,00036	0,04415	0,0714	0,03395	0,03744	0,03557
3602,37598	0,00023	0,04512	0,07183	0,03382	0,03756	0,03658
3600,44751	0,00052	0,04476	0,07148	0,03348	0,03674	0,0372
3598,51904	-0,0003	0,04391	0,07122	0,03321	0,03676	0,03562
3596,59058	0,00002	0,04428	0,07138	0,03328	0,03698	0,03609
3594,66211	0,0005	0,04448	0,07145	0,03328	0,03671	0,03691
3592,73364	-0,00057	0,04324	0,0712	0,03329	0,03678	0,03538
3590,80518	-0,00088	0,04334	0,07191	0,03297	0,03743	0,03482
3588,87671	0,00043	0,04448	0,07259	0,03305	0,0375	0,03643
3586,94824	0,0009	0,04323	0,07151	0,03381	0,03661	0,03743
3585,01978	-0,00113	0,04157	0,0714	0,03322	0,03695	0,03461
3583,09131	-0,001	0,04236	0,07242	0,03292	0,0376	0,03501
3581,16284	-0,00057	0,04246	0,07276	0,03324	0,03783	0,03557
3579,23438	-0,00072	0,0422	0,07275	0,03331	0,03793	0,0354
3577,30591	-0,0009	0,04214	0,0728	0,0332	0,03793	0,03534
3575,37744	-0,00087	0,04195	0,07289	0,03309	0,03793	0,03536
3573,44897	-0,00095	0,04168	0,07288	0,03306	0,03789	0,03511
3571,52051	-0,00135	0,04139	0,07281	0,03293	0,03777	0,03474
3569,59204	-0,00079	0,04208	0,07332	0,03269	0,0378	0,03576
3567,66357	0,00117	0,04279	0,07284	0,03311	0,03681	0,03868
3565,73511	-0,00004	0,04081	0,07164	0,03309	0,03612	0,03702
3563,80664	-0,00183	0,04021	0,07231	0,03242	0,03705	0,03455
3561,87817	-0,00157	0,04094	0,07294	0,0323	0,03748	0,03481
3559,94971	-0,00147	0,04072	0,07287	0,03236	0,03738	0,03482
3558,02124	-0,00196	0,04034	0,07295	0,03225	0,03761	0,03422
3556,09277	-0,00226	0,04019	0,07297	0,0321	0,03767	0,03376
3554,16431	-0,00195	0,04049	0,07303	0,03203	0,03744	0,03454
3552,23584	-0,00161	0,04042	0,07284	0,03216	0,03717	0,03525
3550,30737	-0,00244	0,03954	0,07271	0,03191	0,03727	0,03373



3548,37891	-0,00237	0,03998	0,07305	0,03164	0,03734	0,03402
3546,45044	-0,00142	0,0404	0,07282	0,03179	0,0368	0,03553
3544,52197	-0,00206	0,03948	0,07244	0,03161	0,0366	0,0345
3542,59351	-0,00281	0,03913	0,07274	0,03137	0,03698	0,03353
3540,66504	-0,00302	0,03896	0,07299	0,03125	0,03724	0,03309
3538,73657	-0,00306	0,03895	0,07297	0,031	0,03716	0,03306
3536,80811	-0,00288	0,03907	0,07287	0,03104	0,03688	0,03373
3534,87964	-0,00328	0,03855	0,07279	0,03096	0,03684	0,03324
3532,95117	-0,00373	0,03821	0,07285	0,03063	0,037	0,03246
3531,02271	-0,00352	0,03837	0,07291	0,03056	0,03683	0,03299
3529,09424	-0,00321	0,03834	0,07268	0,03053	0,03635	0,03369
3527,16577	-0,00356	0,0379	0,07243	0,03023	0,03617	0,03313
3525,2373	-0,00378	0,0378	0,07249	0,03003	0,03619	0,03299
3523,30884	-0,00368	0,03769	0,07242	0,03005	0,03601	0,03328
3521,38037	-0,00431	0,03716	0,07236	0,02979	0,03606	0,03226
3519,4519	-0,00467	0,03705	0,07251	0,02955	0,03625	0,03181
3517,52344	-0,00464	0,03699	0,07252	0,02949	0,03611	0,03194
3515,59497	-0,00499	0,03677	0,07243	0,02929	0,03604	0,03158
3513,6665	-0,00508	0,03657	0,07248	0,02924	0,0361	0,03143
3511,73804	-0,00488	0,0364	0,07257	0,02915	0,03596	0,03173
3509,80957	-0,00478	0,03645	0,0724	0,02909	0,03574	0,03232
3507,8811	-0,00531	0,03597	0,07223	0,02903	0,03569	0,0315
3505,95264	-0,00565	0,03577	0,07242	0,02864	0,03573	0,03092
3504,02417	-0,00506	0,03615	0,07236	0,02864	0,03548	0,03225
3502,0957	-0,00516	0,03573	0,07208	0,02872	0,03519	0,03198
3500,16724	-0,00577	0,03536	0,07231	0,02839	0,03546	0,03077
3498,23877	-0,00562	0,03553	0,07247	0,02833	0,0356	0,03101
3496,3103	-0,00557	0,03541	0,07232	0,02838	0,03542	0,03106
3494,38184	-0,0059	0,03524	0,07233	0,02828	0,03552	0,03073
3492,45337	-0,0061	0,03508	0,07234	0,02812	0,03561	0,03052
3490,5249	-0,00607	0,035	0,07241	0,02807	0,03556	0,03056
3488,59644	-0,00593	0,03511	0,0724	0,02812	0,03548	0,0309
3486,66797	-0,00603	0,03497	0,07224	0,02798	0,03541	0,03068
3484,7395	-0,00623	0,03486	0,07249	0,02791	0,03554	0,03034
3482,81104	-0,00602	0,035	0,07262	0,028	0,03545	0,03092
3480,88257	-0,00598	0,0348	0,07236	0,028	0,03527	0,03101
3478,9541	-0,00638	0,03458	0,07252	0,0279	0,0355	0,03026
3477,02563	-0,00646	0,03468	0,07269	0,02776	0,03563	0,0303
3475,09717	-0,00639	0,03458	0,07259	0,02774	0,03552	0,03051
3473,1687	-0,00648	0,03447	0,07264	0,02778	0,03555	0,03032
3471,24023	-0,00657	0,03447	0,07266	0,02765	0,03564	0,03011
3469,31177	-0,00655	0,03444	0,07268	0,02762	0,03563	0,03022
3467,3833	-0,00648	0,0344	0,07272	0,02775	0,03562	0,0305
3465,45483	-0,00664	0,03427	0,07267	0,02758	0,03566	0,03029
3463,52637	-0,00668	0,03423	0,07268	0,02745	0,03553	0,0303
3461,5979	-0,00665	0,03417	0,07263	0,02747	0,03535	0,03035
3459,66943	-0,00679	0,03405	0,07263	0,02733	0,03538	0,03004
3457,74097	-0,00684	0,03399	0,07272	0,02735	0,03548	0,03006

3455,8125	-0,00701	0,03392	0,07272	0,02738	0,03554	0,03001
3453,88403	-0,00707	0,03396	0,07281	0,02723	0,03549	0,03007
3451,95557	-0,00701	0,03381	0,0728	0,02715	0,03542	0,02992
3450,0271	-0,00701	0,03376	0,07276	0,02703	0,03551	0,02981
3448,09863	-0,00664	0,03405	0,07275	0,02713	0,03534	0,0307
3446,17017	-0,0067	0,03383	0,07255	0,02726	0,03512	0,03057
3444,2417	-0,00704	0,03371	0,07266	0,02709	0,03533	0,02993
3442,31323	-0,00693	0,034	0,07286	0,0271	0,03543	0,03033
3440,38477	-0,00709	0,03383	0,07274	0,02708	0,03539	0,03002
3438,4563	-0,00718	0,03377	0,07277	0,02705	0,03548	0,02978
3436,52783	-0,00708	0,03401	0,0729	0,02711	0,03552	0,03004
3434,59937	-0,00715	0,03401	0,07285	0,02704	0,03556	0,02992
3432,6709	-0,00696	0,03401	0,07287	0,02714	0,03559	0,03012
3430,74243	-0,00687	0,03409	0,07292	0,02729	0,03556	0,03023
3428,81396	-0,00692	0,03422	0,07294	0,02725	0,03565	0,03014
3426,8855	-0,00684	0,0343	0,07302	0,02728	0,03571	0,03023
3424,95703	-0,0069	0,03427	0,07306	0,02734	0,03568	0,03018
3423,02856	-0,00676	0,0344	0,07304	0,02743	0,03569	0,0304
3421,1001	-0,0064	0,03457	0,07308	0,02749	0,03563	0,03078
3419,17163	-0,00642	0,03447	0,07311	0,02742	0,03569	0,03061
3417,24316	-0,00655	0,03447	0,07308	0,02738	0,03582	0,03027
3415,3147	-0,00658	0,03475	0,07311	0,02745	0,03579	0,03047
3413,38623	-0,00656	0,03494	0,07319	0,02758	0,0359	0,03065
3411,45776	-0,00639	0,03497	0,07327	0,02766	0,036	0,03053
3409,5293	-0,00623	0,03503	0,07328	0,02763	0,03591	0,03067
3407,60083	-0,00622	0,03505	0,07328	0,02767	0,03596	0,0308
3405,67236	-0,00619	0,03513	0,07333	0,02772	0,03605	0,03075
3403,7439	-0,00608	0,03531	0,07332	0,02769	0,036	0,03092
3401,81543	-0,00604	0,03538	0,07328	0,0278	0,036	0,03095
3399,88696	-0,00595	0,03549	0,07333	0,0279	0,03607	0,03093
3397,9585	-0,00576	0,03564	0,07332	0,02783	0,03601	0,03114
3396,03003	-0,00578	0,0356	0,07322	0,02779	0,03595	0,03098
3394,10156	-0,00582	0,0357	0,07316	0,02782	0,03589	0,031
3392,1731	-0,00567	0,03595	0,07316	0,02787	0,0359	0,03135
3390,24463	-0,00558	0,03591	0,07321	0,02787	0,036	0,0311
3388,31616	-0,00564	0,03589	0,07329	0,02791	0,03603	0,031
3386,3877	-0,00558	0,03615	0,07328	0,02803	0,03601	0,03136
3384,45923	-0,00542	0,03625	0,07317	0,02798	0,03593	0,0314
3382,53076	-0,00547	0,03623	0,07315	0,02794	0,03589	0,03123
3380,60229	-0,00539	0,03638	0,07316	0,02798	0,03593	0,03127
3378,67383	-0,00524	0,03644	0,07317	0,02806	0,03594	0,03144
3376,74536	-0,00525	0,03654	0,0732	0,0281	0,03592	0,03143
3374,81689	-0,0051	0,03671	0,07307	0,02802	0,03582	0,03136
3372,88843	-0,00496	0,03674	0,07301	0,02808	0,03583	0,03141
3370,95996	-0,00494	0,03689	0,07306	0,02818	0,03587	0,03145
3369,03149	-0,00487	0,0372	0,07295	0,0281	0,03579	0,03155
3367,10303	-0,00482	0,03735	0,07288	0,02818	0,03579	0,03177
3365,17456	-0,00474	0,03737	0,07289	0,02833	0,03574	0,03182

3363,24609	-0,00467	0,03746	0,07284	0,0283	0,03568	0,0318
3361,31763	-0,00453	0,0376	0,07284	0,0283	0,03569	0,03187
3359,38916	-0,00438	0,03771	0,07288	0,02833	0,03563	0,03183
3357,46069	-0,00427	0,03782	0,0728	0,02829	0,0356	0,03187
3355,53223	-0,00416	0,03784	0,07271	0,0283	0,03558	0,03194
3353,60376	-0,00411	0,0379	0,07264	0,02834	0,03556	0,03189
3351,67529	-0,00407	0,0382	0,07262	0,02837	0,0356	0,03188
3349,74683	-0,00399	0,03844	0,07274	0,02846	0,03562	0,03196
3347,81836	-0,0039	0,03843	0,07268	0,02844	0,03553	0,03199
3345,88989	-0,00382	0,03855	0,07256	0,02843	0,03551	0,03195
3343,96143	-0,00372	0,03883	0,07264	0,0285	0,03554	0,03208
3342,03296	-0,00363	0,0389	0,07253	0,02848	0,03541	0,03219
3340,10449	-0,00364	0,03888	0,07239	0,02854	0,03543	0,03215
3338,17603	-0,00345	0,03906	0,07248	0,02862	0,03553	0,03237
3336,24756	-0,00324	0,03924	0,07241	0,02861	0,03534	0,0325
3334,31909	-0,00333	0,03921	0,07232	0,02859	0,03523	0,03227
3332,39063	-0,00328	0,03925	0,07233	0,02856	0,03535	0,03222
3330,46216	-0,00318	0,03935	0,07227	0,02853	0,03535	0,03239
3328,53369	-0,0032	0,03937	0,07222	0,02851	0,03529	0,03242
3326,60522	-0,00306	0,03956	0,07222	0,02859	0,03531	0,03247
3324,67676	-0,0029	0,03976	0,07221	0,02875	0,0353	0,03253
3322,74829	-0,00287	0,03969	0,07221	0,02876	0,03521	0,03242
3320,81982	-0,00291	0,03976	0,0722	0,02869	0,0352	0,03242
3318,89136	-0,00288	0,03995	0,07215	0,0287	0,0352	0,03252
3316,96289	-0,00276	0,03988	0,07208	0,0287	0,03508	0,0325
3315,03442	-0,00271	0,0399	0,07207	0,02868	0,03507	0,03254
3313,10596	-0,00269	0,04011	0,07208	0,02875	0,03512	0,03259
3311,17749	-0,00265	0,04017	0,07208	0,02873	0,03503	0,03257
3309,24902	-0,00261	0,0402	0,07206	0,02867	0,03492	0,03269
3307,32056	-0,00259	0,04034	0,07199	0,02874	0,03493	0,03272
3305,39209	-0,00254	0,04043	0,07199	0,02873	0,03498	0,03267
3303,46362	-0,00244	0,04043	0,07195	0,02865	0,03493	0,03271
3301,53516	-0,00247	0,0404	0,07184	0,0286	0,03481	0,03261
3299,60669	-0,00246	0,04049	0,07191	0,02863	0,0348	0,03274
3297,67822	-0,00234	0,04049	0,07203	0,02877	0,03482	0,03291
3295,74976	-0,0024	0,04047	0,07201	0,02873	0,03477	0,03274
3293,82129	-0,00245	0,04064	0,0719	0,02865	0,03477	0,03273
3291,89282	-0,00232	0,04066	0,07176	0,02867	0,03471	0,0328
3289,96436	-0,00228	0,04061	0,07171	0,02859	0,03457	0,03269
3288,03589	-0,00234	0,04068	0,07176	0,02861	0,03464	0,03266
3286,10742	-0,00227	0,04074	0,07185	0,02874	0,03469	0,03275
3284,17896	-0,00217	0,04074	0,07178	0,02864	0,03452	0,03279
3282,25049	-0,00225	0,04067	0,07163	0,02849	0,0345	0,03275
3280,32202	-0,00226	0,04069	0,07164	0,0285	0,03449	0,03272
3278,39355	-0,0022	0,04069	0,07169	0,02845	0,0344	0,03274
3276,46509	-0,00226	0,04075	0,07168	0,02842	0,0344	0,03287
3274,53662	-0,00231	0,0409	0,07164	0,02855	0,03436	0,03293
3272,60815	-0,00231	0,04082	0,0716	0,02856	0,03427	0,03277

3270,67969	-0,00238	0,04082	0,07159	0,02851	0,03426	0,03271
3268,75122	-0,00241	0,04091	0,07149	0,02842	0,03426	0,03268
3266,82275	-0,00235	0,04085	0,07146	0,02836	0,03425	0,03265
3264,89429	-0,00231	0,04088	0,07156	0,02846	0,03433	0,03286
3262,96582	-0,00237	0,0409	0,07153	0,02842	0,0343	0,03283
3261,03735	-0,00237	0,04091	0,07141	0,0283	0,03416	0,03264
3259,10889	-0,00228	0,0409	0,0714	0,0283	0,03414	0,03266
3257,18042	-0,00229	0,04091	0,07146	0,0283	0,03416	0,03271
3255,25195	-0,00234	0,04099	0,07138	0,02832	0,0341	0,0328
3253,32349	-0,00234	0,0409	0,07126	0,02825	0,03401	0,03272
3251,39502	-0,00238	0,0408	0,07128	0,0282	0,03394	0,03262
3249,46655	-0,00243	0,04088	0,07132	0,02828	0,03396	0,03262
3247,53809	-0,0024	0,04104	0,0713	0,02825	0,03397	0,03261
3245,60962	-0,00233	0,04109	0,0712	0,02816	0,03387	0,03271
3243,68115	-0,00235	0,04099	0,07109	0,02813	0,03381	0,03266
3241,75269	-0,00242	0,04101	0,07114	0,02814	0,03382	0,03256
3239,82422	-0,00236	0,04108	0,07118	0,02821	0,03379	0,03265
3237,89575	-0,00237	0,04111	0,07114	0,02819	0,03378	0,03264
3235,96729	-0,00251	0,04113	0,07111	0,0281	0,03374	0,03255
3234,03882	-0,00249	0,04111	0,07103	0,02806	0,03368	0,03259
3232,11035	-0,0024	0,04117	0,07097	0,02804	0,03367	0,03269
3230,18188	-0,00246	0,04118	0,07099	0,028	0,0336	0,03262
3228,25342	-0,00239	0,04114	0,07088	0,02787	0,03351	0,03253
3226,32495	-0,00233	0,04118	0,07082	0,0278	0,03349	0,03257
3224,39648	-0,00251	0,04113	0,07087	0,02784	0,03346	0,03252
3222,46802	-0,00251	0,04119	0,07081	0,02777	0,0334	0,03246
3220,53955	-0,00237	0,04131	0,07073	0,02776	0,03334	0,03255
3218,61108	-0,00245	0,04116	0,07066	0,02775	0,03328	0,03246
3216,68262	-0,00241	0,04117	0,07061	0,02765	0,0332	0,03233
3214,75415	-0,00231	0,0413	0,07065	0,02766	0,03314	0,03251
3212,82568	-0,00244	0,04119	0,07055	0,02761	0,03312	0,03244
3210,89722	-0,00245	0,04126	0,07043	0,02753	0,03304	0,03233
3208,96875	-0,0024	0,04132	0,07047	0,02755	0,03301	0,03241
3207,04028	-0,0025	0,04123	0,07042	0,02748	0,03304	0,03226
3205,11182	-0,0025	0,04133	0,0703	0,02743	0,03296	0,03222
3203,18335	-0,00244	0,04138	0,07034	0,02748	0,03292	0,03228
3201,25488	-0,00245	0,04139	0,07034	0,02747	0,03294	0,03225
3199,32642	-0,00236	0,04149	0,07021	0,02742	0,03283	0,03237
3197,39795	-0,00226	0,04149	0,0702	0,02738	0,03277	0,03247
3195,46948	-0,00242	0,04142	0,07018	0,02734	0,03276	0,03238
3193,54102	-0,00248	0,04144	0,07008	0,02728	0,03265	0,03226
3191,61255	-0,00234	0,04157	0,07005	0,02724	0,0326	0,03228
3189,68408	-0,00237	0,0416	0,07008	0,02725	0,03259	0,03227
3187,75562	-0,00238	0,04159	0,07007	0,0272	0,0325	0,03219
3185,82715	-0,00229	0,04166	0,07003	0,02717	0,03248	0,03227
3183,89868	-0,00227	0,04167	0,06998	0,02719	0,03244	0,03229
3181,97021	-0,00224	0,04174	0,06993	0,02713	0,03241	0,03217
3180,04175	-0,00217	0,04184	0,06991	0,02712	0,03244	0,0323

3178,11328	-0,00219	0,04176	0,06982	0,02708	0,03232	0,03234
3176,18481	-0,00225	0,04174	0,0698	0,02698	0,03225	0,03217
3174,25635	-0,00224	0,04183	0,06988	0,02702	0,03231	0,03222
3172,32788	-0,00221	0,04188	0,06984	0,02703	0,03224	0,03224
3170,39941	-0,0022	0,04197	0,06974	0,02693	0,03216	0,03213
3168,47095	-0,00221	0,04196	0,0697	0,02692	0,03218	0,03215
3166,54248	-0,00228	0,04191	0,0697	0,02691	0,03218	0,03218
3164,61401	-0,00226	0,04206	0,06969	0,02688	0,03218	0,03219
3162,68555	-0,00217	0,04211	0,06962	0,02686	0,03214	0,03219
3160,75708	-0,00218	0,042	0,06962	0,02682	0,03208	0,03217
3158,82861	-0,00224	0,04201	0,0696	0,02679	0,03205	0,0321
3156,90015	-0,00217	0,04201	0,0695	0,02676	0,03204	0,03208
3154,97168	-0,00217	0,04195	0,06943	0,02669	0,03198	0,03209
3153,04321	-0,00232	0,04201	0,06945	0,0267	0,03191	0,03213
3151,11475	-0,00227	0,04207	0,06954	0,02673	0,03184	0,03219
3149,18628	-0,00217	0,04203	0,06944	0,02662	0,03177	0,03208
3147,25781	-0,00223	0,04204	0,06935	0,02654	0,03174	0,03201
3145,32935	-0,00227	0,042	0,06942	0,02655	0,03167	0,03206
3143,40088	-0,00231	0,04197	0,06929	0,02648	0,03155	0,03198
3141,47241	-0,0023	0,04206	0,06917	0,02641	0,03156	0,03193
3139,54395	-0,0022	0,04202	0,06923	0,02644	0,03154	0,032
3137,61548	-0,00222	0,04189	0,06917	0,02642	0,03149	0,0319
3135,68701	-0,00227	0,04196	0,06912	0,02632	0,03147	0,03188
3133,75854	-0,00223	0,04202	0,06915	0,02634	0,03137	0,03206
3131,83008	-0,00231	0,04187	0,0691	0,02633	0,03133	0,03192
3129,90161	-0,00235	0,04189	0,06905	0,02618	0,03129	0,03176
3127,97314	-0,00233	0,042	0,06903	0,02614	0,0312	0,03186
3126,04468	-0,0024	0,04193	0,06897	0,02613	0,03121	0,03179
3124,11621	-0,00235	0,04196	0,0689	0,02604	0,03116	0,0318
3122,18774	-0,00226	0,04194	0,06888	0,02602	0,03108	0,03191
3120,25928	-0,00229	0,04193	0,06879	0,02601	0,03101	0,03177
3118,33081	-0,00227	0,04204	0,06874	0,02594	0,03092	0,03176
3116,40234	-0,00227	0,04198	0,06878	0,02593	0,03092	0,0319
3114,47388	-0,00235	0,04186	0,06874	0,02593	0,03094	0,03179
3112,54541	-0,0024	0,04178	0,06871	0,02593	0,03091	0,03166
3110,61694	-0,00241	0,04178	0,06875	0,0259	0,0309	0,03164
3108,68848	-0,00245	0,04184	0,06867	0,02576	0,0308	0,03166
3106,76001	-0,00244	0,04177	0,06856	0,02572	0,03069	0,03158
3104,83154	-0,00232	0,04167	0,06852	0,02568	0,03068	0,03139
3102,90308	-0,00231	0,04171	0,0685	0,02553	0,03059	0,03146
3100,97461	-0,00241	0,04176	0,06843	0,02553	0,03054	0,03156
3099,04614	-0,00244	0,04169	0,06842	0,02549	0,03057	0,0314
3097,11768	-0,00236	0,04175	0,06847	0,02543	0,03049	0,03146
3095,18921	-0,00235	0,04174	0,06837	0,02543	0,03045	0,03149
3093,26074	-0,00247	0,04155	0,06828	0,02537	0,03043	0,0313
3091,33228	-0,00256	0,04161	0,06832	0,02537	0,03037	0,0313
3089,40381	-0,00259	0,04167	0,0683	0,02538	0,03034	0,03137
3087,47534	-0,0025	0,04162	0,06828	0,02532	0,03035	0,03132

3085,54688	-0,00245	0,04167	0,06828	0,0253	0,03036	0,03133
3083,61841	-0,00252	0,04164	0,06825	0,02524	0,03027	0,03137
3081,68994	-0,00252	0,0416	0,06822	0,02519	0,03019	0,03139
3079,76147	-0,00249	0,04165	0,06821	0,02521	0,03019	0,0314
3077,83301	-0,00252	0,04161	0,06816	0,02524	0,03018	0,03134
3075,90454	-0,00256	0,04147	0,06807	0,02514	0,03012	0,03114
3073,97607	-0,00255	0,04138	0,06808	0,02502	0,03007	0,03108
3072,04761	-0,00258	0,04137	0,0681	0,02502	0,03006	0,03113
3070,11914	-0,00262	0,04136	0,06803	0,02495	0,02998	0,03104
3068,19067	-0,00252	0,04142	0,06796	0,0249	0,02993	0,03107
3066,26221	-0,00252	0,0414	0,06792	0,02495	0,02985	0,03118
3064,33374	-0,00261	0,04127	0,06788	0,02489	0,02973	0,03109
3062,40527	-0,00266	0,04117	0,06786	0,02482	0,02978	0,03099
3060,47681	-0,00266	0,04115	0,06787	0,02476	0,02979	0,03094
3058,54834	-0,00261	0,04128	0,06779	0,0247	0,02968	0,03095
3056,61987	-0,00263	0,04129	0,06772	0,02475	0,02964	0,03099
3054,69141	-0,00269	0,04118	0,06777	0,02473	0,0296	0,03088
3052,76294	-0,00267	0,04117	0,06776	0,02462	0,02959	0,03077
3050,83447	-0,00262	0,04122	0,0677	0,02462	0,02957	0,03088
3048,90601	-0,00261	0,04121	0,06768	0,02459	0,02946	0,03088
3046,97754	-0,00265	0,0411	0,06763	0,02453	0,02942	0,03074
3045,04907	-0,00273	0,0411	0,0676	0,0245	0,02944	0,03075
3043,12061	-0,00274	0,04117	0,06758	0,02439	0,0294	0,03079
3041,19214	-0,00275	0,04113	0,06752	0,02438	0,02939	0,03076
3039,26367	-0,00281	0,04113	0,06753	0,02441	0,0294	0,03073
3037,33521	-0,00284	0,04111	0,06753	0,02433	0,0293	0,03073
3035,40674	-0,00285	0,04109	0,06749	0,02427	0,02927	0,03074
3033,47827	-0,00278	0,04118	0,06751	0,02431	0,0293	0,03084
3031,5498	-0,00275	0,04113	0,06744	0,02429	0,0292	0,03089
3029,62134	-0,00292	0,04096	0,06734	0,02423	0,02917	0,0307
3027,69287	-0,003	0,04096	0,06736	0,02424	0,02924	0,03066
3025,7644	-0,00303	0,041	0,06737	0,02428	0,02928	0,03081
3023,83594	-0,00304	0,04103	0,06735	0,02425	0,02928	0,03076
3021,90747	-0,00299	0,04104	0,06734	0,02421	0,02914	0,03072
3019,979	-0,003	0,0411	0,06736	0,02422	0,02913	0,03081
3018,05054	-0,00297	0,04127	0,06738	0,02426	0,02927	0,03083
3016,12207	-0,00303	0,04122	0,06731	0,0242	0,02918	0,03078
3014,1936	-0,00313	0,04107	0,06725	0,0241	0,02904	0,03078
3012,26514	-0,00314	0,04116	0,06723	0,0241	0,029	0,03083
3010,33667	-0,00315	0,04111	0,06723	0,02411	0,02896	0,03078
3008,4082	-0,00317	0,04096	0,06721	0,02401	0,02901	0,03062
3006,47974	-0,00319	0,04099	0,06714	0,02392	0,02899	0,0306
3004,55127	-0,0032	0,041	0,06712	0,02392	0,02891	0,03071
3002,6228	-0,00322	0,04089	0,06714	0,02386	0,02892	0,03059
3000,69434	-0,00323	0,04085	0,06706	0,0237	0,02885	0,03046
2998,76587	-0,00325	0,04092	0,06704	0,0237	0,02883	0,03051
2996,8374	-0,00326	0,04094	0,06709	0,02376	0,0289	0,03056
2994,90894	-0,00328	0,04089	0,06706	0,02368	0,02883	0,03058

2992,98047	-0,00329	0,04082	0,06705	0,02366	0,02881	0,03059
2991,052	-0,00331	0,04078	0,06709	0,02361	0,02884	0,03055
2989,12354	-0,00332	0,04077	0,06702	0,02351	0,02878	0,03053
2987,19507	-0,00334	0,04071	0,06696	0,0235	0,02879	0,03054
2985,2666	-0,00335	0,04066	0,06696	0,02349	0,02883	0,03054
2983,33813	-0,00337	0,04061	0,06691	0,02346	0,02885	0,03062
2981,40967	-0,00338	0,04061	0,06691	0,02348	0,02893	0,03075
2979,4812	-0,0034	0,04063	0,0669	0,02347	0,02898	0,03084
2977,55273	-0,00341	0,04049	0,06687	0,02342	0,02903	0,03091
2975,62427	-0,00343	0,04042	0,06694	0,02351	0,02923	0,03118
2973,6958	-0,00344	0,04037	0,06705	0,02371	0,0295	0,03164
2971,76733	-0,00346	0,04015	0,06708	0,02388	0,02981	0,03213
2969,83887	-0,00347	0,04013	0,06714	0,02409	0,0302	0,03265
2967,9104	-0,00349	0,04018	0,06718	0,02431	0,03052	0,03314
2965,98193	-0,0035	0,04005	0,06718	0,02446	0,03076	0,03352
2964,05347	-0,00352	0,04006	0,06726	0,0246	0,03101	0,03386
2962,125	-0,00353	0,04011	0,0673	0,02473	0,03111	0,03408
2960,19653	-0,00355	0,04008	0,06728	0,02477	0,03116	0,03414
2958,26807	-0,00357	0,04011	0,0673	0,02474	0,03117	0,03399
2956,3396	-0,00358	0,04014	0,0673	0,02476	0,03101	0,03374
2954,41113	-0,0036	0,04012	0,06726	0,02471	0,03078	0,03348
2952,48267	-0,00361	0,04011	0,06717	0,02449	0,03056	0,03314
2950,5542	-0,00363	0,04015	0,06711	0,02431	0,03036	0,03281
2948,62573	-0,00364	0,04022	0,06719	0,02422	0,03024	0,03263
2946,69727	-0,00366	0,04015	0,06722	0,02412	0,03011	0,03255
2944,7688	-0,00367	0,04011	0,06718	0,02407	0,03003	0,03256
2942,84033	-0,00369	0,04016	0,06726	0,02413	0,03016	0,03271
2940,91187	-0,0037	0,04007	0,06733	0,02421	0,03034	0,03292
2938,9834	-0,00372	0,04002	0,06736	0,02428	0,03046	0,03308
2937,05493	-0,00373	0,04006	0,06748	0,02443	0,03062	0,03331
2935,12646	-0,00375	0,04004	0,06761	0,02457	0,03074	0,03348
2933,198	-0,00376	0,04002	0,0677	0,02465	0,0308	0,03345
2931,26953	-0,00378	0,04004	0,06781	0,02469	0,03084	0,03342
2929,34106	-0,00379	0,04004	0,06788	0,02471	0,03086	0,03334
2927,4126	-0,00381	0,03997	0,06793	0,02472	0,03084	0,03321
2925,48413	-0,00382	0,0399	0,06799	0,02465	0,03068	0,03308
2923,55566	-0,00384	0,03983	0,06797	0,0245	0,03048	0,03282
2921,6272	-0,00385	0,03971	0,06788	0,02434	0,03027	0,03257
2919,69873	-0,00387	0,03965	0,06792	0,0242	0,03012	0,03245
2917,77026	-0,00388	0,0396	0,06789	0,02403	0,02994	0,03225
2915,8418	-0,0039	0,03957	0,06762	0,02378	0,0296	0,03196
2913,91333	-0,00391	0,03971	0,06738	0,02353	0,02935	0,0317
2911,98486	-0,00393	0,03987	0,06719	0,02332	0,02915	0,03141
2910,0564	-0,00395	0,03989	0,06705	0,02313	0,0289	0,03116
2908,12793	-0,00396	0,03992	0,06697	0,02296	0,02878	0,03101
2906,19946	-0,00398	0,03996	0,06685	0,02286	0,02868	0,03082
2904,271	-0,00399	0,03994	0,0668	0,02275	0,0285	0,03065
2902,34253	-0,00401	0,03995	0,06677	0,02259	0,02833	0,03055

2900,41406	-0,00402	0,03994	0,06667	0,02252	0,02823	0,03042
2898,4856	-0,00404	0,03994	0,06663	0,02244	0,0282	0,03034
2896,55713	-0,00405	0,04003	0,0666	0,02236	0,02814	0,03028
2894,62866	-0,00407	0,04004	0,06653	0,02233	0,02807	0,03021
2892,7002	-0,00408	0,03998	0,06648	0,02225	0,028	0,03016
2890,77173	-0,0041	0,03993	0,06641	0,02219	0,02797	0,03011
2888,84326	-0,00411	0,03989	0,06636	0,02218	0,02794	0,03007
2886,91479	-0,00413	0,03988	0,06635	0,02212	0,02788	0,03006
2884,98633	-0,00414	0,03985	0,06629	0,02208	0,02789	0,03009
2883,05786	-0,00416	0,03983	0,06626	0,0221	0,02793	0,0302
2881,12939	-0,00417	0,03978	0,06625	0,02213	0,02799	0,03034
2879,20093	-0,00419	0,03974	0,06624	0,02215	0,02808	0,03042
2877,27246	-0,0042	0,03975	0,06624	0,02216	0,02804	0,03044
2875,34399	-0,00422	0,03973	0,06627	0,02217	0,02807	0,03051
2873,41553	-0,00423	0,03976	0,06628	0,02221	0,02822	0,03065
2871,48706	-0,00425	0,03984	0,06624	0,02224	0,02819	0,03071
2869,55859	-0,00426	0,03979	0,06627	0,0222	0,0282	0,03067
2867,63013	-0,00428	0,03971	0,06632	0,02221	0,02828	0,03072
2865,70166	-0,0043	0,03972	0,06628	0,02223	0,02818	0,03073
2863,77319	-0,00431	0,0397	0,06627	0,02217	0,02813	0,03067
2861,84473	-0,00433	0,03968	0,06631	0,02219	0,02821	0,03069
2859,91626	-0,00434	0,03971	0,06637	0,02228	0,02826	0,03073
2857,98779	-0,00436	0,03964	0,06653	0,02233	0,02828	0,03067
2856,05933	-0,00437	0,0396	0,06661	0,02231	0,02824	0,03054
2854,13086	-0,00439	0,0397	0,06652	0,02217	0,02807	0,03035
2852,20239	-0,0044	0,03973	0,0664	0,02205	0,02785	0,03013
2850,27393	-0,00442	0,03976	0,06632	0,02189	0,02761	0,0299
2848,34546	-0,00443	0,03977	0,06622	0,02166	0,02736	0,02966
2846,41699	-0,00445	0,03967	0,06607	0,0215	0,02715	0,02945
2844,48853	-0,00446	0,03965	0,06592	0,02138	0,02701	0,02925
2842,56006	-0,00448	0,03967	0,06579	0,02124	0,02685	0,02904
2840,63159	-0,00449	0,03963	0,06572	0,02118	0,02674	0,02897
2838,70313	-0,00451	0,03964	0,06573	0,02119	0,02671	0,02894
2836,77466	-0,00452	0,03964	0,0657	0,02121	0,02665	0,02885
2834,84619	-0,00454	0,03962	0,06561	0,02111	0,02658	0,02877
2832,91772	-0,00455	0,03967	0,06554	0,02098	0,02649	0,02867
2830,98926	-0,00457	0,03971	0,06548	0,02091	0,0264	0,02857
2829,06079	-0,00458	0,03966	0,0654	0,02077	0,02634	0,02851
2827,13232	-0,0046	0,03964	0,06537	0,02071	0,02629	0,0285
2825,20386	-0,00455	0,03965	0,06536	0,02074	0,02627	0,0285
2823,27539	-0,00454	0,03968	0,06532	0,02071	0,02628	0,02847
2821,34692	-0,00455	0,03973	0,06532	0,02066	0,02628	0,02842
2819,41846	-0,00454	0,03973	0,06527	0,02065	0,02624	0,0284
2817,48999	-0,00456	0,03971	0,06525	0,02062	0,02621	0,02841
2815,56152	-0,00452	0,03972	0,06522	0,02054	0,02613	0,0284
2813,63306	-0,00449	0,03974	0,06518	0,02047	0,02604	0,02832
2811,70459	-0,00456	0,03979	0,06523	0,02047	0,02601	0,02828
2809,77612	-0,00453	0,03982	0,06524	0,0205	0,02601	0,02833



2807,84766	-0,00447	0,03978	0,06522	0,02049	0,02603	0,02833
2805,91919	-0,00448	0,03975	0,06524	0,02048	0,02603	0,02833
2803,99072	-0,00442	0,03977	0,0652	0,02042	0,02594	0,02834
2802,06226	-0,00438	0,03974	0,06516	0,02036	0,02592	0,0283
2800,13379	-0,00443	0,03969	0,06516	0,02037	0,02594	0,02828
2798,20532	-0,00445	0,03976	0,06513	0,0204	0,02588	0,02826
2796,27686	-0,0044	0,03981	0,06511	0,0204	0,02587	0,02831
2794,34839	-0,00439	0,03973	0,06514	0,02039	0,02591	0,02836
2792,41992	-0,00442	0,0397	0,06518	0,02038	0,02587	0,02829
2790,49146	-0,00441	0,03978	0,0652	0,02043	0,02587	0,02834
2788,56299	-0,00438	0,0398	0,06521	0,02044	0,02588	0,02838
2786,63452	-0,00441	0,03977	0,06514	0,02036	0,02579	0,02831
2784,70605	-0,0045	0,03979	0,06511	0,02036	0,02579	0,02831
2782,77759	-0,00446	0,03978	0,06514	0,02038	0,02583	0,02833
2780,84912	-0,00435	0,03979	0,06511	0,02031	0,0258	0,02831
2778,92065	-0,00434	0,03986	0,0651	0,02031	0,02576	0,02833
2776,99219	-0,00432	0,03985	0,06511	0,02031	0,02571	0,02835
2775,06372	-0,0043	0,03988	0,0651	0,02027	0,02573	0,02834
2773,13525	-0,00432	0,03989	0,06512	0,02028	0,02576	0,02834
2771,20679	-0,00427	0,03981	0,06511	0,02031	0,02571	0,02836
2769,27832	-0,00424	0,03987	0,06509	0,02029	0,02563	0,02836
2767,34985	-0,00431	0,03992	0,0651	0,0202	0,02558	0,02831
2765,42139	-0,00428	0,03988	0,06505	0,02016	0,02555	0,02828
2763,49292	-0,00424	0,03992	0,06501	0,02017	0,02555	0,02831
2761,56445	-0,00426	0,03992	0,06502	0,02016	0,02555	0,02832
2759,63599	-0,00423	0,03986	0,06494	0,02015	0,02552	0,02829
2757,70752	-0,00423	0,03986	0,06494	0,02018	0,02551	0,02833
2755,77905	-0,00429	0,03983	0,06499	0,02016	0,02554	0,02833
2753,85059	-0,00426	0,0398	0,06495	0,02014	0,02552	0,02829
2751,92212	-0,00427	0,03979	0,06496	0,02013	0,0255	0,02831
2749,99365	-0,00434	0,03981	0,06496	0,02008	0,0255	0,02827
2748,06519	-0,00431	0,03985	0,06492	0,02009	0,02552	0,02824
2746,13672	-0,0043	0,03986	0,065	0,02011	0,02551	0,0283
2744,20825	-0,00431	0,03983	0,06497	0,02002	0,02544	0,02827
2742,27979	-0,00424	0,03977	0,06485	0,02001	0,02542	0,02823
2740,35132	-0,00426	0,03973	0,06489	0,02006	0,02542	0,02824
2738,42285	-0,00426	0,03979	0,06489	0,02003	0,02541	0,02821
2736,49438	-0,0042	0,03984	0,06481	0,01997	0,02538	0,02821
2734,56592	-0,00425	0,03984	0,06484	0,01998	0,02531	0,02825
2732,63745	-0,00428	0,03979	0,06486	0,01998	0,02528	0,02825
2730,70898	-0,00424	0,03973	0,0648	0,01991	0,0253	0,02821
2728,78052	-0,00427	0,03977	0,06484	0,01992	0,02533	0,02821
2726,85205	-0,00432	0,03982	0,06485	0,01989	0,02529	0,02819
2724,92358	-0,00429	0,0398	0,06475	0,01985	0,02522	0,02813
2722,99512	-0,00427	0,03981	0,06477	0,01988	0,02523	0,02815
2721,06665	-0,00429	0,03984	0,06481	0,01988	0,02525	0,02819
2719,13818	-0,00426	0,03987	0,06474	0,01989	0,02523	0,0282
2717,20972	-0,00422	0,03991	0,06475	0,01991	0,02524	0,02817

2715,28125	-0,00416	0,03986	0,06476	0,01991	0,02523	0,02813
2713,35278	-0,00413	0,03984	0,06469	0,0199	0,02518	0,02811
2711,42432	-0,0042	0,03983	0,06467	0,01984	0,02515	0,02813
2709,49585	-0,00419	0,03977	0,06468	0,01985	0,02515	0,02816
2707,56738	-0,00412	0,03981	0,0647	0,01991	0,02515	0,02815
2705,63892	-0,00413	0,03987	0,06468	0,01985	0,02514	0,0281
2703,71045	-0,00415	0,03985	0,06465	0,01981	0,02511	0,02807
2701,78198	-0,00412	0,03984	0,06466	0,01983	0,0251	0,02807
2699,85352	-0,004	0,03987	0,06465	0,01983	0,02509	0,02809
2697,92505	-0,00393	0,03989	0,06457	0,01979	0,02504	0,02806
2695,99658	-0,00397	0,0399	0,06452	0,01975	0,02503	0,028
2694,06812	-0,00397	0,03992	0,06455	0,01976	0,02505	0,02797
2692,13965	-0,00395	0,03993	0,06462	0,01981	0,02505	0,02796
2690,21118	-0,00397	0,0399	0,06463	0,01978	0,02504	0,02797
2688,28271	-0,004	0,0399	0,06457	0,01976	0,025	0,02797
2686,35425	-0,00401	0,03995	0,06459	0,01983	0,02503	0,02803
2684,42578	-0,00398	0,03998	0,06462	0,01985	0,02507	0,0281
2682,49731	-0,00393	0,03997	0,06458	0,01984	0,02499	0,02807
2680,56885	-0,00388	0,03997	0,06453	0,01977	0,02494	0,02801
2678,64038	-0,00384	0,03997	0,06455	0,01971	0,02496	0,02797
2676,71191	-0,00382	0,03998	0,06458	0,01977	0,02497	0,02802
2674,78345	-0,00383	0,04002	0,06457	0,0198	0,02495	0,02807
2672,85498	-0,00376	0,04003	0,06452	0,01978	0,0249	0,02803
2670,92651	-0,00367	0,04002	0,06454	0,0198	0,02491	0,02805
2668,99805	-0,00365	0,04004	0,06457	0,01982	0,02496	0,02808
2667,06958	-0,00367	0,04006	0,06455	0,01986	0,02494	0,02807
2665,14111	-0,00367	0,04007	0,06459	0,01988	0,02493	0,02812
2663,21265	-0,00361	0,04006	0,06464	0,01989	0,02498	0,02814
2661,28418	-0,00355	0,04006	0,06462	0,0199	0,02496	0,0281
2659,35571	-0,00359	0,04009	0,06461	0,01988	0,02494	0,02812
2657,42725	-0,00354	0,04013	0,06456	0,01984	0,02493	0,02815
2655,49878	-0,00345	0,04014	0,06454	0,01986	0,0249	0,02811
2653,57031	-0,00344	0,04016	0,0646	0,01991	0,02489	0,02815
2651,64185	-0,00342	0,04022	0,0646	0,01988	0,0249	0,02818
2649,71338	-0,00337	0,04023	0,06453	0,01987	0,02488	0,02812
2647,78491	-0,00334	0,04024	0,06453	0,01996	0,0249	0,02818
2645,85645	-0,00328	0,04025	0,06458	0,01997	0,0249	0,02827
2643,92798	-0,00321	0,04024	0,06457	0,01988	0,02489	0,02821
2641,99951	-0,00322	0,04025	0,06452	0,01987	0,02489	0,02815
2640,07104	-0,00321	0,04028	0,06456	0,01994	0,02489	0,02816
2638,14258	-0,00316	0,04031	0,06458	0,01997	0,02489	0,02816
2636,21411	-0,00317	0,04036	0,06454	0,01996	0,02489	0,02815
2634,28564	-0,00319	0,04039	0,06455	0,01997	0,02485	0,02815
2632,35718	-0,00318	0,0404	0,06454	0,01996	0,02482	0,02817
2630,42871	-0,0032	0,04042	0,06449	0,02	0,02484	0,02819
2628,50024	-0,0032	0,04045	0,06451	0,02003	0,02485	0,02823
2626,57178	-0,00317	0,04045	0,06452	0,01998	0,02483	0,02824
2624,64331	-0,00316	0,04042	0,0645	0,01996	0,02482	0,02821

2622,71484	-0,00315	0,04038	0,06448	0,01996	0,02481	0,02816
2620,78638	-0,0031	0,04038	0,06441	0,01991	0,02479	0,02811
2618,85791	-0,00309	0,04039	0,06441	0,01991	0,02477	0,02818
2616,92944	-0,00311	0,04038	0,06445	0,0199	0,02475	0,0282
2615,00098	-0,00317	0,0404	0,06442	0,01982	0,02473	0,02815
2613,07251	-0,00323	0,04035	0,06438	0,01978	0,02471	0,02816
2611,14404	-0,00327	0,04029	0,06433	0,01973	0,02466	0,02815
2609,21558	-0,00336	0,04031	0,06431	0,01969	0,02463	0,02813
2607,28711	-0,0034	0,04028	0,06434	0,01968	0,02461	0,02811
2605,35864	-0,00346	0,04025	0,06438	0,01968	0,0246	0,02808
2603,43018	-0,00358	0,04023	0,06436	0,01965	0,0246	0,02808
2601,50171	-0,00355	0,04016	0,06435	0,01956	0,02452	0,02805
2599,57324	-0,00356	0,04017	0,06434	0,01949	0,02446	0,02802
2597,64478	-0,0037	0,04015	0,06424	0,01948	0,02443	0,02798
2595,71631	-0,00377	0,04009	0,06422	0,01945	0,02436	0,02791
2593,78784	-0,00377	0,0401	0,0642	0,01936	0,02429	0,02787
2591,85938	-0,00378	0,04007	0,06414	0,01935	0,02428	0,02788
2589,93091	-0,00385	0,04003	0,06418	0,01937	0,02433	0,02791
2588,00244	-0,00391	0,04002	0,06413	0,01927	0,0243	0,02786
2586,07397	-0,00394	0,03995	0,06403	0,01925	0,02425	0,02783
2584,14551	-0,00399	0,03989	0,06404	0,01926	0,02428	0,02786
2582,21704	-0,00408	0,0399	0,06407	0,01919	0,02427	0,02782
2580,28857	-0,00416	0,03989	0,064	0,01912	0,0242	0,02775
2578,36011	-0,00415	0,03987	0,06391	0,01907	0,02416	0,0277
2576,43164	-0,00417	0,03985	0,06395	0,01906	0,02417	0,02771
2574,50317	-0,00426	0,0398	0,06399	0,01904	0,02417	0,02774
2572,57471	-0,0043	0,03977	0,06393	0,01898	0,02413	0,02769
2570,64624	-0,00439	0,03979	0,06393	0,01896	0,02413	0,02767
2568,71777	-0,00446	0,03977	0,06394	0,01891	0,02413	0,02766
2566,78931	-0,00447	0,03969	0,06387	0,01883	0,02408	0,02755
2564,86084	-0,00453	0,0397	0,06387	0,01879	0,02402	0,02749
2562,93237	-0,00452	0,03967	0,0639	0,01871	0,024	0,02749
2561,00391	-0,00458	0,03958	0,06387	0,01864	0,02401	0,02743
2559,07544	-0,00475	0,03958	0,06387	0,01862	0,02399	0,02742
2557,14697	-0,00474	0,03954	0,06385	0,01863	0,02392	0,02741
2555,21851	-0,00471	0,03946	0,06382	0,01862	0,02394	0,02737
2553,29004	-0,00481	0,03948	0,06384	0,01861	0,02401	0,02739
2551,36157	-0,00483	0,03947	0,06386	0,01863	0,02399	0,02736
2549,43311	-0,00486	0,03943	0,06382	0,01857	0,02389	0,02725
2547,50464	-0,00494	0,03943	0,06379	0,01853	0,02386	0,02723
2545,57617	-0,00496	0,03945	0,06378	0,01854	0,02388	0,02724
2543,64771	-0,005	0,03947	0,06375	0,01847	0,02386	0,0272
2541,71924	-0,00505	0,03943	0,0637	0,01842	0,02379	0,02718
2539,79077	-0,00506	0,03939	0,06368	0,01844	0,02378	0,02719
2537,8623	-0,00513	0,03944	0,06373	0,01847	0,0238	0,02725
2535,93384	-0,00519	0,03942	0,06374	0,01846	0,02377	0,02725
2534,00537	-0,00522	0,03938	0,06371	0,01841	0,02374	0,0272
2532,0769	-0,00526	0,03942	0,06367	0,01835	0,02369	0,02718

2530,14844	-0,0053	0,03941	0,06363	0,01828	0,02365	0,02714
2528,21997	-0,00537	0,03937	0,06366	0,01829	0,02367	0,02709
2526,2915	-0,00539	0,03936	0,06364	0,01829	0,02364	0,0271
2524,36304	-0,00535	0,03935	0,06354	0,01822	0,0236	0,02711
2522,43457	-0,00541	0,0393	0,0636	0,01824	0,0236	0,0271
2520,5061	-0,00548	0,03925	0,06362	0,01828	0,02357	0,02711
2518,57764	-0,00548	0,03928	0,06356	0,01822	0,02358	0,02712
2516,64917	-0,0055	0,03925	0,0636	0,01822	0,0236	0,02711
2514,7207	-0,00547	0,03917	0,0636	0,01823	0,02357	0,02709
2512,79224	-0,00548	0,03915	0,06358	0,01819	0,02353	0,0271
2510,86377	-0,00559	0,03919	0,0636	0,01818	0,02353	0,02712
2508,9353	-0,00564	0,03928	0,06352	0,01816	0,02346	0,02709
2507,00684	-0,00566	0,03932	0,0635	0,01815	0,02343	0,02708
2505,07837	-0,0057	0,0393	0,06351	0,01817	0,02346	0,02709
2503,1499	-0,00567	0,03929	0,06349	0,01817	0,02341	0,02709
2501,22144	-0,00564	0,03929	0,06353	0,01822	0,02339	0,02712
2499,29297	-0,00566	0,0393	0,0635	0,01821	0,02342	0,02709
2497,3645	-0,00568	0,03928	0,06346	0,01816	0,0234	0,02706
2495,43604	-0,00569	0,03927	0,06349	0,01817	0,02338	0,0271
2493,50757	-0,0057	0,03931	0,06346	0,01815	0,02337	0,02709
2491,5791	-0,00571	0,03931	0,06346	0,01813	0,02337	0,02709
2489,65063	-0,00575	0,03929	0,06351	0,01817	0,02337	0,02715
2487,72217	-0,00579	0,03933	0,06346	0,01822	0,02335	0,02719
2485,7937	-0,00577	0,03937	0,06342	0,01828	0,02341	0,02724
2483,86523	-0,00577	0,03937	0,06343	0,01827	0,02343	0,02727
2481,93677	-0,00581	0,03937	0,06343	0,01821	0,02332	0,02729
2480,0083	-0,00583	0,03936	0,06345	0,01825	0,02329	0,02735
2478,07983	-0,00582	0,03929	0,06344	0,01831	0,02334	0,02736
2476,15137	-0,00575	0,03929	0,0634	0,01831	0,0233	0,02731
2474,2229	-0,00572	0,03938	0,06342	0,0183	0,02324	0,02734
2472,29443	-0,00577	0,0394	0,06347	0,01831	0,02324	0,02736
2470,36597	-0,00575	0,03936	0,06344	0,01828	0,02324	0,02733
2468,4375	-0,00573	0,03939	0,0634	0,01829	0,02322	0,02733
2466,50903	-0,00578	0,0394	0,06346	0,01837	0,02319	0,0274
2464,58057	-0,00582	0,03939	0,06347	0,01839	0,02322	0,02748
2462,6521	-0,00584	0,03944	0,06341	0,01839	0,02328	0,02747
2460,72363	-0,00584	0,03946	0,06342	0,01844	0,02327	0,02747
2458,79517	-0,00589	0,03946	0,06345	0,0184	0,02327	0,02747
2456,8667	-0,00592	0,03949	0,06349	0,01836	0,02328	0,02746
2454,93823	-0,00589	0,03944	0,06353	0,01841	0,02326	0,02752
2453,00977	-0,0059	0,03943	0,06352	0,01844	0,02326	0,02753
2451,0813	-0,0059	0,03952	0,06346	0,01841	0,02327	0,02749
2449,15283	-0,00588	0,03954	0,06342	0,01836	0,02326	0,02747
2447,22437	-0,00591	0,03947	0,06344	0,01834	0,02322	0,02747
2445,2959	-0,00588	0,03942	0,06345	0,01832	0,02321	0,02745
2443,36743	-0,0059	0,0394	0,06344	0,01823	0,02323	0,02739
2441,43896	-0,00599	0,03939	0,06342	0,01817	0,0232	0,02737
2439,5105	-0,00598	0,03942	0,06341	0,01819	0,02318	0,02736

2437,58203	-0,00598	0,03942	0,06339	0,01821	0,02314	0,02736
2435,65356	-0,00604	0,0394	0,06336	0,0182	0,0231	0,02737
2433,7251	-0,00606	0,03945	0,06336	0,01813	0,02309	0,02733
2431,79663	-0,00608	0,03942	0,06338	0,01808	0,02305	0,02731
2429,86816	-0,00608	0,03936	0,06337	0,01812	0,02303	0,0273
2427,9397	-0,00608	0,03936	0,06333	0,01815	0,02304	0,0273
2426,01123	-0,00609	0,03939	0,06335	0,01819	0,02306	0,02735
2424,08276	-0,0061	0,03946	0,06336	0,01821	0,02307	0,0274
2422,1543	-0,00609	0,03951	0,06334	0,01821	0,02304	0,02745
2420,22583	-0,0061	0,03947	0,06337	0,01822	0,02305	0,02755
2418,29736	-0,00611	0,03948	0,06336	0,01822	0,02307	0,02763
2416,3689	-0,00606	0,03955	0,06334	0,01823	0,02307	0,02764
2414,44043	-0,00603	0,0396	0,06338	0,01823	0,02307	0,02766
2412,51196	-0,00605	0,03962	0,0634	0,01824	0,0231	0,02769
2410,5835	-0,00604	0,03959	0,06339	0,01824	0,02308	0,02765
2408,65503	-0,00604	0,03955	0,06335	0,01824	0,02298	0,02765
2406,72656	-0,00605	0,03957	0,06338	0,01825	0,02296	0,02772
2404,7981	-0,00604	0,03963	0,06342	0,01825	0,023	0,02776
2402,86963	-0,00605	0,03966	0,06342	0,01826	0,02307	0,02778
2400,94116	-0,00605	0,03966	0,06341	0,01826	0,02315	0,02782
2399,0127	-0,00602	0,03966	0,06336	0,01827	0,02311	0,02781
2397,08423	-0,00601	0,03968	0,06336	0,01827	0,02309	0,02783
2395,15576	-0,00597	0,03968	0,06335	0,01828	0,02309	0,02789
2393,22729	-0,00595	0,03969	0,06335	0,01828	0,02308	0,02788
2391,29883	-0,00595	0,03971	0,06335	0,01829	0,02308	0,02789
2389,37036	-0,00595	0,03972	0,06334	0,01829	0,02307	0,02792
2387,44189	-0,00595	0,03974	0,06334	0,0183	0,02307	0,02792
2385,51343	-0,00595	0,03975	0,06334	0,0183	0,02307	0,02793
2383,58496	-0,00595	0,03976	0,06333	0,01831	0,02306	0,02795
2381,65649	-0,00595	0,03978	0,06333	0,01831	0,02306	0,02796
2379,72803	-0,00596	0,03979	0,06333	0,01831	0,02305	0,02797
2377,79956	-0,00596	0,03981	0,06332	0,01832	0,02305	0,02799
2375,87109	-0,00596	0,03982	0,06332	0,01832	0,02304	0,028
2373,94263	-0,00596	0,03983	0,06332	0,01833	0,02304	0,02801
2372,01416	-0,00596	0,03985	0,06332	0,01833	0,02303	0,02802
2370,08569	-0,00596	0,03986	0,06331	0,01834	0,02303	0,02804
2368,15723	-0,00596	0,03988	0,06331	0,01834	0,02303	0,02805
2366,22876	-0,00596	0,03989	0,06331	0,01835	0,02302	0,02806
2364,30029	-0,00596	0,0399	0,0633	0,01835	0,02302	0,02808
2362,37183	-0,00596	0,03992	0,0633	0,01836	0,02301	0,02809
2360,44336	-0,00597	0,03993	0,0633	0,01836	0,02301	0,0281
2358,51489	-0,00597	0,03994	0,06329	0,01837	0,023	0,02812
2356,58643	-0,00597	0,03996	0,06329	0,01837	0,023	0,02813
2354,65796	-0,00597	0,03997	0,06329	0,01838	0,02299	0,02814
2352,72949	-0,00597	0,03999	0,06328	0,01838	0,02299	0,02815
2350,80103	-0,00597	0,04	0,06328	0,01838	0,02299	0,02817
2348,87256	-0,00597	0,04001	0,06328	0,01839	0,02298	0,02818
2346,94409	-0,00597	0,04003	0,06328	0,01839	0,02298	0,02819

2345,01563	-0,00597	0,04004	0,06327	0,0184	0,02297	0,02821
2343,08716	-0,00598	0,04006	0,06327	0,0184	0,02297	0,02822
2341,15869	-0,00598	0,04007	0,06327	0,01841	0,02296	0,02823
2339,23022	-0,00598	0,04008	0,06326	0,01841	0,02296	0,02825
2337,30176	-0,00598	0,0401	0,06326	0,01842	0,02295	0,02826
2335,37329	-0,00598	0,04011	0,06326	0,01842	0,02295	0,02827
2333,44482	-0,00598	0,04013	0,06325	0,01843	0,02294	0,02828
2331,51636	-0,00598	0,04014	0,06325	0,01843	0,02294	0,0283
2329,58789	-0,00598	0,04015	0,06325	0,01844	0,02294	0,02831
2327,65942	-0,00598	0,04017	0,06324	0,01844	0,02293	0,02832
2325,73096	-0,00598	0,04018	0,06324	0,01844	0,02293	0,02834
2323,80249	-0,00599	0,0402	0,06324	0,01845	0,02292	0,02835
2321,87402	-0,00599	0,04021	0,06323	0,01845	0,02292	0,02836
2319,94556	-0,00599	0,04022	0,06323	0,01846	0,02291	0,02838
2318,01709	-0,00599	0,04024	0,06323	0,01846	0,02291	0,02839
2316,08862	-0,00599	0,04025	0,06323	0,01847	0,0229	0,0284
2314,16016	-0,00599	0,04027	0,06322	0,01847	0,0229	0,02841
2312,23169	-0,00599	0,04028	0,06322	0,01848	0,0229	0,02843
2310,30322	-0,00599	0,04029	0,06322	0,01848	0,02289	0,02844
2308,37476	-0,00599	0,04031	0,06321	0,01849	0,02289	0,02845
2306,44629	-0,00599	0,04032	0,06321	0,01849	0,02288	0,02847
2304,51782	-0,006	0,04034	0,06321	0,0185	0,02288	0,02848
2302,58936	-0,00599	0,04035	0,0632	0,0185	0,02287	0,02849
2300,66089	-0,00601	0,04036	0,0632	0,01851	0,02287	0,02851
2298,73242	-0,00608	0,04038	0,0632	0,01851	0,02286	0,02852
2296,80396	-0,00611	0,04039	0,06319	0,01851	0,02286	0,02853
2294,87549	-0,00612	0,0404	0,06319	0,01852	0,02286	0,02855
2292,94702	-0,00619	0,04042	0,06319	0,01852	0,02285	0,02856
2291,01855	-0,0062	0,04043	0,06319	0,01853	0,02285	0,02857
2289,09009	-0,0062	0,04045	0,06318	0,01853	0,02284	0,02858
2287,16162	-0,00626	0,04046	0,06318	0,01854	0,02284	0,0286
2285,23315	-0,00623	0,04047	0,06318	0,01854	0,02283	0,02861
2283,30469	-0,00632	0,04049	0,06317	0,01855	0,02283	0,02862
2281,37622	-0,00645	0,0405	0,06317	0,01855	0,02282	0,02864
2279,44775	-0,00628	0,04052	0,06317	0,01856	0,02282	0,02865
2277,51929	-0,00617	0,04053	0,06316	0,01856	0,02282	0,02866
2275,59082	-0,0063	0,04054	0,06316	0,01857	0,02281	0,02868
2273,66235	-0,00635	0,04056	0,06316	0,01857	0,02281	0,02869
2271,73389	-0,00632	0,04057	0,06311	0,01858	0,0228	0,0287
2269,80542	-0,00625	0,04059	0,06309	0,01858	0,0228	0,02871
2267,87695	-0,00623	0,0406	0,06319	0,01858	0,02279	0,02873
2265,94849	-0,00629	0,0406	0,06317	0,01859	0,02279	0,02874
2264,02002	-0,00634	0,04063	0,06316	0,01859	0,02278	0,02879
2262,09155	-0,00635	0,04063	0,06323	0,0186	0,02278	0,02884
2260,16309	-0,00633	0,04061	0,06324	0,01863	0,02278	0,02887
2258,23462	-0,00632	0,04062	0,06323	0,01867	0,02277	0,02891
2256,30615	-0,00632	0,04057	0,06325	0,01873	0,02277	0,02889
2254,37769	-0,00631	0,04049	0,06333	0,01877	0,02276	0,0289

2252,44922	-0,00632	0,04052	0,06337	0,01876	0,0228	0,02895
2250,52075	-0,00633	0,04051	0,06335	0,01878	0,02281	0,02895
2248,59229	-0,00632	0,04045	0,06332	0,01878	0,02281	0,02894
2246,66382	-0,00632	0,04048	0,06332	0,0188	0,0228	0,02896
2244,73535	-0,00636	0,04049	0,06339	0,01889	0,02282	0,02899
2242,80688	-0,00639	0,04042	0,06341	0,01895	0,02284	0,02901
2240,87842	-0,00634	0,04044	0,06336	0,01898	0,02283	0,02907
2238,94995	-0,0063	0,04043	0,06341	0,01899	0,02282	0,0291
2237,02148	-0,00636	0,04039	0,06346	0,01898	0,02279	0,02912
2235,09302	-0,0064	0,04043	0,06345	0,01902	0,02278	0,02911
2233,16455	-0,00643	0,0404	0,06347	0,01903	0,02285	0,02909
2231,23608	-0,00645	0,04037	0,06348	0,01901	0,02285	0,02908
2229,30762	-0,00643	0,04042	0,06349	0,01897	0,02281	0,02907
2227,37915	-0,00652	0,04039	0,06345	0,01895	0,02279	0,02907
2225,45068	-0,00663	0,04038	0,06342	0,01895	0,02276	0,02902
2223,52222	-0,00666	0,04042	0,06342	0,01886	0,02274	0,02897
2221,59375	-0,00671	0,04039	0,0634	0,01882	0,02272	0,02896
2219,66528	-0,0067	0,04037	0,06342	0,01892	0,02275	0,02898
2217,73682	-0,00668	0,04045	0,06349	0,01896	0,02285	0,02907
2215,80835	-0,00675	0,04048	0,06348	0,01899	0,02289	0,02914
2213,87988	-0,0067	0,04048	0,06345	0,01906	0,02286	0,02914
2211,95142	-0,00661	0,04053	0,06345	0,01909	0,02289	0,02917
2210,02295	-0,00664	0,04047	0,06343	0,01906	0,02289	0,0292
2208,09448	-0,00665	0,04042	0,06335	0,019	0,02281	0,02912
2206,16602	-0,00666	0,04042	0,06338	0,019	0,02281	0,02911
2204,23755	-0,00668	0,04037	0,06343	0,01903	0,02285	0,02916
2202,30908	-0,00669	0,04042	0,06342	0,01901	0,02287	0,02918
2200,38062	-0,00672	0,04047	0,06342	0,01893	0,02283	0,02914
2198,45215	-0,00676	0,04044	0,06338	0,01885	0,02279	0,02908
2196,52368	-0,00682	0,04044	0,06336	0,01888	0,02279	0,02905
2194,59521	-0,00689	0,04037	0,06336	0,01886	0,02273	0,02899
2192,66675	-0,00693	0,0403	0,06338	0,01884	0,02273	0,02899
2190,73828	-0,00691	0,04038	0,06347	0,01887	0,0228	0,02905
2188,80981	-0,00688	0,04039	0,06351	0,01887	0,02278	0,02904
2186,88135	-0,00689	0,04033	0,06345	0,01884	0,02273	0,02902
2184,95288	-0,00688	0,04034	0,06341	0,0188	0,0227	0,02901
2183,02441	-0,00688	0,04036	0,0634	0,01879	0,02269	0,02904
2181,09595	-0,00692	0,0403	0,06341	0,01884	0,02272	0,02909
2179,16748	-0,00695	0,04029	0,06344	0,01885	0,02274	0,02911
2177,23901	-0,00701	0,04032	0,06345	0,01882	0,02268	0,02908
2175,31055	-0,00705	0,0403	0,06345	0,01878	0,02264	0,02903
2173,38208	-0,00697	0,0403	0,06352	0,0188	0,02275	0,02913
2171,45361	-0,00709	0,04015	0,0635	0,01879	0,02276	0,02914
2169,52515	-0,00731	0,03991	0,06339	0,01873	0,02263	0,02906
2167,59668	-0,00723	0,04001	0,06345	0,01875	0,02269	0,02911
2165,66821	-0,00712	0,04016	0,0635	0,01878	0,02272	0,02908
2163,73975	-0,00715	0,04017	0,06348	0,01876	0,02266	0,02905
2161,81128	-0,00717	0,04016	0,06353	0,01871	0,02272	0,02909

2159,88281	-0,00725	0,04008	0,06352	0,01865	0,02268	0,02903
2157,95435	-0,00729	0,04004	0,06343	0,0186	0,02258	0,02899
2156,02588	-0,00728	0,04002	0,06347	0,01856	0,02263	0,02897
2154,09741	-0,00731	0,03997	0,06352	0,01848	0,02261	0,02891
2152,16895	-0,00732	0,03998	0,06342	0,0184	0,02253	0,0289
2150,24048	-0,00732	0,03994	0,06341	0,01839	0,02257	0,02892
2148,31201	-0,00732	0,03988	0,06353	0,01839	0,02258	0,02888
2146,38354	-0,00733	0,03987	0,06351	0,0183	0,02251	0,02881
2144,45508	-0,00741	0,03986	0,06344	0,01821	0,02246	0,02876
2142,52661	-0,00742	0,03985	0,06343	0,01816	0,02241	0,02873
2140,59814	-0,0074	0,03978	0,06341	0,01807	0,02232	0,02872
2138,66968	-0,00743	0,03971	0,0634	0,01799	0,02228	0,02876
2136,74121	-0,00741	0,03972	0,06338	0,01799	0,02225	0,02877
2134,81274	-0,00741	0,03971	0,06345	0,018	0,02223	0,02868
2132,88428	-0,00751	0,03967	0,06352	0,01796	0,02224	0,02861
2130,95581	-0,00758	0,03964	0,06349	0,0179	0,02225	0,02863
2129,02734	-0,00767	0,03963	0,06351	0,01789	0,02227	0,02859
2127,09888	-0,00775	0,03964	0,0635	0,01788	0,02229	0,02849
2125,17041	-0,0078	0,0396	0,0635	0,01785	0,02226	0,02854
2123,24194	-0,00788	0,03952	0,0635	0,01781	0,02221	0,02853
2121,31348	-0,00791	0,03945	0,06341	0,01776	0,02214	0,02838
2119,38501	-0,00791	0,03942	0,06336	0,01772	0,0221	0,02827
2117,45654	-0,00793	0,03943	0,06337	0,01767	0,02209	0,02823
2115,52808	-0,00799	0,03948	0,06334	0,01764	0,02209	0,02826
2113,59961	-0,00809	0,03945	0,06332	0,01759	0,02206	0,0282
2111,67114	-0,00818	0,0394	0,06334	0,01753	0,022	0,0281
2109,74268	-0,00824	0,03941	0,06336	0,0175	0,02203	0,0281
2107,81421	-0,00827	0,03933	0,06333	0,0174	0,02204	0,02802
2105,88574	-0,00831	0,03924	0,06333	0,01732	0,02199	0,02791
2103,95728	-0,00838	0,03916	0,06337	0,01726	0,02193	0,02782
2102,02881	-0,00847	0,03906	0,06337	0,01711	0,02185	0,0277
2100,10034	-0,00858	0,039	0,06334	0,01696	0,02179	0,0276
2098,17188	-0,00865	0,0389	0,06333	0,01687	0,02175	0,0275
2096,24341	-0,00864	0,03882	0,06327	0,01676	0,02167	0,02734
2094,31494	-0,0087	0,03872	0,06322	0,01659	0,02163	0,02719
2092,38647	-0,00872	0,0386	0,06326	0,01646	0,02156	0,02716
2090,45801	-0,00867	0,03858	0,06325	0,01638	0,02145	0,02714
2088,52954	-0,00874	0,03852	0,06323	0,01632	0,02144	0,027
2086,60107	-0,00888	0,03846	0,06329	0,01628	0,02147	0,02692
2084,67261	-0,00896	0,03846	0,06331	0,01619	0,02143	0,02687
2082,74414	-0,00899	0,03839	0,0633	0,0161	0,02138	0,02673
2080,81567	-0,00903	0,03831	0,06326	0,01603	0,02133	0,02667
2078,88721	-0,00909	0,03828	0,06319	0,01592	0,02129	0,02658
2076,95874	-0,00909	0,03828	0,06318	0,01583	0,02128	0,02653
2075,03027	-0,00914	0,03823	0,06322	0,01585	0,02127	0,02661
2073,10181	-0,00915	0,03828	0,06324	0,01589	0,02132	0,02662
2071,17334	-0,00904	0,03833	0,06323	0,01588	0,02135	0,02666
2069,24487	-0,00914	0,03822	0,06323	0,0159	0,02136	0,02662



2067,31641	-0,00918	0,03833	0,06327	0,016	0,02137	0,02676
2065,38794	-0,00897	0,03846	0,06324	0,01604	0,02126	0,02708
2063,45947	-0,00908	0,03833	0,06321	0,01603	0,0213	0,02692
2061,53101	-0,00919	0,03836	0,06329	0,01613	0,02149	0,02683
2059,60254	-0,00909	0,03841	0,06333	0,01626	0,02151	0,02704
2057,67407	-0,00909	0,03837	0,06329	0,01627	0,0215	0,02704
2055,74561	-0,00903	0,03844	0,06327	0,01627	0,02154	0,02704
2053,81714	-0,009	0,03848	0,06331	0,01634	0,02157	0,02712
2051,88867	-0,00907	0,0385	0,06339	0,01647	0,02162	0,02721
2049,96021	-0,00911	0,03856	0,06339	0,01656	0,02161	0,02726
2048,03174	-0,00914	0,03866	0,06335	0,01659	0,02156	0,02731
2046,10327	-0,00918	0,03876	0,06339	0,01667	0,02166	0,0274
2044,1748	-0,00913	0,03883	0,06344	0,0168	0,02176	0,02751
2042,24634	-0,00895	0,03892	0,06339	0,01684	0,02165	0,02771
2040,31787	-0,00895	0,03884	0,06335	0,01679	0,02157	0,02763
2038,3894	-0,00912	0,03876	0,06344	0,01678	0,02164	0,02738
2036,46094	-0,0092	0,03878	0,06343	0,01675	0,02166	0,02737
2034,53247	-0,00924	0,03866	0,06338	0,01664	0,0216	0,02732
2032,604	-0,00924	0,03858	0,06343	0,01659	0,02155	0,02724
2030,67554	-0,00931	0,0386	0,06345	0,01657	0,02156	0,0272
2028,74707	-0,00937	0,03858	0,06342	0,01647	0,02155	0,02717
2026,8186	-0,00936	0,03857	0,06343	0,01637	0,02153	0,02712
2024,89014	-0,00936	0,03856	0,06342	0,01632	0,02153	0,02705
2022,96167	-0,0094	0,03851	0,06339	0,01625	0,0215	0,02706
2021,0332	-0,00949	0,03847	0,0634	0,01619	0,02151	0,02693
2019,10474	-0,0093	0,03863	0,0634	0,01625	0,02139	0,02719
2017,17627	-0,00911	0,03873	0,06328	0,01634	0,02126	0,02758
2015,2478	-0,00934	0,03854	0,06325	0,01631	0,02145	0,02716
2013,31934	-0,00934	0,03853	0,06338	0,01635	0,02162	0,02701
2011,39087	-0,00929	0,03863	0,06339	0,01646	0,02166	0,02728
2009,4624	-0,00936	0,03862	0,06333	0,01651	0,0217	0,02732
2007,53394	-0,00929	0,03863	0,06338	0,01657	0,0217	0,02733
2005,60547	-0,00933	0,03863	0,06342	0,01666	0,0218	0,02731
2003,677	-0,00937	0,03863	0,06341	0,01676	0,02182	0,02741
2001,74854	-0,00934	0,03859	0,06345	0,01681	0,0218	0,02739
1999,82007	-0,00925	0,03868	0,06345	0,01679	0,02185	0,02745
1997,8916	-0,00919	0,03871	0,06338	0,01676	0,02178	0,02753
1995,96313	-0,00937	0,03856	0,06344	0,01673	0,02189	0,02722
1994,03467	-0,00906	0,03887	0,0635	0,01681	0,02185	0,02785
1992,1062	-0,00872	0,03901	0,0633	0,01689	0,02151	0,02847
1990,17773	-0,00913	0,03867	0,06327	0,01684	0,02162	0,0278
1988,24927	-0,0092	0,03879	0,06339	0,01687	0,02178	0,02779
1986,3208	-0,00919	0,03874	0,06344	0,01694	0,02184	0,02784
1984,39233	-0,00935	0,03858	0,06352	0,01696	0,022	0,02754
1982,46387	-0,00924	0,0388	0,06352	0,01698	0,02198	0,02768
1980,5354	-0,00924	0,03881	0,06346	0,01691	0,02195	0,02763
1978,60693	-0,00926	0,03877	0,06349	0,01688	0,02195	0,02765
1976,67847	-0,00925	0,03883	0,06349	0,01695	0,02195	0,02766

1974,75	-0,00924	0,03888	0,06346	0,01697	0,02196	0,02764
1972,82153	-0,0092	0,03887	0,06349	0,01703	0,0219	0,02776
1970,89307	-0,00933	0,03882	0,06359	0,01705	0,02199	0,02751
1968,9646	-0,009	0,03911	0,06353	0,01702	0,02187	0,02798
1967,03613	-0,00866	0,03924	0,0633	0,01704	0,02157	0,02869
1965,10767	-0,00922	0,03888	0,06335	0,017	0,02178	0,02792
1963,1792	-0,00939	0,03892	0,06355	0,01698	0,02204	0,02764
1961,25073	-0,00921	0,03903	0,06353	0,017	0,02193	0,02799
1959,32227	-0,00933	0,03893	0,06345	0,0169	0,02187	0,02769
1957,3938	-0,00931	0,03897	0,0634	0,01685	0,02188	0,02768
1955,46533	-0,00931	0,039	0,06338	0,0169	0,02185	0,02788
1953,53687	-0,00936	0,03891	0,06343	0,01688	0,02186	0,02771
1951,6084	-0,00943	0,03878	0,06345	0,01678	0,02191	0,02743
1949,67993	-0,00943	0,03886	0,0635	0,01672	0,02191	0,02748
1947,75146	-0,00944	0,03885	0,06349	0,01677	0,02185	0,02764
1945,823	-0,00952	0,03877	0,0634	0,0167	0,02185	0,02753
1943,89453	-0,00885	0,03916	0,06331	0,01667	0,02145	0,0284
1941,96606	-0,00876	0,03898	0,06309	0,01679	0,02108	0,02864
1940,0376	-0,00967	0,03858	0,06323	0,01667	0,0216	0,02725
1938,10913	-0,00963	0,03886	0,0635	0,01664	0,02195	0,02725
1936,18066	-0,00951	0,03888	0,06349	0,01669	0,02186	0,02739
1934,2522	-0,0096	0,0389	0,06345	0,01665	0,02177	0,02726
1932,32373	-0,00959	0,03883	0,06346	0,01663	0,0218	0,02728
1930,39526	-0,00957	0,03877	0,06351	0,01652	0,02183	0,02718
1928,4668	-0,00957	0,03872	0,06343	0,0165	0,02174	0,02719
1926,53833	-0,00974	0,03853	0,06347	0,0165	0,02194	0,02685
1924,60986	-0,00915	0,03903	0,06352	0,0165	0,02167	0,02765
1922,6814	-0,00886	0,03903	0,06311	0,0165	0,0211	0,02829
1920,75293	-0,00954	0,03875	0,06328	0,01628	0,02153	0,0272
1918,82446	-0,00943	0,03905	0,06354	0,01616	0,02156	0,02712
1916,896	-0,00958	0,03842	0,06321	0,01606	0,02115	0,02683
1914,96753	-0,01	0,03826	0,06331	0,01586	0,02147	0,02636
1913,03906	-0,00982	0,03869	0,0635	0,0158	0,02165	0,02661
1911,1106	-0,00951	0,03871	0,06337	0,01576	0,02138	0,02692
1909,18213	-0,00928	0,0387	0,06322	0,01568	0,02113	0,02723
1907,25366	-0,00963	0,03842	0,06326	0,01554	0,02127	0,02663
1905,3252	-0,00995	0,03827	0,06339	0,01541	0,02149	0,02617
1903,39673	-0,00996	0,03825	0,06334	0,01527	0,02147	0,0261
1901,46826	-0,00994	0,03814	0,06335	0,01518	0,02144	0,02609
1899,53979	-0,01012	0,03798	0,06342	0,01508	0,02149	0,0258
1897,61133	-0,01004	0,0381	0,06341	0,01487	0,02147	0,02567
1895,68286	-0,0095	0,03835	0,06325	0,01481	0,02103	0,02645
1893,75439	-0,01011	0,03786	0,06311	0,01464	0,02107	0,02558
1891,82593	-0,01023	0,03806	0,06337	0,01445	0,02134	0,02536
1889,89746	-0,00936	0,03841	0,06322	0,0145	0,02074	0,02673
1887,96899	-0,01016	0,03764	0,06293	0,0143	0,02079	0,02547
1886,04053	-0,01043	0,03782	0,06322	0,0142	0,02129	0,02508
1884,11206	-0,01002	0,03803	0,06324	0,01434	0,02117	0,02567

1882,18359	-0,01037	0,03785	0,06319	0,01433	0,02123	0,02513
1880,25513	-0,01041	0,03809	0,06327	0,01435	0,0213	0,02523
1878,32666	-0,01037	0,038	0,06322	0,01446	0,02123	0,02536
1876,39819	-0,01041	0,03804	0,06338	0,01452	0,0214	0,02524
1874,46973	-0,01035	0,03808	0,0634	0,0146	0,02143	0,02538
1872,54126	-0,01029	0,03819	0,06338	0,01464	0,02144	0,02552
1870,61279	-0,00966	0,03892	0,06354	0,0147	0,02129	0,02629
1868,68433	-0,00864	0,03904	0,06302	0,01498	0,02034	0,02799
1866,75586	-0,00957	0,03817	0,06278	0,01492	0,02044	0,02684
1864,82739	-0,01022	0,0384	0,06331	0,01494	0,02138	0,02585
1862,89893	-0,01021	0,03869	0,06346	0,01521	0,02162	0,02588
1860,97046	-0,01004	0,03881	0,06341	0,01533	0,02151	0,02621
1859,04199	-0,01	0,03887	0,06344	0,01544	0,02159	0,02634
1857,11353	-0,01005	0,03881	0,06347	0,01562	0,02177	0,02638
1855,18506	-0,01008	0,0388	0,0636	0,01566	0,02195	0,02624
1853,25659	-0,00994	0,03878	0,06353	0,01573	0,02186	0,02653
1851,32813	-0,00997	0,03897	0,06375	0,01577	0,02201	0,02645
1849,39966	-0,00978	0,03894	0,06362	0,01585	0,02178	0,02671
1847,47119	-0,00904	0,03933	0,06346	0,01596	0,02139	0,02809
1845,54272	-0,00923	0,03976	0,06406	0,01595	0,02178	0,02746
1843,61426	-0,00999	0,03845	0,06351	0,01601	0,02137	0,0261
1841,68579	-0,01015	0,03823	0,06318	0,01586	0,02136	0,02623
1839,75732	-0,00973	0,03922	0,06369	0,01609	0,022	0,02714
1837,82886	-0,00969	0,03937	0,06368	0,01623	0,022	0,02713
1835,90039	-0,00952	0,03916	0,06347	0,01628	0,02174	0,02747
1833,97192	-0,0101	0,0388	0,06358	0,01619	0,02214	0,02669
1832,04346	-0,00945	0,03957	0,06394	0,01613	0,02212	0,02742
1830,11499	-0,00833	0,03975	0,06355	0,01647	0,0212	0,02933
1828,18652	-0,00973	0,03848	0,06323	0,01623	0,02144	0,02735
1826,25806	-0,00945	0,03931	0,06371	0,01616	0,02184	0,02757
1824,32959	-0,00917	0,0392	0,06345	0,01633	0,02148	0,02803
1822,40112	-0,01025	0,03848	0,06343	0,01616	0,02197	0,02664
1820,47266	-0,01019	0,03908	0,06386	0,0162	0,02245	0,02675
1818,54419	-0,00993	0,03916	0,0637	0,01619	0,02217	0,02702
1816,61572	-0,0101	0,03884	0,06354	0,01614	0,0221	0,02677
1814,68726	-0,01029	0,03878	0,06362	0,01612	0,02226	0,02638
1812,75879	-0,0098	0,03926	0,06361	0,01609	0,02196	0,0273
1810,83032	-0,00938	0,03926	0,06337	0,01615	0,02154	0,02807
1808,90186	-0,00997	0,03861	0,06331	0,01598	0,02171	0,02691
1806,97339	-0,01025	0,03863	0,06347	0,01576	0,02195	0,02649
1805,04492	-0,01045	0,03856	0,06354	0,01548	0,02204	0,02616
1803,11646	-0,01028	0,03865	0,06346	0,01505	0,02169	0,02626
1801,18799	-0,00967	0,03855	0,0631	0,01468	0,02087	0,02701
1799,25952	-0,01049	0,0376	0,06307	0,01439	0,02108	0,02552
1797,33105	-0,01058	0,03766	0,063	0,01435	0,02125	0,02552
1795,40259	-0,01001	0,03838	0,06306	0,01428	0,02114	0,02647
1793,47412	-0,01057	0,0386	0,06359	0,0141	0,02151	0,02511
1791,54565	-0,01021	0,0379	0,0628	0,01463	0,02061	0,02589

1789,61719	-0,01076	0,03742	0,06267	0,01487	0,02102	0,02553
1787,68872	-0,01056	0,03845	0,06353	0,01504	0,02204	0,0258
1785,76025	-0,01033	0,0386	0,06342	0,01515	0,02177	0,02598
1783,83179	-0,01084	0,03803	0,06328	0,01512	0,02181	0,0252
1781,90332	-0,01004	0,03856	0,06337	0,01531	0,02162	0,02665
1779,97485	-0,0097	0,03868	0,06313	0,01522	0,02126	0,0272
1778,04639	-0,01087	0,03788	0,06316	0,015	0,02181	0,02524
1776,11792	-0,00986	0,03843	0,06315	0,01508	0,02148	0,02702
1774,18945	-0,01007	0,03926	0,06376	0,01463	0,02177	0,02631
1772,26099	-0,01102	0,03775	0,06347	0,01469	0,02159	0,02471
1770,33252	-0,01088	0,03696	0,06275	0,01449	0,02092	0,02514
1768,40405	-0,01046	0,03815	0,06315	0,01428	0,02132	0,02547
1766,47559	-0,01177	0,03696	0,06292	0,01417	0,02166	0,02345
1764,54712	-0,01057	0,03787	0,06318	0,01419	0,02174	0,0255
1762,61865	-0,01037	0,03868	0,06357	0,01415	0,0218	0,02544
1760,69019	-0,0117	0,03659	0,06268	0,01402	0,02133	0,02355
1758,76172	-0,01076	0,03773	0,06312	0,01399	0,02162	0,02531
1756,83325	-0,01058	0,03795	0,06325	0,01419	0,0216	0,0253
1754,90479	-0,01137	0,03669	0,06278	0,01403	0,02152	0,02429
1752,97632	-0,01124	0,03797	0,06349	0,01376	0,02217	0,02457
1751,04785	-0,01078	0,03823	0,06337	0,01398	0,02167	0,02463
1749,11938	-0,00988	0,03714	0,06228	0,0143	0,02032	0,02676
1747,19092	-0,00962	0,03776	0,06269	0,01437	0,0209	0,02747
1745,26245	-0,01067	0,03759	0,06306	0,01442	0,02162	0,02574
1743,33398	-0,0101	0,03749	0,06273	0,01457	0,02118	0,02709
1741,40552	-0,01055	0,0379	0,06352	0,0144	0,02207	0,02595
1739,47705	-0,01202	0,03645	0,06328	0,01444	0,02224	0,02347
1737,54858	-0,01077	0,03687	0,06274	0,01433	0,02151	0,02595
1735,62012	-0,01168	0,0385	0,06442	0,01384	0,0231	0,02377
1733,69165	-0,01287	0,03615	0,06353	0,01431	0,02255	0,02147
1731,76318	-0,01252	0,03545	0,06223	0,01373	0,0212	0,02305
1729,83472	-0,00956	0,03803	0,06295	0,01448	0,0213	0,02801
1727,90625	-0,01236	0,03639	0,0631	0,01426	0,02253	0,02325
1725,97778	-0,01149	0,03691	0,06325	0,01433	0,02261	0,02473
1724,04932	-0,01122	0,03724	0,06343	0,0145	0,02252	0,02521
1722,12085	-0,01191	0,03633	0,06297	0,0143	0,0223	0,02423
1720,19238	-0,01072	0,03759	0,06356	0,01433	0,02231	0,02597
1718,26392	-0,01082	0,03785	0,06395	0,01445	0,02227	0,02549
1716,33545	-0,0128	0,03546	0,06281	0,01411	0,02167	0,02281
1714,40698	-0,0115	0,03603	0,06259	0,01432	0,02123	0,02544
1712,47852	-0,01155	0,03667	0,06322	0,0144	0,02207	0,02535
1710,55005	-0,01233	0,03623	0,06321	0,01431	0,02257	0,02403
1708,62158	-0,0107	0,03721	0,06328	0,01441	0,02214	0,02648
1706,69312	-0,0108	0,03751	0,06376	0,01449	0,02236	0,02579
1704,76465	-0,01074	0,03583	0,0624	0,01461	0,02108	0,02629
1702,83618	-0,01056	0,03734	0,06346	0,01416	0,02194	0,02645
1700,90771	-0,0118	0,03707	0,06498	0,01488	0,02388	0,02269
1698,97925	-0,01421	0,03268	0,06216	0,01389	0,02145	0,02021

1697,05078	-0,01206	0,03648	0,06325	0,0134	0,0216	0,02458
1695,12231	-0,01358	0,03506	0,06357	0,01436	0,02293	0,0212
1693,19385	-0,0129	0,03427	0,06245	0,0142	0,02207	0,02251
1691,26538	-0,01062	0,03734	0,06364	0,01438	0,02251	0,02655
1689,33691	-0,01128	0,03603	0,06284	0,01456	0,02202	0,02504
1687,40845	-0,01029	0,03657	0,06271	0,01412	0,02154	0,02658
1685,47998	-0,01252	0,03771	0,06479	0,01356	0,02373	0,02238
1683,55151	-0,01123	0,03405	0,06237	0,01465	0,02147	0,02382
1681,62305	-0,01104	0,03477	0,06196	0,014	0,02098	0,0248
1679,69458	-0,01114	0,03594	0,06256	0,01396	0,02209	0,02513
1677,76611	-0,01197	0,03557	0,06293	0,01374	0,0229	0,02337
1675,83765	-0,01234	0,03545	0,0635	0,01377	0,02324	0,02217
1673,90918	-0,0133	0,03369	0,06261	0,01373	0,02259	0,02113
1671,98071	-0,01143	0,03515	0,06281	0,0137	0,0223	0,02433
1670,05225	-0,01016	0,03643	0,06356	0,01414	0,02238	0,02579
1668,12378	-0,01282	0,03325	0,06246	0,01407	0,02213	0,022
1666,19531	-0,01221	0,03451	0,06289	0,01386	0,02272	0,02356
1664,26685	-0,01251	0,03549	0,06391	0,01381	0,02368	0,02253
1662,33838	-0,01222	0,03414	0,06305	0,01406	0,0227	0,02292
1660,40991	-0,01253	0,03415	0,06333	0,01381	0,02314	0,02265
1658,48145	-0,01345	0,03412	0,06381	0,01385	0,02413	0,02128
1656,55298	-0,01105	0,03497	0,06338	0,01409	0,02283	0,02545
1654,62451	-0,01217	0,03633	0,06517	0,01335	0,02408	0,02293
1652,69604	-0,01187	0,03248	0,06433	0,01554	0,02447	0,02364
1650,76758	-0,01699	0,03016	0,06284	0,01268	0,02333	0,01656
1648,83911	-0,0099	0,03528	0,06369	0,01375	0,02209	0,02813
1646,91064	-0,01042	0,03494	0,06404	0,01428	0,02267	0,02727
1644,98218	-0,0159	0,03087	0,06329	0,01293	0,02333	0,0185
1643,05371	-0,0133	0,03327	0,06399	0,01329	0,02354	0,02319
1641,12524	-0,01433	0,03292	0,06419	0,01325	0,02426	0,02138
1639,19678	-0,01311	0,03325	0,06374	0,01321	0,02343	0,02358
1637,26831	-0,0127	0,03435	0,06451	0,01296	0,02352	0,02418
1635,33984	-0,01339	0,03243	0,06403	0,01346	0,02337	0,0224
1633,41138	-0,01577	0,03072	0,06319	0,0126	0,02316	0,01917
1631,48291	-0,01404	0,03271	0,0637	0,01259	0,02339	0,02262
1629,55444	-0,01469	0,03277	0,06412	0,01245	0,02373	0,02158
1627,62598	-0,01455	0,03184	0,06331	0,01251	0,02267	0,02227
1625,69751	-0,01498	0,0319	0,06335	0,01199	0,02278	0,02171
1623,76904	-0,01497	0,032	0,06343	0,01187	0,02257	0,0216
1621,84058	-0,01591	0,03048	0,06246	0,01176	0,02182	0,02071
1619,91211	-0,01516	0,03168	0,06276	0,01158	0,02218	0,02228
1617,98364	-0,01651	0,03248	0,06401	0,01121	0,02351	0,01977
1616,05518	-0,01754	0,03069	0,06334	0,01174	0,02336	0,01757
1614,12671	-0,01563	0,03173	0,06299	0,01214	0,023	0,0205
1612,19824	-0,01414	0,03354	0,06367	0,0126	0,02372	0,02236
1610,26978	-0,0142	0,03368	0,06368	0,0128	0,02388	0,02161
1608,34131	-0,01335	0,03407	0,06344	0,01298	0,02332	0,02305
1606,41284	-0,0138	0,03421	0,06373	0,01305	0,02398	0,02214

1604,48438	-0,01365	0,03446	0,06384	0,01325	0,02429	0,0221
1602,55591	-0,01303	0,03499	0,06378	0,01343	0,02413	0,02298
1600,62744	-0,0132	0,03494	0,06371	0,01343	0,02436	0,0224
1598,69897	-0,01314	0,03505	0,06384	0,01354	0,02461	0,02224
1596,77051	-0,01277	0,03547	0,06392	0,01367	0,02448	0,02285
1594,84204	-0,01246	0,03575	0,0638	0,01371	0,02422	0,02331
1592,91357	-0,01274	0,03581	0,06389	0,01363	0,02447	0,02269
1590,98511	-0,01272	0,03585	0,06384	0,01364	0,02455	0,02262
1589,05664	-0,01247	0,03609	0,06374	0,01368	0,02448	0,02289
1587,12817	-0,01302	0,036	0,06385	0,01368	0,02473	0,022
1585,19971	-0,01263	0,03615	0,06372	0,01385	0,02453	0,0227
1583,27124	-0,01251	0,03649	0,0639	0,01385	0,02477	0,02264
1581,34277	-0,01296	0,03607	0,06385	0,01383	0,02484	0,02182
1579,41431	-0,01149	0,03685	0,06357	0,01392	0,02416	0,02429
1577,48584	-0,01263	0,03787	0,06453	0,0134	0,02513	0,02211
1575,55737	-0,01433	0,03548	0,06376	0,01349	0,02463	0,0195
1573,62891	-0,01307	0,03544	0,06286	0,01342	0,02386	0,02183
1571,70044	-0,01112	0,03814	0,06395	0,01378	0,0247	0,02463
1569,77197	-0,01116	0,03733	0,06352	0,01424	0,02407	0,02435
1567,84351	-0,01204	0,0361	0,06286	0,01372	0,02361	0,02303
1565,91504	-0,01148	0,0378	0,0638	0,01379	0,02458	0,0237
1563,98657	-0,01139	0,03685	0,06316	0,01397	0,02397	0,0237
1562,05811	-0,01081	0,03787	0,06361	0,01369	0,02438	0,02431
1560,12964	-0,00967	0,04026	0,06541	0,01435	0,02608	0,02419
1558,20117	-0,00928	0,03418	0,06243	0,01548	0,02325	0,0258
1556,27271	-0,01228	0,03559	0,06274	0,0136	0,02353	0,02177
1554,34424	-0,01168	0,03727	0,06353	0,01407	0,02455	0,02291
1552,41577	-0,01244	0,03638	0,06353	0,01415	0,025	0,02131
1550,4873	-0,00932	0,03816	0,06328	0,01475	0,02389	0,02664
1548,55884	-0,01064	0,03742	0,06338	0,01469	0,02449	0,02468
1546,63037	-0,01147	0,03757	0,06398	0,01438	0,02549	0,02292
1544,7019	-0,00892	0,03903	0,0635	0,01475	0,02401	0,02697
1542,77344	-0,00972	0,03813	0,0635	0,01453	0,02391	0,02554
1540,84497	-0,01054	0,03842	0,06498	0,01465	0,02587	0,02327
1538,9165	-0,01143	0,03529	0,06319	0,01488	0,02432	0,02344
1536,98804	-0,01214	0,03592	0,06321	0,01431	0,02447	0,02262
1535,05957	-0,00967	0,03875	0,06427	0,01502	0,02527	0,02594
1533,1311	-0,00874	0,03809	0,06334	0,01552	0,02414	0,0272
1531,20264	-0,01137	0,03654	0,06325	0,01478	0,02465	0,02376
1529,27417	-0,01013	0,03849	0,06417	0,01511	0,02548	0,02579
1527,3457	-0,00929	0,03865	0,06372	0,01531	0,02467	0,02661
1525,41724	-0,01059	0,03724	0,06331	0,01484	0,02456	0,0246
1523,48877	-0,0098	0,03852	0,06422	0,01504	0,02538	0,02573
1521,5603	-0,01007	0,03782	0,06378	0,01517	0,02491	0,02508
1519,63184	-0,01263	0,03598	0,06329	0,01435	0,02484	0,02116
1517,70337	-0,00892	0,03827	0,06348	0,01536	0,02426	0,02746
1515,7749	-0,00917	0,03766	0,06293	0,01523	0,02379	0,02702
1513,84644	-0,01125	0,03718	0,06345	0,01457	0,02506	0,02362

1511,91797	-0,01144	0,03764	0,06384	0,01465	0,02555	0,02339
1509,9895	-0,00897	0,03857	0,06306	0,01488	0,02385	0,02746
1508,06104	-0,00764	0,0403	0,0638	0,01509	0,0242	0,029
1506,13257	-0,009	0,03707	0,06327	0,01586	0,02445	0,02708
1504,2041	-0,0142	0,03468	0,06304	0,01408	0,0251	0,01931
1502,27563	-0,01054	0,03781	0,06367	0,01498	0,02535	0,02524
1500,34717	-0,01122	0,03771	0,0639	0,01507	0,02581	0,02387
1498,4187	-0,01103	0,03772	0,06387	0,01502	0,02557	0,02413
1496,49023	-0,01237	0,03686	0,06382	0,01474	0,02582	0,02189
1494,56177	-0,0134	0,03586	0,06361	0,01454	0,026	0,02051
1492,6333	-0,01094	0,03773	0,06408	0,01521	0,02609	0,02445
1490,70483	-0,00971	0,03848	0,06383	0,01557	0,02531	0,02629
1488,77637	-0,00967	0,03754	0,063	0,01549	0,02411	0,02679
1486,8479	-0,01109	0,03703	0,06347	0,01539	0,02522	0,02469
1484,91943	-0,01226	0,03692	0,064	0,01536	0,02652	0,02277
1482,99097	-0,01188	0,03731	0,06403	0,01554	0,02641	0,02358
1481,0625	-0,0117	0,03722	0,06378	0,01567	0,02606	0,02424
1479,13403	-0,01245	0,03699	0,06403	0,01555	0,02667	0,02301
1477,20557	-0,01145	0,03746	0,06408	0,01582	0,02621	0,02452
1475,2771	-0,01075	0,03766	0,06403	0,01579	0,02566	0,02552
1473,34863	-0,01198	0,03732	0,06451	0,01553	0,02638	0,02338
1471,42017	-0,01245	0,03603	0,06399	0,01589	0,0259	0,02356
1469,4917	-0,01235	0,03625	0,06408	0,01611	0,0265	0,02447
1467,56323	-0,01223	0,03745	0,0649	0,01637	0,02769	0,02487
1465,63477	-0,01149	0,03758	0,06473	0,01674	0,02711	0,026
1463,7063	-0,01294	0,03602	0,06433	0,01641	0,02718	0,02379
1461,77783	-0,01272	0,03642	0,06448	0,01652	0,02758	0,02445
1459,84937	-0,01003	0,03834	0,0648	0,01697	0,0269	0,02848
1457,9209	-0,00957	0,03841	0,06498	0,01717	0,02679	0,0283
1455,99243	-0,01461	0,03413	0,06414	0,01623	0,02699	0,01993
1454,06396	-0,0117	0,03629	0,06408	0,01652	0,02636	0,02559
1452,1355	-0,01145	0,03692	0,06458	0,01658	0,02705	0,02583
1450,20703	-0,01245	0,03652	0,06478	0,01634	0,02745	0,02374
1448,27856	-0,01112	0,03712	0,06452	0,01652	0,02658	0,02561
1446,3501	-0,01219	0,03624	0,06429	0,01632	0,02661	0,024
1444,42163	-0,01233	0,03658	0,06463	0,01626	0,02716	0,02385
1442,49316	-0,01235	0,03669	0,0647	0,01628	0,02729	0,02339
1440,5647	-0,01187	0,03643	0,06438	0,01633	0,02701	0,024
1438,63623	-0,01179	0,03715	0,06492	0,01613	0,02745	0,02359
1436,70776	-0,01191	0,03638	0,06448	0,01623	0,02686	0,02272
1434,7793	-0,01282	0,03498	0,06368	0,016	0,02628	0,02224
1432,85083	-0,01135	0,03666	0,06421	0,01629	0,02666	0,02491
1430,92236	-0,01131	0,03701	0,06439	0,01638	0,02663	0,02461
1428,9939	-0,01161	0,03598	0,06388	0,0163	0,02615	0,02427
1427,06543	-0,012	0,03625	0,06437	0,01605	0,027	0,02343
1425,13696	-0,01153	0,03673	0,06435	0,01609	0,02656	0,0241
1423,2085	-0,011	0,03644	0,06368	0,01608	0,02555	0,02539
1421,28003	-0,01241	0,03653	0,06439	0,0156	0,02686	0,02266

1419,35156	-0,01212	0,03645	0,06409	0,01573	0,02638	0,02242
1417,4231	-0,01158	0,03552	0,06304	0,01584	0,02507	0,02394
1415,49463	-0,01178	0,03614	0,06386	0,01597	0,02618	0,02415
1413,56616	-0,01273	0,03612	0,06439	0,01589	0,02693	0,02266
1411,6377	-0,01221	0,03614	0,06411	0,01592	0,02639	0,02356
1409,70923	-0,01251	0,03592	0,06402	0,01591	0,02645	0,02328
1407,78076	-0,01295	0,03588	0,06407	0,01585	0,02681	0,02262
1405,85229	-0,01194	0,03645	0,06392	0,01609	0,0263	0,02436
1403,92383	-0,01233	0,03566	0,06367	0,01605	0,02629	0,02381
1401,99536	-0,01278	0,03582	0,06406	0,01591	0,02719	0,02311
1400,06689	-0,01206	0,03645	0,06404	0,01611	0,02695	0,02428
1398,13843	-0,01184	0,03595	0,0635	0,01619	0,02622	0,02496
1396,20996	-0,01191	0,03636	0,06368	0,01614	0,02644	0,02506
1394,28149	-0,01231	0,03613	0,06355	0,01635	0,02665	0,02454
1392,35303	-0,01348	0,0353	0,06355	0,01641	0,02741	0,0233
1390,42456	-0,01283	0,0362	0,064	0,01657	0,02791	0,0246
1388,49609	-0,01266	0,03645	0,06399	0,01659	0,02773	0,02451
1386,56763	-0,01291	0,03549	0,06323	0,01628	0,02711	0,02393
1384,63916	-0,01306	0,03501	0,06304	0,01598	0,0272	0,02369
1382,71069	-0,01316	0,03526	0,06364	0,01633	0,02789	0,02373
1380,78223	-0,01273	0,03588	0,06396	0,01685	0,02815	0,02468
1378,85376	-0,01282	0,03615	0,06389	0,01685	0,0281	0,02482
1376,92529	-0,01293	0,0365	0,06418	0,01679	0,0282	0,02462
1374,99683	-0,01163	0,03705	0,06404	0,01692	0,02742	0,02626
1373,06836	-0,01211	0,03635	0,06375	0,01671	0,02723	0,0251
1371,13989	-0,01304	0,03616	0,06423	0,01657	0,02817	0,02342
1369,21143	-0,01223	0,03682	0,06426	0,01675	0,02803	0,02476
1367,28296	-0,01259	0,03639	0,06413	0,01664	0,0281	0,02402
1365,35449	-0,01275	0,03634	0,06443	0,01646	0,02843	0,02344
1363,42603	-0,01135	0,03702	0,06413	0,01647	0,02731	0,0256
1361,49756	-0,01182	0,03646	0,06391	0,0163	0,02704	0,02496
1359,56909	-0,01296	0,03596	0,06436	0,01616	0,02793	0,02323
1357,64063	-0,01274	0,03627	0,06448	0,01624	0,02796	0,02348
1355,71216	-0,01244	0,03646	0,06433	0,0163	0,02781	0,02369
1353,78369	-0,01251	0,03628	0,06431	0,01619	0,02793	0,02337
1351,85522	-0,01254	0,03618	0,06433	0,01612	0,02786	0,0232
1349,92676	-0,0124	0,03631	0,06421	0,01616	0,0277	0,02329
1347,99829	-0,01247	0,03641	0,06416	0,01614	0,02793	0,02323
1346,06982	-0,01256	0,03659	0,06423	0,01615	0,0281	0,02342
1344,14136	-0,01272	0,03661	0,06426	0,01617	0,02821	0,0231
1342,21289	-0,01243	0,03696	0,06415	0,01614	0,02813	0,02331
1340,28442	-0,01134	0,0376	0,06368	0,01614	0,02723	0,02516
1338,35596	-0,01133	0,03712	0,06359	0,01609	0,02704	0,02489
1336,42749	-0,01222	0,03665	0,06399	0,01612	0,02786	0,02338
1334,49902	-0,01234	0,03683	0,06421	0,01631	0,02833	0,02325
1332,57056	-0,01205	0,03682	0,06447	0,01647	0,02859	0,02319
1330,64209	-0,0119	0,03688	0,06461	0,01645	0,02862	0,02329
1328,71362	-0,01202	0,03697	0,06465	0,01644	0,02867	0,02341



1326,78516	-0,0121	0,03699	0,06482	0,01659	0,02885	0,02341
1324,85669	-0,01203	0,03698	0,06481	0,01671	0,02883	0,02358
1322,92822	-0,01198	0,03691	0,06477	0,01675	0,029	0,02362
1320,99976	-0,01171	0,03714	0,0648	0,01685	0,02907	0,02412
1319,07129	-0,01143	0,03741	0,06463	0,0169	0,02875	0,02478
1317,14282	-0,01168	0,03729	0,06465	0,01688	0,02891	0,02442
1315,21436	-0,01174	0,0372	0,06484	0,01705	0,02912	0,02434
1313,28589	-0,01145	0,03719	0,06474	0,01726	0,02894	0,02466
1311,35742	-0,01159	0,03702	0,06475	0,01726	0,0291	0,02424
1309,42896	-0,01165	0,03708	0,065	0,01735	0,0293	0,02425
1307,50049	-0,01144	0,03722	0,06515	0,01759	0,02936	0,02468
1305,57202	-0,01143	0,03722	0,06526	0,01772	0,02962	0,02465
1303,64355	-0,01136	0,0374	0,06537	0,01781	0,02975	0,02483
1301,71509	-0,01132	0,03742	0,06541	0,01796	0,02993	0,02508
1299,78662	-0,01131	0,03739	0,06549	0,01818	0,03029	0,0253
1297,85815	-0,01116	0,03767	0,06553	0,01833	0,03036	0,02571
1295,92969	-0,01114	0,03786	0,06552	0,01845	0,03053	0,02601
1294,00122	-0,01123	0,03804	0,06567	0,0187	0,03097	0,02632
1292,07275	-0,01122	0,03822	0,06574	0,01885	0,03119	0,02667
1290,14429	-0,01123	0,03832	0,06562	0,01902	0,03142	0,02727
1288,21582	-0,01111	0,03846	0,06562	0,01935	0,03184	0,02813
1286,28735	-0,01092	0,03849	0,06572	0,01962	0,03227	0,02877
1284,35889	-0,01088	0,03846	0,06581	0,01986	0,03272	0,02938
1282,43042	-0,01073	0,03848	0,06588	0,02017	0,03311	0,03011
1280,50195	-0,01058	0,0385	0,06602	0,02058	0,03359	0,03081
1278,57349	-0,01058	0,03852	0,06628	0,02116	0,03422	0,03154
1276,64502	-0,01057	0,03862	0,0665	0,02165	0,03469	0,03214
1274,71655	-0,01049	0,03887	0,06658	0,02193	0,03506	0,03272
1272,78809	-0,01034	0,0391	0,06657	0,0222	0,03541	0,0335
1270,85962	-0,01032	0,03929	0,06657	0,02252	0,03574	0,03416
1268,93115	-0,0103	0,03946	0,06667	0,02289	0,03612	0,03462
1267,00269	-0,0102	0,03947	0,06685	0,02323	0,03649	0,0351
1265,07422	-0,01021	0,03942	0,06707	0,02348	0,03684	0,03542
1263,14575	-0,01008	0,03946	0,06721	0,02365	0,03697	0,03554
1261,21729	-0,00976	0,03956	0,06726	0,02376	0,03679	0,03558
1259,28882	-0,00967	0,03972	0,06737	0,02382	0,03666	0,03526
1257,36035	-0,00974	0,03984	0,06756	0,02382	0,03654	0,03473
1255,43188	-0,0097	0,03986	0,06778	0,02372	0,03622	0,03418
1253,50342	-0,00959	0,03989	0,06792	0,02361	0,03595	0,0334
1251,57495	-0,00942	0,03989	0,06792	0,02345	0,03577	0,03261
1249,64648	-0,00933	0,03994	0,06794	0,02329	0,0355	0,03206
1247,71802	-0,00924	0,04007	0,06812	0,02329	0,03532	0,0316
1245,78955	-0,00899	0,04018	0,06838	0,02334	0,03536	0,03128
1243,86108	-0,00884	0,04034	0,06856	0,02333	0,03529	0,03108
1241,93262	-0,00871	0,04055	0,06866	0,02336	0,03514	0,03079
1240,00415	-0,00858	0,04061	0,06881	0,02353	0,03524	0,03066
1238,07568	-0,00857	0,04067	0,06898	0,02372	0,03539	0,03078
1236,14722	-0,00839	0,04097	0,0691	0,02383	0,0355	0,03078

1234,21875	-0,00811	0,04131	0,06933	0,02407	0,03579	0,03074
1232,29028	-0,00802	0,04152	0,06965	0,0245	0,03609	0,03092
1230,36182	-0,0079	0,04155	0,06983	0,02481	0,03624	0,03108
1228,43335	-0,00756	0,04145	0,06996	0,02504	0,03629	0,03121
1226,50488	-0,00717	0,04155	0,07021	0,02532	0,03638	0,0314
1224,57642	-0,00697	0,04178	0,07041	0,02546	0,03652	0,03138
1222,64795	-0,00695	0,04192	0,07054	0,02562	0,03664	0,0312
1220,71948	-0,00673	0,04229	0,07078	0,02602	0,0368	0,03119
1218,79102	-0,00635	0,04277	0,07106	0,02632	0,03692	0,03127
1216,86255	-0,00616	0,04284	0,07125	0,02652	0,03707	0,03131
1214,93408	-0,00597	0,04283	0,07139	0,02688	0,03732	0,03151
1213,00562	-0,00563	0,04301	0,07162	0,02726	0,03757	0,03184
1211,07715	-0,00544	0,04316	0,07189	0,02759	0,03788	0,03201
1209,14868	-0,00528	0,04346	0,07217	0,02799	0,03828	0,03222
1207,22021	-0,00495	0,04384	0,07253	0,02837	0,03871	0,03257
1205,29175	-0,00474	0,04406	0,07277	0,02873	0,03907	0,03272
1203,36328	-0,00461	0,04423	0,0729	0,02914	0,03925	0,03277
1201,43481	-0,00428	0,04445	0,07316	0,0295	0,03942	0,03284
1199,50635	-0,00395	0,04475	0,07342	0,02978	0,03959	0,03278
1197,57788	-0,00378	0,04498	0,07361	0,0301	0,03976	0,03273
1195,64941	-0,00371	0,04513	0,07381	0,03046	0,04007	0,03271
1193,72095	-0,00367	0,04537	0,07403	0,03081	0,04034	0,03278
1191,79248	-0,00349	0,04561	0,07429	0,03117	0,04053	0,03307
1189,86401	-0,00315	0,04588	0,07442	0,03152	0,04074	0,03326
1187,93555	-0,00289	0,04608	0,07446	0,03197	0,04085	0,03332
1186,00708	-0,00273	0,04623	0,07467	0,03234	0,04099	0,0334
1184,07861	-0,00253	0,04659	0,07495	0,03254	0,04127	0,03352
1182,15015	-0,0023	0,04691	0,07514	0,03283	0,04151	0,03366
1180,22168	-0,00203	0,04707	0,07528	0,03315	0,04166	0,03378
1178,29321	-0,00175	0,04729	0,07553	0,03348	0,04198	0,03406
1176,36475	-0,00154	0,04769	0,07588	0,03391	0,04248	0,03435
1174,43628	-0,00135	0,04813	0,07604	0,03415	0,04271	0,03439
1172,50781	-0,00119	0,04831	0,07611	0,03437	0,04283	0,03448
1170,57935	-0,00109	0,04843	0,07635	0,03491	0,04316	0,03492
1168,65088	-0,00098	0,04867	0,07664	0,03529	0,04337	0,03516
1166,72241	-0,00087	0,04883	0,07686	0,03534	0,04334	0,03504
1164,79395	-0,00082	0,04901	0,07699	0,03545	0,04343	0,03513
1162,86548	-0,00076	0,0492	0,07711	0,03563	0,04374	0,03526
1160,93701	-0,0007	0,04935	0,07711	0,03568	0,04388	0,03522
1159,00854	-0,00069	0,04948	0,07705	0,03577	0,04379	0,03521
1157,08008	-0,00065	0,04946	0,07721	0,03605	0,04389	0,0352
1155,15161	-0,00055	0,04952	0,07737	0,03628	0,04402	0,03522
1153,22314	-0,00047	0,04975	0,07744	0,03633	0,04406	0,03541
1151,29468	-0,00035	0,04991	0,0777	0,03655	0,04433	0,0359
1149,36621	-0,0001	0,0501	0,07786	0,03681	0,04468	0,03625
1147,43774	0,00008	0,05033	0,07787	0,03689	0,04488	0,03625
1145,50928	0,00016	0,05045	0,07813	0,03705	0,04512	0,03653
1143,58081	0,0002	0,05065	0,0785	0,03729	0,04533	0,03677

1141,65234	0,00022	0,05091	0,07877	0,03755	0,04552	0,03679
1139,72388	0,00037	0,05109	0,07909	0,03789	0,04574	0,03698
1137,79541	0,0006	0,05135	0,07929	0,03805	0,04579	0,03707
1135,86694	0,00083	0,05155	0,07932	0,0381	0,04577	0,03725
1133,93848	0,00109	0,05154	0,07964	0,03849	0,04595	0,03774
1132,01001	0,00118	0,05171	0,08001	0,03891	0,04613	0,03798
1130,08154	0,0011	0,05193	0,08008	0,03892	0,04619	0,03799
1128,15308	0,00124	0,05196	0,08051	0,03908	0,04646	0,03825
1126,22461	0,00136	0,0521	0,08122	0,03954	0,04685	0,03862
1124,29614	0,0014	0,05233	0,08171	0,03978	0,04692	0,03889
1122,36768	0,00162	0,05248	0,08217	0,03991	0,04695	0,03905
1120,43921	0,00171	0,05266	0,08258	0,04014	0,04717	0,03915
1118,51074	0,00187	0,05281	0,08295	0,04045	0,04745	0,03938
1116,58228	0,00221	0,05296	0,08336	0,04077	0,04775	0,0397
1114,65381	0,00233	0,0533	0,08357	0,04099	0,04799	0,03992
1112,72534	0,00248	0,05363	0,08362	0,04126	0,04822	0,04012
1110,79688	0,00264	0,05381	0,08374	0,04147	0,04847	0,04032
1108,86841	0,00262	0,05396	0,08383	0,04154	0,04871	0,04046
1106,93994	0,00272	0,05412	0,08381	0,04173	0,04893	0,04055
1105,01147	0,0029	0,05438	0,08378	0,04192	0,04902	0,04059
1103,08301	0,00287	0,05463	0,0838	0,04191	0,04908	0,04064
1101,15454	0,00277	0,05475	0,08379	0,04198	0,04918	0,04063
1099,22607	0,0028	0,05476	0,0837	0,04214	0,04927	0,04058
1097,29761	0,00279	0,05484	0,08368	0,0422	0,04937	0,04064
1095,36914	0,00276	0,05498	0,08377	0,04223	0,04945	0,04074
1093,44067	0,00283	0,05497	0,08374	0,04238	0,04952	0,04082
1091,51221	0,00277	0,05489	0,08375	0,04254	0,0497	0,04111
1089,58374	0,00253	0,05492	0,08374	0,04245	0,04985	0,04126
1087,65527	0,00245	0,05503	0,08355	0,04228	0,04982	0,04103
1085,72681	0,00242	0,05495	0,0834	0,04221	0,04973	0,04079
1083,79834	0,00214	0,05462	0,08308	0,04203	0,0495	0,04054
1081,86987	0,00184	0,05446	0,08263	0,04176	0,04914	0,04022
1079,94141	0,00164	0,05437	0,08238	0,04147	0,04872	0,04
1078,01294	0,00133	0,05405	0,08216	0,04115	0,04837	0,03976
1076,08447	0,0011	0,05373	0,08186	0,0409	0,04823	0,0395
1074,15601	0,0009	0,05329	0,08161	0,04068	0,048	0,03932
1072,22754	0,00049	0,05285	0,08143	0,04043	0,04761	0,03914
1070,29907	0,0002	0,05264	0,08128	0,04015	0,0473	0,03902
1068,37061	0,00005	0,05237	0,08095	0,03978	0,04704	0,03878
1066,44214	-0,00027	0,052	0,08047	0,03929	0,04667	0,03838
1064,51367	-0,00048	0,0515	0,08012	0,03882	0,04617	0,03808
1062,58521	-0,00061	0,05103	0,07983	0,03857	0,04587	0,03792
1060,65674	-0,00097	0,05094	0,07955	0,0384	0,0458	0,03782
1058,72827	-0,00122	0,05071	0,07937	0,03809	0,0455	0,03769
1056,7998	-0,00137	0,05013	0,07912	0,03778	0,04515	0,03765
1054,87134	-0,00174	0,04984	0,07892	0,03758	0,04505	0,0378
1052,94287	-0,00208	0,04967	0,07881	0,03737	0,04513	0,03806
1051,0144	-0,0022	0,04933	0,07855	0,0373	0,04519	0,03847

1049,08594	-0,00239	0,04918	0,07828	0,03733	0,04516	0,03896
1047,15747	-0,00258	0,04915	0,07817	0,03724	0,04532	0,03936
1045,229	-0,0026	0,04895	0,07821	0,0371	0,04546	0,03965
1043,30054	-0,00267	0,04874	0,07819	0,03693	0,04533	0,03983
1041,37207	-0,00283	0,04871	0,07795	0,03676	0,04523	0,03981
1039,4436	-0,00293	0,0487	0,07775	0,03671	0,04515	0,0398
1037,51514	-0,00324	0,04858	0,07765	0,0367	0,04504	0,03986
1035,58667	-0,00354	0,04853	0,07756	0,03656	0,04511	0,03994
1033,6582	-0,00359	0,04857	0,07771	0,03652	0,04546	0,04059
1031,72974	-0,00375	0,04856	0,07785	0,0367	0,04595	0,04179
1029,80127	-0,00383	0,04866	0,07765	0,03676	0,04627	0,04269
1027,8728	-0,00397	0,04871	0,07763	0,0368	0,04655	0,04345
1025,94434	-0,00423	0,04851	0,07771	0,03688	0,04662	0,04394
1024,01587	-0,00418	0,04844	0,07756	0,03663	0,04622	0,04371
1022,0874	-0,00398	0,04854	0,07749	0,03622	0,0457	0,0432
1020,15894	-0,00395	0,04835	0,07745	0,03579	0,04519	0,04238
1018,23047	-0,00404	0,04803	0,07736	0,03522	0,04456	0,04112
1016,302	-0,00416	0,04793	0,07717	0,03464	0,0437	0,03972
1014,37354	-0,00443	0,0478	0,07695	0,03427	0,04294	0,03849
1012,44507	-0,00485	0,04759	0,07683	0,03401	0,04248	0,03755
1010,5166	-0,00507	0,04745	0,07658	0,03357	0,04189	0,03665
1008,58813	-0,00523	0,04731	0,0764	0,0332	0,04137	0,03595
1006,65967	-0,00547	0,04723	0,07644	0,03305	0,04117	0,03553
1004,7312	-0,00565	0,04727	0,07652	0,03284	0,04112	0,03512
1002,80273	-0,00584	0,04726	0,07651	0,03256	0,04114	0,03473
1000,87427	-0,00587	0,04713	0,07628	0,03216	0,04092	0,03426
998,9458	-0,00585	0,04694	0,07613	0,0319	0,04057	0,03385
997,01733	-0,0061	0,04682	0,07612	0,0318	0,04023	0,03349
995,08887	-0,00619	0,04692	0,07599	0,0315	0,03984	0,03315
993,1604	-0,00608	0,04698	0,07603	0,03138	0,03974	0,03305
991,23193	-0,00612	0,04678	0,07602	0,03126	0,03966	0,03283
989,30347	-0,00615	0,04666	0,07564	0,03082	0,03934	0,03228
987,375	-0,00627	0,04667	0,07545	0,03066	0,03921	0,03197
985,44653	-0,00653	0,04661	0,07543	0,03054	0,03919	0,03192
983,51807	-0,00659	0,04663	0,07548	0,03039	0,03915	0,03184
981,5896	-0,00662	0,04673	0,07567	0,03033	0,03917	0,03178
979,66113	-0,00672	0,0467	0,07558	0,02992	0,03901	0,03171
977,73267	-0,00669	0,04644	0,07547	0,02971	0,03874	0,03158
975,8042	-0,00675	0,0462	0,07558	0,02985	0,03846	0,03147
973,87573	-0,00694	0,04628	0,07564	0,02981	0,03831	0,03155
971,94727	-0,00694	0,0463	0,07574	0,02973	0,03836	0,03171
970,0188	-0,00708	0,0462	0,07578	0,02959	0,03839	0,03152
968,09033	-0,00748	0,04625	0,07574	0,02946	0,0384	0,03129
966,16187	-0,00761	0,04636	0,07577	0,02945	0,03835	0,03122
964,2334	-0,00752	0,04641	0,07576	0,02943	0,03839	0,03113
962,30493	-0,00745	0,04635	0,0758	0,02946	0,03858	0,03124
960,37646	-0,00757	0,04637	0,07582	0,02935	0,0385	0,03134
958,448	-0,00764	0,04643	0,07575	0,02925	0,03846	0,03129

956,51953	-0,00747	0,04631	0,07589	0,02928	0,03864	0,03143
954,59106	-0,00759	0,04635	0,0761	0,02921	0,03858	0,03156
952,6626	-0,00779	0,04657	0,0761	0,02908	0,03837	0,03151
950,73413	-0,00778	0,04646	0,07601	0,02904	0,03832	0,03143
948,80566	-0,00791	0,04623	0,07598	0,02908	0,03831	0,03147
946,8772	-0,0079	0,04619	0,0759	0,02903	0,03817	0,0315
944,94873	-0,00783	0,04631	0,07572	0,0289	0,03814	0,03139
943,02026	-0,00795	0,04633	0,07566	0,02875	0,03811	0,03122
941,0918	-0,00796	0,04632	0,07573	0,02856	0,03797	0,0308
939,16333	-0,00795	0,0464	0,07582	0,02849	0,03793	0,03054
937,23486	-0,00796	0,04634	0,07581	0,02843	0,03786	0,03061
935,3064	-0,00817	0,04614	0,07575	0,02829	0,03771	0,03063
933,37793	-0,00858	0,04584	0,07581	0,02826	0,03769	0,03073
931,44946	-0,00864	0,04584	0,07601	0,02829	0,03791	0,03093
929,521	-0,00845	0,0462	0,07614	0,02822	0,03805	0,03105
927,59253	-0,00837	0,04634	0,07616	0,02813	0,03798	0,03103
925,66406	-0,00826	0,04621	0,0762	0,02826	0,03814	0,03101
923,7356	-0,00818	0,04608	0,07625	0,0283	0,03816	0,03111
921,80713	-0,00829	0,04615	0,0764	0,02818	0,03787	0,03111
919,87866	-0,00838	0,04624	0,07672	0,02839	0,03782	0,03113
917,9502	-0,00832	0,04626	0,07686	0,02846	0,03788	0,03116
916,02173	-0,00842	0,04654	0,07667	0,02822	0,03781	0,03102
914,09326	-0,00848	0,04657	0,07666	0,02822	0,03769	0,03081
912,16479	-0,00823	0,04636	0,07671	0,02815	0,03758	0,03057
910,23633	-0,00802	0,04649	0,07654	0,02807	0,03757	0,03044
908,30786	-0,00799	0,04653	0,07666	0,02817	0,03766	0,03061
906,37939	-0,0081	0,04652	0,07687	0,02806	0,03768	0,03071
904,45093	-0,00812	0,04675	0,07687	0,02802	0,03753	0,03065
902,52246	-0,00798	0,04667	0,07698	0,0281	0,03731	0,03087
900,59399	-0,00814	0,04637	0,07695	0,02799	0,03726	0,03093
898,66553	-0,00837	0,04634	0,07694	0,02806	0,03749	0,03087
896,73706	-0,00836	0,04639	0,07732	0,02827	0,03775	0,03118
894,80859	-0,00833	0,04635	0,07744	0,02812	0,03772	0,03127
892,88013	-0,00812	0,04634	0,07724	0,02796	0,03751	0,03112
890,95166	-0,00796	0,04646	0,07729	0,0281	0,03738	0,03097
889,02319	-0,0082	0,04661	0,07742	0,02822	0,03731	0,03083
887,09473	-0,00848	0,0466	0,07745	0,02826	0,03739	0,03106
885,16626	-0,0086	0,04668	0,07746	0,02817	0,03768	0,03123
883,23779	-0,00852	0,04689	0,07758	0,02801	0,03789	0,0312
881,30933	-0,00818	0,04707	0,07774	0,02814	0,03784	0,0313
879,38086	-0,00779	0,04731	0,07783	0,02848	0,03783	0,03141
877,45239	-0,00767	0,04766	0,07804	0,02886	0,03804	0,03166
875,52393	-0,00751	0,04827	0,07826	0,02929	0,03839	0,03201
873,59546	-0,00705	0,04876	0,07842	0,03004	0,03888	0,03236
871,66699	-0,00659	0,04912	0,07871	0,03097	0,03942	0,0328
869,73853	-0,00605	0,04966	0,07895	0,03159	0,03991	0,03309
867,81006	-0,00551	0,04998	0,0791	0,03216	0,04053	0,03322
865,88159	-0,00519	0,05023	0,0794	0,03299	0,04106	0,03348

863,95313	-0,00487	0,05064	0,07953	0,03344	0,04124	0,03368
862,02466	-0,00485	0,05092	0,07931	0,03341	0,04139	0,03357
860,09619	-0,005	0,05088	0,07924	0,03329	0,04146	0,03346
858,16772	-0,00497	0,05058	0,07938	0,03322	0,04139	0,03352
856,23926	-0,00515	0,0504	0,07935	0,03321	0,04133	0,03338
854,31079	-0,00546	0,05028	0,07934	0,03296	0,04107	0,03309
852,38232	-0,00566	0,05011	0,07947	0,03295	0,0411	0,03303
850,45386	-0,00574	0,0502	0,0793	0,03338	0,04147	0,03306
848,52539	-0,00527	0,05103	0,07944	0,03401	0,0418	0,03328
846,59692	-0,00424	0,05245	0,08037	0,03549	0,04295	0,03425
844,66846	-0,00336	0,05327	0,081	0,03707	0,04433	0,03525
842,73999	-0,00234	0,05373	0,08134	0,03817	0,04512	0,03568
840,81152	-0,00053	0,0552	0,08243	0,0402	0,04663	0,03685
838,88306	0,00138	0,05707	0,08384	0,04272	0,04885	0,03866
836,95459	0,00324	0,0587	0,08527	0,04488	0,05075	0,04012
835,02612	0,00492	0,06028	0,08678	0,04703	0,05242	0,04159
833,09766	0,0055	0,06091	0,08721	0,04788	0,05304	0,04214
831,16919	0,00561	0,06067	0,08671	0,04751	0,0525	0,04167
829,24072	0,00581	0,06062	0,08662	0,04756	0,05234	0,04164
827,31226	0,00598	0,06062	0,08668	0,04771	0,05263	0,04171
825,38379	0,00696	0,06133	0,08722	0,04862	0,05357	0,04241
823,45532	0,0082	0,06297	0,0884	0,05027	0,05504	0,04379
821,52686	0,00867	0,0638	0,0887	0,05051	0,05551	0,04412
819,59839	0,00879	0,06382	0,08854	0,05025	0,05572	0,04415
817,66992	0,00899	0,06414	0,08909	0,05091	0,05659	0,04485
815,74146	0,00959	0,06486	0,08981	0,05192	0,05741	0,04552
813,81299	0,0105	0,06563	0,09025	0,05295	0,05813	0,04606
811,88452	0,01093	0,0662	0,09054	0,05358	0,05882	0,04651
809,95605	0,01084	0,06666	0,09064	0,0536	0,05923	0,04653
808,02759	0,01111	0,06695	0,09085	0,05381	0,05975	0,04675
806,09912	0,01208	0,06737	0,0916	0,05481	0,06083	0,04775
804,17065	0,01289	0,06804	0,0923	0,05576	0,06158	0,04836
802,24219	0,01307	0,06868	0,09275	0,05602	0,06188	0,04849
800,31372	0,01344	0,0695	0,09329	0,05653	0,06266	0,04923
798,38525	0,01415	0,07015	0,09367	0,05741	0,06332	0,05002
796,45679	0,01455	0,07045	0,09388	0,05798	0,06362	0,05057
794,52832	0,01455	0,07072	0,0941	0,05809	0,06393	0,05097
792,59985	0,01434	0,07039	0,09397	0,05782	0,06352	0,05043
790,67139	0,01392	0,06952	0,09311	0,05734	0,06244	0,04932
788,74292	0,01342	0,06899	0,09231	0,05677	0,06185	0,04897
786,81445	0,01309	0,06893	0,09225	0,05651	0,06194	0,04914
784,88599	0,01245	0,06852	0,09197	0,05627	0,06158	0,04847
782,95752	0,01159	0,06773	0,09132	0,05543	0,06063	0,04746
781,02905	0,01122	0,06742	0,09117	0,05479	0,06018	0,04714
779,10059	0,01097	0,06719	0,0912	0,05482	0,06021	0,04705
777,17212	0,01116	0,06702	0,09144	0,05515	0,0606	0,04755
775,24365	0,01188	0,06767	0,09196	0,05573	0,06134	0,04857
773,31519	0,01223	0,06819	0,09229	0,05656	0,06196	0,04924

771,38672	0,01255	0,06826	0,09267	0,05731	0,06226	0,04987
769,45825	0,01279	0,06851	0,09285	0,05743	0,0621	0,05023
767,52979	0,01287	0,06862	0,09287	0,05761	0,06218	0,05038
765,60132	0,01337	0,06879	0,0932	0,05807	0,06262	0,05076
763,67285	0,01357	0,06919	0,09323	0,05797	0,06267	0,05073
761,74438	0,01329	0,06908	0,09291	0,05765	0,06256	0,0505
759,81592	0,01302	0,06847	0,09275	0,05741	0,06218	0,05027
757,88745	0,01254	0,06792	0,09274	0,0572	0,06187	0,05009
755,95898	0,01232	0,06767	0,09271	0,0572	0,062	0,05016
754,03052	0,01263	0,06738	0,09243	0,05708	0,0618	0,04979
752,10205	0,01237	0,06688	0,09225	0,05677	0,0614	0,04924
750,17358	0,01199	0,06701	0,09227	0,05676	0,06133	0,04926
748,24512	0,01254	0,06745	0,09237	0,05732	0,06171	0,04982
746,31665	0,01306	0,0675	0,0927	0,05802	0,06233	0,05052
744,38818	0,01293	0,06811	0,09277	0,05831	0,0624	0,0506
742,45972	0,01278	0,06872	0,0925	0,05848	0,06239	0,05062
740,53125	0,0128	0,06838	0,09263	0,05877	0,06298	0,05115
738,60278	0,01307	0,06832	0,0928	0,05895	0,06327	0,05137
736,67432	0,01352	0,06899	0,09293	0,05931	0,06345	0,05162
734,74585	0,01371	0,06929	0,09357	0,05985	0,06412	0,05209
732,81738	0,01344	0,06911	0,09373	0,05993	0,06427	0,05187
730,88892	0,01333	0,06919	0,09312	0,06006	0,06421	0,05158
728,96045	0,01363	0,06914	0,09298	0,06071	0,06476	0,05169
727,03198	0,01418	0,06936	0,09299	0,06106	0,06527	0,05196
725,10352	0,01491	0,07012	0,09341	0,06162	0,0661	0,05268
723,17505	0,01537	0,07089	0,09425	0,0625	0,06691	0,05321
721,24658	0,01574	0,07203	0,09402	0,06257	0,06688	0,05327
719,31812	0,01634	0,07228	0,09404	0,06318	0,06748	0,05363
717,38965	0,01678	0,07178	0,09489	0,06453	0,0685	0,05423
715,46118	0,01736	0,07226	0,09507	0,06505	0,06902	0,05504
713,53271	0,01792	0,0725	0,09503	0,06526	0,06946	0,05574
711,60425	0,0178	0,07228	0,09483	0,06515	0,06913	0,05554
709,67578	0,01779	0,07237	0,09435	0,06485	0,06877	0,05518
707,74731	0,0182	0,07219	0,09452	0,06546	0,06943	0,05535
705,81885	0,01816	0,07213	0,0948	0,06626	0,06986	0,05572
703,89038	0,01764	0,0727	0,09429	0,06614	0,06955	0,05538
701,96191	0,01713	0,07298	0,09378	0,06582	0,06954	0,05466
700,03345	0,01691	0,07313	0,09388	0,06596	0,06999	0,05509
698,10498	0,01687	0,07374	0,09419	0,06603	0,07032	0,05571
696,17651	0,01692	0,07397	0,09419	0,06595	0,07047	0,05538
694,24805	0,017	0,07383	0,09383	0,06593	0,0708	0,0551
692,31958	0,01705	0,07414	0,09379	0,06613	0,07128	0,05514
690,39111	0,0179	0,07486	0,09382	0,06661	0,07138	0,05548
688,46265	0,01898	0,07549	0,09387	0,06725	0,07151	0,05589
686,53418	0,0193	0,07623	0,09413	0,06765	0,07192	0,05601
684,60571	0,0198	0,07631	0,09428	0,06787	0,07203	0,05595
682,67725	0,02047	0,0764	0,09435	0,06855	0,07224	0,05591
680,74878	0,02081	0,07784	0,09473	0,0695	0,07289	0,05644

678,82031	0,02131	0,07803	0,09493	0,07102	0,07409	0,05731
676,89185	0,02189	0,07864	0,09514	0,07126	0,07409	0,05763
674,96338	0,02208	0,07874	0,09534	0,07151	0,07477	0,05844
673,03491	0,0221	0,07878	0,09555	0,07175	0,07496	0,05953
671,10645	0,02213	0,07883	0,09575	0,072	0,07515	0,05916
669,17798	0,02216	0,07888	0,09596	0,07225	0,07534	0,05949
667,24951	0,02218	0,07892	0,09616	0,07249	0,07553	0,06047
665,32104	0,02221	0,07897	0,09637	0,07274	0,07572	0,05991
663,39258	0,02224	0,07902	0,09657	0,07299	0,07591	0,05996
661,46411	0,02226	0,07906	0,09678	0,07323	0,0761	0,06004
659,53564	0,02229	0,07911	0,09698	0,07348	0,07629	0,06012
657,60718	0,02232	0,07915	0,09719	0,07372	0,07648	0,0602
655,67871	0,02242	0,0792	0,09739	0,07397	0,07667	0,06029
653,75024	0,02261	0,07925	0,09759	0,07422	0,07687	0,06037
651,82178	0,02271	0,07929	0,0978	0,07446	0,07706	0,06045
649,89331	0,0229	0,07934	0,098	0,07471	0,07725	0,06053
647,96484	0,02303	0,07939	0,09812	0,07495	0,07744	0,06061
646,03638	0,02301	0,07943	0,0989	0,0752	0,07763	0,0607
644,10791	0,02294	0,07934	0,0996	0,07545	0,07782	0,06078
642,17944	0,02295	0,07929	0,09974	0,07569	0,07801	0,06047
640,25098	0,02274	0,07894	0,0997	0,07594	0,0782	0,06081
638,32251	0,02241	0,07897	0,09946	0,07637	0,07791	0,06072
636,39404	0,02266	0,07863	0,09995	0,0767	0,07786	0,06125
634,46558	0,02251	0,07828	0,10006	0,07643	0,0779	0,06129
632,53711	0,02183	0,07835	0,09896	0,07532	0,07717	0,05977
630,60864	0,02129	0,07794	0,09868	0,07503	0,07718	0,05903
628,68018	0,02083	0,07764	0,09872	0,07465	0,07704	0,05906
626,75171	0,02117	0,07746	0,09893	0,07495	0,07694	0,05957
624,82324	0,0215	0,07767	0,09912	0,07501	0,07723	0,05934
622,89478	0,02116	0,07755	0,09846	0,07365	0,07678	0,05816
620,96631	0,02135	0,07711	0,09846	0,0739	0,07671	0,05836
619,03784	0,02186	0,0783	0,09871	0,07439	0,07656	0,05893
617,10938	0,02206	0,07896	0,09888	0,07429	0,0765	0,05979
615,18091	0,02202	0,07868	0,09964	0,07467	0,07713	0,0604
613,25244	0,02184	0,07925	0,09948	0,07398	0,07681	0,05906
611,32397	0,02185	0,07922	0,0991	0,07378	0,07675	0,05848
609,39551	0,0219	0,07871	0,09934	0,07407	0,07711	0,05904
607,46704	0,02215	0,07857	0,0992	0,07352	0,07677	0,05936
605,53857	0,02232	0,07857	0,09925	0,0737	0,07684	0,05986
603,61011	0,02176	0,0783	0,09927	0,07345	0,07656	0,05977
601,68164	0,02213	0,07764	0,09908	0,07257	0,07567	0,05966
599,75317	0,02238	0,07755	0,09916	0,07232	0,07513	0,05963
597,82471	0,02112	0,0778	0,09888	0,07183	0,0747	0,05895
595,89624	0,02105	0,07786	0,09849	0,07157	0,07465	0,05849
593,96777	0,02216	0,07763	0,09922	0,07258	0,07526	0,05963
592,03931	0,02233	0,07724	0,10035	0,07379	0,07604	0,06148
590,11084	0,02107	0,07784	0,09948	0,07245	0,07588	0,06007
588,18237	0,02027	0,07824	0,09867	0,07095	0,07531	0,05843



586,25391	0,02025	0,07765	0,09939	0,07185	0,07553	0,05944
584,32544	0,01937	0,07816	0,09888	0,07177	0,07541	0,05905
582,39697	0,02007	0,0788	0,0987	0,07202	0,07547	0,05955
580,46851	0,02115	0,07862	0,09872	0,07227	0,07555	0,06018
578,54004	0,02071	0,07867	0,09806	0,07136	0,07497	0,0589
576,61157	0,02205	0,07829	0,09905	0,07305	0,07539	0,06022
574,68311	0,0222	0,07801	0,09833	0,07294	0,07531	0,05938
572,75464	0,02071	0,07855	0,09643	0,07126	0,07482	0,05649
570,82617	0,02166	0,07866	0,0976	0,07329	0,07607	0,05818
568,89771	0,02267	0,07853	0,09903	0,07507	0,07741	0,05995
566,96924	0,02256	0,0788	0,09879	0,07488	0,0776	0,05933
565,04077	0,02239	0,07934	0,09827	0,07444	0,07739	0,0588
563,1123	0,02224	0,07977	0,09783	0,07429	0,07742	0,05879
561,18384	0,02258	0,07988	0,09769	0,07464	0,0778	0,05963
559,25537	0,02277	0,08013	0,09767	0,07478	0,07821	0,06003
557,3269	0,02282	0,08061	0,09755	0,07537	0,0786	0,05969
555,39844	0,0226	0,08107	0,0979	0,0761	0,07887	0,05943
553,46997	0,02225	0,08168	0,09834	0,07621	0,07868	0,05947
551,5415	0,02233	0,0815	0,09804	0,07609	0,07828	0,06013
549,61304	0,0214	0,0803	0,0986	0,07589	0,07848	0,0603
547,68457	0,0196	0,07955	0,10016	0,07608	0,07924	0,05899
545,7561	0,01978	0,07983	0,09942	0,07538	0,07856	0,0585
543,82764	0,02075	0,08055	0,09739	0,07357	0,07657	0,05866
541,89917	0,0202	0,08071	0,09759	0,07344	0,07611	0,05764
539,9707	0,01939	0,08063	0,09853	0,07374	0,07595	0,05705
538,04224	0,01821	0,08036	0,09986	0,07367	0,07565	0,05722
536,11377	0,01667	0,07935	0,10157	0,0742	0,07596	0,05663
534,1853	0,01559	0,07905	0,10163	0,07296	0,07426	0,05611
532,25684	0,01342	0,07888	0,10327	0,07281	0,07416	0,0552
530,32837	0,0126	0,07913	0,10375	0,0726	0,07291	0,055
528,3999	0,0102	0,07695	0,10558	0,07166	0,07088	0,05443
526,47144	0,00521	0,07231	0,11257	0,07438	0,07463	0,05154
524,54297	0,00402	0,07392	0,11154	0,07292	0,07257	0,05039
522,6145	0,00254	0,07584	0,1081	0,06882	0,06612	0,05009
520,68604	-0,00155	0,07173	0,11289	0,06932	0,06626	0,04759
518,75757	-0,0062	0,06779	0,11708	0,06901	0,06674	0,04551
516,8291	-0,01007	0,06614	0,1174	0,06693	0,06422	0,04433
514,90063	-0,01151	0,06652	0,1166	0,06521	0,06064	0,04451
512,97217	-0,01549	0,06555	0,11795	0,06372	0,05764	0,04531
511,0437	-0,02165	0,06266	0,12111	0,06256	0,05588	0,04333
509,11523	-0,02624	0,0604	0,12334	0,06181	0,05452	0,04025
507,18677	-0,02998	0,05769	0,12427	0,06023	0,05226	0,03917
505,2583	-0,03296	0,0572	0,12501	0,05872	0,04957	0,03835
503,32983	-0,03624	0,05651	0,12882	0,05946	0,04875	0,03646
501,40137	-0,03872	0,05447	0,13021	0,05855	0,04756	0,03631
499,4729	-0,04078	0,0547	0,12786	0,05602	0,04502	0,03655

Figure 3.4 C						
n°spectre	Vd340	Vd338	VD37	Vd38	Vd39	Vd40
cm-1	crushedF3	pHnat-F3	$\theta=1.2$	$\theta=5.8$	$\theta=11.6$	$\theta=26.4$
4001,5686	0,01181	0,05761	0,18351	0,08432	0,06938	0,08548
3999,64014	0,01164	0,05755	0,18323	0,08414	0,06915	0,08517
3997,71167	0,01164	0,0575	0,1831	0,084	0,06901	0,08511
3995,7832	0,01181	0,05751	0,18321	0,08422	0,06925	0,08538
3993,85474	0,01175	0,05744	0,18316	0,08415	0,06909	0,08526
3991,92627	0,0117	0,05758	0,1831	0,08401	0,06911	0,08522
3989,9978	0,01165	0,05765	0,18315	0,08415	0,06938	0,08538
3988,06934	0,01151	0,05738	0,18299	0,08397	0,06902	0,085
3986,14087	0,01155	0,05742	0,1829	0,08382	0,0689	0,08479
3984,2124	0,01166	0,05748	0,18286	0,08391	0,06903	0,08491
3982,28394	0,01164	0,05731	0,18277	0,08392	0,06901	0,08498
3980,35547	0,01146	0,05729	0,18272	0,08383	0,06902	0,08493
3978,427	0,01139	0,05724	0,18258	0,0837	0,06881	0,08468
3976,49854	0,01165	0,05731	0,18267	0,08399	0,06907	0,08491
3974,57007	0,01171	0,05738	0,1828	0,08424	0,06943	0,08517
3972,6416	0,01151	0,05715	0,18263	0,08399	0,06922	0,08495
3970,71313	0,01145	0,05712	0,18248	0,08384	0,06907	0,08483
3968,78467	0,01147	0,05727	0,18246	0,08389	0,0692	0,08488
3966,8562	0,01132	0,05706	0,18234	0,0837	0,06886	0,08452
3964,92773	0,0113	0,05707	0,18208	0,08355	0,06852	0,08414
3962,99927	0,01165	0,0575	0,18228	0,08401	0,0693	0,08482
3961,0708	0,01161	0,05722	0,18245	0,08404	0,06945	0,08497
3959,14233	0,0114	0,05705	0,18222	0,08374	0,06888	0,08442
3957,21387	0,01147	0,05725	0,18214	0,08381	0,06897	0,08454
3955,2854	0,01149	0,05708	0,18202	0,08378	0,069	0,08456
3953,35693	0,01134	0,05714	0,18203	0,08374	0,06895	0,0845
3951,42847	0,01143	0,05713	0,18181	0,08378	0,06913	0,08461
3949,5	0,01212	0,0572	0,18198	0,08477	0,07062	0,08578
3947,57153	0,01158	0,05687	0,18231	0,08448	0,07015	0,08545
3945,64307	0,01096	0,05674	0,18158	0,08322	0,0684	0,08385
3943,7146	0,01211	0,05766	0,18188	0,08472	0,07037	0,08552
3941,78613	0,01185	0,05711	0,18236	0,0847	0,07042	0,08574
3939,85767	0,01083	0,05648	0,18139	0,08298	0,06819	0,08364
3937,9292	0,01117	0,05709	0,18121	0,08339	0,06864	0,08385
3936,00073	0,01119	0,05688	0,18129	0,08335	0,06872	0,08388
3934,07227	0,01151	0,05717	0,18133	0,08373	0,06923	0,08435
3932,1438	0,01223	0,05763	0,18221	0,08524	0,07092	0,08614
3930,21533	0,01143	0,05647	0,18215	0,08449	0,07017	0,08542
3928,28687	0,01072	0,05622	0,18099	0,08298	0,06838	0,08347
3926,3584	0,01159	0,05735	0,18115	0,08397	0,0694	0,08442
3924,42993	0,01205	0,05727	0,18211	0,0851	0,07098	0,08598
3922,50146	0,01113	0,05634	0,18141	0,08364	0,0692	0,08436
3920,573	0,01118	0,05684	0,18091	0,08355	0,06886	0,08399
3918,64453	0,01165	0,0573	0,18145	0,08459	0,06989	0,08506

3916,71606	0,01119	0,05657	0,18153	0,08415	0,06931	0,08472
3914,7876	0,01038	0,05573	0,1809	0,08281	0,06797	0,08333
3912,85913	0,0107	0,05623	0,1805	0,0827	0,06817	0,08308
3910,93066	0,01103	0,05684	0,18051	0,08313	0,06846	0,08339
3909,0022	0,01062	0,05633	0,18046	0,08257	0,06787	0,08289
3907,07373	0,01154	0,0572	0,18061	0,08371	0,06962	0,08421
3905,14526	0,01264	0,05825	0,18135	0,08588	0,07153	0,08658
3903,2168	0,01127	0,05624	0,18153	0,08486	0,06938	0,08555
3901,28833	0,01044	0,05535	0,18105	0,08384	0,06818	0,08419
3899,35986	0,01108	0,05593	0,18144	0,08459	0,06969	0,08515
3897,4314	0,01006	0,05504	0,18079	0,08288	0,06782	0,08332
3895,50293	0,01015	0,05541	0,18012	0,08216	0,06778	0,08239
3893,57446	0,01187	0,05777	0,18006	0,08422	0,07031	0,08442
3891,646	0,01213	0,05786	0,18087	0,08548	0,07046	0,0858
3889,71753	0,00895	0,05372	0,18031	0,08132	0,06573	0,08159
3887,78906	0,01074	0,05647	0,1794	0,08277	0,06836	0,0828
3885,8606	0,01207	0,05852	0,18014	0,08541	0,06958	0,08531
3883,93213	0,00856	0,0535	0,18017	0,08115	0,06533	0,08144
3882,00366	0,01159	0,05688	0,17999	0,08431	0,07056	0,08456
3880,0752	0,01334	0,05793	0,18237	0,0877	0,07383	0,08859
3878,14673	0,00887	0,05343	0,18021	0,08116	0,06615	0,08146
3876,21826	0,01071	0,05713	0,17863	0,08278	0,0682	0,08233
3874,28979	0,01233	0,05723	0,18135	0,08578	0,072	0,08654
3872,36133	0,01095	0,05548	0,1805	0,08387	0,07	0,08446
3870,43286	0,01084	0,05774	0,17876	0,08432	0,06811	0,08376
3868,50439	0,00883	0,05371	0,18019	0,08214	0,06602	0,08249
3866,57593	0,00966	0,0549	0,17916	0,08205	0,06737	0,08201
3864,64746	0,01137	0,05774	0,17933	0,08466	0,06932	0,08427
3862,71899	0,0107	0,05475	0,18102	0,08422	0,06993	0,0849
3860,79053	0,00983	0,05508	0,17893	0,0823	0,06753	0,08211
3858,86206	0,0102	0,05589	0,17893	0,08234	0,0675	0,08212
3856,93359	0,01261	0,05703	0,1806	0,08545	0,07303	0,08627
3855,00513	0,00992	0,05918	0,1757	0,08284	0,06435	0,08116
3853,07666	0,00626	0,05447	0,17737	0,08004	0,05763	0,07833
3851,14819	0,00563	0,0503	0,1784	0,07866	0,06147	0,07842
3849,21973	0,00983	0,05468	0,17896	0,08257	0,0688	0,0825
3847,29126	0,00996	0,05592	0,178	0,08179	0,06725	0,0813
3845,36279	0,01136	0,05685	0,17882	0,08348	0,06975	0,08345
3843,43433	0,01123	0,05687	0,17896	0,08396	0,06956	0,08386
3841,50586	0,01159	0,05591	0,17987	0,08462	0,07091	0,08502
3839,57739	0,0118	0,057	0,17904	0,08524	0,07131	0,08543
3837,64893	0,00862	0,05561	0,17691	0,08176	0,06445	0,08093
3835,72046	0,00735	0,05265	0,17746	0,0798	0,06313	0,07926
3833,79199	0,01044	0,05538	0,1785	0,08323	0,06905	0,08303
3831,86353	0,01029	0,05589	0,17799	0,08308	0,06772	0,08253
3829,93506	0,00924	0,05406	0,17798	0,08122	0,06655	0,08094
3828,00659	0,011	0,05665	0,17776	0,08324	0,06938	0,08275

3826,07813	0,01077	0,05593	0,17873	0,08354	0,06949	0,08356
3824,14966	0,01059	0,05542	0,17829	0,08257	0,06945	0,08272
3822,22119	0,012	0,05899	0,17679	0,08486	0,06924	0,08371
3820,29272	0,01041	0,05386	0,18032	0,08457	0,06941	0,0852
3818,36426	0,00926	0,05372	0,17782	0,08172	0,06769	0,08172
3816,43579	0,00927	0,05717	0,17509	0,08185	0,06501	0,0802
3814,50732	0,00689	0,0527	0,17641	0,07899	0,06181	0,0781
3812,57886	0,00893	0,054	0,17716	0,08079	0,06674	0,08026
3810,65039	0,01042	0,05598	0,17711	0,08214	0,06857	0,08148
3808,72192	0,01089	0,05711	0,17647	0,08267	0,06819	0,08181
3806,79346	0,00914	0,05579	0,17633	0,08181	0,06524	0,08072
3804,86499	0,00818	0,05301	0,17692	0,07992	0,06506	0,07952
3802,93652	0,0115	0,05752	0,17646	0,08399	0,07011	0,08327
3801,00806	0,00937	0,05586	0,17679	0,08296	0,06623	0,08224
3799,07959	0,00691	0,05176	0,17648	0,07897	0,06343	0,07833
3797,15112	0,01144	0,05654	0,17754	0,0844	0,07137	0,0838
3795,22266	0,00969	0,0549	0,17728	0,08234	0,06747	0,08176
3793,29419	0,00878	0,05395	0,17634	0,08018	0,06595	0,0795
3791,36572	0,01032	0,05624	0,17616	0,08193	0,06807	0,08092
3789,43726	0,00963	0,05513	0,1764	0,08118	0,06692	0,08035
3787,50879	0,00969	0,05544	0,17599	0,08119	0,06729	0,08028
3785,58032	0,01083	0,05647	0,17672	0,08315	0,06958	0,08248
3783,65186	0,00983	0,05483	0,17678	0,08185	0,0681	0,08131
3781,72339	0,00974	0,05548	0,17572	0,0813	0,06713	0,08019
3779,79492	0,01107	0,05639	0,17681	0,08369	0,06989	0,08307
3777,86646	0,00943	0,05433	0,17658	0,0818	0,06773	0,0813
3775,93799	0,0089	0,05448	0,17555	0,0805	0,0663	0,07944
3774,00952	0,00954	0,05516	0,17564	0,08097	0,06715	0,07997
3772,08105	0,01012	0,05605	0,17545	0,08179	0,06799	0,08084
3770,15259	0,01043	0,05601	0,17616	0,08308	0,06872	0,08221
3768,22412	0,00881	0,05365	0,17591	0,08093	0,06611	0,07996
3766,29565	0,00991	0,05512	0,17574	0,08208	0,06814	0,0811
3764,36719	0,00974	0,05478	0,17621	0,0821	0,0681	0,08133
3762,43872	0,009	0,05411	0,17534	0,0805	0,06649	0,07944
3760,51025	0,01068	0,05633	0,17533	0,08301	0,06904	0,08187
3758,58179	0,01051	0,05494	0,17676	0,08352	0,06993	0,0833
3756,65332	0,00942	0,05382	0,17603	0,08184	0,06828	0,08122
3754,72485	0,00968	0,05513	0,17524	0,08225	0,0682	0,08106
3752,79639	0,00972	0,05613	0,17435	0,0825	0,06741	0,08122
3750,86792	0,00895	0,05572	0,17403	0,08226	0,06472	0,08067
3748,93945	0,00448	0,0497	0,174	0,07706	0,05874	0,07544
3747,01099	0,00861	0,05361	0,17488	0,08145	0,06761	0,08043
3745,08252	0,00896	0,05727	0,17264	0,08252	0,06479	0,07969
3743,15405	0,0034	0,0498	0,17354	0,07622	0,05623	0,07391
3741,22559	0,00792	0,05222	0,17648	0,08108	0,06895	0,08069
3739,29712	0,01032	0,05659	0,17571	0,08382	0,0726	0,08283
3737,36865	0,00885	0,05681	0,17451	0,08224	0,06846	0,0807
3735,44019	0,01009	0,05591	0,17779	0,08507	0,07394	0,08497

3733,51172	0,00924	0,05484	0,17712	0,0842	0,07262	0,08361
3731,58325	0,00571	0,05316	0,17445	0,07929	0,06544	0,07763
3729,65479	0,00611	0,05439	0,17488	0,07931	0,06786	0,07796
3727,72632	0,00831	0,05698	0,17541	0,0819	0,0718	0,08059
3725,79785	0,00836	0,05671	0,17581	0,08234	0,07162	0,08118
3723,86938	0,00808	0,05553	0,17609	0,08208	0,07174	0,08125
3721,94092	0,00834	0,05561	0,1756	0,08218	0,07137	0,08118
3720,01245	0,00781	0,05464	0,17511	0,0813	0,06958	0,08007
3718,08398	0,00754	0,05415	0,17445	0,08065	0,06833	0,07916
3716,15552	0,00778	0,05371	0,17396	0,0803	0,06747	0,0789
3714,22705	0,00861	0,05473	0,17337	0,08123	0,06784	0,07953
3712,29858	0,00869	0,05546	0,17374	0,08222	0,06783	0,08048
3710,37012	0,00712	0,05256	0,17469	0,08124	0,06772	0,08009
3708,44165	0,00629	0,05228	0,17464	0,08119	0,06847	0,07926
3706,51318	0,00584	0,0527	0,17428	0,07924	0,06684	0,0772
3704,58472	0,00656	0,05392	0,17337	0,07922	0,06769	0,07741
3702,65625	0,00792	0,05523	0,17367	0,08174	0,07001	0,0799
3700,72778	0,00645	0,05273	0,17421	0,08035	0,06809	0,07892
3698,79932	0,00539	0,05227	0,17275	0,07847	0,06626	0,07648
3696,87085	0,00641	0,05336	0,17305	0,08007	0,06832	0,07795
3694,94238	0,00583	0,05242	0,1728	0,07951	0,06715	0,07747
3693,01392	0,00564	0,05211	0,17237	0,07961	0,06709	0,07749
3691,08545	0,00719	0,05278	0,17341	0,08283	0,07068	0,08115
3689,15698	0,00424	0,04992	0,17162	0,08021	0,06487	0,07797
3687,22852	0,00027	0,04637	0,16949	0,07506	0,0575	0,07173
3685,30005	0,00362	0,04803	0,17204	0,07857	0,06491	0,0762
3683,37158	0,00495	0,04993	0,17169	0,07953	0,0664	0,07707
3681,44312	0,00445	0,05039	0,17074	0,07892	0,06412	0,07603
3679,51465	0,00638	0,05018	0,17321	0,08147	0,06857	0,07975
3677,58618	0,00667	0,05212	0,17123	0,08161	0,06737	0,079
3675,65771	0,0072	0,05262	0,17228	0,08349	0,06717	0,08102
3673,72925	0,00333	0,046	0,17282	0,07828	0,06204	0,07636
3671,80078	0,00485	0,05009	0,17017	0,07885	0,06341	0,0757
3669,87231	0,00581	0,052	0,17086	0,08106	0,06416	0,07796
3667,94385	0,00403	0,04719	0,17263	0,0785	0,06278	0,07647
3666,01538	0,0052	0,0495	0,17145	0,07884	0,06465	0,07621
3664,08691	0,00556	0,05096	0,1707	0,07894	0,06415	0,07603
3662,15845	0,00584	0,05048	0,17129	0,07928	0,06469	0,07672
3660,22998	0,0055	0,05023	0,17107	0,07886	0,06454	0,0763
3658,30151	0,00632	0,05144	0,17075	0,08001	0,06555	0,07724
3656,37305	0,0058	0,05096	0,17081	0,0803	0,06426	0,07736
3654,44458	0,00349	0,04815	0,17047	0,07718	0,0611	0,07443
3652,51611	0,0064	0,05082	0,17119	0,08087	0,06684	0,07824
3650,58765	0,0081	0,05275	0,17168	0,08425	0,069	0,08156
3648,65918	0,00569	0,04864	0,17249	0,082	0,06592	0,0801
3646,73071	0,00464	0,04724	0,17244	0,08077	0,06573	0,07881
3644,80225	0,0044	0,04816	0,17119	0,07944	0,06476	0,07695
3642,87378	0,00423	0,0492	0,17008	0,07875	0,06419	0,07582

3640,94531	0,00483	0,04974	0,17053	0,07994	0,06555	0,07705
3639,01685	0,00407	0,04891	0,17039	0,07895	0,06441	0,07613
3637,08838	0,00401	0,04922	0,17018	0,07903	0,06515	0,07616
3635,15991	0,00408	0,04977	0,17018	0,07984	0,0655	0,07669
3633,23145	0,00368	0,04869	0,17109	0,07979	0,06633	0,07719
3631,30298	0,00385	0,04975	0,17	0,08011	0,0667	0,07712
3629,37451	0,00404	0,05091	0,16965	0,08153	0,06545	0,07785
3627,44604	0,00055	0,04538	0,17097	0,07797	0,0623	0,07532
3625,51758	0,00149	0,04678	0,17013	0,07816	0,06499	0,07523
3623,58911	0,0023	0,04858	0,16955	0,07915	0,06578	0,07571
3621,66064	0,00231	0,0482	0,16953	0,07939	0,0654	0,07608
3619,73218	0,00332	0,04836	0,16977	0,08154	0,06641	0,07812
3617,80371	0,00185	0,04532	0,1704	0,08014	0,06454	0,077
3615,87524	0,00149	0,04539	0,16959	0,07928	0,06461	0,07599
3613,94678	0,00303	0,04674	0,16984	0,08176	0,0667	0,07846
3612,01831	0,00175	0,04454	0,16978	0,08017	0,06415	0,07694
3610,08984	0,00004	0,04452	0,1679	0,07807	0,06108	0,07385
3608,16138	0,00086	0,04532	0,16909	0,0801	0,06375	0,07619
3606,23291	0,0004	0,0439	0,16989	0,0797	0,0646	0,07628
3604,30444	-0,00036	0,04415	0,16839	0,07812	0,06278	0,07403
3602,37598	0,00023	0,04512	0,16857	0,07932	0,0641	0,07518
3600,44751	0,00052	0,04476	0,16967	0,08062	0,06595	0,07683
3598,51904	-0,0003	0,04391	0,16919	0,07939	0,06419	0,07544
3596,59058	0,00002	0,04428	0,16888	0,07966	0,06429	0,0756
3594,66211	0,0005	0,04448	0,16944	0,08081	0,06559	0,07687
3592,73364	-0,00057	0,04324	0,16929	0,07956	0,06403	0,07566
3590,80518	-0,00088	0,04334	0,16806	0,07859	0,06236	0,07416
3588,87671	0,00043	0,04448	0,16841	0,08073	0,0639	0,07623
3586,94824	0,0009	0,04323	0,17051	0,08255	0,06628	0,07894
3585,01978	-0,00113	0,04157	0,16886	0,07943	0,06234	0,07507
3583,09131	-0,001	0,04236	0,16766	0,07888	0,06171	0,07406
3581,16284	-0,00057	0,04246	0,16785	0,07945	0,0623	0,07483
3579,23438	-0,00072	0,0422	0,16784	0,07938	0,062	0,07476
3577,30591	-0,0009	0,04214	0,16766	0,07932	0,0617	0,07455
3575,37744	-0,00087	0,04195	0,16758	0,0794	0,06175	0,07463
3573,44897	-0,00095	0,04168	0,1675	0,07929	0,06143	0,07442
3571,52051	-0,00135	0,04139	0,16721	0,07889	0,06097	0,07384
3569,59204	-0,00079	0,04208	0,16728	0,08011	0,06219	0,07508
3567,66357	0,00117	0,04279	0,16956	0,08375	0,06671	0,07966
3565,73511	-0,00004	0,04081	0,16982	0,08281	0,06567	0,07872
3563,80664	-0,00183	0,04021	0,16756	0,07981	0,06171	0,07479
3561,87817	-0,00157	0,04094	0,16703	0,0797	0,06148	0,07456
3559,94971	-0,00147	0,04072	0,16709	0,07987	0,0616	0,07467
3558,02124	-0,00196	0,04034	0,1667	0,07932	0,0607	0,0739
3556,09277	-0,00226	0,04019	0,1664	0,07893	0,06006	0,07343
3554,16431	-0,00195	0,04049	0,1666	0,07974	0,06116	0,07427
3552,23584	-0,00161	0,04042	0,16728	0,08065	0,06234	0,07547
3550,30737	-0,00244	0,03954	0,16664	0,07932	0,06042	0,07391

3548,37891	-0,00237	0,03998	0,16619	0,07952	0,06057	0,07385
3546,45044	-0,00142	0,0404	0,16731	0,08142	0,06302	0,07614
3544,52197	-0,00206	0,03948	0,16718	0,08074	0,06215	0,07544
3542,59351	-0,00281	0,03913	0,16619	0,07957	0,06051	0,07382
3540,66504	-0,00302	0,03896	0,16575	0,07909	0,05965	0,07312
3538,73657	-0,00306	0,03895	0,16559	0,07908	0,05965	0,07316
3536,80811	-0,00288	0,03907	0,16584	0,07982	0,06061	0,07405
3534,87964	-0,00328	0,03855	0,16569	0,07956	0,06016	0,07364
3532,95117	-0,00373	0,03821	0,1652	0,07891	0,0592	0,07273
3531,02271	-0,00352	0,03837	0,16531	0,07948	0,0599	0,07334
3529,09424	-0,00321	0,03834	0,16569	0,08032	0,06113	0,07442
3527,16577	-0,00356	0,0379	0,16552	0,08016	0,06068	0,07406
3525,2373	-0,00378	0,0378	0,16525	0,0801	0,06042	0,0738
3523,30884	-0,00368	0,03769	0,1654	0,08039	0,06094	0,07432
3521,38037	-0,00431	0,03716	0,16508	0,07969	0,05979	0,07337
3519,4519	-0,00467	0,03705	0,16456	0,07929	0,05907	0,07263
3517,52344	-0,00464	0,03699	0,16437	0,07941	0,05924	0,07281
3515,59497	-0,00499	0,03677	0,16422	0,07921	0,05894	0,07255
3513,6665	-0,00508	0,03657	0,16417	0,07918	0,0588	0,0724
3511,73804	-0,00488	0,0364	0,1642	0,07956	0,05922	0,07282
3509,80957	-0,00478	0,03645	0,16446	0,08027	0,06016	0,07365
3507,8811	-0,00531	0,03597	0,16422	0,07972	0,0593	0,07296
3505,95264	-0,00565	0,03577	0,16362	0,07907	0,05845	0,07211
3504,02417	-0,00506	0,03615	0,16415	0,08038	0,06023	0,07369
3502,0957	-0,00516	0,03573	0,16448	0,08052	0,0603	0,07392
3500,16724	-0,00577	0,03536	0,16373	0,0793	0,05858	0,07229
3498,23877	-0,00562	0,03553	0,16363	0,07952	0,05871	0,07242
3496,3103	-0,00557	0,03541	0,1637	0,0798	0,05904	0,07284
3494,38184	-0,0059	0,03524	0,16326	0,07945	0,05858	0,07236
3492,45337	-0,0061	0,03508	0,16311	0,07932	0,05824	0,07205
3490,5249	-0,00607	0,035	0,16315	0,07947	0,05833	0,07217
3488,59644	-0,00593	0,03511	0,16324	0,07986	0,05881	0,07269
3486,66797	-0,00603	0,03497	0,16335	0,07984	0,0587	0,07264
3484,7395	-0,00623	0,03486	0,1631	0,07953	0,05825	0,0721
3482,81104	-0,00602	0,035	0,1632	0,08009	0,05903	0,07278
3480,88257	-0,00598	0,0348	0,16345	0,08028	0,05934	0,07312
3478,9541	-0,00638	0,03458	0,16297	0,07961	0,05826	0,07211
3477,02563	-0,00646	0,03468	0,16267	0,07965	0,05818	0,072
3475,09717	-0,00639	0,03458	0,16281	0,07986	0,05854	0,07235
3473,1687	-0,00648	0,03447	0,16286	0,07971	0,05835	0,0722
3471,24023	-0,00657	0,03447	0,1627	0,07963	0,05817	0,07199
3469,31177	-0,00655	0,03444	0,16256	0,07985	0,05838	0,07209
3467,3833	-0,00648	0,0344	0,16269	0,08009	0,05862	0,07241
3465,45483	-0,00664	0,03427	0,16266	0,07988	0,0583	0,07223
3463,52637	-0,00668	0,03423	0,16246	0,08006	0,05846	0,07233
3461,5979	-0,00665	0,03417	0,16254	0,08036	0,05872	0,07262
3459,66943	-0,00679	0,03405	0,16255	0,08008	0,05832	0,07231
3457,74097	-0,00684	0,03399	0,16231	0,08002	0,05831	0,07219

3455,8125	-0,00701	0,03392	0,16215	0,08004	0,05823	0,07215
3453,88403	-0,00707	0,03396	0,16214	0,08005	0,05819	0,07221
3451,95557	-0,00701	0,03381	0,16207	0,08	0,05814	0,07213
3450,0271	-0,00701	0,03376	0,16204	0,07997	0,05804	0,072
3448,09863	-0,00664	0,03405	0,16238	0,0807	0,05912	0,07299
3446,17017	-0,0067	0,03383	0,16249	0,08084	0,05924	0,07314
3444,2417	-0,00704	0,03371	0,16216	0,08031	0,05834	0,07227
3442,31323	-0,00693	0,034	0,16219	0,08047	0,05876	0,07257
3440,38477	-0,00709	0,03383	0,16224	0,08038	0,0586	0,07251
3438,4563	-0,00718	0,03377	0,16216	0,08024	0,05823	0,0722
3436,52783	-0,00708	0,03401	0,16225	0,08042	0,05857	0,07244
3434,59937	-0,00715	0,03401	0,16221	0,0804	0,05851	0,0724
3432,6709	-0,00696	0,03401	0,1622	0,08054	0,05864	0,07257
3430,74243	-0,00687	0,03409	0,16224	0,08053	0,05875	0,07266
3428,81396	-0,00692	0,03422	0,16225	0,08049	0,05863	0,07252
3426,8855	-0,00684	0,0343	0,16231	0,08064	0,05873	0,07264
3424,95703	-0,0069	0,03427	0,16228	0,08052	0,05867	0,07261
3423,02856	-0,00676	0,0344	0,16234	0,08074	0,05895	0,07286
3421,1001	-0,0064	0,03457	0,16257	0,08116	0,05947	0,07333
3419,17163	-0,00642	0,03447	0,16256	0,08083	0,0592	0,07304
3417,24316	-0,00655	0,03447	0,16239	0,08045	0,05875	0,07262
3415,3147	-0,00658	0,03475	0,1625	0,08059	0,05889	0,07271
3413,38623	-0,00656	0,03494	0,16263	0,08068	0,05902	0,0728
3411,45776	-0,00639	0,03497	0,16254	0,0806	0,05899	0,07283
3409,5293	-0,00623	0,03503	0,16263	0,08064	0,05909	0,07291
3407,60083	-0,00622	0,03505	0,16268	0,08063	0,05904	0,07291
3405,67236	-0,00619	0,03513	0,16244	0,08051	0,0589	0,07281
3403,7439	-0,00608	0,03531	0,16264	0,08064	0,05916	0,07288
3401,81543	-0,00604	0,03538	0,16297	0,08061	0,05927	0,07297
3399,88696	-0,00595	0,03549	0,16289	0,08055	0,05922	0,07298
3397,9585	-0,00576	0,03564	0,16302	0,08082	0,05959	0,07326
3396,03003	-0,00578	0,0356	0,16307	0,08055	0,05938	0,07312
3394,10156	-0,00582	0,0357	0,16304	0,08044	0,05929	0,07297
3392,1731	-0,00567	0,03595	0,16337	0,0808	0,05982	0,07332
3390,24463	-0,00558	0,03591	0,16329	0,08045	0,05945	0,07302
3388,31616	-0,00564	0,03589	0,16306	0,08025	0,05914	0,07277
3386,3877	-0,00558	0,03615	0,16328	0,0805	0,05947	0,07317
3384,45923	-0,00542	0,03625	0,16335	0,0804	0,05949	0,07317
3382,53076	-0,00547	0,03623	0,16324	0,08015	0,05928	0,07286
3380,60229	-0,00539	0,03638	0,16328	0,08008	0,05924	0,07282
3378,67383	-0,00524	0,03644	0,1633	0,08008	0,05931	0,07286
3376,74536	-0,00525	0,03654	0,16339	0,08	0,05936	0,07286
3374,81689	-0,0051	0,03671	0,16352	0,0799	0,05931	0,07283
3372,88843	-0,00496	0,03674	0,16349	0,07967	0,05913	0,07259
3370,95996	-0,00494	0,03689	0,16358	0,07956	0,05919	0,07261
3369,03149	-0,00487	0,0372	0,16377	0,07969	0,05944	0,07286
3367,10303	-0,00482	0,03735	0,16388	0,07967	0,05953	0,07288
3365,17456	-0,00474	0,03737	0,16394	0,07948	0,05944	0,07282



3363,24609	-0,00467	0,03746	0,16397	0,07932	0,05934	0,07278
3361,31763	-0,00453	0,0376	0,16405	0,0793	0,05941	0,07276
3359,38916	-0,00438	0,03771	0,16407	0,07916	0,05934	0,07264
3357,46069	-0,00427	0,03782	0,16413	0,07907	0,05937	0,07267
3355,53223	-0,00416	0,03784	0,16418	0,07903	0,05943	0,07277
3353,60376	-0,00411	0,0379	0,16419	0,07882	0,05924	0,07259
3351,67529	-0,00407	0,0382	0,16438	0,07873	0,05925	0,07247
3349,74683	-0,00399	0,03844	0,16445	0,07874	0,05931	0,07247
3347,81836	-0,0039	0,03843	0,16441	0,07868	0,05926	0,07244
3345,88989	-0,00382	0,03855	0,16448	0,07853	0,05918	0,07236
3343,96143	-0,00372	0,03883	0,16458	0,07847	0,05924	0,07237
3342,03296	-0,00363	0,0389	0,16461	0,07844	0,0593	0,07239
3340,10449	-0,00364	0,03888	0,16456	0,07826	0,05913	0,07225
3338,17603	-0,00345	0,03906	0,16468	0,07835	0,05925	0,07238
3336,24756	-0,00324	0,03924	0,16484	0,07851	0,05946	0,07253
3334,31909	-0,00333	0,03921	0,16473	0,07827	0,05928	0,07232
3332,39063	-0,00328	0,03925	0,1647	0,07798	0,05913	0,07216
3330,46216	-0,00318	0,03935	0,16477	0,07792	0,05918	0,07218
3328,53369	-0,0032	0,03937	0,16473	0,0779	0,05917	0,07217
3326,60522	-0,00306	0,03956	0,16484	0,07785	0,05916	0,07218
3324,67676	-0,0029	0,03976	0,16499	0,0778	0,05921	0,07221
3322,74829	-0,00287	0,03969	0,16491	0,07783	0,05916	0,07218
3320,81982	-0,00291	0,03976	0,16491	0,07785	0,05918	0,07214
3318,89136	-0,00288	0,03995	0,16493	0,07767	0,05918	0,07205
3316,96289	-0,00276	0,03988	0,16492	0,07751	0,05909	0,07195
3315,03442	-0,00271	0,0399	0,16506	0,07753	0,05924	0,07209
3313,10596	-0,00269	0,04011	0,16507	0,0775	0,05925	0,07217
3311,17749	-0,00265	0,04017	0,16505	0,0775	0,05913	0,07206
3309,24902	-0,00261	0,0402	0,16511	0,07761	0,05932	0,07213
3307,32056	-0,00259	0,04034	0,16514	0,07746	0,05933	0,07208
3305,39209	-0,00254	0,04043	0,16529	0,07735	0,05915	0,07197
3303,46362	-0,00244	0,04043	0,16522	0,07736	0,05912	0,07204
3301,53516	-0,00247	0,0404	0,16498	0,07718	0,05903	0,07192
3299,60669	-0,00246	0,04049	0,16507	0,07719	0,05908	0,07195
3297,67822	-0,00234	0,04049	0,16517	0,07721	0,05917	0,07209
3295,74976	-0,0024	0,04047	0,16503	0,07707	0,05908	0,07188
3293,82129	-0,00245	0,04064	0,16502	0,07719	0,05916	0,0719
3291,89282	-0,00232	0,04066	0,16513	0,07722	0,05924	0,07203
3289,96436	-0,00228	0,04061	0,16506	0,07701	0,05911	0,07187
3288,03589	-0,00234	0,04068	0,16498	0,07693	0,05907	0,07172
3286,10742	-0,00227	0,04074	0,16499	0,07689	0,05904	0,07164
3284,17896	-0,00217	0,04074	0,16499	0,07687	0,05899	0,07167
3282,25049	-0,00225	0,04067	0,16502	0,07686	0,05908	0,07174
3280,32202	-0,00226	0,04069	0,16501	0,07678	0,05903	0,07165
3278,39355	-0,0022	0,04069	0,16501	0,07677	0,05897	0,07162
3276,46509	-0,00226	0,04075	0,16503	0,07681	0,05913	0,07175
3274,53662	-0,00231	0,0409	0,16501	0,07682	0,05921	0,0718
3272,60815	-0,00231	0,04082	0,165	0,07674	0,05908	0,07166

3270,67969	-0,00238	0,04082	0,16496	0,07661	0,05897	0,07152
3268,75122	-0,00241	0,04091	0,16486	0,07656	0,05889	0,07145
3266,82275	-0,00235	0,04085	0,16479	0,07651	0,05883	0,07137
3264,89429	-0,00231	0,04088	0,16481	0,07648	0,05887	0,07142
3262,96582	-0,00237	0,0409	0,16486	0,07646	0,05889	0,0714
3261,03735	-0,00237	0,04091	0,16481	0,0764	0,05888	0,07136
3259,10889	-0,00228	0,0409	0,16472	0,07643	0,05889	0,07141
3257,18042	-0,00229	0,04091	0,16476	0,07643	0,05889	0,07138
3255,25195	-0,00234	0,04099	0,16484	0,07638	0,05897	0,07142
3253,32349	-0,00234	0,0409	0,1647	0,07628	0,05886	0,07133
3251,39502	-0,00238	0,0408	0,16463	0,0762	0,05875	0,07119
3249,46655	-0,00243	0,04088	0,16473	0,07616	0,05875	0,07112
3247,53809	-0,0024	0,04104	0,16473	0,07612	0,05873	0,07106
3245,60962	-0,00233	0,04109	0,1648	0,07622	0,05895	0,07128
3243,68115	-0,00235	0,04099	0,16478	0,07618	0,05894	0,07122
3241,75269	-0,00242	0,04101	0,16461	0,07596	0,0587	0,07094
3239,82422	-0,00236	0,04108	0,1646	0,07589	0,05873	0,07096
3237,89575	-0,00237	0,04111	0,16458	0,07583	0,05873	0,07094
3235,96729	-0,00251	0,04113	0,16458	0,07578	0,0587	0,07088
3234,03882	-0,00249	0,04111	0,16466	0,07582	0,05876	0,07091
3232,11035	-0,0024	0,04117	0,1646	0,07579	0,05871	0,07087
3230,18188	-0,00246	0,04118	0,16447	0,07568	0,05866	0,07079
3228,25342	-0,00239	0,04114	0,16446	0,07558	0,05865	0,07069
3226,32495	-0,00233	0,04118	0,16446	0,07557	0,05856	0,07065
3224,39648	-0,00251	0,04113	0,16438	0,07546	0,05844	0,07055
3222,46802	-0,00251	0,04119	0,16436	0,07538	0,05847	0,07046
3220,53955	-0,00237	0,04131	0,16448	0,07557	0,05868	0,07064
3218,61108	-0,00245	0,04116	0,16441	0,07544	0,05856	0,07054
3216,68262	-0,00241	0,04117	0,16431	0,0752	0,05841	0,07031
3214,75415	-0,00231	0,0413	0,16437	0,07528	0,05859	0,07046
3212,82568	-0,00244	0,04119	0,16427	0,07519	0,05843	0,07035
3210,89722	-0,00245	0,04126	0,16417	0,07514	0,05838	0,07025
3208,96875	-0,0024	0,04132	0,16418	0,07512	0,05846	0,07028
3207,04028	-0,0025	0,04123	0,16409	0,07485	0,05818	0,07006
3205,11182	-0,0025	0,04133	0,16411	0,07483	0,0582	0,07003
3203,18335	-0,00244	0,04138	0,1641	0,07488	0,05826	0,07006
3201,25488	-0,00245	0,04139	0,16404	0,07478	0,05813	0,07004
3199,32642	-0,00236	0,04149	0,16405	0,07484	0,05831	0,07013
3197,39795	-0,00226	0,04149	0,16401	0,0749	0,05842	0,07008
3195,46948	-0,00242	0,04142	0,16401	0,0747	0,05823	0,06994
3193,54102	-0,00248	0,04144	0,16404	0,07455	0,05814	0,06992
3191,61255	-0,00234	0,04157	0,16397	0,0746	0,05823	0,06992
3189,68408	-0,00237	0,0416	0,16393	0,07453	0,0582	0,06986
3187,75562	-0,00238	0,04159	0,16399	0,07447	0,05816	0,06983
3185,82715	-0,00229	0,04166	0,16404	0,07454	0,0583	0,06989
3183,89868	-0,00227	0,04167	0,16402	0,07446	0,05832	0,06986
3181,97021	-0,00224	0,04174	0,16392	0,07428	0,05813	0,06965
3180,04175	-0,00217	0,04184	0,16392	0,07435	0,05818	0,06968

3178,11328	-0,00219	0,04176	0,16401	0,0745	0,05835	0,0699
3176,18481	-0,00225	0,04174	0,16389	0,07432	0,05817	0,06976
3174,25635	-0,00224	0,04183	0,16377	0,07414	0,05799	0,06953
3172,32788	-0,00221	0,04188	0,1638	0,07408	0,05804	0,06949
3170,39941	-0,0022	0,04197	0,16368	0,07406	0,05806	0,06947
3168,47095	-0,00221	0,04196	0,16366	0,0741	0,05807	0,06949
3166,54248	-0,00228	0,04191	0,16371	0,07401	0,058	0,06943
3164,61401	-0,00226	0,04206	0,16365	0,07397	0,05797	0,06934
3162,68555	-0,00217	0,04211	0,16366	0,07396	0,05809	0,06937
3160,75708	-0,00218	0,042	0,1637	0,07382	0,05806	0,06934
3158,82861	-0,00224	0,04201	0,16365	0,07381	0,05796	0,06922
3156,90015	-0,00217	0,04201	0,16359	0,0738	0,05806	0,06923
3154,97168	-0,00217	0,04195	0,16357	0,07373	0,05811	0,06926
3153,04321	-0,00232	0,04201	0,16363	0,07378	0,0581	0,06927
3151,11475	-0,00227	0,04207	0,16363	0,07378	0,05806	0,06924
3149,18628	-0,00217	0,04203	0,16356	0,07366	0,05792	0,06909
3147,25781	-0,00223	0,04204	0,16347	0,07362	0,05789	0,06908
3145,32935	-0,00227	0,042	0,16346	0,07363	0,05795	0,0691
3143,40088	-0,00231	0,04197	0,16344	0,07361	0,05795	0,06897
3141,47241	-0,0023	0,04206	0,16336	0,07352	0,05787	0,06891
3139,54395	-0,0022	0,04202	0,16347	0,07351	0,05795	0,06901
3137,61548	-0,00222	0,04189	0,16347	0,07348	0,05793	0,06892
3135,68701	-0,00227	0,04196	0,16326	0,07341	0,05782	0,06881
3133,75854	-0,00223	0,04202	0,16332	0,07358	0,05807	0,06906
3131,83008	-0,00231	0,04187	0,16335	0,07349	0,05795	0,06896
3129,90161	-0,00235	0,04189	0,16325	0,07331	0,05773	0,06869
3127,97314	-0,00233	0,042	0,16327	0,07342	0,05796	0,06886
3126,04468	-0,0024	0,04193	0,16316	0,07331	0,0579	0,06877
3124,11621	-0,00235	0,04196	0,1631	0,07329	0,05782	0,06872
3122,18774	-0,00226	0,04194	0,1632	0,07342	0,05796	0,06888
3120,25928	-0,00229	0,04193	0,16311	0,07326	0,05788	0,0687
3118,33081	-0,00227	0,04204	0,16314	0,07327	0,05798	0,06871
3116,40234	-0,00227	0,04198	0,16331	0,0734	0,0581	0,06884
3114,47388	-0,00235	0,04186	0,16315	0,07328	0,05789	0,06863
3112,54541	-0,0024	0,04178	0,163	0,07317	0,05772	0,0685
3110,61694	-0,00241	0,04178	0,16303	0,07305	0,05767	0,0685
3108,68848	-0,00245	0,04184	0,16299	0,07303	0,05773	0,06842
3106,76001	-0,00244	0,04177	0,16295	0,07305	0,05771	0,06835
3104,83154	-0,00232	0,04167	0,16282	0,07291	0,0575	0,06823
3102,90308	-0,00231	0,04171	0,16275	0,0729	0,0576	0,06829
3100,97461	-0,00241	0,04176	0,16286	0,07293	0,05774	0,06839
3099,04614	-0,00244	0,04169	0,16287	0,07281	0,05757	0,06823
3097,11768	-0,00236	0,04175	0,16283	0,07283	0,05761	0,0682
3095,18921	-0,00235	0,04174	0,16277	0,07281	0,05762	0,06821
3093,26074	-0,00247	0,04155	0,16273	0,07261	0,05733	0,068
3091,33228	-0,00256	0,04161	0,16274	0,0726	0,05732	0,06794
3089,40381	-0,00259	0,04167	0,1627	0,07268	0,05746	0,06798
3087,47534	-0,0025	0,04162	0,16266	0,07262	0,05739	0,06795

3085,54688	-0,00245	0,04167	0,16268	0,07255	0,05735	0,06792
3083,61841	-0,00252	0,04164	0,16272	0,07263	0,05747	0,06798
3081,68994	-0,00252	0,0416	0,16273	0,0727	0,05758	0,06809
3079,76147	-0,00249	0,04165	0,16275	0,07267	0,05758	0,06807
3077,83301	-0,00252	0,04161	0,16277	0,0726	0,05745	0,06798
3075,90454	-0,00256	0,04147	0,16261	0,07238	0,05724	0,06781
3073,97607	-0,00255	0,04138	0,1625	0,07226	0,05718	0,06768
3072,04761	-0,00258	0,04137	0,16253	0,07234	0,05716	0,06765
3070,11914	-0,00262	0,04136	0,16246	0,0723	0,05705	0,06759
3068,19067	-0,00252	0,04142	0,16255	0,07234	0,05722	0,06773
3066,26221	-0,00252	0,0414	0,16264	0,07239	0,05741	0,06788
3064,33374	-0,00261	0,04127	0,16249	0,07224	0,05722	0,0677
3062,40527	-0,00266	0,04117	0,16242	0,07214	0,05705	0,06756
3060,47681	-0,00266	0,04115	0,16238	0,07212	0,05701	0,06751
3058,54834	-0,00261	0,04128	0,16233	0,07213	0,05699	0,06747
3056,61987	-0,00263	0,04129	0,16243	0,07221	0,05715	0,06759
3054,69141	-0,00269	0,04118	0,16236	0,07217	0,05711	0,06756
3052,76294	-0,00267	0,04117	0,16223	0,07203	0,05685	0,06736
3050,83447	-0,00262	0,04122	0,16232	0,07204	0,05694	0,06741
3048,90601	-0,00261	0,04121	0,16227	0,07206	0,057	0,06742
3046,97754	-0,00265	0,0411	0,16216	0,07196	0,05683	0,06726
3045,04907	-0,00273	0,0411	0,16216	0,07189	0,05683	0,06724
3043,12061	-0,00274	0,04117	0,16214	0,07187	0,05689	0,06728
3041,19214	-0,00275	0,04113	0,16215	0,07189	0,05688	0,06728
3039,26367	-0,00281	0,04113	0,16209	0,07188	0,05678	0,06721
3037,33521	-0,00284	0,04111	0,16199	0,07185	0,05671	0,06714
3035,40674	-0,00285	0,04109	0,16196	0,07182	0,05678	0,06713
3033,47827	-0,00278	0,04118	0,16196	0,07189	0,05693	0,06723
3031,5498	-0,00275	0,04113	0,16198	0,07193	0,057	0,06733
3029,62134	-0,00292	0,04096	0,16181	0,0717	0,05674	0,06707
3027,69287	-0,003	0,04096	0,16169	0,0716	0,05657	0,06689
3025,7644	-0,00303	0,041	0,16173	0,07167	0,05672	0,06701
3023,83594	-0,00304	0,04103	0,16167	0,07165	0,05675	0,06699
3021,90747	-0,00299	0,04104	0,1616	0,07166	0,05666	0,06697
3019,979	-0,003	0,0411	0,16158	0,07162	0,05664	0,06694
3018,05054	-0,00297	0,04127	0,1616	0,07155	0,05663	0,06691
3016,12207	-0,00303	0,04122	0,16163	0,07158	0,05662	0,06699
3014,1936	-0,00313	0,04107	0,16158	0,07161	0,05672	0,06702
3012,26514	-0,00314	0,04116	0,16156	0,07168	0,05689	0,06708
3010,33667	-0,00315	0,04111	0,1615	0,07162	0,05681	0,06703
3008,4082	-0,00317	0,04096	0,16139	0,07145	0,05658	0,06686
3006,47974	-0,00319	0,04099	0,1614	0,07147	0,05664	0,06687
3004,55127	-0,0032	0,041	0,16142	0,07155	0,05675	0,06699
3002,6228	-0,00322	0,04089	0,16138	0,07146	0,05662	0,06696
3000,69434	-0,00323	0,04085	0,1613	0,07135	0,05652	0,06685
2998,76587	-0,00325	0,04092	0,16127	0,07139	0,05657	0,06685
2996,8374	-0,00326	0,04094	0,16131	0,07139	0,05657	0,06692
2994,90894	-0,00328	0,04089	0,16129	0,07136	0,05657	0,06698

2992,98047	-0,00329	0,04082	0,16125	0,0714	0,05662	0,06702
2991,052	-0,00331	0,04078	0,16117	0,07132	0,05653	0,06699
2989,12354	-0,00332	0,04077	0,16111	0,07123	0,05644	0,06705
2987,19507	-0,00334	0,04071	0,16112	0,07132	0,05649	0,0672
2985,2666	-0,00335	0,04066	0,16106	0,07126	0,05645	0,06722
2983,33813	-0,00337	0,04061	0,16102	0,07119	0,05642	0,06729
2981,40967	-0,00338	0,04061	0,16112	0,07132	0,05653	0,06751
2979,4812	-0,0034	0,04063	0,16109	0,07135	0,05654	0,06764
2977,55273	-0,00341	0,04049	0,16094	0,07129	0,05652	0,06778
2975,62427	-0,00343	0,04042	0,16094	0,07134	0,05663	0,06813
2973,6958	-0,00344	0,04037	0,16101	0,07148	0,05672	0,06864
2971,76733	-0,00346	0,04015	0,16098	0,07165	0,05686	0,06931
2969,83887	-0,00347	0,04013	0,16092	0,07186	0,05719	0,07017
2967,9104	-0,00349	0,04018	0,16094	0,07211	0,0575	0,07114
2965,98193	-0,0035	0,04005	0,16101	0,0723	0,0578	0,07205
2964,05347	-0,00352	0,04006	0,16097	0,07243	0,05806	0,07276
2962,125	-0,00353	0,04011	0,1609	0,07257	0,05827	0,07338
2960,19653	-0,00355	0,04008	0,16091	0,07268	0,0584	0,07385
2958,26807	-0,00357	0,04011	0,16086	0,07269	0,05836	0,07395
2956,3396	-0,00358	0,04014	0,16082	0,07268	0,05831	0,07392
2954,41113	-0,0036	0,04012	0,16089	0,07267	0,05828	0,07378
2952,48267	-0,00361	0,04011	0,16085	0,07255	0,05816	0,07331
2950,5542	-0,00363	0,04015	0,16069	0,07239	0,05797	0,07278
2948,62573	-0,00364	0,04022	0,16065	0,07232	0,05779	0,07238
2946,69727	-0,00366	0,04015	0,16066	0,0723	0,05776	0,07211
2944,7688	-0,00367	0,04011	0,16054	0,07229	0,05776	0,07204
2942,84033	-0,00369	0,04016	0,16048	0,07233	0,05776	0,07216
2940,91187	-0,0037	0,04007	0,16051	0,07241	0,05788	0,07243
2938,9834	-0,00372	0,04002	0,16045	0,07252	0,05797	0,07284
2937,05493	-0,00373	0,04006	0,16037	0,07268	0,05812	0,07334
2935,12646	-0,00375	0,04004	0,16033	0,07281	0,05829	0,07378
2933,198	-0,00376	0,04002	0,16032	0,07286	0,05833	0,07405
2931,26953	-0,00378	0,04004	0,16042	0,07291	0,05844	0,07424
2929,34106	-0,00379	0,04004	0,16043	0,07295	0,05845	0,07418
2927,4126	-0,00381	0,03997	0,16027	0,07293	0,05829	0,07392
2925,48413	-0,00382	0,0399	0,16026	0,07295	0,05823	0,07374
2923,55566	-0,00384	0,03983	0,16023	0,07283	0,05808	0,07343
2921,6272	-0,00385	0,03971	0,16004	0,07261	0,05778	0,07293
2919,69873	-0,00387	0,03965	0,15995	0,07246	0,05746	0,07236
2917,77026	-0,00388	0,0396	0,15987	0,07222	0,05718	0,07168
2915,8418	-0,0039	0,03957	0,15996	0,07207	0,05712	0,07124
2913,91333	-0,00391	0,03971	0,16019	0,0721	0,05714	0,07095
2911,98486	-0,00393	0,03987	0,16018	0,07201	0,057	0,07045
2910,0564	-0,00395	0,03989	0,16009	0,07183	0,05679	0,06994
2908,12793	-0,00396	0,03992	0,16007	0,07167	0,05661	0,06952
2906,19946	-0,00398	0,03996	0,16004	0,07154	0,05652	0,06917
2904,271	-0,00399	0,03994	0,16004	0,0715	0,0565	0,06888
2902,34253	-0,00401	0,03995	0,16	0,07143	0,0564	0,06862

2900,41406	-0,00402	0,03994	0,15996	0,07129	0,05627	0,06836
2898,4856	-0,00404	0,03994	0,15992	0,07124	0,05623	0,06817
2896,55713	-0,00405	0,04003	0,1599	0,07124	0,05618	0,06802
2894,62866	-0,00407	0,04004	0,15987	0,07112	0,05606	0,06781
2892,7002	-0,00408	0,03998	0,15981	0,071	0,05598	0,06761
2890,77173	-0,0041	0,03993	0,15979	0,07097	0,05593	0,06751
2888,84326	-0,00411	0,03989	0,15978	0,0709	0,05592	0,0674
2886,91479	-0,00413	0,03988	0,15978	0,07087	0,05591	0,06732
2884,98633	-0,00414	0,03985	0,15977	0,07091	0,05588	0,06735
2883,05786	-0,00416	0,03983	0,15975	0,07089	0,05591	0,06739
2881,12939	-0,00417	0,03978	0,15966	0,07087	0,05596	0,06744
2879,20093	-0,00419	0,03974	0,15953	0,07085	0,05589	0,06752
2877,27246	-0,0042	0,03975	0,15956	0,07087	0,05595	0,06768
2875,34399	-0,00422	0,03973	0,15958	0,0709	0,0561	0,06797
2873,41553	-0,00423	0,03976	0,15955	0,0709	0,05615	0,06832
2871,48706	-0,00425	0,03984	0,15957	0,07097	0,05622	0,06864
2869,55859	-0,00426	0,03979	0,15955	0,07098	0,05625	0,06873
2867,63013	-0,00428	0,03971	0,15952	0,07093	0,05619	0,06861
2865,70166	-0,0043	0,03972	0,15948	0,07101	0,0562	0,06867
2863,77319	-0,00431	0,0397	0,15936	0,07106	0,05623	0,0689
2861,84473	-0,00433	0,03968	0,15934	0,07104	0,0563	0,06916
2859,91626	-0,00434	0,03971	0,15937	0,07107	0,05636	0,06936
2857,98779	-0,00436	0,03964	0,15929	0,07107	0,0563	0,06934
2856,05933	-0,00437	0,0396	0,15919	0,07099	0,0562	0,06915
2854,13086	-0,00439	0,0397	0,15922	0,07095	0,05615	0,06888
2852,20239	-0,0044	0,03973	0,15931	0,07096	0,0561	0,06852
2850,27393	-0,00442	0,03976	0,15936	0,07086	0,05603	0,0681
2848,34546	-0,00443	0,03977	0,15945	0,07076	0,0559	0,06763
2846,41699	-0,00445	0,03967	0,15945	0,07062	0,05573	0,06707
2844,48853	-0,00446	0,03965	0,15921	0,07033	0,05554	0,0665
2842,56006	-0,00448	0,03967	0,1591	0,07014	0,05537	0,06604
2840,63159	-0,00449	0,03963	0,15914	0,07006	0,0553	0,06571
2838,70313	-0,00451	0,03964	0,15906	0,06995	0,05521	0,06547
2836,77466	-0,00452	0,03964	0,15902	0,06993	0,05515	0,06529
2834,84619	-0,00454	0,03962	0,159	0,06986	0,05515	0,0651
2832,91772	-0,00455	0,03967	0,15891	0,06974	0,05506	0,06494
2830,98926	-0,00457	0,03971	0,15888	0,06967	0,05491	0,0648
2829,06079	-0,00458	0,03966	0,15884	0,06957	0,05486	0,06463
2827,13232	-0,0046	0,03964	0,15879	0,06956	0,05486	0,06457
2825,20386	-0,00455	0,03965	0,15877	0,06959	0,05484	0,06457
2823,27539	-0,00454	0,03968	0,15874	0,06955	0,05482	0,06448
2821,34692	-0,00455	0,03973	0,15874	0,0695	0,05481	0,06442
2819,41846	-0,00454	0,03973	0,15872	0,06946	0,05477	0,06437
2817,48999	-0,00456	0,03971	0,15868	0,06946	0,05478	0,06431
2815,56152	-0,00452	0,03972	0,15869	0,06946	0,05482	0,06428
2813,63306	-0,00449	0,03974	0,1587	0,06944	0,05481	0,06424
2811,70459	-0,00456	0,03979	0,15871	0,06945	0,05481	0,0642
2809,77612	-0,00453	0,03982	0,15868	0,06946	0,05481	0,06419

2807,84766	-0,00447	0,03978	0,15863	0,06942	0,0548	0,06415
2805,91919	-0,00448	0,03975	0,15862	0,0694	0,05477	0,0641
2803,99072	-0,00442	0,03977	0,15857	0,06936	0,05473	0,06408
2802,06226	-0,00438	0,03974	0,15851	0,06933	0,05475	0,06408
2800,13379	-0,00443	0,03969	0,15852	0,06931	0,05474	0,06402
2798,20532	-0,00445	0,03976	0,15853	0,06929	0,0547	0,06395
2796,27686	-0,0044	0,03981	0,15854	0,06933	0,05473	0,06394
2794,34839	-0,00439	0,03973	0,15849	0,06933	0,05471	0,06388
2792,41992	-0,00442	0,0397	0,15848	0,06927	0,05466	0,06382
2790,49146	-0,00441	0,03978	0,15849	0,06925	0,05466	0,06382
2788,56299	-0,00438	0,0398	0,15846	0,06923	0,0547	0,06379
2786,63452	-0,00441	0,03977	0,15845	0,06923	0,05471	0,06378
2784,70605	-0,0045	0,03979	0,15839	0,06924	0,05463	0,06376
2782,77759	-0,00446	0,03978	0,15836	0,06921	0,05462	0,06371
2780,84912	-0,00435	0,03979	0,15837	0,06918	0,05466	0,06372
2778,92065	-0,00434	0,03986	0,15835	0,0692	0,05467	0,06372
2776,99219	-0,00432	0,03985	0,15837	0,06923	0,05472	0,0637
2775,06372	-0,0043	0,03988	0,15837	0,06922	0,05472	0,06366
2773,13525	-0,00432	0,03989	0,15833	0,06916	0,05463	0,06363
2771,20679	-0,00427	0,03981	0,15831	0,06911	0,05463	0,06363
2769,27832	-0,00424	0,03987	0,15822	0,0691	0,05462	0,06359
2767,34985	-0,00431	0,03992	0,1582	0,06911	0,05456	0,06355
2765,42139	-0,00428	0,03988	0,15827	0,0691	0,05458	0,06359
2763,49292	-0,00424	0,03992	0,15823	0,06912	0,05457	0,0636
2761,56445	-0,00426	0,03992	0,15821	0,06912	0,05454	0,06356
2759,63599	-0,00423	0,03986	0,15828	0,06911	0,05456	0,06355
2757,70752	-0,00423	0,03986	0,15825	0,06909	0,05451	0,06352
2755,77905	-0,00429	0,03983	0,15819	0,06904	0,05446	0,06344
2753,85059	-0,00426	0,0398	0,15822	0,06904	0,0545	0,06345
2751,92212	-0,00427	0,03979	0,1583	0,06906	0,05453	0,06346
2749,99365	-0,00434	0,03981	0,15829	0,06904	0,05451	0,06342
2748,06519	-0,00431	0,03985	0,15824	0,06906	0,05449	0,06337
2746,13672	-0,0043	0,03986	0,15825	0,06909	0,05449	0,06336
2744,20825	-0,00431	0,03983	0,15822	0,06907	0,05446	0,06336
2742,27979	-0,00424	0,03977	0,1582	0,06903	0,05446	0,06332
2740,35132	-0,00426	0,03973	0,1582	0,069	0,05446	0,06333
2738,42285	-0,00426	0,03979	0,15819	0,069	0,05443	0,06333
2736,49438	-0,0042	0,03984	0,15822	0,06906	0,05449	0,06332
2734,56592	-0,00425	0,03984	0,15822	0,06908	0,05449	0,06335
2732,63745	-0,00428	0,03979	0,15814	0,06898	0,0544	0,06331
2730,70898	-0,00424	0,03973	0,15811	0,06895	0,05438	0,06329
2728,78052	-0,00427	0,03977	0,15814	0,06896	0,05433	0,06329
2726,85205	-0,00432	0,03982	0,15814	0,06888	0,05429	0,06322
2724,92358	-0,00429	0,0398	0,15815	0,06886	0,05432	0,0632
2722,99512	-0,00427	0,03981	0,15813	0,06889	0,05431	0,06322
2721,06665	-0,00429	0,03984	0,15804	0,06886	0,05428	0,06319
2719,13818	-0,00426	0,03987	0,15802	0,06885	0,05425	0,06313
2717,20972	-0,00422	0,03991	0,158	0,06884	0,05422	0,0631

2715,28125	-0,00416	0,03986	0,15796	0,0688	0,05424	0,06309
2713,35278	-0,00413	0,03984	0,15797	0,0688	0,05425	0,06308
2711,42432	-0,0042	0,03983	0,15801	0,06881	0,05423	0,06306
2709,49585	-0,00419	0,03977	0,15802	0,06876	0,05423	0,063
2707,56738	-0,00412	0,03981	0,158	0,06874	0,05423	0,06297
2705,63892	-0,00413	0,03987	0,15798	0,06877	0,05423	0,06295
2703,71045	-0,00415	0,03985	0,15797	0,06872	0,05418	0,06295
2701,78198	-0,00412	0,03984	0,15797	0,06869	0,05416	0,06296
2699,85352	-0,004	0,03987	0,15798	0,06875	0,05417	0,06297
2697,92505	-0,00393	0,03989	0,15802	0,06875	0,05415	0,06298
2695,99658	-0,00397	0,0399	0,15807	0,0687	0,05413	0,06296
2694,06812	-0,00397	0,03992	0,15807	0,0687	0,05415	0,06296
2692,13965	-0,00395	0,03993	0,15805	0,06867	0,05415	0,06295
2690,21118	-0,00397	0,0399	0,15803	0,06864	0,05412	0,06288
2688,28271	-0,004	0,0399	0,15809	0,06872	0,05413	0,06291
2686,35425	-0,00401	0,03995	0,15816	0,06873	0,05413	0,06296
2684,42578	-0,00398	0,03998	0,15812	0,06865	0,0541	0,06294
2682,49731	-0,00393	0,03997	0,1581	0,06865	0,05412	0,06296
2680,56885	-0,00388	0,03997	0,1582	0,06869	0,05416	0,06298
2678,64038	-0,00384	0,03997	0,15823	0,06868	0,05416	0,06298
2676,71191	-0,00382	0,03998	0,15817	0,06867	0,05412	0,06298
2674,78345	-0,00383	0,04002	0,15825	0,06865	0,05411	0,06301
2672,85498	-0,00376	0,04003	0,15834	0,06862	0,05412	0,06303
2670,92651	-0,00367	0,04002	0,15831	0,06858	0,05407	0,06295
2668,99805	-0,00365	0,04004	0,15835	0,06859	0,05404	0,06293
2667,06958	-0,00367	0,04006	0,15846	0,06866	0,0541	0,06297
2665,14111	-0,00367	0,04007	0,15845	0,06868	0,05411	0,06296
2663,21265	-0,00361	0,04006	0,15843	0,06861	0,05408	0,06297
2661,28418	-0,00355	0,04006	0,15847	0,06861	0,0541	0,06299
2659,35571	-0,00359	0,04009	0,15853	0,06869	0,05412	0,063
2657,42725	-0,00354	0,04013	0,15863	0,06872	0,05415	0,06303
2655,49878	-0,00345	0,04014	0,15868	0,0687	0,05416	0,06305
2653,57031	-0,00344	0,04016	0,15865	0,06869	0,05413	0,06306
2651,64185	-0,00342	0,04022	0,15867	0,06871	0,05412	0,06305
2649,71338	-0,00337	0,04023	0,15873	0,06874	0,05414	0,06307
2647,78491	-0,00334	0,04024	0,15878	0,06874	0,05413	0,06309
2645,85645	-0,00328	0,04025	0,1588	0,06873	0,05413	0,06306
2643,92798	-0,00321	0,04024	0,1588	0,06872	0,05412	0,06307
2641,99951	-0,00322	0,04025	0,15884	0,06874	0,05406	0,06306
2640,07104	-0,00321	0,04028	0,15887	0,06875	0,05409	0,06302
2638,14258	-0,00316	0,04031	0,1589	0,06872	0,0541	0,06302
2636,21411	-0,00317	0,04036	0,15889	0,06868	0,05404	0,06302
2634,28564	-0,00319	0,04039	0,15889	0,06871	0,05408	0,06304
2632,35718	-0,00318	0,0404	0,15892	0,06874	0,05412	0,06308
2630,42871	-0,0032	0,04042	0,1589	0,06874	0,05407	0,06305
2628,50024	-0,0032	0,04045	0,15888	0,06875	0,05407	0,06302
2626,57178	-0,00317	0,04045	0,15887	0,06872	0,05405	0,06298
2624,64331	-0,00316	0,04042	0,15884	0,06871	0,05401	0,06294



2622,71484	-0,00315	0,04038	0,15883	0,06872	0,05401	0,06294
2620,78638	-0,0031	0,04038	0,15877	0,06865	0,05394	0,06287
2618,85791	-0,00309	0,04039	0,15873	0,06863	0,05389	0,06283
2616,92944	-0,00311	0,04038	0,15872	0,06866	0,05391	0,06286
2615,00098	-0,00317	0,0404	0,15865	0,06859	0,0539	0,06278
2613,07251	-0,00323	0,04035	0,15857	0,06856	0,0539	0,06271
2611,14404	-0,00327	0,04029	0,15849	0,06855	0,05385	0,0627
2609,21558	-0,00336	0,04031	0,15844	0,06851	0,05381	0,06267
2607,28711	-0,0034	0,04028	0,15844	0,06852	0,05383	0,06268
2605,35864	-0,00346	0,04025	0,15836	0,06848	0,05377	0,06259
2603,43018	-0,00358	0,04023	0,15823	0,06842	0,05372	0,06248
2601,50171	-0,00355	0,04016	0,15814	0,06841	0,05372	0,06246
2599,57324	-0,00356	0,04017	0,1581	0,0684	0,05372	0,06249
2597,64478	-0,0037	0,04015	0,15802	0,06837	0,0537	0,0625
2595,71631	-0,00377	0,04009	0,15791	0,06833	0,05364	0,06239
2593,78784	-0,00377	0,0401	0,15789	0,0683	0,05361	0,06228
2591,85938	-0,00378	0,04007	0,1578	0,06826	0,0536	0,06226
2589,93091	-0,00385	0,04003	0,15767	0,06822	0,05358	0,06224
2588,00244	-0,00391	0,04002	0,15758	0,06822	0,0536	0,06222
2586,07397	-0,00394	0,03995	0,15752	0,06821	0,0536	0,06217
2584,14551	-0,00399	0,03989	0,15744	0,06815	0,0536	0,06209
2582,21704	-0,00408	0,0399	0,15732	0,06811	0,05359	0,06204
2580,28857	-0,00416	0,03989	0,15724	0,06813	0,05353	0,062
2578,36011	-0,00415	0,03987	0,15716	0,06811	0,05353	0,06198
2576,43164	-0,00417	0,03985	0,15702	0,06806	0,05359	0,06195
2574,50317	-0,00426	0,0398	0,15694	0,06806	0,05357	0,06193
2572,57471	-0,0043	0,03977	0,15686	0,06803	0,05348	0,06185
2570,64624	-0,00439	0,03979	0,15678	0,06794	0,05345	0,06173
2568,71777	-0,00446	0,03977	0,15669	0,06791	0,05345	0,0617
2566,78931	-0,00447	0,03969	0,15657	0,06788	0,05339	0,06165
2564,86084	-0,00453	0,0397	0,15652	0,06784	0,05337	0,06157
2562,93237	-0,00452	0,03967	0,15651	0,06785	0,05338	0,06155
2561,00391	-0,00458	0,03958	0,15643	0,06782	0,05333	0,0615
2559,07544	-0,00475	0,03958	0,15632	0,06781	0,05332	0,06147
2557,14697	-0,00474	0,03954	0,15625	0,06779	0,05336	0,06149
2555,21851	-0,00471	0,03946	0,15617	0,06769	0,05332	0,06144
2553,29004	-0,00481	0,03948	0,1561	0,06765	0,05327	0,06138
2551,36157	-0,00483	0,03947	0,15604	0,06767	0,05322	0,06131
2549,43311	-0,00486	0,03943	0,15598	0,06762	0,0532	0,06129
2547,50464	-0,00494	0,03943	0,15595	0,06757	0,05316	0,06127
2545,57617	-0,00496	0,03945	0,15587	0,06757	0,05312	0,06121
2543,64771	-0,005	0,03947	0,15581	0,06755	0,0532	0,06118
2541,71924	-0,00505	0,03943	0,15579	0,06753	0,05324	0,06116
2539,79077	-0,00506	0,03939	0,15572	0,06753	0,05323	0,06118
2537,8623	-0,00513	0,03944	0,15564	0,0675	0,0532	0,06121
2535,93384	-0,00519	0,03942	0,15563	0,06748	0,05314	0,06117
2534,00537	-0,00522	0,03938	0,15563	0,06753	0,05314	0,0612
2532,0769	-0,00526	0,03942	0,15559	0,06752	0,05314	0,06122

2530,14844	-0,0053	0,03941	0,15552	0,06749	0,05311	0,06115
2528,21997	-0,00537	0,03937	0,15544	0,06749	0,05306	0,06111
2526,2915	-0,00539	0,03936	0,15534	0,06744	0,05302	0,06105
2524,36304	-0,00535	0,03935	0,15528	0,06735	0,05303	0,06097
2522,43457	-0,00541	0,0393	0,15526	0,06734	0,05303	0,06095
2520,5061	-0,00548	0,03925	0,15527	0,06739	0,05305	0,06097
2518,57764	-0,00548	0,03928	0,15523	0,06742	0,05309	0,06096
2516,64917	-0,0055	0,03925	0,15521	0,06739	0,05306	0,06094
2514,7207	-0,00547	0,03917	0,15519	0,06736	0,05301	0,06092
2512,79224	-0,00548	0,03915	0,15513	0,06732	0,053	0,06086
2510,86377	-0,00559	0,03919	0,15511	0,06733	0,05303	0,06083
2508,9353	-0,00564	0,03928	0,15512	0,06739	0,05308	0,06087
2507,00684	-0,00566	0,03932	0,15505	0,06735	0,05305	0,06085
2505,07837	-0,0057	0,0393	0,15497	0,06728	0,05298	0,06075
2503,1499	-0,00567	0,03929	0,15497	0,06725	0,05298	0,06072
2501,22144	-0,00564	0,03929	0,15494	0,06726	0,05299	0,06076
2499,29297	-0,00566	0,0393	0,15485	0,06728	0,05296	0,0607
2497,3645	-0,00568	0,03928	0,15476	0,06725	0,05296	0,06063
2495,43604	-0,00569	0,03927	0,1547	0,06721	0,05295	0,06064
2493,50757	-0,0057	0,03931	0,15469	0,06722	0,05298	0,06065
2491,5791	-0,00571	0,03931	0,15463	0,06721	0,053	0,06062
2489,65063	-0,00575	0,03929	0,15461	0,06722	0,05299	0,06063
2487,72217	-0,00579	0,03933	0,15463	0,06724	0,05299	0,0606
2485,7937	-0,00577	0,03937	0,15456	0,06725	0,05298	0,06055
2483,86523	-0,00577	0,03937	0,15452	0,06722	0,053	0,06054
2481,93677	-0,00581	0,03937	0,15448	0,06717	0,05301	0,06052
2480,0083	-0,00583	0,03936	0,15446	0,06719	0,05299	0,06059
2478,07983	-0,00582	0,03929	0,1545	0,06724	0,05299	0,06064
2476,15137	-0,00575	0,03929	0,15442	0,06721	0,05297	0,06055
2474,2229	-0,00572	0,03938	0,15435	0,06717	0,05299	0,0605
2472,29443	-0,00577	0,0394	0,1544	0,06723	0,05307	0,06055
2470,36597	-0,00575	0,03936	0,1544	0,06731	0,05307	0,06057
2468,4375	-0,00573	0,03939	0,15431	0,06727	0,05303	0,06052
2466,50903	-0,00578	0,0394	0,15427	0,06726	0,05308	0,0605
2464,58057	-0,00582	0,03939	0,15428	0,0673	0,0531	0,06052
2462,6521	-0,00584	0,03944	0,15421	0,06726	0,05308	0,06049
2460,72363	-0,00584	0,03946	0,15416	0,06725	0,05307	0,06047
2458,79517	-0,00589	0,03946	0,15413	0,06727	0,05303	0,06047
2456,8667	-0,00592	0,03949	0,15412	0,06728	0,05306	0,06047
2454,93823	-0,00589	0,03944	0,15415	0,06729	0,0531	0,06045
2453,00977	-0,0059	0,03943	0,15407	0,06723	0,05306	0,06041
2451,0813	-0,0059	0,03952	0,15408	0,06722	0,05305	0,06044
2449,15283	-0,00588	0,03954	0,15412	0,06728	0,05308	0,06047
2447,22437	-0,00591	0,03947	0,15398	0,06722	0,05307	0,06038
2445,2959	-0,00588	0,03942	0,15395	0,06715	0,05299	0,06032
2443,36743	-0,0059	0,0394	0,15396	0,06716	0,05292	0,06033
2441,43896	-0,00599	0,03939	0,15387	0,06709	0,05286	0,0603
2439,5105	-0,00598	0,03942	0,15389	0,06704	0,05285	0,06024

2437,58203	-0,00598	0,03942	0,15389	0,06708	0,05289	0,06021
2435,65356	-0,00604	0,0394	0,15385	0,06708	0,05289	0,06021
2433,7251	-0,00606	0,03945	0,15385	0,06704	0,05281	0,06019
2431,79663	-0,00608	0,03942	0,15385	0,06702	0,0528	0,06015
2429,86816	-0,00608	0,03936	0,15383	0,06702	0,05286	0,06019
2427,9397	-0,00608	0,03936	0,15382	0,067	0,05289	0,06021
2426,01123	-0,00609	0,03939	0,1538	0,06696	0,05286	0,06013
2424,08276	-0,0061	0,03946	0,15376	0,06699	0,05281	0,06011
2422,1543	-0,00609	0,03951	0,15379	0,06703	0,05286	0,06018
2420,22583	-0,0061	0,03947	0,15378	0,06702	0,05291	0,06016
2418,29736	-0,00611	0,03948	0,15367	0,06697	0,05289	0,0601
2416,3689	-0,00606	0,03955	0,15367	0,06699	0,05287	0,0601
2414,44043	-0,00603	0,0396	0,15366	0,06704	0,05288	0,0601
2412,51196	-0,00605	0,03962	0,15363	0,06707	0,05292	0,06011
2410,5835	-0,00604	0,03959	0,15372	0,06709	0,05296	0,06017
2408,65503	-0,00604	0,03955	0,1537	0,06708	0,05297	0,06017
2406,72656	-0,00605	0,03957	0,15361	0,06703	0,05297	0,06014
2404,7981	-0,00604	0,03963	0,15362	0,06703	0,05296	0,0601
2402,86963	-0,00605	0,03966	0,1536	0,06709	0,0529	0,06007
2400,94116	-0,00605	0,03966	0,15359	0,06713	0,0529	0,0601
2399,0127	-0,00602	0,03966	0,15364	0,06709	0,05291	0,06015
2397,08423	-0,00601	0,03968	0,15364	0,06705	0,05292	0,06011
2395,15576	-0,00597	0,03968	0,15365	0,06708	0,05292	0,06011
2393,22729	-0,00595	0,03969	0,15365	0,06708	0,05293	0,0601
2391,29883	-0,00595	0,03971	0,15365	0,06709	0,05294	0,0601
2389,37036	-0,00595	0,03972	0,15365	0,06709	0,05295	0,06009
2387,44189	-0,00595	0,03974	0,15364	0,0671	0,05295	0,06009
2385,51343	-0,00595	0,03975	0,15364	0,06711	0,05296	0,06008
2383,58496	-0,00595	0,03976	0,15364	0,06711	0,05297	0,06008
2381,65649	-0,00595	0,03978	0,15364	0,06712	0,05298	0,06007
2379,72803	-0,00596	0,03979	0,15364	0,06713	0,05298	0,06007
2377,79956	-0,00596	0,03981	0,15364	0,06713	0,05299	0,06006
2375,87109	-0,00596	0,03982	0,15364	0,06714	0,053	0,06006
2373,94263	-0,00596	0,03983	0,15364	0,06715	0,05301	0,06005
2372,01416	-0,00596	0,03985	0,15363	0,06715	0,05301	0,06005
2370,08569	-0,00596	0,03986	0,15363	0,06716	0,05302	0,06004
2368,15723	-0,00596	0,03988	0,15363	0,06716	0,05303	0,06004
2366,22876	-0,00596	0,03989	0,15363	0,06717	0,05303	0,06003
2364,30029	-0,00596	0,0399	0,15363	0,06718	0,05304	0,06003
2362,37183	-0,00596	0,03992	0,15363	0,06718	0,05305	0,06002
2360,44336	-0,00597	0,03993	0,15363	0,06719	0,05306	0,06002
2358,51489	-0,00597	0,03994	0,15363	0,0672	0,05306	0,06002
2356,58643	-0,00597	0,03996	0,15362	0,0672	0,05307	0,06001
2354,65796	-0,00597	0,03997	0,15362	0,06721	0,05308	0,06001
2352,72949	-0,00597	0,03999	0,15362	0,06722	0,05309	0,06
2350,80103	-0,00597	0,04	0,15362	0,06722	0,05309	0,06
2348,87256	-0,00597	0,04001	0,15362	0,06723	0,0531	0,05999
2346,94409	-0,00597	0,04003	0,15362	0,06723	0,05311	0,05999

2345,01563	-0,00597	0,04004	0,15362	0,06724	0,05312	0,05998
2343,08716	-0,00598	0,04006	0,15362	0,06725	0,05312	0,05998
2341,15869	-0,00598	0,04007	0,15361	0,06725	0,05313	0,05997
2339,23022	-0,00598	0,04008	0,15361	0,06726	0,05314	0,05997
2337,30176	-0,00598	0,0401	0,15361	0,06727	0,05314	0,05996
2335,37329	-0,00598	0,04011	0,15361	0,06727	0,05315	0,05996
2333,44482	-0,00598	0,04013	0,15361	0,06728	0,05316	0,05995
2331,51636	-0,00598	0,04014	0,15361	0,06729	0,05317	0,05995
2329,58789	-0,00598	0,04015	0,15361	0,06729	0,05317	0,05994
2327,65942	-0,00598	0,04017	0,15361	0,0673	0,05318	0,05994
2325,73096	-0,00598	0,04018	0,1536	0,0673	0,05319	0,05993
2323,80249	-0,00599	0,0402	0,1536	0,06731	0,0532	0,05993
2321,87402	-0,00599	0,04021	0,1536	0,06732	0,0532	0,05992
2319,94556	-0,00599	0,04022	0,1536	0,06732	0,05321	0,05992
2318,01709	-0,00599	0,04024	0,1536	0,06733	0,05322	0,05991
2316,08862	-0,00599	0,04025	0,1536	0,06734	0,05323	0,05991
2314,16016	-0,00599	0,04027	0,1536	0,06734	0,05323	0,0599
2312,23169	-0,00599	0,04028	0,1536	0,06735	0,05324	0,0599
2310,30322	-0,00599	0,04029	0,15359	0,06736	0,05325	0,05989
2308,37476	-0,00599	0,04031	0,15359	0,06736	0,05325	0,05989
2306,44629	-0,00599	0,04032	0,15359	0,06737	0,05326	0,05988
2304,51782	-0,006	0,04034	0,15359	0,06737	0,05327	0,05988
2302,58936	-0,00599	0,04035	0,15359	0,06738	0,05328	0,05987
2300,66089	-0,00601	0,04036	0,15359	0,06739	0,05328	0,05987
2298,73242	-0,00608	0,04038	0,15359	0,06739	0,05329	0,05987
2296,80396	-0,00611	0,04039	0,15359	0,0674	0,0533	0,05986
2294,87549	-0,00612	0,0404	0,15359	0,06741	0,05331	0,05986
2292,94702	-0,00619	0,04042	0,15358	0,06741	0,05331	0,05985
2291,01855	-0,0062	0,04043	0,15358	0,06742	0,05332	0,05985
2289,09009	-0,0062	0,04045	0,15358	0,06743	0,05333	0,05984
2287,16162	-0,00626	0,04046	0,15358	0,06743	0,05334	0,05984
2285,23315	-0,00623	0,04047	0,15358	0,06744	0,05334	0,05983
2283,30469	-0,00632	0,04049	0,15358	0,06744	0,05335	0,05983
2281,37622	-0,00645	0,0405	0,15358	0,06745	0,05336	0,05982
2279,44775	-0,00628	0,04052	0,15358	0,06746	0,05336	0,05982
2277,51929	-0,00617	0,04053	0,15357	0,06746	0,05337	0,05981
2275,59082	-0,0063	0,04054	0,15357	0,06747	0,05338	0,05981
2273,66235	-0,00635	0,04056	0,15357	0,06748	0,05339	0,0598
2271,73389	-0,00632	0,04057	0,15357	0,06748	0,05339	0,0598
2269,80542	-0,00625	0,04059	0,15357	0,06749	0,0534	0,05979
2267,87695	-0,00623	0,0406	0,15357	0,0675	0,05341	0,0598
2265,94849	-0,00629	0,0406	0,15357	0,0675	0,05342	0,05978
2264,02002	-0,00634	0,04063	0,15354	0,06751	0,05342	0,0598
2262,09155	-0,00635	0,04063	0,15349	0,06751	0,05343	0,05979
2260,16309	-0,00633	0,04061	0,15347	0,06752	0,05344	0,05972
2258,23462	-0,00632	0,04062	0,15338	0,06753	0,05345	0,05969
2256,30615	-0,00632	0,04057	0,15334	0,06753	0,05345	0,05965
2254,37769	-0,00631	0,04049	0,15337	0,06751	0,05346	0,0596

2252,44922	-0,00632	0,04052	0,15332	0,06748	0,05347	0,05959
2250,52075	-0,00633	0,04051	0,15328	0,06745	0,05342	0,05957
2248,59229	-0,00632	0,04045	0,15327	0,06736	0,05334	0,05948
2246,66382	-0,00632	0,04048	0,15322	0,06733	0,05326	0,05947
2244,73535	-0,00636	0,04049	0,15321	0,06737	0,05327	0,05954
2242,80688	-0,00639	0,04042	0,15323	0,06738	0,05325	0,05952
2240,87842	-0,00634	0,04044	0,15321	0,06737	0,05322	0,05948
2238,94995	-0,0063	0,04043	0,15318	0,06736	0,05322	0,0595
2237,02148	-0,00636	0,04039	0,15317	0,06736	0,05318	0,05946
2235,09302	-0,0064	0,04043	0,15314	0,06733	0,05315	0,0594
2233,16455	-0,00643	0,0404	0,15312	0,06734	0,05314	0,05939
2231,23608	-0,00645	0,04037	0,15307	0,06733	0,05314	0,05937
2229,30762	-0,00643	0,04042	0,15298	0,06726	0,05314	0,05934
2227,37915	-0,00652	0,04039	0,15296	0,06725	0,05309	0,05931
2225,45068	-0,00663	0,04038	0,15292	0,06719	0,05303	0,05922
2223,52222	-0,00666	0,04042	0,15289	0,06713	0,05303	0,05916
2221,59375	-0,00671	0,04039	0,15294	0,06719	0,05306	0,05919
2219,66528	-0,0067	0,04037	0,1529	0,0672	0,05305	0,05916
2217,73682	-0,00668	0,04045	0,15285	0,06717	0,05303	0,05916
2215,80835	-0,00675	0,04048	0,15288	0,06716	0,05306	0,0592
2213,87988	-0,0067	0,04048	0,15286	0,06718	0,05307	0,05921
2211,95142	-0,00661	0,04053	0,15283	0,0672	0,05304	0,05918
2210,02295	-0,00664	0,04047	0,15279	0,06715	0,05301	0,05916
2208,09448	-0,00665	0,04042	0,15273	0,06711	0,05304	0,05918
2206,16602	-0,00666	0,04042	0,15275	0,06715	0,05309	0,0592
2204,23755	-0,00668	0,04037	0,15277	0,06718	0,05308	0,05913
2202,30908	-0,00669	0,04042	0,15275	0,06715	0,0531	0,05908
2200,38062	-0,00672	0,04047	0,15274	0,06711	0,05309	0,0591
2198,45215	-0,00676	0,04044	0,15273	0,06714	0,05303	0,05905
2196,52368	-0,00682	0,04044	0,1527	0,06716	0,05303	0,05902
2194,59521	-0,00689	0,04037	0,15271	0,06713	0,05303	0,05904
2192,66675	-0,00693	0,0403	0,15269	0,06716	0,05303	0,05902
2190,73828	-0,00691	0,04038	0,15264	0,06717	0,05306	0,059
2188,80981	-0,00688	0,04039	0,15263	0,06714	0,05305	0,05899
2186,88135	-0,00689	0,04033	0,15263	0,06713	0,05301	0,05897
2184,95288	-0,00688	0,04034	0,15258	0,06709	0,05297	0,05894
2183,02441	-0,00688	0,04036	0,15253	0,06709	0,05295	0,05887
2181,09595	-0,00692	0,0403	0,15248	0,06711	0,0529	0,05885
2179,16748	-0,00695	0,04029	0,15255	0,06712	0,05294	0,05892
2177,23901	-0,00701	0,04032	0,15258	0,06714	0,05297	0,05895
2175,31055	-0,00705	0,0403	0,15251	0,06708	0,05284	0,05885
2173,38208	-0,00697	0,0403	0,15257	0,06706	0,05284	0,05886
2171,45361	-0,00709	0,04015	0,15253	0,06704	0,05285	0,05887
2169,52515	-0,00731	0,03991	0,1524	0,06698	0,05276	0,05879
2167,59668	-0,00723	0,04001	0,15247	0,067	0,05281	0,05886
2165,66821	-0,00712	0,04016	0,15257	0,06706	0,05286	0,05893
2163,73975	-0,00715	0,04017	0,15258	0,06705	0,05283	0,05886
2161,81128	-0,00717	0,04016	0,15255	0,06703	0,05282	0,05884

2159,88281	-0,00725	0,04008	0,15249	0,06706	0,05278	0,05883
2157,95435	-0,00729	0,04004	0,15258	0,06706	0,05275	0,05881
2156,02588	-0,00728	0,04002	0,1526	0,06705	0,05274	0,05881
2154,09741	-0,00731	0,03997	0,15247	0,06702	0,05272	0,05874
2152,16895	-0,00732	0,03998	0,15251	0,06701	0,05273	0,05869
2150,24048	-0,00732	0,03994	0,1526	0,06706	0,05275	0,05875
2148,31201	-0,00732	0,03988	0,15259	0,06708	0,05278	0,05878
2146,38354	-0,00733	0,03987	0,15266	0,06711	0,05282	0,05874
2144,45508	-0,00741	0,03986	0,15273	0,06713	0,05277	0,05871
2142,52661	-0,00742	0,03985	0,15274	0,06711	0,05274	0,05873
2140,59814	-0,0074	0,03978	0,15278	0,0671	0,05277	0,05874
2138,66968	-0,00743	0,03971	0,15281	0,06708	0,05278	0,05871
2136,74121	-0,00741	0,03972	0,15278	0,06711	0,05276	0,05866
2134,81274	-0,00741	0,03971	0,15273	0,06709	0,05266	0,05859
2132,88428	-0,00751	0,03967	0,15272	0,06705	0,05257	0,05853
2130,95581	-0,00758	0,03964	0,15273	0,06707	0,05258	0,05859
2129,02734	-0,00767	0,03963	0,15271	0,06706	0,05259	0,05863
2127,09888	-0,00775	0,03964	0,15273	0,06703	0,05253	0,05856
2125,17041	-0,0078	0,0396	0,15267	0,06699	0,0525	0,05849
2123,24194	-0,00788	0,03952	0,15252	0,06686	0,05242	0,05841
2121,31348	-0,00791	0,03945	0,15247	0,06683	0,05234	0,05837
2119,38501	-0,00791	0,03942	0,15243	0,06681	0,05228	0,0583
2117,45654	-0,00793	0,03943	0,15235	0,0668	0,05227	0,05825
2115,52808	-0,00799	0,03948	0,15234	0,06685	0,05229	0,05832
2113,59961	-0,00809	0,03945	0,15229	0,06678	0,05223	0,05825
2111,67114	-0,00818	0,0394	0,15227	0,06672	0,05216	0,05818
2109,74268	-0,00824	0,03941	0,15228	0,06672	0,05215	0,05823
2107,81421	-0,00827	0,03933	0,15224	0,0667	0,05216	0,05818
2105,88574	-0,00831	0,03924	0,15224	0,0667	0,05215	0,05817
2103,95728	-0,00838	0,03916	0,15226	0,06663	0,05208	0,05812
2102,02881	-0,00847	0,03906	0,15221	0,06656	0,052	0,058
2100,10034	-0,00858	0,039	0,15213	0,06652	0,05193	0,0579
2098,17188	-0,00865	0,0389	0,15215	0,06649	0,05187	0,05784
2096,24341	-0,00864	0,03882	0,15222	0,0665	0,05185	0,05787
2094,31494	-0,0087	0,03872	0,15214	0,06646	0,05171	0,05778
2092,38647	-0,00872	0,0386	0,15208	0,06642	0,05169	0,05772
2090,45801	-0,00867	0,03858	0,15222	0,06646	0,05181	0,05782
2088,52954	-0,00874	0,03852	0,15217	0,06636	0,05167	0,05772
2086,60107	-0,00888	0,03846	0,15207	0,06629	0,05151	0,0576
2084,67261	-0,00896	0,03846	0,15212	0,06633	0,05152	0,05766
2082,74414	-0,00899	0,03839	0,15211	0,06631	0,05147	0,05761
2080,81567	-0,00903	0,03831	0,15214	0,06634	0,05151	0,05761
2078,88721	-0,00909	0,03828	0,1522	0,06632	0,05148	0,0576
2076,95874	-0,00909	0,03828	0,15214	0,06624	0,0514	0,05753
2075,03027	-0,00914	0,03823	0,15209	0,06621	0,05138	0,05746
2073,10181	-0,00915	0,03828	0,15204	0,06616	0,05128	0,05738
2071,17334	-0,00904	0,03833	0,15204	0,0662	0,05135	0,05743
2069,24487	-0,00914	0,03822	0,15201	0,06619	0,05133	0,05733

2067,31641	-0,00918	0,03833	0,15198	0,06628	0,05144	0,05733
2065,38794	-0,00897	0,03846	0,15213	0,06651	0,05185	0,05766
2063,45947	-0,00908	0,03833	0,15207	0,0664	0,05164	0,05751
2061,53101	-0,00919	0,03836	0,15193	0,0663	0,05139	0,05735
2059,60254	-0,00909	0,03841	0,15201	0,06638	0,05157	0,05751
2057,67407	-0,00909	0,03837	0,15198	0,06628	0,05152	0,05746
2055,74561	-0,00903	0,03844	0,15186	0,06626	0,05146	0,0574
2053,81714	-0,009	0,03848	0,15182	0,0663	0,05153	0,05739
2051,88867	-0,00907	0,0385	0,15181	0,06623	0,05153	0,05739
2049,96021	-0,00911	0,03856	0,15176	0,06627	0,05151	0,05746
2048,03174	-0,00914	0,03866	0,15175	0,06639	0,05156	0,05748
2046,10327	-0,00918	0,03876	0,15176	0,06634	0,05159	0,05744
2044,1748	-0,00913	0,03883	0,15173	0,06634	0,05163	0,05745
2042,24634	-0,00895	0,03892	0,15181	0,06658	0,05194	0,05769
2040,31787	-0,00895	0,03884	0,15186	0,06654	0,05194	0,05772
2038,3894	-0,00912	0,03876	0,15173	0,06632	0,05161	0,05745
2036,46094	-0,0092	0,03878	0,15166	0,06635	0,05158	0,05738
2034,53247	-0,00924	0,03866	0,15168	0,06633	0,05159	0,05734
2032,604	-0,00924	0,03858	0,15169	0,06624	0,0515	0,05725
2030,67554	-0,00931	0,0386	0,15161	0,06621	0,05142	0,05715
2028,74707	-0,00937	0,03858	0,15161	0,0662	0,05141	0,05709
2026,8186	-0,00936	0,03857	0,15164	0,06614	0,05134	0,05705
2024,89014	-0,00936	0,03856	0,15157	0,06609	0,05132	0,05699
2022,96167	-0,0094	0,03851	0,15165	0,06618	0,05144	0,05703
2021,0332	-0,00949	0,03847	0,15162	0,06612	0,05121	0,05693
2019,10474	-0,0093	0,03863	0,15164	0,0663	0,05158	0,05715
2017,17627	-0,00911	0,03873	0,1519	0,06664	0,05226	0,05759
2015,2478	-0,00934	0,03854	0,15167	0,06625	0,05155	0,05714
2013,31934	-0,00934	0,03853	0,15145	0,06604	0,05112	0,05681
2011,39087	-0,00929	0,03863	0,15157	0,06622	0,05138	0,05703
2009,4624	-0,00936	0,03862	0,15149	0,06621	0,05137	0,05702
2007,53394	-0,00929	0,03863	0,15146	0,06624	0,05142	0,05702
2005,60547	-0,00933	0,03863	0,15151	0,06623	0,05136	0,057
2003,677	-0,00937	0,03863	0,15148	0,06629	0,05136	0,05697
2001,74854	-0,00934	0,03859	0,1514	0,06625	0,05132	0,05691
1999,82007	-0,00925	0,03868	0,15139	0,06623	0,0514	0,05702
1997,8916	-0,00919	0,03871	0,15147	0,0663	0,05157	0,05713
1995,96313	-0,00937	0,03856	0,15134	0,06606	0,05108	0,05678
1994,03467	-0,00906	0,03887	0,15153	0,06656	0,05176	0,05734
1992,1062	-0,00872	0,03901	0,15195	0,06718	0,05287	0,0581
1990,17773	-0,00913	0,03867	0,15169	0,06657	0,05197	0,05742
1988,24927	-0,0092	0,03879	0,15148	0,06633	0,05159	0,05712
1986,3208	-0,00919	0,03874	0,15145	0,06632	0,05153	0,05701
1984,39233	-0,00935	0,03858	0,15132	0,06607	0,05108	0,05674
1982,46387	-0,00924	0,0388	0,15141	0,06614	0,05127	0,0569
1980,5354	-0,00924	0,03881	0,15135	0,06616	0,05124	0,05682
1978,60693	-0,00926	0,03877	0,15134	0,06622	0,05127	0,05684
1976,67847	-0,00925	0,03883	0,1514	0,0662	0,05131	0,05684

1974,75	-0,00924	0,03888	0,15133	0,06618	0,05127	0,05675
1972,82153	-0,0092	0,03887	0,15142	0,0663	0,05147	0,0569
1970,89307	-0,00933	0,03882	0,15133	0,06607	0,05108	0,05668
1968,9646	-0,009	0,03911	0,15147	0,06643	0,05171	0,05715
1967,03613	-0,00866	0,03924	0,15189	0,06699	0,05285	0,0579
1965,10767	-0,00922	0,03888	0,15151	0,06629	0,05168	0,05701
1963,1792	-0,00939	0,03892	0,15123	0,06601	0,05105	0,05663
1961,25073	-0,00921	0,03903	0,15144	0,06637	0,05158	0,05708
1959,32227	-0,00933	0,03893	0,1513	0,06611	0,05118	0,05675
1957,3938	-0,00931	0,03897	0,15128	0,06607	0,05116	0,05669
1955,46533	-0,00931	0,039	0,15145	0,06627	0,05154	0,05693
1953,53687	-0,00936	0,03891	0,15139	0,06621	0,05138	0,05675
1951,6084	-0,00943	0,03878	0,15128	0,06607	0,05109	0,05649
1949,67993	-0,00943	0,03886	0,15131	0,06612	0,05117	0,05653
1947,75146	-0,00944	0,03885	0,15144	0,06623	0,0514	0,05664
1945,823	-0,00952	0,03877	0,15138	0,06617	0,05133	0,05651
1943,89453	-0,00885	0,03916	0,15183	0,06702	0,05272	0,05746
1941,96606	-0,00876	0,03898	0,15218	0,06733	0,05322	0,05781
1940,0376	-0,00967	0,03858	0,15137	0,06609	0,05104	0,0562
1938,10913	-0,00963	0,03886	0,15112	0,06595	0,05081	0,05601
1936,18066	-0,00951	0,03888	0,15119	0,06607	0,05114	0,05621
1934,2522	-0,0096	0,0389	0,15115	0,06601	0,05105	0,05612
1932,32373	-0,00959	0,03883	0,15118	0,06599	0,05103	0,05615
1930,39526	-0,00957	0,03877	0,15111	0,06592	0,05087	0,05602
1928,4668	-0,00957	0,03872	0,15129	0,06601	0,05106	0,05614
1926,53833	-0,00974	0,03853	0,15107	0,06565	0,05043	0,05571
1924,60986	-0,00915	0,03903	0,15144	0,06647	0,05167	0,05646
1922,6814	-0,00886	0,03903	0,15221	0,06719	0,05314	0,05751
1920,75293	-0,00954	0,03875	0,15152	0,06618	0,05136	0,05629
1918,82446	-0,00943	0,03905	0,15147	0,06637	0,05141	0,05616
1916,896	-0,00958	0,03842	0,15179	0,06636	0,0516	0,05624
1914,96753	-0,01	0,03826	0,15123	0,06565	0,05036	0,05547
1913,03906	-0,00982	0,03869	0,15128	0,06582	0,05051	0,0556
1911,1106	-0,00951	0,03871	0,15169	0,06624	0,05132	0,05618
1909,18213	-0,00928	0,0387	0,15188	0,06649	0,05185	0,05657
1907,25366	-0,00963	0,03842	0,15166	0,06603	0,05103	0,05599
1905,3252	-0,00995	0,03827	0,15144	0,06576	0,0504	0,05556
1903,39673	-0,00996	0,03825	0,1515	0,06582	0,05042	0,05557
1901,46826	-0,00994	0,03814	0,15158	0,06577	0,05039	0,05552
1899,53979	-0,01012	0,03798	0,15149	0,06549	0,05	0,05518
1897,61133	-0,01004	0,0381	0,1515	0,06553	0,05009	0,0551
1895,68286	-0,0095	0,03835	0,15211	0,0664	0,05162	0,0562
1893,75439	-0,01011	0,03786	0,15182	0,06572	0,05061	0,0556
1891,82593	-0,01023	0,03806	0,15155	0,06546	0,05011	0,05516
1889,89746	-0,00936	0,03841	0,15255	0,06683	0,05242	0,0567
1887,96899	-0,01016	0,03764	0,15215	0,06591	0,05088	0,05566
1886,04053	-0,01043	0,03782	0,15157	0,06534	0,0498	0,05494
1884,11206	-0,01002	0,03803	0,1519	0,06587	0,05069	0,0556



1882,18359	-0,01037	0,03785	0,15169	0,06545	0,05003	0,05513
1880,25513	-0,01041	0,03809	0,15171	0,06549	0,05005	0,05515
1878,32666	-0,01037	0,038	0,15184	0,06566	0,0503	0,05537
1876,39819	-0,01041	0,03804	0,15159	0,06554	0,05008	0,05517
1874,46973	-0,01035	0,03808	0,1516	0,06559	0,05017	0,05524
1872,54126	-0,01029	0,03819	0,15159	0,0656	0,05022	0,05534
1870,61279	-0,00966	0,03892	0,1519	0,06642	0,05154	0,05608
1868,68433	-0,00864	0,03904	0,15319	0,06804	0,05461	0,05806
1866,75586	-0,00957	0,03817	0,15273	0,06695	0,05286	0,05701
1864,82739	-0,01022	0,0384	0,15175	0,06584	0,05068	0,05554
1862,89893	-0,01021	0,03869	0,15157	0,06576	0,05045	0,05541
1860,97046	-0,01004	0,03881	0,15165	0,06594	0,05083	0,0557
1859,04199	-0,01	0,03887	0,15164	0,06598	0,05086	0,05565
1857,11353	-0,01005	0,03881	0,15152	0,06585	0,05071	0,05552
1855,18506	-0,01008	0,0388	0,15135	0,06572	0,05042	0,05528
1853,25659	-0,00994	0,03878	0,15151	0,06592	0,05072	0,05551
1851,32813	-0,00997	0,03897	0,15134	0,06572	0,05045	0,05523
1849,39966	-0,00978	0,03894	0,15165	0,06602	0,05102	0,05561
1847,47119	-0,00904	0,03933	0,15214	0,06703	0,05277	0,05704
1845,54272	-0,00923	0,03976	0,15165	0,06673	0,05214	0,05626
1843,61426	-0,00999	0,03845	0,15186	0,06607	0,05127	0,05546
1841,68579	-0,01015	0,03823	0,15166	0,06576	0,05071	0,05544
1839,75732	-0,00973	0,03922	0,15155	0,06615	0,05112	0,05583
1837,82886	-0,00969	0,03937	0,15161	0,06622	0,0513	0,05595
1835,90039	-0,00952	0,03916	0,15194	0,06652	0,05189	0,05642
1833,97192	-0,0101	0,0388	0,15144	0,06575	0,05052	0,05544
1832,04346	-0,00945	0,03957	0,15151	0,06636	0,05142	0,05597
1830,11499	-0,00833	0,03975	0,15295	0,06824	0,05481	0,05821
1828,18652	-0,00973	0,03848	0,15211	0,06662	0,0521	0,05644
1826,25806	-0,00945	0,03931	0,15184	0,06667	0,05191	0,05637
1824,32959	-0,00917	0,0392	0,15255	0,06727	0,05305	0,05716
1822,40112	-0,01025	0,03848	0,15162	0,06588	0,05074	0,05565
1820,47266	-0,01019	0,03908	0,15124	0,06577	0,05033	0,05541
1818,54419	-0,00993	0,03916	0,15166	0,06618	0,05103	0,05591
1816,61572	-0,0101	0,03884	0,15167	0,06599	0,05081	0,05574
1814,68726	-0,01029	0,03878	0,15142	0,06557	0,05015	0,05526
1812,75879	-0,0098	0,03926	0,15187	0,06635	0,0515	0,05625
1810,83032	-0,00938	0,03926	0,15256	0,06717	0,05301	0,05724
1808,90186	-0,00997	0,03861	0,15212	0,0663	0,05149	0,05611
1806,97339	-0,01025	0,03863	0,1518	0,06591	0,05072	0,05566
1805,04492	-0,01045	0,03856	0,15168	0,06568	0,05037	0,05548
1803,11646	-0,01028	0,03865	0,15194	0,06606	0,05095	0,05583
1801,18799	-0,00967	0,03855	0,15301	0,06716	0,05295	0,05715
1799,25952	-0,01049	0,0376	0,1525	0,06591	0,05113	0,05577
1797,33105	-0,01058	0,03766	0,15221	0,06565	0,05068	0,05562
1795,40259	-0,01001	0,03838	0,15246	0,06638	0,0518	0,05654
1793,47412	-0,01057	0,0386	0,15171	0,06552	0,05027	0,05495
1791,54565	-0,01021	0,0379	0,15283	0,06645	0,05218	0,05608

1789,61719	-0,01076	0,03742	0,15228	0,06572	0,05071	0,05553
1787,68872	-0,01056	0,03845	0,15146	0,06539	0,0498	0,05501
1785,76025	-0,01033	0,0386	0,15176	0,06571	0,05045	0,05538
1783,83179	-0,01084	0,03803	0,1515	0,06506	0,0496	0,05481
1781,90332	-0,01004	0,03856	0,15202	0,06622	0,05143	0,05617
1779,97485	-0,0097	0,03868	0,15251	0,06686	0,05249	0,05686
1778,04639	-0,01087	0,03788	0,15165	0,06515	0,04964	0,05483
1776,11792	-0,00986	0,03843	0,15234	0,06646	0,05171	0,05656
1774,18945	-0,01007	0,03926	0,15159	0,06609	0,05113	0,05558
1772,26099	-0,01102	0,03775	0,15165	0,06502	0,05017	0,05428
1770,33252	-0,01088	0,03696	0,15221	0,06547	0,05065	0,05525
1768,40405	-0,01046	0,03815	0,15203	0,06579	0,05073	0,05542
1766,47559	-0,01177	0,03696	0,15148	0,06413	0,0482	0,05377
1764,54712	-0,01057	0,03787	0,15194	0,06534	0,05009	0,05543
1762,61865	-0,01037	0,03868	0,1521	0,06577	0,05077	0,05531
1760,69019	-0,0117	0,03659	0,15207	0,06446	0,04903	0,05421
1758,76172	-0,01076	0,03773	0,15222	0,06541	0,05034	0,05561
1756,83325	-0,01058	0,03795	0,1527	0,06581	0,05088	0,05589
1754,90479	-0,01137	0,03669	0,15239	0,06486	0,04938	0,05514
1752,97632	-0,01124	0,03797	0,15167	0,06483	0,04921	0,05488
1751,04785	-0,01078	0,03823	0,15239	0,06548	0,05064	0,0553
1749,11938	-0,00988	0,03714	0,15416	0,06731	0,05392	0,05812
1747,19092	-0,00962	0,03776	0,15392	0,06756	0,05395	0,05855
1745,26245	-0,01067	0,03759	0,15301	0,06609	0,05147	0,05663
1743,33398	-0,0101	0,03749	0,15391	0,06711	0,05305	0,05811
1741,40552	-0,01055	0,0379	0,15289	0,06622	0,05127	0,05655
1739,47705	-0,01202	0,03645	0,15234	0,06443	0,04864	0,05439
1737,54858	-0,01077	0,03687	0,15346	0,06604	0,05132	0,05705
1735,62012	-0,01168	0,0385	0,15146	0,06443	0,04828	0,054
1733,69165	-0,01287	0,03615	0,15204	0,06303	0,04747	0,05227
1731,76318	-0,01252	0,03545	0,15253	0,06394	0,04849	0,05441
1729,83472	-0,00956	0,03803	0,15445	0,06769	0,05406	0,05892
1727,90625	-0,01236	0,03639	0,15229	0,06386	0,04779	0,05433
1725,97778	-0,01149	0,03691	0,15244	0,06469	0,0489	0,05546
1724,04932	-0,01122	0,03724	0,15282	0,06533	0,04998	0,05601
1722,12085	-0,01191	0,03633	0,15249	0,06441	0,04883	0,05525
1720,19238	-0,01072	0,03759	0,15292	0,06587	0,05078	0,05665
1718,26392	-0,01082	0,03785	0,15277	0,06569	0,05127	0,05588
1716,33545	-0,0128	0,03546	0,15212	0,06361	0,04872	0,05383
1714,40698	-0,0115	0,03603	0,15345	0,06565	0,05116	0,05671
1712,47852	-0,01155	0,03667	0,15293	0,06526	0,05013	0,0562
1710,55005	-0,01233	0,03623	0,15223	0,06394	0,04812	0,05482
1708,62158	-0,0107	0,03721	0,15336	0,06593	0,05126	0,05734
1706,69312	-0,0108	0,03751	0,15311	0,06579	0,05105	0,05654
1704,76465	-0,01074	0,03583	0,15425	0,0663	0,05243	0,05793
1702,83618	-0,01056	0,03734	0,1533	0,06623	0,05163	0,05752
1700,90771	-0,0118	0,03707	0,15211	0,06402	0,04766	0,05303
1698,97925	-0,01421	0,03268	0,15212	0,06207	0,04578	0,05227

1697,05078	-0,01206	0,03648	0,15217	0,06461	0,04979	0,05559
1695,12231	-0,01358	0,03506	0,1517	0,06217	0,04597	0,05239
1693,19385	-0,0129	0,03427	0,15266	0,06296	0,04675	0,05448
1691,26538	-0,01062	0,03734	0,1537	0,06594	0,0513	0,05784
1689,33691	-0,01128	0,03603	0,15439	0,06539	0,0509	0,05738
1687,40845	-0,01029	0,03657	0,15476	0,06645	0,05245	0,059
1685,47998	-0,01252	0,03771	0,15181	0,06319	0,04725	0,05361
1683,55151	-0,01123	0,03405	0,15521	0,06493	0,05173	0,0566
1681,62305	-0,01104	0,03477	0,15524	0,06583	0,05159	0,05832
1679,69458	-0,01114	0,03594	0,15477	0,06563	0,05119	0,05837
1677,76611	-0,01197	0,03557	0,15381	0,06426	0,04864	0,05648
1675,83765	-0,01234	0,03545	0,15352	0,06376	0,04752	0,05514
1673,90918	-0,0133	0,03369	0,15373	0,06303	0,04685	0,05486
1671,98071	-0,01143	0,03515	0,15459	0,06528	0,05026	0,05787
1670,05225	-0,01016	0,03643	0,15543	0,06685	0,05296	0,05906
1668,12378	-0,01282	0,03325	0,15464	0,06424	0,04876	0,05637
1666,19531	-0,01221	0,03451	0,15426	0,06479	0,0489	0,05735
1664,26685	-0,01251	0,03549	0,15351	0,06427	0,04769	0,05595
1662,33838	-0,01222	0,03414	0,15461	0,0651	0,04946	0,05714
1660,40991	-0,01253	0,03415	0,15401	0,0647	0,04822	0,05676
1658,48145	-0,01345	0,03412	0,15314	0,0635	0,04598	0,05524
1656,55298	-0,01105	0,03497	0,1553	0,0671	0,05187	0,05978
1654,62451	-0,01217	0,03633	0,15307	0,06544	0,04925	0,056
1652,69604	-0,01187	0,03248	0,15501	0,06476	0,05265	0,05539
1650,76758	-0,01699	0,03016	0,15134	0,06064	0,0416	0,05137
1648,83911	-0,0099	0,03528	0,15626	0,0699	0,05578	0,06249
1646,91064	-0,01042	0,03494	0,15605	0,06923	0,05636	0,06097
1644,98218	-0,0159	0,03087	0,15222	0,06277	0,04455	0,05343
1643,05371	-0,0133	0,03327	0,15359	0,06605	0,0491	0,0575
1641,12524	-0,01433	0,03292	0,15282	0,06487	0,04702	0,05575
1639,19678	-0,01311	0,03325	0,15399	0,06667	0,05013	0,05821
1637,26831	-0,0127	0,03435	0,15376	0,06737	0,05148	0,05831
1635,33984	-0,01339	0,03243	0,15385	0,06623	0,05069	0,05654
1633,41138	-0,01577	0,03072	0,15244	0,06383	0,04549	0,05418
1631,48291	-0,01404	0,03271	0,15304	0,06596	0,04862	0,05704
1629,55444	-0,01469	0,03277	0,15241	0,06531	0,04761	0,05576
1627,62598	-0,01455	0,03184	0,15333	0,06615	0,04921	0,05695
1625,69751	-0,01498	0,0319	0,15258	0,0657	0,0482	0,05629
1623,76904	-0,01497	0,032	0,15265	0,06578	0,04872	0,05603
1621,84058	-0,01591	0,03048	0,15277	0,06497	0,04782	0,05563
1619,91211	-0,01516	0,03168	0,15268	0,06555	0,04858	0,0567
1617,98364	-0,01651	0,03248	0,1508	0,06341	0,04547	0,05339
1616,05518	-0,01754	0,03069	0,15077	0,06169	0,04344	0,05144
1614,12671	-0,01563	0,03173	0,15236	0,06386	0,04622	0,05461
1612,19824	-0,01414	0,03354	0,15303	0,065	0,04801	0,05606
1610,26978	-0,0142	0,03368	0,1529	0,06434	0,04725	0,05528
1608,34131	-0,01335	0,03407	0,15392	0,06555	0,04932	0,05686
1606,41284	-0,0138	0,03421	0,15339	0,06455	0,04769	0,05561

1604,48438	-0,01365	0,03446	0,15323	0,06422	0,04722	0,0553
1602,55591	-0,01303	0,03499	0,15378	0,06487	0,04846	0,05621
1600,62744	-0,0132	0,03494	0,15361	0,06423	0,0475	0,05545
1598,69897	-0,01314	0,03505	0,15347	0,0639	0,0469	0,055
1596,77051	-0,01277	0,03547	0,15392	0,06443	0,04777	0,05564
1594,84204	-0,01246	0,03575	0,15452	0,06493	0,04857	0,05629
1592,91357	-0,01274	0,03581	0,1543	0,06444	0,0477	0,0556
1590,98511	-0,01272	0,03585	0,15432	0,06437	0,04762	0,05553
1589,05664	-0,01247	0,03609	0,15463	0,06457	0,04801	0,05586
1587,12817	-0,01302	0,036	0,15429	0,06379	0,04679	0,05492
1585,19971	-0,01263	0,03615	0,15476	0,06432	0,0477	0,0557
1583,27124	-0,01251	0,03649	0,15465	0,06425	0,04756	0,05552
1581,34277	-0,01296	0,03607	0,15447	0,06356	0,04654	0,05471
1579,41431	-0,01149	0,03685	0,15571	0,06545	0,04975	0,05727
1577,48584	-0,01263	0,03787	0,15377	0,0636	0,04719	0,05437
1575,55737	-0,01433	0,03548	0,1533	0,06169	0,04517	0,05195
1573,62891	-0,01307	0,03544	0,15469	0,06355	0,04707	0,05495
1571,70044	-0,01112	0,03814	0,15531	0,06556	0,04993	0,05716
1569,77197	-0,01116	0,03733	0,15607	0,06573	0,05126	0,0572
1567,84351	-0,01204	0,0361	0,15554	0,06465	0,04921	0,05645
1565,91504	-0,01148	0,0378	0,15511	0,06476	0,04926	0,05647
1563,98657	-0,01139	0,03685	0,15587	0,065	0,04996	0,05702
1562,05811	-0,01081	0,03787	0,15535	0,06523	0,05007	0,05729
1560,12964	-0,00967	0,04026	0,15453	0,06495	0,05072	0,05543
1558,20117	-0,00928	0,03418	0,1578	0,06613	0,05593	0,05791
1556,27271	-0,01228	0,03559	0,15482	0,06374	0,04815	0,05513
1554,34424	-0,01168	0,03727	0,15483	0,06426	0,04876	0,05582
1552,41577	-0,01244	0,03638	0,15422	0,06285	0,04632	0,05426
1550,4873	-0,00932	0,03816	0,15681	0,06704	0,05331	0,05965
1548,55884	-0,01064	0,03742	0,15588	0,06545	0,05066	0,05772
1546,63037	-0,01147	0,03757	0,15458	0,06389	0,04783	0,05561
1544,7019	-0,00892	0,03903	0,15707	0,06756	0,05437	0,06
1542,77344	-0,00972	0,03813	0,15646	0,06646	0,05281	0,05848
1540,84497	-0,01054	0,03842	0,15431	0,06387	0,04939	0,05452
1538,9165	-0,01143	0,03529	0,15542	0,06383	0,05111	0,05548
1536,98804	-0,01214	0,03592	0,15482	0,06355	0,04795	0,05559
1535,05957	-0,00967	0,03875	0,15589	0,06612	0,05167	0,05832
1533,1311	-0,00874	0,03809	0,15751	0,06756	0,05506	0,06012
1531,20264	-0,01137	0,03654	0,15564	0,06456	0,04939	0,05695
1529,27417	-0,01013	0,03849	0,15575	0,06562	0,05095	0,05822
1527,3457	-0,00929	0,03865	0,15668	0,06673	0,05336	0,05936
1525,41724	-0,01059	0,03724	0,15588	0,06513	0,0506	0,05757
1523,48877	-0,0098	0,03852	0,15563	0,06558	0,05141	0,05784
1521,5603	-0,01007	0,03782	0,15569	0,06508	0,05208	0,05719
1519,63184	-0,01263	0,03598	0,15413	0,06239	0,04675	0,0541
1517,70337	-0,00892	0,03827	0,15714	0,0673	0,05459	0,06029
1515,7749	-0,00917	0,03766	0,15753	0,06736	0,05472	0,06049
1513,84644	-0,01125	0,03718	0,15541	0,06441	0,04922	0,05683

1511,91797	-0,01144	0,03764	0,15513	0,06407	0,04876	0,05629
1509,9895	-0,00897	0,03857	0,15749	0,06752	0,05482	0,06076
1508,06104	-0,00764	0,0403	0,15764	0,06874	0,05755	0,06155
1506,13257	-0,009	0,03707	0,1571	0,06646	0,05639	0,05871
1504,2041	-0,0142	0,03468	0,1532	0,06086	0,04395	0,05225
1502,27563	-0,01054	0,03781	0,15547	0,06509	0,05032	0,0578
1500,34717	-0,01122	0,03771	0,15498	0,06424	0,04894	0,05642
1498,4187	-0,01103	0,03772	0,15519	0,06462	0,04976	0,0567
1496,49023	-0,01237	0,03686	0,15422	0,06292	0,04742	0,05449
1494,56177	-0,0134	0,03586	0,15357	0,06143	0,04472	0,05311
1492,6333	-0,01094	0,03773	0,15508	0,06423	0,04895	0,05674
1490,70483	-0,00971	0,03848	0,15632	0,06612	0,05258	0,05887
1488,77637	-0,00967	0,03754	0,1571	0,06682	0,05408	0,05979
1486,8479	-0,01109	0,03703	0,15577	0,06505	0,05032	0,0576
1484,91943	-0,01226	0,03692	0,15452	0,06324	0,04698	0,05554
1482,99097	-0,01188	0,03731	0,15495	0,06387	0,048	0,05637
1481,0625	-0,0117	0,03722	0,15539	0,06449	0,04909	0,05719
1479,13403	-0,01245	0,03699	0,1546	0,06343	0,04717	0,05591
1477,20557	-0,01145	0,03746	0,15559	0,06491	0,04947	0,0577
1475,2771	-0,01075	0,03766	0,1562	0,06582	0,05124	0,05892
1473,34863	-0,01198	0,03732	0,15483	0,06402	0,04861	0,0566
1471,42017	-0,01245	0,03603	0,15536	0,06433	0,04906	0,05783
1469,4917	-0,01235	0,03625	0,15528	0,0645	0,04842	0,05922
1467,56323	-0,01223	0,03745	0,15462	0,06433	0,04779	0,05946
1465,63477	-0,01149	0,03758	0,15552	0,06564	0,05017	0,06097
1463,7063	-0,01294	0,03602	0,15473	0,06402	0,04746	0,05885
1461,77783	-0,01272	0,03642	0,15464	0,064	0,04732	0,05926
1459,84937	-0,01003	0,03834	0,15643	0,06731	0,05289	0,06321
1457,9209	-0,00957	0,03841	0,15628	0,06743	0,05432	0,06259
1455,99243	-0,01461	0,03413	0,15354	0,06175	0,04425	0,05527
1454,06396	-0,0117	0,03629	0,15595	0,06559	0,05006	0,06078
1452,1355	-0,01145	0,03692	0,15576	0,06564	0,04975	0,06063
1450,20703	-0,01245	0,03652	0,15476	0,06407	0,04704	0,05811
1448,27856	-0,01112	0,03712	0,15602	0,06579	0,05013	0,05985
1446,3501	-0,01219	0,03624	0,15536	0,06454	0,04804	0,05794
1444,42163	-0,01233	0,03658	0,1549	0,06402	0,04706	0,05732
1442,49316	-0,01235	0,03669	0,15484	0,06376	0,04669	0,05687
1440,5647	-0,01187	0,03643	0,1553	0,0642	0,04746	0,05741
1438,63623	-0,01179	0,03715	0,15472	0,06394	0,04693	0,05659
1436,70776	-0,01191	0,03638	0,15502	0,06388	0,04728	0,05601
1434,7793	-0,01282	0,03498	0,15506	0,06334	0,04639	0,05607
1432,85083	-0,01135	0,03666	0,15569	0,06474	0,04862	0,05821
1430,92236	-0,01131	0,03701	0,15572	0,06472	0,04873	0,05782
1428,9939	-0,01161	0,03598	0,15595	0,06466	0,04856	0,05756
1427,06543	-0,012	0,03625	0,15484	0,06356	0,0464	0,056
1425,13696	-0,01153	0,03673	0,15521	0,06425	0,04774	0,05658
1423,2085	-0,011	0,03644	0,15632	0,06552	0,05015	0,05839
1421,28003	-0,01241	0,03653	0,15442	0,0632	0,04601	0,05522

1419,35156	-0,01212	0,03645	0,15476	0,06354	0,04688	0,05511
1417,4231	-0,01158	0,03552	0,15606	0,06487	0,04929	0,05722
1415,49463	-0,01178	0,03614	0,15542	0,06426	0,04783	0,05676
1413,56616	-0,01273	0,03612	0,15445	0,06293	0,04555	0,05499
1411,6377	-0,01221	0,03614	0,15512	0,06395	0,04722	0,05624
1409,70923	-0,01251	0,03592	0,15503	0,06378	0,04683	0,05608
1407,78076	-0,01295	0,03588	0,15444	0,06302	0,04565	0,05518
1405,85229	-0,01194	0,03645	0,15523	0,06439	0,04826	0,0569
1403,92383	-0,01233	0,03566	0,15524	0,06384	0,04758	0,05655
1401,99536	-0,01278	0,03582	0,15445	0,06283	0,0458	0,05546
1400,06689	-0,01206	0,03645	0,15494	0,06391	0,04769	0,05667
1398,13843	-0,01184	0,03595	0,15561	0,0646	0,04914	0,0579
1396,20996	-0,01191	0,03636	0,15531	0,06452	0,04899	0,05802
1394,28149	-0,01231	0,03613	0,15494	0,06397	0,04838	0,05766
1392,35303	-0,01348	0,0353	0,15411	0,06251	0,04582	0,05663
1390,42456	-0,01283	0,0362	0,15428	0,06318	0,0466	0,05779
1388,49609	-0,01266	0,03645	0,15437	0,06337	0,04688	0,0579
1386,56763	-0,01291	0,03549	0,15407	0,06338	0,04671	0,05795
1384,63916	-0,01306	0,03501	0,15333	0,06321	0,04593	0,05779
1382,71069	-0,01316	0,03526	0,15331	0,06278	0,04529	0,05739
1380,78223	-0,01273	0,03588	0,15432	0,06331	0,04648	0,05834
1378,85376	-0,01282	0,03615	0,15468	0,06343	0,04682	0,05851
1376,92529	-0,01293	0,0365	0,15459	0,06318	0,04654	0,05782
1374,99683	-0,01163	0,03705	0,15576	0,06491	0,04954	0,0594
1373,06836	-0,01211	0,03635	0,15554	0,06434	0,04851	0,05825
1371,13989	-0,01304	0,03616	0,15445	0,06254	0,04552	0,05584
1369,21143	-0,01223	0,03682	0,15514	0,06351	0,04737	0,05683
1367,28296	-0,01259	0,03639	0,15481	0,06289	0,04639	0,05598
1365,35449	-0,01275	0,03634	0,15443	0,0624	0,04535	0,05534
1363,42603	-0,01135	0,03702	0,15608	0,06474	0,04937	0,05814
1361,49756	-0,01182	0,03646	0,15597	0,06442	0,04894	0,05772
1359,56909	-0,01296	0,03596	0,15466	0,06256	0,04574	0,05547
1357,64063	-0,01274	0,03627	0,15467	0,06271	0,04598	0,05561
1355,71216	-0,01244	0,03646	0,15488	0,06309	0,04653	0,05597
1353,78369	-0,01251	0,03628	0,15484	0,06284	0,04617	0,05573
1351,85522	-0,01254	0,03618	0,15482	0,06271	0,04611	0,05565
1349,92676	-0,0124	0,03631	0,15511	0,06299	0,04651	0,05592
1347,99829	-0,01247	0,03641	0,15536	0,063	0,04634	0,05581
1346,06982	-0,01256	0,03659	0,15553	0,06311	0,0465	0,05595
1344,14136	-0,01272	0,03661	0,15542	0,06303	0,04622	0,05581
1342,21289	-0,01243	0,03696	0,15562	0,06344	0,04672	0,05615
1340,28442	-0,01134	0,0376	0,15677	0,06518	0,04991	0,05823
1338,35596	-0,01133	0,03712	0,15681	0,06511	0,04996	0,05813
1336,42749	-0,01222	0,03665	0,15596	0,06373	0,04738	0,05641
1334,49902	-0,01234	0,03683	0,15576	0,06331	0,0467	0,05608
1332,57056	-0,01205	0,03682	0,15566	0,06313	0,04645	0,0561
1330,64209	-0,0119	0,03688	0,15577	0,0634	0,0468	0,05661
1328,71362	-0,01202	0,03697	0,15591	0,06352	0,04707	0,05701

1326,78516	-0,0121	0,03699	0,15589	0,06338	0,04684	0,057
1324,85669	-0,01203	0,03698	0,15599	0,06365	0,04712	0,05731
1322,92822	-0,01198	0,03691	0,15604	0,0636	0,04704	0,05736
1320,99976	-0,01171	0,03714	0,1563	0,06385	0,0475	0,05789
1319,07129	-0,01143	0,03741	0,15664	0,06462	0,04863	0,05887
1317,14282	-0,01168	0,03729	0,15638	0,0643	0,04793	0,05849
1315,21436	-0,01174	0,0372	0,15625	0,06407	0,0474	0,05822
1313,28589	-0,01145	0,03719	0,1565	0,06449	0,0481	0,0588
1311,35742	-0,01159	0,03702	0,15638	0,06426	0,04762	0,05856
1309,42896	-0,01165	0,03708	0,15628	0,06423	0,04731	0,05849
1307,50049	-0,01144	0,03722	0,15655	0,06452	0,04777	0,0591
1305,57202	-0,01143	0,03722	0,1569	0,06451	0,04769	0,05947
1303,64355	-0,01136	0,0374	0,15723	0,06469	0,04795	0,05995
1301,71509	-0,01132	0,03742	0,15725	0,06475	0,04813	0,06023
1299,78662	-0,01131	0,03739	0,15721	0,0647	0,048	0,06047
1297,85815	-0,01116	0,03767	0,15734	0,06495	0,0483	0,06119
1295,92969	-0,01114	0,03786	0,1574	0,06504	0,04844	0,06168
1294,00122	-0,01123	0,03804	0,15754	0,06511	0,04855	0,06205
1292,07275	-0,01122	0,03822	0,15765	0,06529	0,04881	0,06266
1290,14429	-0,01123	0,03832	0,15771	0,06554	0,04909	0,06352
1288,21582	-0,01111	0,03846	0,15792	0,06597	0,04974	0,06477
1286,28735	-0,01092	0,03849	0,15795	0,06627	0,05012	0,06601
1284,35889	-0,01088	0,03846	0,15788	0,06642	0,05021	0,06725
1282,43042	-0,01073	0,03848	0,158	0,06673	0,05066	0,06869
1280,50195	-0,01058	0,0385	0,15824	0,06711	0,05118	0,07012
1278,57349	-0,01058	0,03852	0,15852	0,06747	0,05161	0,07178
1276,64502	-0,01057	0,03862	0,1588	0,06786	0,05203	0,07342
1274,71655	-0,01049	0,03887	0,15913	0,0683	0,05246	0,07474
1272,78809	-0,01034	0,0391	0,15955	0,06891	0,05314	0,07614
1270,85962	-0,01032	0,03929	0,15985	0,06931	0,05353	0,07713
1268,93115	-0,0103	0,03946	0,16009	0,06945	0,05345	0,07745
1267,00269	-0,0102	0,03947	0,16031	0,06967	0,05352	0,07767
1265,07422	-0,01021	0,03942	0,16037	0,06971	0,05342	0,0774
1263,14575	-0,01008	0,03946	0,16052	0,0697	0,05327	0,07689
1261,21729	-0,00976	0,03956	0,1609	0,07003	0,05357	0,07676
1259,28882	-0,00967	0,03972	0,16103	0,07008	0,0535	0,07634
1257,36035	-0,00974	0,03984	0,16107	0,06996	0,05307	0,07573
1255,43188	-0,0097	0,03986	0,16154	0,07022	0,05309	0,07556
1253,50342	-0,00959	0,03989	0,16198	0,07044	0,05316	0,07539
1251,57495	-0,00942	0,03989	0,16223	0,0706	0,05307	0,07499
1249,64648	-0,00933	0,03994	0,1626	0,07081	0,05304	0,07462
1247,71802	-0,00924	0,04007	0,16293	0,07092	0,05295	0,07422
1245,78955	-0,00899	0,04018	0,16327	0,07121	0,05295	0,07379
1243,86108	-0,00884	0,04034	0,16374	0,07147	0,05297	0,07308
1241,93262	-0,00871	0,04055	0,16414	0,07139	0,05274	0,07201
1240,00415	-0,00858	0,04061	0,16444	0,0714	0,05256	0,07098
1238,07568	-0,00857	0,04067	0,16476	0,07151	0,0525	0,07019
1236,14722	-0,00839	0,04097	0,16511	0,07151	0,05232	0,0696

1234,21875	-0,00811	0,04131	0,16553	0,07173	0,05226	0,06921
1232,29028	-0,00802	0,04152	0,16591	0,07213	0,05241	0,06902
1230,36182	-0,0079	0,04155	0,16619	0,07239	0,05255	0,06906
1228,43335	-0,00756	0,04145	0,16654	0,07271	0,0528	0,06921
1226,50488	-0,00717	0,04155	0,16691	0,07311	0,05317	0,06948
1224,57642	-0,00697	0,04178	0,16719	0,07338	0,05336	0,06977
1222,64795	-0,00695	0,04192	0,1674	0,07354	0,0534	0,06986
1220,71948	-0,00673	0,04229	0,16764	0,07378	0,05358	0,06996
1218,79102	-0,00635	0,04277	0,16798	0,07409	0,05381	0,07017
1216,86255	-0,00616	0,04284	0,16822	0,07432	0,0538	0,07014
1214,93408	-0,00597	0,04283	0,16839	0,0745	0,05382	0,0699
1213,00562	-0,00563	0,04301	0,16873	0,07475	0,05402	0,0698
1211,07715	-0,00544	0,04316	0,16916	0,07504	0,05414	0,06976
1209,14868	-0,00528	0,04346	0,16956	0,07529	0,05427	0,06971
1207,22021	-0,00495	0,04384	0,16992	0,07565	0,05443	0,0698
1205,29175	-0,00474	0,04406	0,17035	0,07604	0,05465	0,07002
1203,36328	-0,00461	0,04423	0,17075	0,07622	0,05498	0,07032
1201,43481	-0,00428	0,04445	0,17105	0,07642	0,05517	0,0706
1199,50635	-0,00395	0,04475	0,17137	0,07675	0,05536	0,07089
1197,57788	-0,00378	0,04498	0,1717	0,07699	0,0556	0,07119
1195,64941	-0,00371	0,04513	0,17207	0,07715	0,05562	0,07124
1193,72095	-0,00367	0,04537	0,17254	0,07735	0,0557	0,07114
1191,79248	-0,00349	0,04561	0,17302	0,07762	0,05588	0,07118
1189,86401	-0,00315	0,04588	0,17339	0,07786	0,05586	0,07123
1187,93555	-0,00289	0,04608	0,1737	0,07806	0,05581	0,0713
1186,00708	-0,00273	0,04623	0,17408	0,07829	0,0559	0,07144
1184,07861	-0,00253	0,04659	0,17449	0,07864	0,05612	0,07153
1182,15015	-0,0023	0,04691	0,17488	0,07905	0,05641	0,07165
1180,22168	-0,00203	0,04707	0,17521	0,07929	0,05659	0,07186
1178,29321	-0,00175	0,04729	0,17553	0,07953	0,0567	0,07214
1176,36475	-0,00154	0,04769	0,17618	0,0799	0,0569	0,07247
1174,43628	-0,00135	0,04813	0,1769	0,08011	0,05708	0,07277
1172,50781	-0,00119	0,04831	0,17721	0,08031	0,05713	0,07298
1170,57935	-0,00109	0,04843	0,17748	0,08061	0,05722	0,07317
1168,65088	-0,00098	0,04867	0,1779	0,08095	0,05744	0,07342
1166,72241	-0,00087	0,04883	0,17832	0,08133	0,05759	0,07372
1164,79395	-0,00082	0,04901	0,17868	0,08153	0,05758	0,07389
1162,86548	-0,00076	0,0492	0,17891	0,08161	0,05755	0,07387
1160,93701	-0,0007	0,04935	0,17929	0,08183	0,05766	0,07403
1159,00854	-0,00069	0,04948	0,17969	0,08202	0,05775	0,07437
1157,08008	-0,00065	0,04946	0,1798	0,08207	0,05771	0,07451
1155,15161	-0,00055	0,04952	0,17992	0,0822	0,05783	0,0746
1153,22314	-0,00047	0,04975	0,1802	0,08249	0,05817	0,0749
1151,29468	-0,00035	0,04991	0,18062	0,08277	0,05832	0,07528
1149,36621	-0,0001	0,0501	0,18107	0,08294	0,05824	0,07552
1147,43774	0,00008	0,05033	0,18149	0,08326	0,0584	0,07587
1145,50928	0,00016	0,05045	0,18193	0,08366	0,05876	0,07628
1143,58081	0,0002	0,05065	0,18227	0,0839	0,05894	0,07649



1141,65234	0,00022	0,05091	0,18265	0,08425	0,05907	0,07668
1139,72388	0,00037	0,05109	0,18312	0,08471	0,05936	0,0769
1137,79541	0,0006	0,05135	0,18363	0,08505	0,05967	0,07706
1135,86694	0,00083	0,05155	0,18432	0,08546	0,06001	0,0773
1133,93848	0,00109	0,05154	0,18503	0,08608	0,06029	0,07762
1132,01001	0,00118	0,05171	0,18555	0,0866	0,06027	0,07771
1130,08154	0,0011	0,05193	0,18614	0,08702	0,06024	0,07779
1128,15308	0,00124	0,05196	0,18702	0,08772	0,06059	0,07825
1126,22461	0,00136	0,0521	0,18801	0,08868	0,06102	0,07866
1124,29614	0,0014	0,05233	0,18906	0,08971	0,06138	0,07881
1122,36768	0,00162	0,05248	0,19026	0,09084	0,0618	0,07904
1120,43921	0,00171	0,05266	0,19143	0,09189	0,06211	0,07937
1118,51074	0,00187	0,05281	0,19255	0,09287	0,06233	0,07964
1116,58228	0,00221	0,05296	0,1936	0,09385	0,06271	0,07983
1114,65381	0,00233	0,0533	0,19427	0,09465	0,06314	0,07998
1112,72534	0,00248	0,05363	0,19437	0,09514	0,06342	0,08019
1110,79688	0,00264	0,05381	0,19387	0,09523	0,06347	0,08033
1108,86841	0,00262	0,05396	0,19301	0,09484	0,06344	0,08029
1106,93994	0,00272	0,05412	0,19214	0,09417	0,06338	0,08025
1105,01147	0,0029	0,05438	0,19125	0,09343	0,06332	0,08025
1103,08301	0,00287	0,05463	0,19033	0,09271	0,06334	0,08025
1101,15454	0,00277	0,05475	0,18934	0,09208	0,06322	0,08026
1099,22607	0,0028	0,05476	0,18841	0,0915	0,06312	0,08029
1097,29761	0,00279	0,05484	0,18773	0,09085	0,0631	0,08034
1095,36914	0,00276	0,05498	0,18697	0,09031	0,06299	0,08031
1093,44067	0,00283	0,05497	0,18625	0,09003	0,06294	0,08028
1091,51221	0,00277	0,05489	0,18572	0,0897	0,06282	0,08035
1089,58374	0,00253	0,05492	0,18508	0,08916	0,06254	0,08037
1087,65527	0,00245	0,05503	0,18439	0,0885	0,06224	0,08013
1085,72681	0,00242	0,05495	0,18382	0,08797	0,06195	0,07982
1083,79834	0,00214	0,05462	0,18332	0,08763	0,06175	0,07974
1081,86987	0,00184	0,05446	0,18279	0,08714	0,06152	0,07968
1079,94141	0,00164	0,05437	0,1822	0,08664	0,06136	0,07967
1078,01294	0,00133	0,05405	0,18163	0,08626	0,06117	0,07965
1076,08447	0,0011	0,05373	0,18117	0,08569	0,06081	0,0794
1074,15601	0,0009	0,05329	0,18078	0,08514	0,06059	0,07921
1072,22754	0,00049	0,05285	0,18041	0,08474	0,06027	0,07907
1070,29907	0,0002	0,05264	0,18005	0,0842	0,05976	0,07883
1068,37061	0,00005	0,05237	0,1797	0,08356	0,05941	0,07866
1066,44214	-0,00027	0,052	0,17928	0,0831	0,05905	0,07849
1064,51367	-0,00048	0,0515	0,17882	0,08268	0,05867	0,07828
1062,58521	-0,00061	0,05103	0,17844	0,08225	0,05841	0,07816
1060,65674	-0,00097	0,05094	0,17808	0,08199	0,05821	0,07813
1058,72827	-0,00122	0,05071	0,17754	0,08164	0,05804	0,07811
1056,7998	-0,00137	0,05013	0,17711	0,08118	0,05788	0,07813
1054,87134	-0,00174	0,04984	0,17689	0,08075	0,05767	0,07829
1052,94287	-0,00208	0,04967	0,17655	0,08045	0,0576	0,07877
1051,0144	-0,0022	0,04933	0,17624	0,08042	0,05781	0,07961

1049,08594	-0,00239	0,04918	0,17607	0,08036	0,05795	0,08048
1047,15747	-0,00258	0,04915	0,1759	0,08022	0,05796	0,08103
1045,229	-0,0026	0,04895	0,1756	0,08018	0,05805	0,08102
1043,30054	-0,00267	0,04874	0,17517	0,08007	0,05801	0,08091
1041,37207	-0,00283	0,04871	0,17488	0,07985	0,05782	0,08102
1039,4436	-0,00293	0,0487	0,17477	0,07961	0,05773	0,08094
1037,51514	-0,00324	0,04858	0,17452	0,07936	0,05778	0,08094
1035,58667	-0,00354	0,04853	0,17437	0,07937	0,058	0,08146
1033,6582	-0,00359	0,04857	0,17426	0,07952	0,05819	0,08226
1031,72974	-0,00375	0,04856	0,17405	0,0795	0,05832	0,08307
1029,80127	-0,00383	0,04866	0,17414	0,07957	0,05859	0,08392
1027,8728	-0,00397	0,04871	0,17429	0,07968	0,0588	0,0847
1025,94434	-0,00423	0,04851	0,17421	0,07961	0,05888	0,0852
1024,01587	-0,00418	0,04844	0,17417	0,07949	0,05892	0,08539
1022,0874	-0,00398	0,04854	0,17405	0,07925	0,05873	0,08517
1020,15894	-0,00395	0,04835	0,17383	0,07888	0,05846	0,08445
1018,23047	-0,00404	0,04803	0,17373	0,07839	0,05824	0,08335
1016,302	-0,00416	0,04793	0,17388	0,07801	0,05779	0,082
1014,37354	-0,00443	0,0478	0,17399	0,07774	0,05721	0,08053
1012,44507	-0,00485	0,04759	0,17388	0,07726	0,05675	0,07908
1010,5166	-0,00507	0,04745	0,17383	0,07673	0,05627	0,07765
1008,58813	-0,00523	0,04731	0,17373	0,07645	0,05583	0,07627
1006,65967	-0,00547	0,04723	0,17362	0,07634	0,05571	0,07527
1004,7312	-0,00565	0,04727	0,17371	0,07614	0,05557	0,07455
1002,80273	-0,00584	0,04726	0,17379	0,07585	0,05515	0,07384
1000,87427	-0,00587	0,04713	0,1739	0,07576	0,05484	0,07318
998,9458	-0,00585	0,04694	0,17388	0,07548	0,05459	0,07245
997,01733	-0,0061	0,04682	0,17367	0,07512	0,05439	0,07182
995,08887	-0,00619	0,04692	0,17356	0,07512	0,05427	0,07155
993,1604	-0,00608	0,04698	0,17339	0,07488	0,05395	0,07133
991,23193	-0,00612	0,04678	0,1733	0,07456	0,05368	0,07089
989,30347	-0,00615	0,04666	0,17346	0,07457	0,05352	0,07044
987,375	-0,00627	0,04667	0,17371	0,07456	0,05339	0,07022
985,44653	-0,00653	0,04661	0,1738	0,07458	0,05344	0,07017
983,51807	-0,00659	0,04663	0,1736	0,07455	0,05337	0,07019
981,5896	-0,00662	0,04673	0,17365	0,07448	0,05331	0,07014
979,66113	-0,00672	0,0467	0,17384	0,07446	0,05338	0,06982
977,73267	-0,00669	0,04644	0,17379	0,07433	0,05336	0,06963
975,8042	-0,00675	0,0462	0,17364	0,07413	0,05321	0,06975
973,87573	-0,00694	0,04628	0,17349	0,07398	0,05299	0,06978
971,94727	-0,00694	0,0463	0,17376	0,07413	0,05296	0,0698
970,0188	-0,00708	0,0462	0,17399	0,07408	0,05288	0,06959
968,09033	-0,00748	0,04625	0,17376	0,07365	0,05265	0,06913
966,16187	-0,00761	0,04636	0,17381	0,07354	0,05253	0,06899
964,2334	-0,00752	0,04641	0,17384	0,07345	0,05237	0,06875
962,30493	-0,00745	0,04635	0,17378	0,07331	0,05216	0,06823
960,37646	-0,00757	0,04637	0,17399	0,0734	0,05207	0,06814
958,448	-0,00764	0,04643	0,17412	0,07342	0,05209	0,06823

956,51953	-0,00747	0,04631	0,17422	0,07351	0,05232	0,06837
954,59106	-0,00759	0,04635	0,17434	0,07357	0,05245	0,0686
952,6626	-0,00779	0,04657	0,17438	0,0734	0,05235	0,06849
950,73413	-0,00778	0,04646	0,17433	0,07328	0,05228	0,06815
948,80566	-0,00791	0,04623	0,17417	0,07318	0,05227	0,06788
946,8772	-0,0079	0,04619	0,17399	0,07289	0,05213	0,06778
944,94873	-0,00783	0,04631	0,1738	0,07262	0,05185	0,0678
943,02026	-0,00795	0,04633	0,17387	0,0728	0,05179	0,06782
941,0918	-0,00796	0,04632	0,17394	0,07297	0,05184	0,06776
939,16333	-0,00795	0,0464	0,17381	0,07269	0,05174	0,0677
937,23486	-0,00796	0,04634	0,17397	0,07258	0,05202	0,06799
935,3064	-0,00817	0,04614	0,17405	0,07268	0,05222	0,0681
933,37793	-0,00858	0,04584	0,17404	0,07261	0,05194	0,06782
931,44946	-0,00864	0,04584	0,17411	0,07257	0,05198	0,06777
929,521	-0,00845	0,0462	0,17389	0,07242	0,05202	0,06774
927,59253	-0,00837	0,04634	0,17395	0,07225	0,05178	0,06774
925,66406	-0,00826	0,04621	0,17434	0,07234	0,05179	0,06797
923,7356	-0,00818	0,04608	0,17441	0,07233	0,05184	0,06799
921,80713	-0,00829	0,04615	0,17423	0,07222	0,05186	0,06779
919,87866	-0,00838	0,04624	0,17408	0,07234	0,05198	0,06763
917,9502	-0,00832	0,04626	0,17402	0,07231	0,05197	0,06752
916,02173	-0,00842	0,04654	0,17386	0,07219	0,05183	0,06753
914,09326	-0,00848	0,04657	0,17376	0,07227	0,05164	0,06744
912,16479	-0,00823	0,04636	0,17377	0,07233	0,0516	0,06731
910,23633	-0,00802	0,04649	0,17372	0,07234	0,05161	0,06755
908,30786	-0,00799	0,04653	0,17377	0,07237	0,05163	0,06785
906,37939	-0,0081	0,04652	0,17365	0,07233	0,05177	0,06776
904,45093	-0,00812	0,04675	0,17335	0,07245	0,05174	0,06754
902,52246	-0,00798	0,04667	0,17344	0,07289	0,05177	0,06745
900,59399	-0,00814	0,04637	0,17359	0,07307	0,05196	0,06735
898,66553	-0,00837	0,04634	0,17354	0,07288	0,05203	0,06746
896,73706	-0,00836	0,04639	0,17359	0,07298	0,05214	0,06781
894,80859	-0,00833	0,04635	0,1735	0,07303	0,05208	0,0678
892,88013	-0,00812	0,04634	0,17326	0,07282	0,05186	0,06751
890,95166	-0,00796	0,04646	0,17329	0,07274	0,05189	0,06748
889,02319	-0,0082	0,04661	0,17341	0,07278	0,05206	0,06765
887,09473	-0,00848	0,0466	0,17346	0,07291	0,05208	0,06773
885,16626	-0,0086	0,04668	0,17359	0,073	0,05193	0,06753
883,23779	-0,00852	0,04689	0,17351	0,07273	0,05182	0,06708
881,30933	-0,00818	0,04707	0,17325	0,0725	0,0518	0,06694
879,38086	-0,00779	0,04731	0,17341	0,0728	0,05202	0,06735
877,45239	-0,00767	0,04766	0,17379	0,07317	0,05228	0,06775
875,52393	-0,00751	0,04827	0,17421	0,07337	0,05241	0,06796
873,59546	-0,00705	0,04876	0,17492	0,0736	0,05261	0,06853
871,66699	-0,00659	0,04912	0,17605	0,07402	0,05294	0,06951
869,73853	-0,00605	0,04966	0,17747	0,07456	0,05336	0,07039
867,81006	-0,00551	0,04998	0,17847	0,07498	0,05363	0,07111
865,88159	-0,00519	0,05023	0,17906	0,07528	0,05368	0,07171

863,95313	-0,00487	0,05064	0,17948	0,07535	0,0538	0,0719
862,02466	-0,00485	0,05092	0,17962	0,07518	0,05381	0,07201
860,09619	-0,005	0,05088	0,17975	0,07518	0,05378	0,07213
858,16772	-0,00497	0,05058	0,17949	0,07517	0,05369	0,07172
856,23926	-0,00515	0,0504	0,17868	0,07473	0,05328	0,07096
854,31079	-0,00546	0,05028	0,17808	0,07438	0,05304	0,07042
852,38232	-0,00566	0,05011	0,17802	0,07467	0,05319	0,07038
850,45386	-0,00574	0,0502	0,17845	0,07496	0,05343	0,0706
848,52539	-0,00527	0,05103	0,17953	0,07513	0,05376	0,07116
846,59692	-0,00424	0,05245	0,18128	0,07594	0,05425	0,07252
844,66846	-0,00336	0,05327	0,18271	0,07667	0,05472	0,07395
842,73999	-0,00234	0,05373	0,18396	0,0771	0,05518	0,07534
840,81152	-0,00053	0,0552	0,18653	0,07835	0,05632	0,07775
838,88306	0,00138	0,05707	0,18933	0,07986	0,05792	0,08043
836,95459	0,00324	0,0587	0,19141	0,08103	0,05933	0,08267
835,02612	0,00492	0,06028	0,19331	0,08247	0,0607	0,08481
833,09766	0,0055	0,06091	0,19404	0,08336	0,0615	0,08599
831,16919	0,00561	0,06067	0,19411	0,08331	0,06161	0,08609
829,24072	0,00581	0,06062	0,19455	0,0833	0,0615	0,08603
827,31226	0,00598	0,06062	0,1946	0,08318	0,06122	0,08609
825,38379	0,00696	0,06133	0,19525	0,08372	0,06194	0,08735
823,45532	0,0082	0,06297	0,19657	0,0853	0,06349	0,08928
821,52686	0,00867	0,0638	0,19662	0,08598	0,06412	0,08976
819,59839	0,00879	0,06382	0,19653	0,08585	0,06424	0,08974
817,66992	0,00899	0,06414	0,19733	0,08625	0,06456	0,09055
815,74146	0,00959	0,06486	0,19789	0,08684	0,06495	0,09155
813,81299	0,0105	0,06563	0,19822	0,08729	0,06544	0,09246
811,88452	0,01093	0,0662	0,19837	0,0876	0,0657	0,09287
809,95605	0,01084	0,06666	0,19834	0,08779	0,06581	0,09269
808,02759	0,01111	0,06695	0,19851	0,08804	0,06614	0,0927
806,09912	0,01208	0,06737	0,19876	0,08833	0,06675	0,09336
804,17065	0,01289	0,06804	0,19911	0,08878	0,06741	0,0943
802,24219	0,01307	0,06868	0,19945	0,08942	0,06766	0,09492
800,31372	0,01344	0,0695	0,1998	0,09024	0,06806	0,09558
798,38525	0,01415	0,07015	0,20001	0,09102	0,06874	0,09644
796,45679	0,01455	0,07045	0,19994	0,09126	0,06908	0,097
794,52832	0,01455	0,07072	0,19993	0,091	0,06915	0,097
792,59985	0,01434	0,07039	0,1998	0,09064	0,0689	0,09645
790,67139	0,01392	0,06952	0,19952	0,09019	0,06827	0,09591
788,74292	0,01342	0,06899	0,19952	0,08961	0,06776	0,09563
786,81445	0,01309	0,06893	0,19969	0,08917	0,06754	0,09524
784,88599	0,01245	0,06852	0,19964	0,08877	0,06698	0,09444
782,95752	0,01159	0,06773	0,1993	0,08828	0,06619	0,09352
781,02905	0,01122	0,06742	0,19896	0,08802	0,06593	0,09313
779,10059	0,01097	0,06719	0,19895	0,08804	0,06595	0,09334
777,17212	0,01116	0,06702	0,19918	0,0882	0,06589	0,09375
775,24365	0,01188	0,06767	0,19939	0,08852	0,06628	0,09422
773,31519	0,01223	0,06819	0,19968	0,08914	0,06726	0,09491

771,38672	0,01255	0,06826	0,19995	0,08978	0,06802	0,09573
769,45825	0,01279	0,06851	0,20009	0,08997	0,06813	0,09605
767,52979	0,01287	0,06862	0,20018	0,08996	0,06824	0,09622
765,60132	0,01337	0,06879	0,20018	0,09011	0,0686	0,09692
763,67285	0,01357	0,06919	0,2004	0,09023	0,06873	0,09742
761,74438	0,01329	0,06908	0,20055	0,09022	0,06859	0,09701
759,81592	0,01302	0,06847	0,20009	0,09005	0,06825	0,09633
757,88745	0,01254	0,06792	0,19972	0,08996	0,06774	0,09595
755,95898	0,01232	0,06767	0,19965	0,08985	0,06745	0,09571
754,03052	0,01263	0,06738	0,19963	0,08942	0,06732	0,09538
752,10205	0,01237	0,06688	0,19964	0,08901	0,06698	0,09497
750,17358	0,01199	0,06701	0,19965	0,08887	0,06698	0,09504
748,24512	0,01254	0,06745	0,19991	0,08923	0,06771	0,09588
746,31665	0,01306	0,0675	0,20018	0,08982	0,0683	0,09651
744,38818	0,01293	0,06811	0,2002	0,08985	0,06831	0,09654
742,45972	0,01278	0,06872	0,19998	0,08955	0,06823	0,09655
740,53125	0,0128	0,06838	0,19994	0,08952	0,06848	0,09668
738,60278	0,01307	0,06832	0,20028	0,08978	0,06871	0,09688
736,67432	0,01352	0,06899	0,20029	0,09024	0,06886	0,09731
734,74585	0,01371	0,06929	0,19995	0,09033	0,06879	0,09752
732,81738	0,01344	0,06911	0,20009	0,09008	0,0686	0,09746
730,88892	0,01333	0,06919	0,20063	0,09016	0,06869	0,09781
728,96045	0,01363	0,06914	0,20075	0,09013	0,06856	0,09798
727,03198	0,01418	0,06936	0,20095	0,09025	0,06913	0,09821
725,10352	0,01491	0,07012	0,20151	0,09109	0,0699	0,099
723,17505	0,01537	0,07089	0,20166	0,09176	0,07035	0,0995
721,24658	0,01574	0,07203	0,20214	0,09197	0,07209	0,09984
719,31812	0,01634	0,07228	0,20244	0,09222	0,07224	0,0999
717,38965	0,01678	0,07178	0,20207	0,09279	0,07101	0,09996
715,46118	0,01736	0,07226	0,20254	0,09338	0,07172	0,10071
713,53271	0,01792	0,0725	0,20303	0,09357	0,07228	0,10115
711,60425	0,0178	0,07228	0,20282	0,09332	0,07198	0,10079
709,67578	0,01779	0,07237	0,20292	0,09278	0,07197	0,1004
707,74731	0,0182	0,07219	0,20317	0,09269	0,07181	0,10046
705,81885	0,01816	0,07213	0,20343	0,09285	0,07166	0,10071
703,89038	0,01764	0,0727	0,20365	0,09238	0,0717	0,10067
701,96191	0,01713	0,07298	0,20358	0,09193	0,07171	0,10035
700,03345	0,01691	0,07313	0,20395	0,09211	0,07209	0,10031
698,10498	0,01687	0,07374	0,20416	0,09215	0,0724	0,10051
696,17651	0,01692	0,07397	0,20366	0,09202	0,07233	0,10058
694,24805	0,017	0,07383	0,2039	0,09246	0,0729	0,101
692,31958	0,01705	0,07414	0,2047	0,09268	0,07367	0,1018
690,39111	0,0179	0,07486	0,20519	0,09277	0,07447	0,10283
688,46265	0,01898	0,07549	0,20556	0,09369	0,07539	0,10377
686,53418	0,0193	0,07623	0,20616	0,09421	0,07646	0,10431
684,60571	0,0198	0,07631	0,20669	0,09381	0,07694	0,10463
682,67725	0,02047	0,0764	0,20704	0,09422	0,07749	0,10529
680,74878	0,02081	0,07784	0,20742	0,09518	0,07895	0,10641

678,82031	0,02131	0,07803	0,20744	0,09517	0,07916	0,10638
676,89185	0,02189	0,07864	0,20746	0,09582	0,07937	0,10704
674,96338	0,02208	0,07874	0,20748	0,09593	0,07946	0,10737
673,03491	0,0221	0,07878	0,2075	0,09604	0,07948	0,10744
671,10645	0,02213	0,07883	0,20752	0,09615	0,0795	0,10751
669,17798	0,02216	0,07888	0,20754	0,09626	0,07952	0,10757
667,24951	0,02218	0,07892	0,20756	0,09637	0,07953	0,10764
665,32104	0,02221	0,07897	0,20759	0,09647	0,07955	0,10771
663,39258	0,02224	0,07902	0,20761	0,09658	0,07957	0,10778
661,46411	0,02226	0,07906	0,20763	0,09669	0,07959	0,10785
659,53564	0,02229	0,07911	0,20765	0,0968	0,07961	0,10792
657,60718	0,02232	0,07915	0,20767	0,09667	0,07963	0,10799
655,67871	0,02242	0,0792	0,20769	0,09692	0,07964	0,10819
653,75024	0,02261	0,07925	0,20771	0,09678	0,07966	0,10753
651,82178	0,02271	0,07929	0,20773	0,09646	0,07968	0,10835
649,89331	0,0229	0,07934	0,20775	0,09698	0,0797	0,10964
647,96484	0,02303	0,07939	0,20777	0,09708	0,07974	0,1096
646,03638	0,02301	0,07943	0,2078	0,09757	0,07922	0,11054
644,10791	0,02294	0,07934	0,20758	0,09789	0,07871	0,1106
642,17944	0,02295	0,07929	0,20715	0,09795	0,07866	0,11002
640,25098	0,02274	0,07894	0,20678	0,09806	0,07824	0,11015
638,32251	0,02241	0,07897	0,206	0,09764	0,07763	0,10968
636,39404	0,02266	0,07863	0,20588	0,09775	0,07733	0,10948
634,46558	0,02251	0,07828	0,20591	0,09749	0,0762	0,10907
632,53711	0,02183	0,07835	0,20575	0,09702	0,07601	0,10873
630,60864	0,02129	0,07794	0,20568	0,09659	0,07585	0,10825
628,68018	0,02083	0,07764	0,20586	0,09594	0,07544	0,10795
626,75171	0,02117	0,07746	0,20584	0,09628	0,07564	0,10876
624,82324	0,0215	0,07767	0,20571	0,09615	0,0759	0,10855
622,89478	0,02116	0,07755	0,20575	0,09546	0,07546	0,10785
620,96631	0,02135	0,07711	0,20575	0,09589	0,07513	0,10844
619,03784	0,02186	0,0783	0,20605	0,09682	0,07693	0,1091
617,10938	0,02206	0,07896	0,20612	0,09772	0,07783	0,10953
615,18091	0,02202	0,07868	0,20559	0,09775	0,07621	0,10932
613,25244	0,02184	0,07925	0,20552	0,09724	0,07606	0,10878
611,32397	0,02185	0,07922	0,20562	0,09745	0,07683	0,10922
609,39551	0,0219	0,07871	0,20565	0,09783	0,07671	0,1096
607,46704	0,02215	0,07857	0,20585	0,09816	0,07696	0,10973
605,53857	0,02232	0,07857	0,20567	0,09854	0,07728	0,10983
603,61011	0,02176	0,0783	0,20566	0,09836	0,07692	0,10908
601,68164	0,02213	0,07764	0,2059	0,09785	0,07647	0,10877
599,75317	0,02238	0,07755	0,20574	0,0975	0,07613	0,10914
597,82471	0,02112	0,0778	0,2057	0,09728	0,07613	0,10887
595,89624	0,02105	0,07786	0,20543	0,09706	0,07586	0,10819
593,96777	0,02216	0,07763	0,20532	0,09773	0,07568	0,10857
592,03931	0,02233	0,07724	0,20569	0,09874	0,07627	0,10961
590,11084	0,02107	0,07784	0,20576	0,0979	0,07598	0,10857
588,18237	0,02027	0,07824	0,20606	0,09725	0,07538	0,1075

586,25391	0,02025	0,07765	0,20611	0,0977	0,07566	0,10779
584,32544	0,01937	0,07816	0,20605	0,09691	0,07546	0,10687
582,39697	0,02007	0,0788	0,20672	0,09682	0,07502	0,10672
580,46851	0,02115	0,07862	0,20689	0,09761	0,07524	0,10718
578,54004	0,02071	0,07867	0,20698	0,0976	0,07522	0,10689
576,61157	0,02205	0,07829	0,20758	0,09831	0,07517	0,10801
574,68311	0,0222	0,07801	0,20739	0,09822	0,07524	0,10764
572,75464	0,02071	0,07855	0,20714	0,09742	0,07507	0,10627
570,82617	0,02166	0,07866	0,20794	0,09863	0,07543	0,10767
568,89771	0,02267	0,07853	0,20921	0,09958	0,0762	0,10885
566,96924	0,02256	0,0788	0,20991	0,09857	0,07626	0,10838
565,04077	0,02239	0,07934	0,21035	0,09769	0,0758	0,1081
563,1123	0,02224	0,07977	0,21071	0,09768	0,07568	0,10788
561,18384	0,02258	0,07988	0,21102	0,09772	0,0757	0,10764
559,25537	0,02277	0,08013	0,21239	0,09804	0,07611	0,10807
557,3269	0,02282	0,08061	0,21355	0,0988	0,07678	0,1086
555,39844	0,0226	0,08107	0,21379	0,09922	0,07645	0,10804
553,46997	0,02225	0,08168	0,21517	0,0995	0,07596	0,10756
551,5415	0,02233	0,0815	0,21677	0,09944	0,07579	0,10791
549,61304	0,0214	0,0803	0,2175	0,09869	0,07503	0,10801
547,68457	0,0196	0,07955	0,21772	0,09787	0,07255	0,10695
545,7561	0,01978	0,07983	0,2195	0,0983	0,0725	0,10704
543,82764	0,02075	0,08055	0,22348	0,09952	0,07637	0,1087
541,89917	0,0202	0,08071	0,22605	0,10005	0,07698	0,10875
539,9707	0,01939	0,08063	0,22839	0,10097	0,07604	0,1086
538,04224	0,01821	0,08036	0,23117	0,10138	0,07516	0,10839
536,11377	0,01667	0,07935	0,23215	0,10156	0,07328	0,10728
534,1853	0,01559	0,07905	0,23576	0,1042	0,07572	0,10844
532,25684	0,01342	0,07888	0,23977	0,10443	0,07369	0,10755
530,32837	0,0126	0,07913	0,24466	0,10558	0,07428	0,10786
528,3999	0,0102	0,07695	0,24929	0,1074	0,07438	0,10737
526,47144	0,00521	0,07231	0,24926	0,10395	0,06132	0,10029
524,54297	0,00402	0,07392	0,25608	0,10692	0,06441	0,10194
522,6145	0,00254	0,07584	0,26643	0,11334	0,07473	0,10697
520,68604	-0,00155	0,07173	0,27026	0,11184	0,06717	0,10314
518,75757	-0,0062	0,06779	0,27539	0,11107	0,06009	0,10021
516,8291	-0,01007	0,06614	0,28436	0,1155	0,06128	0,09998
514,90063	-0,01151	0,06652	0,29125	0,11982	0,06642	0,10167
512,97217	-0,01549	0,06555	0,29746	0,1216	0,06836	0,10325
511,0437	-0,02165	0,06266	0,30686	0,1228	0,06654	0,10133
509,11523	-0,02624	0,0604	0,31452	0,12521	0,06446	0,09966
507,18677	-0,02998	0,05769	0,32083	0,12742	0,06171	0,10008
505,2583	-0,03296	0,0572	0,32766	0,12835	0,0632	0,1009
503,32983	-0,03624	0,05651	0,33236	0,12943	0,06176	0,09861
501,40137	-0,03872	0,05447	0,33707	0,13287	0,06099	0,09812
499,4729	-0,04078	0,0547	0,34381	0,13561	0,06631	0,10118

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Figure 3.4 D						
n°spectre	Vd340	Vd338	Vd31	Vd32	Vd33	Vd35
cm-1	cr.	cd.	$\theta=4.7$	$\theta=23.7$	$\theta=47.4$	$\theta=200$
4001,5686	0,01181	0,05761	0,06531	0,11828	0,0775	0,12201
3999,64014	0,01164	0,05755	0,06522	0,11823	0,07727	0,12179
3997,71167	0,01164	0,0575	0,06536	0,11824	0,07733	0,12189
3995,7832	0,01181	0,05751	0,06537	0,11822	0,0776	0,12206
3993,85474	0,01175	0,05744	0,0652	0,11806	0,07733	0,12178
3991,92627	0,0117	0,05758	0,06532	0,11807	0,07732	0,12177
3989,9978	0,01165	0,05765	0,06542	0,1182	0,07759	0,12196
3988,06934	0,01151	0,05738	0,06516	0,11801	0,07721	0,12173
3986,14087	0,01155	0,05742	0,06512	0,11793	0,07717	0,12162
3984,2124	0,01166	0,05748	0,06511	0,11804	0,07733	0,12166
3982,28394	0,01164	0,05731	0,06508	0,11796	0,0772	0,12167
3980,35547	0,01146	0,05729	0,06512	0,11785	0,07716	0,12162
3978,427	0,01139	0,05724	0,06501	0,11774	0,07701	0,12148
3976,49854	0,01165	0,05731	0,06517	0,11771	0,07722	0,12168
3974,57007	0,01171	0,05738	0,0652	0,11779	0,07753	0,12174
3972,6416	0,01151	0,05715	0,06492	0,1177	0,0773	0,12154
3970,71313	0,01145	0,05712	0,06499	0,11757	0,07713	0,12159
3968,78467	0,01147	0,05727	0,06517	0,11748	0,07727	0,12158
3966,8562	0,01132	0,05706	0,06494	0,1173	0,07701	0,12134
3964,92773	0,0113	0,05707	0,06487	0,11733	0,07685	0,12129
3962,99927	0,01165	0,0575	0,06527	0,11758	0,07759	0,12173
3961,0708	0,01161	0,05722	0,06515	0,11749	0,07752	0,12171
3959,14233	0,0114	0,05705	0,06492	0,11724	0,07703	0,1214
3957,21387	0,01147	0,05725	0,06508	0,11717	0,07723	0,12139
3955,2854	0,01149	0,05708	0,06506	0,11714	0,07722	0,12127
3953,35693	0,01134	0,05714	0,06511	0,11724	0,07716	0,12133
3951,42847	0,01143	0,05713	0,06513	0,1171	0,07736	0,12134
3949,5	0,01212	0,0572	0,06536	0,11693	0,07848	0,12173
3947,57153	0,01158	0,05687	0,06513	0,11695	0,07783	0,1216
3945,64307	0,01096	0,05674	0,0649	0,11692	0,07666	0,12102
3943,7146	0,01211	0,05766	0,0658	0,11712	0,07859	0,12201
3941,78613	0,01185	0,05711	0,06546	0,11696	0,0781	0,12193
3939,85767	0,01083	0,05648	0,0647	0,11662	0,07636	0,12078
3937,9292	0,01117	0,05709	0,06507	0,1168	0,07714	0,12105
3936,00073	0,01119	0,05688	0,06496	0,11671	0,07701	0,12103
3934,07227	0,01151	0,05717	0,06531	0,11682	0,07769	0,12134
3932,1438	0,01223	0,05763	0,06595	0,1171	0,07919	0,12229
3930,21533	0,01143	0,05647	0,06512	0,11653	0,07776	0,1216
3928,28687	0,01072	0,05622	0,06456	0,11629	0,07644	0,12066
3926,3584	0,01159	0,05735	0,06536	0,11673	0,07788	0,12139
3924,42993	0,01205	0,05727	0,06553	0,11661	0,07867	0,12199
3922,50146	0,01113	0,05634	0,06466	0,11624	0,07698	0,12098
3920,573	0,01118	0,05684	0,06502	0,11646	0,07725	0,12098
3918,64453	0,01165	0,0573	0,06557	0,11665	0,07834	0,1216
3916,71606	0,01119	0,05657	0,06505	0,11645	0,0776	0,12124
3914,7876	0,01038	0,05573	0,06427	0,11595	0,07605	0,12033

3912,85913	0,0107	0,05623	0,06444	0,1159	0,07622	0,12035
3910,93066	0,01103	0,05684	0,06493	0,11629	0,07683	0,12063
3909,0022	0,01062	0,05633	0,06452	0,11607	0,07605	0,12031
3907,07373	0,01154	0,0572	0,0652	0,11624	0,07779	0,12123
3905,14526	0,01264	0,05825	0,06651	0,11692	0,08039	0,12237
3903,2168	0,01127	0,05624	0,06555	0,11635	0,07833	0,12124
3901,28833	0,01044	0,05535	0,06479	0,11584	0,07698	0,12061
3899,35986	0,01108	0,05593	0,06516	0,11589	0,07806	0,12121
3897,4314	0,01006	0,05504	0,06398	0,11527	0,0758	0,11989
3895,50293	0,01015	0,05541	0,0637	0,11506	0,07531	0,11976
3893,57446	0,01187	0,05777	0,06564	0,11605	0,07876	0,12142
3891,646	0,01213	0,05786	0,06637	0,11666	0,07974	0,12176
3889,71753	0,00895	0,05372	0,06284	0,11467	0,07354	0,11865
3887,78906	0,01074	0,05647	0,06451	0,11534	0,07686	0,12021
3885,8606	0,01207	0,05852	0,06675	0,11705	0,08004	0,12159
3883,93213	0,00856	0,0535	0,06255	0,11442	0,07311	0,11833
3882,00366	0,01159	0,05688	0,06504	0,11517	0,07846	0,12107
3880,0752	0,01334	0,05793	0,06721	0,11658	0,08203	0,12328
3878,14673	0,00887	0,05343	0,06269	0,11419	0,0734	0,11873
3876,21826	0,01071	0,05713	0,06485	0,11531	0,07711	0,11999
3874,28979	0,01233	0,05723	0,06602	0,11583	0,07985	0,12199
3872,36133	0,01095	0,05548	0,06441	0,11477	0,07728	0,12073
3870,43286	0,01084	0,05774	0,06594	0,11613	0,07874	0,12031
3868,50439	0,00883	0,05371	0,06321	0,11449	0,07442	0,11872
3866,57593	0,00966	0,0549	0,06347	0,11421	0,07535	0,11934
3864,64746	0,01137	0,05774	0,066	0,11582	0,07909	0,12075
3862,71899	0,0107	0,05475	0,06424	0,11445	0,07701	0,12042
3860,79053	0,00983	0,05508	0,06383	0,1143	0,07561	0,11934
3858,86206	0,0102	0,05589	0,06431	0,11468	0,0759	0,11941
3856,93359	0,01261	0,05703	0,06552	0,11466	0,07956	0,12204
3855,00513	0,00992	0,05918	0,06641	0,11661	0,07791	0,11873
3853,07666	0,00626	0,05447	0,06429	0,11659	0,07256	0,11609
3851,14819	0,00563	0,0503	0,06022	0,11218	0,06939	0,11546
3849,21973	0,00983	0,05468	0,06355	0,11346	0,07568	0,11938
3847,29126	0,00996	0,05592	0,06417	0,11432	0,07541	0,11906
3845,36279	0,01136	0,05685	0,06503	0,11449	0,07753	0,12046
3843,43433	0,01123	0,05687	0,06534	0,11472	0,07789	0,1204
3841,50586	0,01159	0,05591	0,06522	0,11439	0,07833	0,12102
3839,57739	0,0118	0,057	0,06586	0,11469	0,0796	0,12113
3837,64893	0,00862	0,05561	0,06418	0,11446	0,07502	0,11752
3835,72046	0,00735	0,05265	0,06215	0,11296	0,07186	0,11664
3833,79199	0,01044	0,05538	0,06445	0,11364	0,07689	0,11991
3831,86353	0,01029	0,05589	0,06487	0,11427	0,07676	0,11944
3829,93506	0,00924	0,05406	0,06329	0,11329	0,07424	0,11852
3828,00659	0,011	0,05665	0,06495	0,11403	0,07758	0,12006
3826,07813	0,01077	0,05593	0,06475	0,114	0,07722	0,12005
3824,14966	0,01059	0,05542	0,06401	0,11328	0,0764	0,1199
3822,22119	0,012	0,05899	0,06683	0,11536	0,08029	0,12054
3820,29272	0,01041	0,05386	0,06456	0,1139	0,07705	0,11999
3818,36426	0,00926	0,05372	0,06301	0,1125	0,07469	0,11863

3816,43579	0,00927	0,05717	0,06497	0,11434	0,07618	0,11773
3814,50732	0,00689	0,0527	0,06197	0,11265	0,07097	0,11575
3812,57886	0,00893	0,054	0,06285	0,11246	0,07393	0,11826
3810,65039	0,01042	0,05598	0,06434	0,11336	0,07624	0,11945
3808,72192	0,01089	0,05711	0,06513	0,11403	0,07734	0,11938
3806,79346	0,00914	0,05579	0,06449	0,114	0,07541	0,11789
3804,86499	0,00818	0,05301	0,06223	0,11203	0,07251	0,11722
3802,93652	0,0115	0,05752	0,06565	0,11384	0,07914	0,12012
3801,00806	0,00937	0,05586	0,06477	0,11407	0,07638	0,11812
3799,07959	0,00691	0,05176	0,06121	0,11135	0,07089	0,11609
3797,15112	0,01144	0,05654	0,06524	0,1132	0,07899	0,12061
3795,22266	0,00969	0,0549	0,06412	0,11302	0,07578	0,11883
3793,29419	0,00878	0,05395	0,0629	0,11217	0,07355	0,11788
3791,36572	0,01032	0,05624	0,06447	0,11311	0,07628	0,11906
3789,43726	0,00963	0,05513	0,0637	0,11275	0,07483	0,11846
3787,50879	0,00969	0,05544	0,06382	0,11266	0,07515	0,11865
3785,58032	0,01083	0,05647	0,06485	0,11307	0,07735	0,11966
3783,65186	0,00983	0,05483	0,06368	0,11235	0,07538	0,11875
3781,72339	0,00974	0,05548	0,0639	0,11253	0,07537	0,1185
3779,79492	0,01107	0,05639	0,06517	0,11307	0,07801	0,11991
3777,86646	0,00943	0,05433	0,06357	0,11211	0,07517	0,1185
3775,93799	0,0089	0,05448	0,06329	0,11202	0,07414	0,11785
3774,00952	0,00954	0,05516	0,06376	0,11232	0,07495	0,11834
3772,08105	0,01012	0,05605	0,06436	0,11263	0,07624	0,11876
3770,15259	0,01043	0,05601	0,06496	0,11292	0,07728	0,11925
3768,22412	0,00881	0,05365	0,06303	0,11177	0,07401	0,11773
3766,29565	0,00991	0,05512	0,0639	0,1121	0,07606	0,11863
3764,36719	0,00974	0,05478	0,0639	0,11218	0,07571	0,11856
3762,43872	0,009	0,05411	0,06292	0,11155	0,07399	0,11775
3760,51025	0,01068	0,05633	0,06494	0,11263	0,07773	0,11931
3758,58179	0,01051	0,05494	0,06451	0,11215	0,07735	0,11942
3756,65332	0,00942	0,05382	0,06325	0,11122	0,07515	0,11843
3754,72485	0,00968	0,05513	0,06405	0,11191	0,07607	0,11856
3752,79639	0,00972	0,05613	0,06455	0,11238	0,07672	0,11805
3750,86792	0,00895	0,05572	0,06474	0,113	0,07628	0,11702
3748,93945	0,00448	0,0497	0,06028	0,11037	0,06813	0,11328
3747,01099	0,00861	0,05361	0,06282	0,11068	0,07485	0,11744
3745,08252	0,00896	0,05727	0,06597	0,11379	0,07778	0,11758
3743,15405	0,0034	0,0498	0,06087	0,11137	0,06761	0,11289
3741,22559	0,00792	0,05222	0,062	0,10995	0,074	0,11772
3739,29712	0,01032	0,05659	0,06509	0,11199	0,07894	0,11992
3737,36865	0,00885	0,05681	0,06508	0,11285	0,07723	0,11813
3735,44019	0,01009	0,05591	0,06564	0,11256	0,08011	0,12059
3733,51172	0,00924	0,05484	0,06498	0,11218	0,07887	0,1197
3731,58325	0,00571	0,05316	0,06254	0,11127	0,07283	0,11578
3729,65479	0,00611	0,05439	0,06292	0,11128	0,07378	0,11683
3727,72632	0,00831	0,05698	0,06506	0,11236	0,07778	0,11897
3725,79785	0,00836	0,05671	0,06511	0,11245	0,07781	0,11894
3723,86938	0,00808	0,05553	0,06432	0,11173	0,07709	0,11884
3721,94092	0,00834	0,05561	0,06442	0,11168	0,0772	0,11871



3720,01245	0,00781	0,05464	0,06375	0,11116	0,07572	0,11795
3718,08398	0,00754	0,05415	0,06328	0,11084	0,0749	0,11744
3716,15552	0,00778	0,05371	0,06299	0,11061	0,07437	0,1173
3714,22705	0,00861	0,05473	0,06373	0,11092	0,07573	0,11764
3712,29858	0,00869	0,05546	0,06459	0,1116	0,07691	0,11763
3710,37012	0,00712	0,05256	0,06314	0,11069	0,07496	0,11687
3708,44165	0,00629	0,05228	0,06227	0,11031	0,07463	0,1165
3706,51318	0,00584	0,0527	0,06131	0,10995	0,07255	0,11574
3704,58472	0,00656	0,05392	0,06262	0,11033	0,07392	0,11671
3702,65625	0,00792	0,05523	0,0646	0,11139	0,07729	0,11807
3700,72778	0,00645	0,05273	0,06303	0,11052	0,07461	0,11694
3698,79932	0,00539	0,05227	0,06213	0,10991	0,07285	0,11582
3696,87085	0,00641	0,05336	0,06311	0,11029	0,07488	0,11686
3694,94238	0,00583	0,05242	0,06264	0,11002	0,07385	0,1163
3693,01392	0,00564	0,05211	0,06278	0,1099	0,07426	0,11624
3691,08545	0,00719	0,05278	0,06434	0,11029	0,07806	0,11809
3689,15698	0,00424	0,04992	0,06235	0,1096	0,07391	0,11498
3687,22852	0,00027	0,04637	0,05896	0,1079	0,067	0,11104
3685,30005	0,00362	0,04803	0,06075	0,10801	0,07163	0,11489
3683,37158	0,00495	0,04993	0,06197	0,10875	0,07355	0,11588
3681,44312	0,00445	0,05039	0,06199	0,10916	0,07277	0,11492
3679,51465	0,00638	0,05018	0,06238	0,10873	0,0749	0,11707
3677,58618	0,00667	0,05212	0,06316	0,10937	0,07589	0,11646
3675,65771	0,0072	0,05262	0,06435	0,11068	0,07769	0,1167
3673,72925	0,00333	0,046	0,05933	0,10736	0,0693	0,11372
3671,80078	0,00485	0,05009	0,06097	0,10824	0,07204	0,11434
3669,87231	0,00581	0,052	0,06278	0,10986	0,0746	0,11504
3667,94385	0,00403	0,04719	0,0597	0,1075	0,06986	0,11408
3666,01538	0,0052	0,0495	0,06071	0,10785	0,07165	0,115
3664,08691	0,00556	0,05096	0,06139	0,10849	0,07225	0,11497
3662,15845	0,00584	0,05048	0,06134	0,10838	0,07235	0,11537
3660,22998	0,0055	0,05023	0,06102	0,1082	0,07192	0,11521
3658,30151	0,00632	0,05144	0,06199	0,1086	0,07369	0,11587
3656,37305	0,0058	0,05096	0,06222	0,10894	0,07335	0,11524
3654,44458	0,00349	0,04815	0,05952	0,10735	0,06889	0,1132
3652,51611	0,0064	0,05082	0,06188	0,10808	0,07434	0,11635
3650,58765	0,0081	0,05275	0,06432	0,10975	0,07844	0,1177
3648,65918	0,00569	0,04864	0,06158	0,10832	0,07405	0,11565
3646,73071	0,00464	0,04724	0,06034	0,10703	0,07238	0,11539
3644,80225	0,0044	0,04816	0,06029	0,10717	0,07157	0,11486
3642,87378	0,00423	0,0492	0,06046	0,10754	0,07142	0,11448
3640,94531	0,00483	0,04974	0,06122	0,10793	0,07284	0,11525
3639,01685	0,00407	0,04891	0,06061	0,10761	0,07168	0,11468
3637,08838	0,00401	0,04922	0,06075	0,10764	0,0721	0,11494
3635,15991	0,00408	0,04977	0,06138	0,10816	0,07298	0,11507
3633,23145	0,00368	0,04869	0,06074	0,10763	0,07251	0,11515
3631,30298	0,00385	0,04975	0,06145	0,10801	0,07375	0,11537
3629,37451	0,00404	0,05091	0,06324	0,10969	0,07571	0,11551
3627,44604	0,00055	0,04538	0,05922	0,10719	0,06925	0,11294
3625,51758	0,00149	0,04678	0,05927	0,10655	0,07042	0,11378

3623,58911	0,0023	0,04858	0,06059	0,10751	0,07226	0,11449
3621,66064	0,00231	0,0482	0,06046	0,10737	0,07217	0,11432
3619,73218	0,00332	0,04836	0,06147	0,10773	0,07434	0,11513
3617,80371	0,00185	0,04532	0,0599	0,1067	0,07146	0,11406
3615,87524	0,00149	0,04539	0,05952	0,10612	0,07089	0,11377
3613,94678	0,00303	0,04674	0,06117	0,10689	0,07388	0,11511
3612,01831	0,00175	0,04454	0,05965	0,10631	0,07131	0,11385
3610,08984	0,00004	0,04452	0,05875	0,10626	0,06949	0,11218
3608,16138	0,00086	0,04532	0,05954	0,10668	0,07157	0,11326
3606,23291	0,0004	0,0439	0,05846	0,10595	0,07049	0,11317
3604,30444	-0,00036	0,04415	0,05808	0,10597	0,06948	0,11236
3602,37598	0,00023	0,04512	0,05908	0,10663	0,07132	0,11317
3600,44751	0,00052	0,04476	0,05905	0,10667	0,07224	0,11369
3598,51904	-0,0003	0,04391	0,05781	0,10609	0,07025	0,1126
3596,59058	0,00002	0,04428	0,05828	0,10627	0,07088	0,11302
3594,66211	0,0005	0,04448	0,05893	0,10659	0,07226	0,11376
3592,73364	-0,00057	0,04324	0,05776	0,10593	0,07011	0,1127
3590,80518	-0,00088	0,04334	0,0575	0,10595	0,06931	0,11201
3588,87671	0,00043	0,04448	0,05898	0,10683	0,07225	0,11326
3586,94824	0,0009	0,04323	0,05889	0,10641	0,07292	0,11425
3585,01978	-0,00113	0,04157	0,05684	0,10539	0,06872	0,11194
3583,09131	-0,001	0,04236	0,05699	0,10557	0,06887	0,11176
3581,16284	-0,00057	0,04246	0,05738	0,10569	0,06948	0,11217
3579,23438	-0,00072	0,0422	0,05719	0,10558	0,06911	0,11196
3577,30591	-0,0009	0,04214	0,05707	0,1055	0,06893	0,11178
3575,37744	-0,00087	0,04195	0,0571	0,1054	0,06896	0,11183
3573,44897	-0,00095	0,04168	0,05704	0,10544	0,06884	0,11168
3571,52051	-0,00135	0,04139	0,05673	0,1053	0,06831	0,11134
3569,59204	-0,00079	0,04208	0,05755	0,10568	0,07	0,11216
3567,66357	0,00117	0,04279	0,0591	0,10621	0,07388	0,11447
3565,73511	-0,00004	0,04081	0,05765	0,10514	0,07148	0,11333
3563,80664	-0,00183	0,04021	0,05635	0,1046	0,06833	0,1113
3561,87817	-0,00157	0,04094	0,0568	0,10505	0,06874	0,11137
3559,94971	-0,00147	0,04072	0,05683	0,10499	0,06866	0,11141
3558,02124	-0,00196	0,04034	0,05645	0,10474	0,06785	0,11091
3556,09277	-0,00226	0,04019	0,05625	0,10475	0,06739	0,11058
3554,16431	-0,00195	0,04049	0,0567	0,10491	0,06847	0,11116
3552,23584	-0,00161	0,04042	0,0569	0,10486	0,06932	0,1117
3550,30737	-0,00244	0,03954	0,05606	0,10447	0,06747	0,11067
3548,37891	-0,00237	0,03998	0,05644	0,1046	0,06799	0,11085
3546,45044	-0,00142	0,0404	0,05719	0,10478	0,07001	0,11204
3544,52197	-0,00206	0,03948	0,05645	0,10439	0,06879	0,11138
3542,59351	-0,00281	0,03913	0,05604	0,10427	0,06753	0,11052
3540,66504	-0,00302	0,03896	0,05599	0,10427	0,06708	0,11013
3538,73657	-0,00306	0,03895	0,05604	0,10429	0,06725	0,11012
3536,80811	-0,00288	0,03907	0,05624	0,1044	0,06801	0,11064
3534,87964	-0,00328	0,03855	0,05589	0,10412	0,06735	0,11035
3532,95117	-0,00373	0,03821	0,05568	0,10391	0,06665	0,10981
3531,02271	-0,00352	0,03837	0,05599	0,10403	0,06749	0,11022
3529,09424	-0,00321	0,03834	0,05614	0,10391	0,06827	0,11061

3527,16577	-0,00356	0,0379	0,05591	0,10363	0,06773	0,11022
3525,2373	-0,00378	0,0378	0,05593	0,10362	0,06775	0,1103
3523,30884	-0,00368	0,03769	0,056	0,10363	0,068	0,11053
3521,38037	-0,00431	0,03716	0,05558	0,10341	0,06685	0,10983
3519,4519	-0,00467	0,03705	0,0554	0,10325	0,06648	0,10953
3517,52344	-0,00464	0,03699	0,05547	0,10323	0,06673	0,10951
3515,59497	-0,00499	0,03677	0,05538	0,10324	0,0665	0,10927
3513,6665	-0,00508	0,03657	0,05532	0,10313	0,06638	0,10926
3511,73804	-0,00488	0,0364	0,05549	0,10309	0,06662	0,10939
3509,80957	-0,00478	0,03645	0,05575	0,10309	0,06737	0,1098
3507,8811	-0,00531	0,03597	0,05529	0,10279	0,06664	0,10942
3505,95264	-0,00565	0,03577	0,05514	0,10278	0,06605	0,109
3504,02417	-0,00506	0,03615	0,05584	0,103	0,06761	0,10985
3502,0957	-0,00516	0,03573	0,05558	0,10275	0,06737	0,10975
3500,16724	-0,00577	0,03536	0,05507	0,1026	0,06598	0,10892
3498,23877	-0,00562	0,03553	0,05528	0,10266	0,06631	0,10909
3496,3103	-0,00557	0,03541	0,05518	0,10252	0,06639	0,10911
3494,38184	-0,0059	0,03524	0,05505	0,10251	0,066	0,10881
3492,45337	-0,0061	0,03508	0,05512	0,10253	0,06589	0,10875
3490,5249	-0,00607	0,035	0,05508	0,10241	0,06589	0,10876
3488,59644	-0,00593	0,03511	0,05521	0,10246	0,06627	0,10888
3486,66797	-0,00603	0,03497	0,05511	0,10239	0,0662	0,10886
3484,7395	-0,00623	0,03486	0,05493	0,10223	0,06578	0,10864
3482,81104	-0,00602	0,035	0,0553	0,10237	0,06634	0,10892
3480,88257	-0,00598	0,0348	0,0553	0,10237	0,06647	0,10909
3478,9541	-0,00638	0,03458	0,0549	0,10217	0,06567	0,10862
3477,02563	-0,00646	0,03468	0,05494	0,10215	0,06573	0,10849
3475,09717	-0,00639	0,03458	0,05506	0,10212	0,06594	0,10859
3473,1687	-0,00648	0,03447	0,05507	0,10205	0,06569	0,10851
3471,24023	-0,00657	0,03447	0,0549	0,10206	0,06552	0,10846
3469,31177	-0,00655	0,03444	0,0549	0,10208	0,0657	0,10849
3467,3833	-0,00648	0,0344	0,05515	0,10205	0,06594	0,1086
3465,45483	-0,00664	0,03427	0,05501	0,10194	0,0657	0,10855
3463,52637	-0,00668	0,03423	0,05499	0,10187	0,06575	0,10853
3461,5979	-0,00665	0,03417	0,05509	0,10196	0,0659	0,10863
3459,66943	-0,00679	0,03405	0,05497	0,10194	0,06567	0,1085
3457,74097	-0,00684	0,03399	0,05501	0,10182	0,06561	0,10841
3455,8125	-0,00701	0,03392	0,05496	0,10183	0,06549	0,10841
3453,88403	-0,00707	0,03396	0,05488	0,1018	0,06559	0,10842
3451,95557	-0,00701	0,03381	0,0549	0,10171	0,06544	0,10829
3450,0271	-0,00701	0,03376	0,05496	0,10184	0,06538	0,10827
3448,09863	-0,00664	0,03405	0,05526	0,10187	0,06638	0,10883
3446,17017	-0,0067	0,03383	0,05514	0,10169	0,0662	0,10887
3444,2417	-0,00704	0,03371	0,05489	0,10176	0,06547	0,10837
3442,31323	-0,00693	0,034	0,05514	0,10187	0,06594	0,1085
3440,38477	-0,00709	0,03383	0,05511	0,10173	0,06568	0,10851
3438,4563	-0,00718	0,03377	0,05502	0,10171	0,06544	0,10845
3436,52783	-0,00708	0,03401	0,0551	0,10181	0,06574	0,10859
3434,59937	-0,00715	0,03401	0,05504	0,10181	0,06566	0,10848
3432,6709	-0,00696	0,03401	0,05507	0,1018	0,06577	0,10852

3430,74243	-0,00687	0,03409	0,05511	0,10178	0,06579	0,1086
3428,81396	-0,00692	0,03422	0,05512	0,10182	0,06573	0,10853
3426,8855	-0,00684	0,0343	0,05512	0,10185	0,06576	0,10859
3424,95703	-0,0069	0,03427	0,05505	0,10182	0,0656	0,10856
3423,02856	-0,00676	0,0344	0,05512	0,10184	0,06578	0,1086
3421,1001	-0,0064	0,03457	0,0553	0,10183	0,06622	0,10895
3419,17163	-0,00642	0,03447	0,05526	0,10178	0,06607	0,10894
3417,24316	-0,00655	0,03447	0,05513	0,10183	0,06572	0,10861
3415,3147	-0,00658	0,03475	0,05512	0,10195	0,06589	0,10864
3413,38623	-0,00656	0,03494	0,05512	0,102	0,06597	0,10879
3411,45776	-0,00639	0,03497	0,05521	0,102	0,06593	0,10881
3409,5293	-0,00623	0,03503	0,05527	0,10207	0,06604	0,10881
3407,60083	-0,00622	0,03505	0,05518	0,10208	0,06595	0,10882
3405,67236	-0,00619	0,03513	0,05516	0,10204	0,06596	0,10881
3403,7439	-0,00608	0,03531	0,05517	0,10205	0,06613	0,1089
3401,81543	-0,00604	0,03538	0,05521	0,10211	0,06608	0,10897
3399,88696	-0,00595	0,03549	0,05529	0,10221	0,06614	0,10901
3397,9585	-0,00576	0,03564	0,05531	0,1022	0,06639	0,10922
3396,03003	-0,00578	0,0356	0,05521	0,10207	0,0662	0,10915
3394,10156	-0,00582	0,0357	0,05519	0,10207	0,06615	0,10905
3392,1731	-0,00567	0,03595	0,0552	0,10215	0,06643	0,10928
3390,24463	-0,00558	0,03591	0,05508	0,10216	0,06624	0,10923
3388,31616	-0,00564	0,03589	0,05497	0,10213	0,06608	0,10906
3386,3877	-0,00558	0,03615	0,05503	0,10217	0,06629	0,10913
3384,45923	-0,00542	0,03625	0,05505	0,10215	0,06633	0,10922
3382,53076	-0,00547	0,03623	0,05484	0,10207	0,0661	0,10915
3380,60229	-0,00539	0,03638	0,05478	0,1021	0,06606	0,10908
3378,67383	-0,00524	0,03644	0,05488	0,10217	0,0663	0,10917
3376,74536	-0,00525	0,03654	0,0548	0,10214	0,0663	0,10918
3374,81689	-0,0051	0,03671	0,05464	0,10209	0,06614	0,1091
3372,88843	-0,00496	0,03674	0,05462	0,10214	0,06616	0,10911
3370,95996	-0,00494	0,03689	0,05471	0,10218	0,06628	0,10927
3369,03149	-0,00487	0,0372	0,05467	0,10215	0,06635	0,1094
3367,10303	-0,00482	0,03735	0,05465	0,10221	0,06649	0,10947
3365,17456	-0,00474	0,03737	0,05458	0,10216	0,06644	0,10942
3363,24609	-0,00467	0,03746	0,05433	0,10203	0,06623	0,1093
3361,31763	-0,00453	0,0376	0,05439	0,10221	0,06641	0,1094
3359,38916	-0,00438	0,03771	0,05437	0,10225	0,06643	0,10938
3357,46069	-0,00427	0,03782	0,05416	0,10206	0,0663	0,10932
3355,53223	-0,00416	0,03784	0,05419	0,10206	0,06636	0,10945
3353,60376	-0,00411	0,0379	0,05413	0,10214	0,0663	0,1094
3351,67529	-0,00407	0,0382	0,05409	0,1022	0,06633	0,10935
3349,74683	-0,00399	0,03844	0,05418	0,10229	0,06647	0,10948
3347,81836	-0,0039	0,03843	0,05402	0,10225	0,06635	0,10947
3345,88989	-0,00382	0,03855	0,05386	0,10208	0,06621	0,1094
3343,96143	-0,00372	0,03883	0,05395	0,10215	0,0664	0,10946
3342,03296	-0,00363	0,0389	0,05396	0,10226	0,06643	0,1095
3340,10449	-0,00364	0,03888	0,05381	0,10213	0,06623	0,10946
3338,17603	-0,00345	0,03906	0,05383	0,10211	0,06642	0,10943
3336,24756	-0,00324	0,03924	0,05386	0,10215	0,06655	0,10951

3334,31909	-0,00333	0,03921	0,05372	0,10206	0,06634	0,10954
3332,39063	-0,00328	0,03925	0,05362	0,10208	0,06627	0,10937
3330,46216	-0,00318	0,03935	0,05358	0,10208	0,0663	0,10933
3328,53369	-0,0032	0,03937	0,05356	0,10199	0,06633	0,10943
3326,60522	-0,00306	0,03956	0,0536	0,10207	0,06643	0,10948
3324,67676	-0,0029	0,03976	0,05355	0,1021	0,06643	0,10947
3322,74829	-0,00287	0,03969	0,05341	0,10198	0,06629	0,10935
3320,81982	-0,00291	0,03976	0,0534	0,10195	0,0663	0,1093
3318,89136	-0,00288	0,03995	0,05338	0,10195	0,06632	0,10934
3316,96289	-0,00276	0,03988	0,0533	0,10195	0,0663	0,10938
3315,03442	-0,00271	0,0399	0,05336	0,10198	0,06646	0,10938
3313,10596	-0,00269	0,04011	0,05329	0,1019	0,06643	0,10924
3311,17749	-0,00265	0,04017	0,05315	0,10189	0,06628	0,10925
3309,24902	-0,00261	0,0402	0,0533	0,10191	0,06644	0,10948
3307,32056	-0,00259	0,04034	0,05336	0,10188	0,06648	0,10952
3305,39209	-0,00254	0,04043	0,05326	0,10199	0,06647	0,10946
3303,46362	-0,00244	0,04043	0,05321	0,10196	0,06651	0,10941
3301,53516	-0,00247	0,0404	0,05305	0,10181	0,06628	0,10922
3299,60669	-0,00246	0,04049	0,05299	0,10185	0,06622	0,10919
3297,67822	-0,00234	0,04049	0,05304	0,10185	0,06631	0,1093
3295,74976	-0,0024	0,04047	0,05303	0,1017	0,06623	0,10926
3293,82129	-0,00245	0,04064	0,05304	0,10163	0,06632	0,10929
3291,89282	-0,00232	0,04066	0,05302	0,10173	0,06644	0,10937
3289,96436	-0,00228	0,04061	0,05286	0,10169	0,06629	0,10922
3288,03589	-0,00234	0,04068	0,05272	0,10149	0,06618	0,10904
3286,10742	-0,00227	0,04074	0,05273	0,10147	0,06616	0,10906
3284,17896	-0,00217	0,04074	0,05278	0,10148	0,06618	0,10914
3282,25049	-0,00225	0,04067	0,05282	0,10148	0,06626	0,10915
3280,32202	-0,00226	0,04069	0,05272	0,10145	0,06623	0,10906
3278,39355	-0,0022	0,04069	0,05268	0,10129	0,06617	0,10902
3276,46509	-0,00226	0,04075	0,0528	0,10125	0,06631	0,10913
3274,53662	-0,00231	0,0409	0,05275	0,10132	0,0664	0,10915
3272,60815	-0,00231	0,04082	0,05268	0,10132	0,06632	0,10906
3270,67969	-0,00238	0,04082	0,05269	0,10133	0,06627	0,10903
3268,75122	-0,00241	0,04091	0,05261	0,10135	0,06623	0,109
3266,82275	-0,00235	0,04085	0,05257	0,10126	0,06612	0,10894
3264,89429	-0,00231	0,04088	0,05256	0,10117	0,06609	0,1089
3262,96582	-0,00237	0,0409	0,05253	0,10122	0,06608	0,10882
3261,03735	-0,00237	0,04091	0,05249	0,10115	0,06606	0,10877
3259,10889	-0,00228	0,0409	0,05247	0,10112	0,06605	0,10878
3257,18042	-0,00229	0,04091	0,05254	0,10117	0,06608	0,1088
3255,25195	-0,00234	0,04099	0,05255	0,10106	0,0662	0,10883
3253,32349	-0,00234	0,0409	0,05244	0,101	0,0661	0,10875
3251,39502	-0,00238	0,0408	0,05235	0,10101	0,06594	0,10864
3249,46655	-0,00243	0,04088	0,05236	0,10102	0,06597	0,10866
3247,53809	-0,0024	0,04104	0,05243	0,10111	0,06615	0,1087
3245,60962	-0,00233	0,04109	0,05246	0,10108	0,06635	0,10874
3243,68115	-0,00235	0,04099	0,05236	0,10094	0,06616	0,10869
3241,75269	-0,00242	0,04101	0,05221	0,10085	0,06593	0,10856
3239,82422	-0,00236	0,04108	0,0522	0,10086	0,06596	0,10853

3237,89575	-0,00237	0,04111	0,05223	0,10094	0,06595	0,10858
3235,96729	-0,00251	0,04113	0,05219	0,10087	0,06597	0,10859
3234,03882	-0,00249	0,04111	0,0522	0,10076	0,06604	0,10859
3232,11035	-0,0024	0,04117	0,0522	0,10075	0,066	0,10854
3230,18188	-0,00246	0,04118	0,05209	0,10071	0,06587	0,10837
3228,25342	-0,00239	0,04114	0,05203	0,10062	0,06586	0,10832
3226,32495	-0,00233	0,04118	0,05205	0,10058	0,06591	0,10836
3224,39648	-0,00251	0,04113	0,05198	0,10061	0,06576	0,10824
3222,46802	-0,00251	0,04119	0,0519	0,10058	0,0657	0,10819
3220,53955	-0,00237	0,04131	0,05198	0,10049	0,06594	0,10831
3218,61108	-0,00245	0,04116	0,05195	0,10048	0,06588	0,10822
3216,68262	-0,00241	0,04117	0,05183	0,10046	0,06575	0,1081
3214,75415	-0,00231	0,0413	0,05184	0,1004	0,06595	0,10818
3212,82568	-0,00244	0,04119	0,05178	0,10028	0,0658	0,10809
3210,89722	-0,00245	0,04126	0,05175	0,10026	0,06568	0,10802
3208,96875	-0,0024	0,04132	0,05174	0,10029	0,0658	0,10804
3207,04028	-0,0025	0,04123	0,05163	0,1002	0,06562	0,10786
3205,11182	-0,0025	0,04133	0,05164	0,10016	0,06557	0,10786
3203,18335	-0,00244	0,04138	0,05166	0,10021	0,06565	0,10792
3201,25488	-0,00245	0,04139	0,05165	0,10024	0,06565	0,10785
3199,32642	-0,00236	0,04149	0,05164	0,10023	0,06576	0,10788
3197,39795	-0,00226	0,04149	0,05157	0,10016	0,06579	0,10787
3195,46948	-0,00242	0,04142	0,05154	0,1001	0,0657	0,10777
3193,54102	-0,00248	0,04144	0,0515	0,10005	0,06558	0,1077
3191,61255	-0,00234	0,04157	0,05142	0,09998	0,06557	0,10763
3189,68408	-0,00237	0,0416	0,05143	0,09998	0,06565	0,10763
3187,75562	-0,00238	0,04159	0,05148	0,09998	0,06563	0,10769
3185,82715	-0,00229	0,04166	0,05146	0,09992	0,06565	0,10766
3183,89868	-0,00227	0,04167	0,05149	0,09994	0,0657	0,10761
3181,97021	-0,00224	0,04174	0,05143	0,09995	0,06559	0,10757
3180,04175	-0,00217	0,04184	0,05135	0,09987	0,06569	0,10758
3178,11328	-0,00219	0,04176	0,05146	0,09991	0,06583	0,10768
3176,18481	-0,00225	0,04174	0,05143	0,0999	0,0656	0,10752
3174,25635	-0,00224	0,04183	0,05134	0,09974	0,06548	0,10737
3172,32788	-0,00221	0,04188	0,05142	0,09979	0,06558	0,10752
3170,39941	-0,0022	0,04197	0,05141	0,09988	0,06564	0,10752
3168,47095	-0,00221	0,04196	0,05133	0,09975	0,06559	0,10739
3166,54248	-0,00228	0,04191	0,05133	0,09965	0,0655	0,10737
3164,61401	-0,00226	0,04206	0,05128	0,09965	0,06553	0,10734
3162,68555	-0,00217	0,04211	0,05124	0,09961	0,06555	0,10724
3160,75708	-0,00218	0,042	0,0513	0,09958	0,06551	0,10726
3158,82861	-0,00224	0,04201	0,0513	0,0996	0,06556	0,10733
3156,90015	-0,00217	0,04201	0,05121	0,09954	0,06555	0,10723
3154,97168	-0,00217	0,04195	0,05119	0,09946	0,06548	0,10711
3153,04321	-0,00232	0,04201	0,05125	0,09948	0,06556	0,10713
3151,11475	-0,00227	0,04207	0,05122	0,0995	0,06559	0,10709
3149,18628	-0,00217	0,04203	0,0511	0,09946	0,06549	0,10704
3147,25781	-0,00223	0,04204	0,05112	0,09942	0,0655	0,10705
3145,32935	-0,00227	0,042	0,05109	0,09933	0,06549	0,10696
3143,40088	-0,00231	0,04197	0,05103	0,09923	0,06545	0,1069

3141,47241	-0,0023	0,04206	0,05106	0,09926	0,06549	0,10695
3139,54395	-0,0022	0,04202	0,05106	0,09927	0,06554	0,10695
3137,61548	-0,00222	0,04189	0,05104	0,09916	0,06546	0,10686
3135,68701	-0,00227	0,04196	0,05099	0,09912	0,06542	0,10674
3133,75854	-0,00223	0,04202	0,05097	0,09909	0,06557	0,10676
3131,83008	-0,00231	0,04187	0,05096	0,09903	0,06545	0,10678
3129,90161	-0,00235	0,04189	0,05094	0,09904	0,06532	0,1067
3127,97314	-0,00233	0,042	0,05093	0,09898	0,06538	0,10667
3126,04468	-0,0024	0,04193	0,05086	0,09891	0,06536	0,10659
3124,11621	-0,00235	0,04196	0,05084	0,09895	0,06543	0,10653
3122,18774	-0,00226	0,04194	0,0509	0,09897	0,06547	0,10661
3120,25928	-0,00229	0,04193	0,05087	0,09897	0,06542	0,10665
3118,33081	-0,00227	0,04204	0,05085	0,09889	0,06552	0,10653
3116,40234	-0,00227	0,04198	0,05089	0,09883	0,06556	0,10648
3114,47388	-0,00235	0,04186	0,05085	0,0988	0,06546	0,10649
3112,54541	-0,0024	0,04178	0,05073	0,09869	0,06529	0,10633
3110,61694	-0,00241	0,04178	0,05067	0,09867	0,06522	0,10622
3108,68848	-0,00245	0,04184	0,05068	0,0987	0,06532	0,10626
3106,76001	-0,00244	0,04177	0,05064	0,09867	0,06526	0,10623
3104,83154	-0,00232	0,04167	0,05057	0,09855	0,0651	0,10615
3102,90308	-0,00231	0,04171	0,0506	0,09849	0,06525	0,10611
3100,97461	-0,00241	0,04176	0,0506	0,09856	0,06535	0,10614
3099,04614	-0,00244	0,04169	0,05051	0,0985	0,06524	0,1061
3097,11768	-0,00236	0,04175	0,0505	0,09839	0,06522	0,106
3095,18921	-0,00235	0,04174	0,05049	0,09833	0,06513	0,10597
3093,26074	-0,00247	0,04155	0,05038	0,09827	0,065	0,10586
3091,33228	-0,00256	0,04161	0,05042	0,09832	0,06512	0,10581
3089,40381	-0,00259	0,04167	0,0505	0,09834	0,06522	0,10588
3087,47534	-0,0025	0,04162	0,05048	0,09823	0,06511	0,10584
3085,54688	-0,00245	0,04167	0,05043	0,09819	0,06507	0,10583
3083,61841	-0,00252	0,04164	0,05038	0,09824	0,06513	0,10585
3081,68994	-0,00252	0,0416	0,05039	0,09822	0,06522	0,10584
3079,76147	-0,00249	0,04165	0,05043	0,09818	0,0653	0,10587
3077,83301	-0,00252	0,04161	0,05039	0,09815	0,06517	0,10579
3075,90454	-0,00256	0,04147	0,05032	0,09808	0,06501	0,10567
3073,97607	-0,00255	0,04138	0,05021	0,09805	0,06498	0,10557
3072,04761	-0,00258	0,04137	0,05016	0,09801	0,0649	0,10546
3070,11914	-0,00262	0,04136	0,05017	0,09789	0,06488	0,10543
3068,19067	-0,00252	0,04142	0,05021	0,0979	0,06505	0,10551
3066,26221	-0,00252	0,0414	0,05022	0,09798	0,06519	0,10561
3064,33374	-0,00261	0,04127	0,05012	0,09787	0,06506	0,10552
3062,40527	-0,00266	0,04117	0,05	0,09774	0,06491	0,1053
3060,47681	-0,00266	0,04115	0,04997	0,09778	0,06486	0,10522
3058,54834	-0,00261	0,04128	0,05001	0,09782	0,0649	0,10526
3056,61987	-0,00263	0,04129	0,05004	0,09779	0,06501	0,10529
3054,69141	-0,00269	0,04118	0,04997	0,09771	0,0649	0,10524
3052,76294	-0,00267	0,04117	0,04996	0,0976	0,0648	0,10516
3050,83447	-0,00262	0,04122	0,05005	0,09762	0,06498	0,10519
3048,90601	-0,00261	0,04121	0,05001	0,09769	0,06498	0,1052
3046,97754	-0,00265	0,0411	0,04993	0,09763	0,06481	0,1051

3045,04907	-0,00273	0,0411	0,04997	0,09762	0,06483	0,10508
3043,12061	-0,00274	0,04117	0,05002	0,09767	0,06493	0,10515
3041,19214	-0,00275	0,04113	0,04999	0,09758	0,06494	0,10517
3039,26367	-0,00281	0,04113	0,04985	0,09743	0,06481	0,10502
3037,33521	-0,00284	0,04111	0,04976	0,0974	0,06479	0,10494
3035,40674	-0,00285	0,04109	0,04987	0,09747	0,06488	0,10508
3033,47827	-0,00278	0,04118	0,04991	0,09745	0,06491	0,10514
3031,5498	-0,00275	0,04113	0,04984	0,09731	0,06495	0,10505
3029,62134	-0,00292	0,04096	0,04978	0,09726	0,06481	0,10495
3027,69287	-0,003	0,04096	0,04979	0,09724	0,06471	0,10487
3025,7644	-0,00303	0,041	0,04985	0,09723	0,06484	0,10491
3023,83594	-0,00304	0,04103	0,04982	0,09725	0,06484	0,10496
3021,90747	-0,00299	0,04104	0,04976	0,09718	0,06481	0,10489
3019,979	-0,003	0,0411	0,04979	0,09718	0,06485	0,10492
3018,05054	-0,00297	0,04127	0,04986	0,09725	0,06483	0,10504
3016,12207	-0,00303	0,04122	0,04986	0,09718	0,06479	0,10503
3014,1936	-0,00313	0,04107	0,04989	0,09712	0,06485	0,10504
3012,26514	-0,00314	0,04116	0,04997	0,09722	0,065	0,10512
3010,33667	-0,00315	0,04111	0,04988	0,09725	0,06496	0,10511
3008,4082	-0,00317	0,04096	0,04973	0,09716	0,0648	0,10503
3006,47974	-0,00319	0,04099	0,04976	0,09714	0,06486	0,10503
3004,55127	-0,0032	0,041	0,04974	0,09714	0,06494	0,10515
3002,6228	-0,00322	0,04089	0,04966	0,0971	0,06487	0,10521
3000,69434	-0,00323	0,04085	0,04964	0,09709	0,06483	0,10524
2998,76587	-0,00325	0,04092	0,04967	0,09714	0,06485	0,10541
2996,8374	-0,00326	0,04094	0,04965	0,09717	0,06488	0,10559
2994,90894	-0,00328	0,04089	0,04959	0,09712	0,06495	0,10574
2992,98047	-0,00329	0,04082	0,04961	0,09716	0,06498	0,10597
2991,052	-0,00331	0,04078	0,04957	0,09724	0,06496	0,10616
2989,12354	-0,00332	0,04077	0,0495	0,09723	0,06496	0,10634
2987,19507	-0,00334	0,04071	0,04946	0,09719	0,06495	0,10654
2985,2666	-0,00335	0,04066	0,04937	0,09723	0,06494	0,1068
2983,33813	-0,00337	0,04061	0,04938	0,09736	0,065	0,10722
2981,40967	-0,00338	0,04061	0,04943	0,09746	0,06516	0,10772
2979,4812	-0,0034	0,04063	0,04939	0,09751	0,06529	0,10819
2977,55273	-0,00341	0,04049	0,04935	0,0975	0,06529	0,10865
2975,62427	-0,00343	0,04042	0,04931	0,0975	0,06537	0,10921
2973,6958	-0,00344	0,04037	0,04927	0,09767	0,06552	0,10994
2971,76733	-0,00346	0,04015	0,04923	0,09781	0,0656	0,11079
2969,83887	-0,00347	0,04013	0,04925	0,09797	0,06584	0,11187
2967,9104	-0,00349	0,04018	0,04924	0,0983	0,06613	0,11316
2965,98193	-0,0035	0,04005	0,04924	0,09861	0,06643	0,11453
2964,05347	-0,00352	0,04006	0,04937	0,09894	0,06688	0,11606
2962,125	-0,00353	0,04011	0,0494	0,09931	0,06729	0,1176
2960,19653	-0,00355	0,04008	0,04944	0,09963	0,0676	0,11893
2958,26807	-0,00357	0,04011	0,04954	0,09987	0,06784	0,11995
2956,3396	-0,00358	0,04014	0,04955	0,09997	0,06794	0,12032
2954,41113	-0,0036	0,04012	0,0496	0,09993	0,0679	0,12006
2952,48267	-0,00361	0,04011	0,0496	0,09972	0,06774	0,11944
2950,5542	-0,00363	0,04015	0,0495	0,09942	0,0675	0,11851



2948,62573	-0,00364	0,04022	0,04949	0,09914	0,06727	0,11748
2946,69727	-0,00366	0,04015	0,04945	0,09889	0,06708	0,11652
2944,7688	-0,00367	0,04011	0,04937	0,09862	0,06688	0,1156
2942,84033	-0,00369	0,04016	0,04937	0,09838	0,06665	0,11483
2940,91187	-0,0037	0,04007	0,04933	0,0983	0,06651	0,1142
2938,9834	-0,00372	0,04002	0,04928	0,09816	0,06641	0,11372
2937,05493	-0,00373	0,04006	0,04933	0,09797	0,06631	0,11336
2935,12646	-0,00375	0,04004	0,0494	0,0979	0,06635	0,11301
2933,198	-0,00376	0,04002	0,04939	0,0978	0,06636	0,1126
2931,26953	-0,00378	0,04004	0,04947	0,09778	0,0663	0,1123
2929,34106	-0,00379	0,04004	0,04951	0,09779	0,06635	0,11201
2927,4126	-0,00381	0,03997	0,04946	0,09756	0,06623	0,11158
2925,48413	-0,00382	0,0399	0,04952	0,09747	0,06611	0,11129
2923,55566	-0,00384	0,03983	0,04954	0,09752	0,06617	0,11105
2921,6272	-0,00385	0,03971	0,04941	0,09741	0,06609	0,11074
2919,69873	-0,00387	0,03965	0,04929	0,09728	0,06596	0,11056
2917,77026	-0,00388	0,0396	0,04917	0,09717	0,06585	0,11044
2915,8418	-0,0039	0,03957	0,0491	0,09718	0,06589	0,11054
2913,91333	-0,00391	0,03971	0,04922	0,09734	0,06605	0,11087
2911,98486	-0,00393	0,03987	0,04927	0,09735	0,06602	0,11109
2910,0564	-0,00395	0,03989	0,04915	0,09731	0,06596	0,1112
2908,12793	-0,00396	0,03992	0,04914	0,09731	0,06597	0,1113
2906,19946	-0,00398	0,03996	0,04917	0,09724	0,06588	0,11136
2904,271	-0,00399	0,03994	0,04916	0,09721	0,06585	0,11143
2902,34253	-0,00401	0,03995	0,04914	0,09724	0,06591	0,11145
2900,41406	-0,00402	0,03994	0,04912	0,09721	0,0659	0,11134
2898,4856	-0,00404	0,03994	0,04912	0,09713	0,06586	0,11113
2896,55713	-0,00405	0,04003	0,0491	0,09704	0,06582	0,11083
2894,62866	-0,00407	0,04004	0,04904	0,09689	0,06569	0,11043
2892,7002	-0,00408	0,03998	0,04897	0,09671	0,0655	0,11
2890,77173	-0,0041	0,03993	0,04897	0,09661	0,06541	0,10964
2888,84326	-0,00411	0,03989	0,04898	0,09654	0,06537	0,10932
2886,91479	-0,00413	0,03988	0,04893	0,09648	0,06531	0,10901
2884,98633	-0,00414	0,03985	0,04889	0,09642	0,06533	0,1088
2883,05786	-0,00416	0,03983	0,0489	0,09633	0,06529	0,10859
2881,12939	-0,00417	0,03978	0,04886	0,0963	0,0652	0,10844
2879,20093	-0,00419	0,03974	0,04881	0,09629	0,06518	0,10845
2877,27246	-0,0042	0,03975	0,04875	0,09626	0,06519	0,10852
2875,34399	-0,00422	0,03973	0,04878	0,09634	0,06529	0,10882
2873,41553	-0,00423	0,03976	0,04886	0,09646	0,06546	0,10927
2871,48706	-0,00425	0,03984	0,0488	0,09649	0,06547	0,1095
2869,55859	-0,00426	0,03979	0,04872	0,09642	0,06543	0,10963
2867,63013	-0,00428	0,03971	0,04876	0,09636	0,06545	0,1097
2865,70166	-0,0043	0,03972	0,04875	0,09634	0,06541	0,10943
2863,77319	-0,00431	0,0397	0,04871	0,09625	0,06534	0,10893
2861,84473	-0,00433	0,03968	0,04872	0,09609	0,06521	0,10834
2859,91626	-0,00434	0,03971	0,0487	0,09594	0,06508	0,10763
2857,98779	-0,00436	0,03964	0,04865	0,09578	0,06501	0,10703
2856,05933	-0,00437	0,0396	0,04867	0,09568	0,06493	0,10662
2854,13086	-0,00439	0,0397	0,04877	0,09572	0,06498	0,10639

2852,20239	-0,0044	0,03973	0,04882	0,09582	0,06507	0,1064
2850,27393	-0,00442	0,03976	0,04881	0,09586	0,06506	0,10637
2848,34546	-0,00443	0,03977	0,04879	0,0958	0,06499	0,1062
2846,41699	-0,00445	0,03967	0,0487	0,09567	0,06486	0,106
2844,48853	-0,00446	0,03965	0,0486	0,0955	0,06468	0,10575
2842,56006	-0,00448	0,03967	0,04855	0,09536	0,0646	0,10545
2840,63159	-0,00449	0,03963	0,04855	0,09528	0,0646	0,10526
2838,70313	-0,00451	0,03964	0,04853	0,09519	0,06455	0,10505
2836,77466	-0,00452	0,03964	0,04847	0,0951	0,06447	0,10471
2834,84619	-0,00454	0,03962	0,04849	0,09506	0,06444	0,10447
2832,91772	-0,00455	0,03967	0,0485	0,095	0,06439	0,10428
2830,98926	-0,00457	0,03971	0,04842	0,09493	0,06429	0,10407
2829,06079	-0,00458	0,03966	0,04842	0,09485	0,06428	0,10396
2827,13232	-0,0046	0,03964	0,04844	0,09484	0,06426	0,10383
2825,20386	-0,00455	0,03965	0,04839	0,09485	0,06417	0,10364
2823,27539	-0,00454	0,03968	0,04841	0,09475	0,06416	0,10353
2821,34692	-0,00455	0,03973	0,04842	0,0947	0,06417	0,10341
2819,41846	-0,00454	0,03973	0,04837	0,09472	0,06413	0,10327
2817,48999	-0,00456	0,03971	0,04838	0,09463	0,06413	0,10318
2815,56152	-0,00452	0,03972	0,04842	0,09464	0,06416	0,10315
2813,63306	-0,00449	0,03974	0,04841	0,09464	0,06413	0,10311
2811,70459	-0,00456	0,03979	0,04841	0,09458	0,06411	0,10302
2809,77612	-0,00453	0,03982	0,04841	0,0946	0,06414	0,10299
2807,84766	-0,00447	0,03978	0,04841	0,09455	0,0641	0,10296
2805,91919	-0,00448	0,03975	0,0484	0,09451	0,0641	0,10288
2803,99072	-0,00442	0,03977	0,04836	0,09453	0,06411	0,10281
2802,06226	-0,00438	0,03974	0,04836	0,09449	0,06407	0,10276
2800,13379	-0,00443	0,03969	0,04839	0,09454	0,06414	0,10273
2798,20532	-0,00445	0,03976	0,04842	0,09456	0,06415	0,10268
2796,27686	-0,0044	0,03981	0,04842	0,09449	0,06414	0,10264
2794,34839	-0,00439	0,03973	0,04839	0,09444	0,06416	0,10262
2792,41992	-0,00442	0,0397	0,04836	0,09442	0,0641	0,10256
2790,49146	-0,00441	0,03978	0,04837	0,09448	0,06414	0,10254
2788,56299	-0,00438	0,0398	0,04838	0,09445	0,06425	0,10252
2786,63452	-0,00441	0,03977	0,04836	0,09433	0,06421	0,10242
2784,70605	-0,0045	0,03979	0,04836	0,0943	0,06416	0,10239
2782,77759	-0,00446	0,03978	0,04834	0,09432	0,06416	0,10238
2780,84912	-0,00435	0,03979	0,04833	0,09434	0,06419	0,10235
2778,92065	-0,00434	0,03986	0,04835	0,09433	0,06419	0,10237
2776,99219	-0,00432	0,03985	0,04837	0,09434	0,0642	0,10239
2775,06372	-0,0043	0,03988	0,04839	0,09439	0,06426	0,10232
2773,13525	-0,00432	0,03989	0,04838	0,09435	0,06425	0,10227
2771,20679	-0,00427	0,03981	0,04838	0,09432	0,06419	0,10227
2769,27832	-0,00424	0,03987	0,04838	0,09429	0,06419	0,10228
2767,34985	-0,00431	0,03992	0,04835	0,09426	0,06422	0,10226
2765,42139	-0,00428	0,03988	0,04835	0,09427	0,06424	0,10218
2763,49292	-0,00424	0,03992	0,04839	0,09426	0,06419	0,10214
2761,56445	-0,00426	0,03992	0,04837	0,09425	0,06418	0,10215
2759,63599	-0,00423	0,03986	0,04832	0,09422	0,06419	0,10211
2757,70752	-0,00423	0,03986	0,04834	0,09423	0,06423	0,10214

2755,77905	-0,00429	0,03983	0,0484	0,09429	0,06429	0,10219
2753,85059	-0,00426	0,0398	0,04839	0,09427	0,06427	0,10215
2751,92212	-0,00427	0,03979	0,0484	0,09418	0,06428	0,10213
2749,99365	-0,00434	0,03981	0,04842	0,09415	0,06428	0,10214
2748,06519	-0,00431	0,03985	0,04841	0,09417	0,06425	0,10217
2746,13672	-0,0043	0,03986	0,04841	0,09414	0,06429	0,10217
2744,20825	-0,00431	0,03983	0,04838	0,09411	0,06428	0,10214
2742,27979	-0,00424	0,03977	0,04831	0,09407	0,06426	0,10209
2740,35132	-0,00426	0,03973	0,04835	0,09405	0,06432	0,10201
2738,42285	-0,00426	0,03979	0,04844	0,09409	0,06434	0,10202
2736,49438	-0,0042	0,03984	0,04842	0,09408	0,06429	0,10202
2734,56592	-0,00425	0,03984	0,04838	0,09404	0,06431	0,10198
2732,63745	-0,00428	0,03979	0,0484	0,09405	0,06434	0,10199
2730,70898	-0,00424	0,03973	0,04841	0,09405	0,06435	0,10198
2728,78052	-0,00427	0,03977	0,0484	0,09404	0,06434	0,10199
2726,85205	-0,00432	0,03982	0,0484	0,09399	0,06431	0,10199
2724,92358	-0,00429	0,0398	0,04837	0,09398	0,0643	0,10194
2722,99512	-0,00427	0,03981	0,04838	0,09406	0,06432	0,10195
2721,06665	-0,00429	0,03984	0,04843	0,09403	0,06436	0,10197
2719,13818	-0,00426	0,03987	0,04838	0,09397	0,06438	0,10197
2717,20972	-0,00422	0,03991	0,04837	0,09398	0,06435	0,10193
2715,28125	-0,00416	0,03986	0,04846	0,09399	0,06439	0,10186
2713,35278	-0,00413	0,03984	0,04847	0,094	0,06443	0,10188
2711,42432	-0,0042	0,03983	0,04841	0,09397	0,0644	0,10187
2709,49585	-0,00419	0,03977	0,04837	0,09394	0,06439	0,1018
2707,56738	-0,00412	0,03981	0,04834	0,09394	0,06437	0,1018
2705,63892	-0,00413	0,03987	0,04837	0,09393	0,06434	0,10177
2703,71045	-0,00415	0,03985	0,04841	0,09396	0,06436	0,10178
2701,78198	-0,00412	0,03984	0,04835	0,09394	0,0644	0,10176
2699,85352	-0,004	0,03987	0,04831	0,09388	0,06439	0,10164
2697,92505	-0,00393	0,03989	0,04834	0,09389	0,06444	0,10169
2695,99658	-0,00397	0,0399	0,04834	0,09389	0,06445	0,10175
2694,06812	-0,00397	0,03992	0,04837	0,09387	0,0644	0,10166
2692,13965	-0,00395	0,03993	0,0484	0,09388	0,06444	0,10162
2690,21118	-0,00397	0,0399	0,04837	0,09386	0,06445	0,10161
2688,28271	-0,004	0,0399	0,04841	0,09388	0,0645	0,10161
2686,35425	-0,00401	0,03995	0,04845	0,09395	0,06458	0,10161
2684,42578	-0,00398	0,03998	0,04841	0,0939	0,0645	0,10154
2682,49731	-0,00393	0,03997	0,04844	0,09389	0,06452	0,10152
2680,56885	-0,00388	0,03997	0,04846	0,09397	0,06459	0,10153
2678,64038	-0,00384	0,03997	0,04842	0,09394	0,06455	0,10152
2676,71191	-0,00382	0,03998	0,04842	0,09395	0,06452	0,10152
2674,78345	-0,00383	0,04002	0,04843	0,09398	0,06455	0,1015
2672,85498	-0,00376	0,04003	0,04847	0,09396	0,06461	0,10147
2670,92651	-0,00367	0,04002	0,04852	0,09402	0,06471	0,10149
2668,99805	-0,00365	0,04004	0,04851	0,09405	0,06472	0,10154
2667,06958	-0,00367	0,04006	0,04847	0,09403	0,06462	0,10152
2665,14111	-0,00367	0,04007	0,04844	0,09403	0,06463	0,10146
2663,21265	-0,00361	0,04006	0,04849	0,09405	0,06468	0,10145
2661,28418	-0,00355	0,04006	0,04856	0,09406	0,06467	0,10146

2659,35571	-0,00359	0,04009	0,04855	0,09406	0,06472	0,10139
2657,42725	-0,00354	0,04013	0,04856	0,09409	0,06479	0,10137
2655,49878	-0,00345	0,04014	0,04864	0,09418	0,06484	0,10142
2653,57031	-0,00344	0,04016	0,04865	0,09419	0,06488	0,10139
2651,64185	-0,00342	0,04022	0,04857	0,09416	0,06489	0,10132
2649,71338	-0,00337	0,04023	0,04859	0,09421	0,06493	0,10137
2647,78491	-0,00334	0,04024	0,04863	0,0942	0,06492	0,10141
2645,85645	-0,00328	0,04025	0,04866	0,09418	0,06491	0,10143
2643,92798	-0,00321	0,04024	0,04872	0,09426	0,06496	0,10145
2641,99951	-0,00322	0,04025	0,04872	0,09428	0,06496	0,10142
2640,07104	-0,00321	0,04028	0,04871	0,09427	0,06498	0,10144
2638,14258	-0,00316	0,04031	0,04873	0,09429	0,06501	0,10141
2636,21411	-0,00317	0,04036	0,04871	0,0943	0,065	0,10134
2634,28564	-0,00319	0,04039	0,04872	0,09431	0,06502	0,10136
2632,35718	-0,00318	0,0404	0,04873	0,0943	0,06502	0,10136
2630,42871	-0,0032	0,04042	0,04876	0,09432	0,06501	0,10135
2628,50024	-0,0032	0,04045	0,04875	0,09433	0,06503	0,10135
2626,57178	-0,00317	0,04045	0,04871	0,09427	0,06505	0,10137
2624,64331	-0,00316	0,04042	0,04869	0,09421	0,06507	0,10138
2622,71484	-0,00315	0,04038	0,04867	0,09419	0,06501	0,10129
2620,78638	-0,0031	0,04038	0,04869	0,09423	0,06498	0,10126
2618,85791	-0,00309	0,04039	0,0487	0,09417	0,065	0,10128
2616,92944	-0,00311	0,04038	0,04864	0,09408	0,0649	0,10121
2615,00098	-0,00317	0,0404	0,04863	0,09409	0,06486	0,1012
2613,07251	-0,00323	0,04035	0,04865	0,09407	0,06491	0,10123
2611,14404	-0,00327	0,04029	0,04858	0,09397	0,06486	0,10114
2609,21558	-0,00336	0,04031	0,04852	0,0939	0,06482	0,1011
2607,28711	-0,0034	0,04028	0,04856	0,09393	0,06484	0,10116
2605,35864	-0,00346	0,04025	0,04853	0,09392	0,0648	0,10112
2603,43018	-0,00358	0,04023	0,04845	0,09381	0,06475	0,10105
2601,50171	-0,00355	0,04016	0,04841	0,09375	0,06472	0,10107
2599,57324	-0,00356	0,04017	0,04842	0,09373	0,06471	0,10109
2597,64478	-0,0037	0,04015	0,04843	0,09366	0,0647	0,10105
2595,71631	-0,00377	0,04009	0,04841	0,09363	0,06467	0,10101
2593,78784	-0,00377	0,0401	0,0484	0,09358	0,06466	0,10098
2591,85938	-0,00378	0,04007	0,04837	0,09344	0,06464	0,1009
2589,93091	-0,00385	0,04003	0,04834	0,09342	0,06464	0,10091
2588,00244	-0,00391	0,04002	0,04833	0,0934	0,06459	0,10095
2586,07397	-0,00394	0,03995	0,04828	0,09327	0,06449	0,10082
2584,14551	-0,00399	0,03989	0,04826	0,09319	0,0645	0,10076
2582,21704	-0,00408	0,0399	0,04827	0,09317	0,06452	0,10083
2580,28857	-0,00416	0,03989	0,04823	0,09312	0,06447	0,10079
2578,36011	-0,00415	0,03987	0,04821	0,09307	0,06443	0,10073
2576,43164	-0,00417	0,03985	0,04817	0,09301	0,06436	0,10072
2574,50317	-0,00426	0,0398	0,04811	0,09294	0,06431	0,1007
2572,57471	-0,0043	0,03977	0,0481	0,09289	0,06428	0,10071
2570,64624	-0,00439	0,03979	0,04814	0,09285	0,06429	0,10071
2568,71777	-0,00446	0,03977	0,04813	0,09278	0,06428	0,10067
2566,78931	-0,00447	0,03969	0,04811	0,09274	0,0642	0,10066
2564,86084	-0,00453	0,0397	0,04809	0,09275	0,06418	0,10068

2562,93237	-0,00452	0,03967	0,04803	0,09274	0,06416	0,10069
2561,00391	-0,00458	0,03958	0,04797	0,09267	0,06409	0,10068
2559,07544	-0,00475	0,03958	0,04792	0,09258	0,06403	0,10062
2557,14697	-0,00474	0,03954	0,04793	0,09258	0,06398	0,10059
2555,21851	-0,00471	0,03946	0,04791	0,09255	0,06396	0,10056
2553,29004	-0,00481	0,03948	0,04786	0,09246	0,06398	0,10054
2551,36157	-0,00483	0,03947	0,04791	0,09245	0,06396	0,10059
2549,43311	-0,00486	0,03943	0,04795	0,09247	0,06394	0,10059
2547,50464	-0,00494	0,03943	0,04789	0,09241	0,06394	0,10053
2545,57617	-0,00496	0,03945	0,04782	0,09235	0,06388	0,10052
2543,64771	-0,005	0,03947	0,04776	0,09233	0,06383	0,10048
2541,71924	-0,00505	0,03943	0,04779	0,09229	0,0638	0,10051
2539,79077	-0,00506	0,03939	0,04782	0,0922	0,06376	0,10054
2537,8623	-0,00513	0,03944	0,04777	0,09218	0,06379	0,10046
2535,93384	-0,00519	0,03942	0,04777	0,09215	0,06377	0,10042
2534,00537	-0,00522	0,03938	0,04778	0,09208	0,06371	0,10046
2532,0769	-0,00526	0,03942	0,04773	0,0921	0,06374	0,10047
2530,14844	-0,0053	0,03941	0,0477	0,09212	0,06375	0,10045
2528,21997	-0,00537	0,03937	0,04767	0,09204	0,06367	0,10044
2526,2915	-0,00539	0,03936	0,04763	0,09198	0,06363	0,10042
2524,36304	-0,00535	0,03935	0,04762	0,09198	0,06365	0,10043
2522,43457	-0,00541	0,0393	0,04764	0,09195	0,06365	0,10044
2520,5061	-0,00548	0,03925	0,04762	0,09195	0,06364	0,10041
2518,57764	-0,00548	0,03928	0,04758	0,09195	0,06362	0,10041
2516,64917	-0,0055	0,03925	0,04754	0,09191	0,06357	0,10041
2514,7207	-0,00547	0,03917	0,04755	0,0919	0,06353	0,10039
2512,79224	-0,00548	0,03915	0,04755	0,09185	0,06351	0,10037
2510,86377	-0,00559	0,03919	0,0475	0,09178	0,06344	0,10038
2508,9353	-0,00564	0,03928	0,04749	0,09178	0,06343	0,10039
2507,00684	-0,00566	0,03932	0,04755	0,09177	0,06349	0,10038
2505,07837	-0,0057	0,0393	0,04754	0,09176	0,06351	0,1004
2503,1499	-0,00567	0,03929	0,04749	0,09175	0,06347	0,10042
2501,22144	-0,00564	0,03929	0,04746	0,09169	0,06345	0,10038
2499,29297	-0,00566	0,0393	0,04749	0,09168	0,06347	0,10037
2497,3645	-0,00568	0,03928	0,04752	0,09167	0,06349	0,10039
2495,43604	-0,00569	0,03927	0,04748	0,0916	0,06347	0,10038
2493,50757	-0,0057	0,03931	0,04748	0,09159	0,06346	0,1004
2491,5791	-0,00571	0,03931	0,04755	0,09158	0,06348	0,10035
2489,65063	-0,00575	0,03929	0,04755	0,09155	0,06349	0,10033
2487,72217	-0,00579	0,03933	0,04754	0,09156	0,06349	0,10042
2485,7937	-0,00577	0,03937	0,04753	0,09154	0,06345	0,10041
2483,86523	-0,00577	0,03937	0,04752	0,09149	0,06344	0,10031
2481,93677	-0,00581	0,03937	0,04753	0,09146	0,06348	0,1003
2480,0083	-0,00583	0,03936	0,04752	0,09141	0,06344	0,1003
2478,07983	-0,00582	0,03929	0,04753	0,0914	0,06339	0,10029
2476,15137	-0,00575	0,03929	0,0476	0,0914	0,06343	0,1003
2474,2229	-0,00572	0,03938	0,04762	0,09137	0,06345	0,10032
2472,29443	-0,00577	0,0394	0,0476	0,09141	0,06343	0,10032
2470,36597	-0,00575	0,03936	0,04764	0,09145	0,06346	0,10027
2468,4375	-0,00573	0,03939	0,04766	0,09142	0,06347	0,10029

2466,50903	-0,00578	0,0394	0,0476	0,09138	0,06347	0,10031
2464,58057	-0,00582	0,03939	0,04759	0,0913	0,06349	0,10026
2462,6521	-0,00584	0,03944	0,04761	0,09129	0,06347	0,10023
2460,72363	-0,00584	0,03946	0,04758	0,09128	0,06339	0,10023
2458,79517	-0,00589	0,03946	0,04756	0,09122	0,06334	0,10023
2456,8667	-0,00592	0,03949	0,04759	0,09122	0,06333	0,10018
2454,93823	-0,00589	0,03944	0,04758	0,09123	0,06332	0,10015
2453,00977	-0,0059	0,03943	0,04757	0,09122	0,0633	0,10019
2451,0813	-0,0059	0,03952	0,04766	0,09125	0,06339	0,10019
2449,15283	-0,00588	0,03954	0,04767	0,09121	0,06348	0,10018
2447,22437	-0,00591	0,03947	0,04761	0,09118	0,06344	0,10016
2445,2959	-0,00588	0,03942	0,04762	0,09122	0,06335	0,10014
2443,36743	-0,0059	0,0394	0,04756	0,0912	0,06331	0,10012
2441,43896	-0,00599	0,03939	0,04754	0,09117	0,0633	0,1001
2439,5105	-0,00598	0,03942	0,04756	0,09117	0,06329	0,10016
2437,58203	-0,00598	0,03942	0,04748	0,09114	0,06326	0,10017
2435,65356	-0,00604	0,0394	0,04746	0,09115	0,06325	0,10014
2433,7251	-0,00606	0,03945	0,04749	0,09118	0,06328	0,10015
2431,79663	-0,00608	0,03942	0,04744	0,09115	0,06332	0,1001
2429,86816	-0,00608	0,03936	0,04741	0,0911	0,06323	0,10008
2427,9397	-0,00608	0,03936	0,04745	0,09108	0,0632	0,10012
2426,01123	-0,00609	0,03939	0,04744	0,09104	0,06323	0,10005
2424,08276	-0,0061	0,03946	0,04742	0,09104	0,06317	0,10005
2422,1543	-0,00609	0,03951	0,04748	0,0911	0,06322	0,10012
2420,22583	-0,0061	0,03947	0,04753	0,09107	0,06326	0,10011
2418,29736	-0,00611	0,03948	0,04753	0,09099	0,06319	0,10013
2416,3689	-0,00606	0,03955	0,04756	0,09098	0,06322	0,10015
2414,44043	-0,00603	0,0396	0,0476	0,09099	0,06321	0,10011
2412,51196	-0,00605	0,03962	0,04765	0,09097	0,06322	0,10018
2410,5835	-0,00604	0,03959	0,04769	0,09097	0,0633	0,10027
2408,65503	-0,00604	0,03955	0,0477	0,091	0,0633	0,10023
2406,72656	-0,00605	0,03957	0,04771	0,09101	0,06333	0,10025
2404,7981	-0,00604	0,03963	0,04773	0,09101	0,06337	0,1003
2402,86963	-0,00605	0,03966	0,04779	0,09101	0,0633	0,10027
2400,94116	-0,00605	0,03966	0,04779	0,09101	0,0633	0,1003
2399,0127	-0,00602	0,03966	0,0478	0,09101	0,0633	0,10031
2397,08423	-0,00601	0,03968	0,04781	0,09101	0,0633	0,10032
2395,15576	-0,00597	0,03968	0,04782	0,09101	0,06329	0,10034
2393,22729	-0,00595	0,03969	0,04783	0,09101	0,06329	0,10035
2391,29883	-0,00595	0,03971	0,04784	0,09102	0,06329	0,10036
2389,37036	-0,00595	0,03972	0,04785	0,09102	0,06329	0,10037
2387,44189	-0,00595	0,03974	0,04786	0,09102	0,06328	0,10039
2385,51343	-0,00595	0,03975	0,04787	0,09102	0,06328	0,1004
2383,58496	-0,00595	0,03976	0,04788	0,09102	0,06328	0,10041
2381,65649	-0,00595	0,03978	0,04789	0,09102	0,06328	0,10043
2379,72803	-0,00596	0,03979	0,04789	0,09102	0,06327	0,10044
2377,79956	-0,00596	0,03981	0,0479	0,09103	0,06327	0,10045
2375,87109	-0,00596	0,03982	0,04791	0,09103	0,06327	0,10046
2373,94263	-0,00596	0,03983	0,04792	0,09103	0,06327	0,10048
2372,01416	-0,00596	0,03985	0,04793	0,09103	0,06326	0,10049

2370,08569	-0,00596	0,03986	0,04794	0,09103	0,06326	0,1005
2368,15723	-0,00596	0,03988	0,04795	0,09103	0,06326	0,10051
2366,22876	-0,00596	0,03989	0,04796	0,09103	0,06326	0,10053
2364,30029	-0,00596	0,0399	0,04797	0,09103	0,06325	0,10054
2362,37183	-0,00596	0,03992	0,04798	0,09104	0,06325	0,10055
2360,44336	-0,00597	0,03993	0,04799	0,09104	0,06325	0,10057
2358,51489	-0,00597	0,03994	0,04799	0,09104	0,06325	0,10058
2356,58643	-0,00597	0,03996	0,048	0,09104	0,06324	0,10059
2354,65796	-0,00597	0,03997	0,04801	0,09104	0,06324	0,1006
2352,72949	-0,00597	0,03999	0,04802	0,09104	0,06324	0,10062
2350,80103	-0,00597	0,04	0,04803	0,09104	0,06324	0,10063
2348,87256	-0,00597	0,04001	0,04804	0,09104	0,06323	0,10064
2346,94409	-0,00597	0,04003	0,04805	0,09105	0,06323	0,10066
2345,01563	-0,00597	0,04004	0,04806	0,09105	0,06323	0,10067
2343,08716	-0,00598	0,04006	0,04807	0,09105	0,06323	0,10068
2341,15869	-0,00598	0,04007	0,04808	0,09105	0,06322	0,10069
2339,23022	-0,00598	0,04008	0,04809	0,09105	0,06322	0,10071
2337,30176	-0,00598	0,0401	0,04809	0,09105	0,06322	0,10072
2335,37329	-0,00598	0,04011	0,0481	0,09105	0,06322	0,10073
2333,44482	-0,00598	0,04013	0,04811	0,09105	0,06321	0,10074
2331,51636	-0,00598	0,04014	0,04812	0,09106	0,06321	0,10076
2329,58789	-0,00598	0,04015	0,04813	0,09106	0,06321	0,10077
2327,65942	-0,00598	0,04017	0,04814	0,09106	0,06321	0,10078
2325,73096	-0,00598	0,04018	0,04815	0,09106	0,0632	0,1008
2323,80249	-0,00599	0,0402	0,04816	0,09106	0,0632	0,10081
2321,87402	-0,00599	0,04021	0,04817	0,09106	0,0632	0,10082
2319,94556	-0,00599	0,04022	0,04818	0,09106	0,0632	0,10083
2318,01709	-0,00599	0,04024	0,04819	0,09106	0,06319	0,10085
2316,08862	-0,00599	0,04025	0,04819	0,09107	0,06319	0,10086
2314,16016	-0,00599	0,04027	0,0482	0,09107	0,06319	0,10087
2312,23169	-0,00599	0,04028	0,04821	0,09107	0,06319	0,10089
2310,30322	-0,00599	0,04029	0,04822	0,09107	0,06318	0,1009
2308,37476	-0,00599	0,04031	0,04823	0,09107	0,06318	0,10091
2306,44629	-0,00599	0,04032	0,04824	0,09107	0,06318	0,10092
2304,51782	-0,006	0,04034	0,04825	0,09107	0,06318	0,10094
2302,58936	-0,00599	0,04035	0,04826	0,09107	0,06317	0,10095
2300,66089	-0,00601	0,04036	0,04827	0,09108	0,06317	0,10096
2298,73242	-0,00608	0,04038	0,04828	0,09108	0,06317	0,10097
2296,80396	-0,00611	0,04039	0,04829	0,09108	0,06317	0,10099
2294,87549	-0,00612	0,0404	0,04829	0,09108	0,06316	0,101
2292,94702	-0,00619	0,04042	0,0483	0,09108	0,06316	0,10101
2291,01855	-0,0062	0,04043	0,04831	0,09108	0,06316	0,10103
2289,09009	-0,0062	0,04045	0,04832	0,09108	0,06316	0,10104
2287,16162	-0,00626	0,04046	0,04833	0,09108	0,06315	0,10105
2285,23315	-0,00623	0,04047	0,04834	0,09109	0,06315	0,10106
2283,30469	-0,00632	0,04049	0,04835	0,09109	0,06315	0,10108
2281,37622	-0,00645	0,0405	0,04836	0,09109	0,06315	0,10109
2279,44775	-0,00628	0,04052	0,04837	0,09109	0,06314	0,1011
2277,51929	-0,00617	0,04053	0,04838	0,09109	0,06314	0,10112
2275,59082	-0,0063	0,04054	0,04839	0,09109	0,06314	0,10113

2273,66235	-0,00635	0,04056	0,0484	0,09109	0,06314	0,10114
2271,73389	-0,00632	0,04057	0,0484	0,09109	0,06313	0,10115
2269,80542	-0,00625	0,04059	0,04841	0,0911	0,06305	0,10117
2267,87695	-0,00623	0,0406	0,04842	0,09114	0,06311	0,10118
2265,94849	-0,00629	0,0406	0,04843	0,09118	0,06308	0,10121
2264,02002	-0,00634	0,04063	0,04842	0,09113	0,063	0,10121
2262,09155	-0,00635	0,04063	0,04841	0,09113	0,06297	0,10125
2260,16309	-0,00633	0,04061	0,04841	0,09116	0,06297	0,10129
2258,23462	-0,00632	0,04062	0,04841	0,09117	0,06298	0,10135
2256,30615	-0,00632	0,04057	0,0484	0,0912	0,06297	0,10138
2254,37769	-0,00631	0,04049	0,04843	0,09122	0,06297	0,10142
2252,44922	-0,00632	0,04052	0,04844	0,09123	0,06293	0,10147
2250,52075	-0,00633	0,04051	0,04842	0,09126	0,06289	0,10148
2248,59229	-0,00632	0,04045	0,0484	0,09124	0,06288	0,10149
2246,66382	-0,00632	0,04048	0,04836	0,0912	0,06284	0,10141
2244,73535	-0,00636	0,04049	0,04832	0,09121	0,06283	0,10142
2242,80688	-0,00639	0,04042	0,04831	0,09125	0,06281	0,10152
2240,87842	-0,00634	0,04044	0,04836	0,09126	0,06282	0,10152
2238,94995	-0,0063	0,04043	0,04841	0,09128	0,06286	0,1015
2237,02148	-0,00636	0,04039	0,04838	0,09126	0,06281	0,10149
2235,09302	-0,0064	0,04043	0,04833	0,09123	0,06278	0,10145
2233,16455	-0,00643	0,0404	0,04828	0,09124	0,06274	0,10146
2231,23608	-0,00645	0,04037	0,0483	0,09123	0,06268	0,10147
2229,30762	-0,00643	0,04042	0,04835	0,0912	0,06271	0,10146
2227,37915	-0,00652	0,04039	0,04832	0,09111	0,06271	0,1014
2225,45068	-0,00663	0,04038	0,04825	0,09105	0,06266	0,10133
2223,52222	-0,00666	0,04042	0,04827	0,09107	0,06269	0,10132
2221,59375	-0,00671	0,04039	0,04826	0,09104	0,06269	0,10133
2219,66528	-0,0067	0,04037	0,04822	0,09097	0,06262	0,10131
2217,73682	-0,00668	0,04045	0,04827	0,09098	0,06263	0,10131
2215,80835	-0,00675	0,04048	0,04835	0,09098	0,06266	0,10131
2213,87988	-0,0067	0,04048	0,04836	0,0909	0,06262	0,10131
2211,95142	-0,00661	0,04053	0,04833	0,0908	0,0626	0,10129
2210,02295	-0,00664	0,04047	0,04831	0,09077	0,06264	0,10124
2208,09448	-0,00665	0,04042	0,04837	0,09082	0,06267	0,10123
2206,16602	-0,00666	0,04042	0,04843	0,09083	0,06266	0,10127
2204,23755	-0,00668	0,04037	0,04838	0,09077	0,0626	0,10126
2202,30908	-0,00669	0,04042	0,04834	0,0907	0,06254	0,10121
2200,38062	-0,00672	0,04047	0,04833	0,09069	0,06255	0,10119
2198,45215	-0,00676	0,04044	0,04832	0,0907	0,06261	0,10117
2196,52368	-0,00682	0,04044	0,04834	0,09064	0,06259	0,10115
2194,59521	-0,00689	0,04037	0,04829	0,09061	0,06253	0,10115
2192,66675	-0,00693	0,0403	0,04825	0,09061	0,06251	0,10111
2190,73828	-0,00691	0,04038	0,0483	0,09058	0,06248	0,10112
2188,80981	-0,00688	0,04039	0,04832	0,09055	0,06246	0,10113
2186,88135	-0,00689	0,04033	0,04829	0,09051	0,06243	0,10105
2184,95288	-0,00688	0,04034	0,04832	0,09052	0,06239	0,10105
2183,02441	-0,00688	0,04036	0,04831	0,09059	0,06242	0,10116
2181,09595	-0,00692	0,0403	0,04824	0,0906	0,06242	0,10119
2179,16748	-0,00695	0,04029	0,04826	0,09063	0,06244	0,10123



2177,23901	-0,00701	0,04032	0,04828	0,09071	0,06245	0,10127
2175,31055	-0,00705	0,0403	0,04829	0,09075	0,06235	0,10128
2173,38208	-0,00697	0,0403	0,04832	0,09077	0,06235	0,10137
2171,45361	-0,00709	0,04015	0,04823	0,0907	0,06226	0,10134
2169,52515	-0,00731	0,03991	0,04812	0,09061	0,06212	0,10126
2167,59668	-0,00723	0,04001	0,04813	0,09071	0,06219	0,10134
2165,66821	-0,00712	0,04016	0,04815	0,09077	0,06225	0,10138
2163,73975	-0,00715	0,04017	0,04817	0,09075	0,06223	0,10138
2161,81128	-0,00717	0,04016	0,04822	0,09086	0,06224	0,10142
2159,88281	-0,00725	0,04008	0,0482	0,09095	0,06219	0,10144
2157,95435	-0,00729	0,04004	0,04815	0,09094	0,06214	0,10149
2156,02588	-0,00728	0,04002	0,04816	0,09093	0,06212	0,10153
2154,09741	-0,00731	0,03997	0,04816	0,09098	0,06209	0,10157
2152,16895	-0,00732	0,03998	0,04816	0,09111	0,0621	0,10167
2150,24048	-0,00732	0,03994	0,04811	0,09119	0,06209	0,10174
2148,31201	-0,00732	0,03988	0,04805	0,09128	0,06213	0,10174
2146,38354	-0,00733	0,03987	0,04808	0,09142	0,06216	0,1018
2144,45508	-0,00741	0,03986	0,04807	0,09141	0,06208	0,10189
2142,52661	-0,00742	0,03985	0,04807	0,09144	0,06205	0,10197
2140,59814	-0,0074	0,03978	0,0481	0,09151	0,06204	0,10191
2138,66968	-0,00743	0,03971	0,04802	0,09145	0,06198	0,10183
2136,74121	-0,00741	0,03972	0,04799	0,09139	0,06201	0,1018
2134,81274	-0,00741	0,03971	0,04801	0,09142	0,06198	0,10178
2132,88428	-0,00751	0,03967	0,04798	0,09153	0,06194	0,10182
2130,95581	-0,00758	0,03964	0,04797	0,0916	0,06192	0,10186
2129,02734	-0,00767	0,03963	0,04793	0,09157	0,06185	0,10183
2127,09888	-0,00775	0,03964	0,0479	0,09144	0,06187	0,10179
2125,17041	-0,0078	0,0396	0,04791	0,09121	0,06188	0,10165
2123,24194	-0,00788	0,03952	0,04782	0,09094	0,06176	0,1014
2121,31348	-0,00791	0,03945	0,04774	0,09065	0,06172	0,10111
2119,38501	-0,00791	0,03942	0,04767	0,09042	0,06169	0,10084
2117,45654	-0,00793	0,03943	0,04754	0,09022	0,06164	0,10065
2115,52808	-0,00799	0,03948	0,04751	0,09003	0,06169	0,10055
2113,59961	-0,00809	0,03945	0,04755	0,08987	0,06165	0,10043
2111,67114	-0,00818	0,0394	0,04747	0,08976	0,06158	0,10028
2109,74268	-0,00824	0,03941	0,04744	0,0897	0,06158	0,10022
2107,81421	-0,00827	0,03933	0,0474	0,08962	0,06149	0,10013
2105,88574	-0,00831	0,03924	0,04725	0,08954	0,06146	0,09999
2103,95728	-0,00838	0,03916	0,04719	0,0895	0,06144	0,09993
2102,02881	-0,00847	0,03906	0,04714	0,08942	0,06133	0,09989
2100,10034	-0,00858	0,039	0,04705	0,0894	0,06132	0,09986
2098,17188	-0,00865	0,0389	0,04697	0,08938	0,06132	0,09981
2096,24341	-0,00864	0,03882	0,04693	0,08933	0,0613	0,09979
2094,31494	-0,0087	0,03872	0,0469	0,08936	0,06131	0,09975
2092,38647	-0,00872	0,0386	0,04685	0,08932	0,06127	0,09961
2090,45801	-0,00867	0,03858	0,0468	0,08923	0,06129	0,09961
2088,52954	-0,00874	0,03852	0,04674	0,08924	0,06129	0,09963
2086,60107	-0,00888	0,03846	0,04665	0,08928	0,06122	0,09953
2084,67261	-0,00896	0,03846	0,0466	0,08929	0,0612	0,09947
2082,74414	-0,00899	0,03839	0,04652	0,08922	0,06112	0,09942

2080,81567	-0,00903	0,03831	0,04649	0,08919	0,06105	0,09943
2078,88721	-0,00909	0,03828	0,04649	0,08924	0,06108	0,09949
2076,95874	-0,00909	0,03828	0,04645	0,08922	0,06103	0,09951
2075,03027	-0,00914	0,03823	0,04644	0,08921	0,061	0,09951
2073,10181	-0,00915	0,03828	0,04649	0,08928	0,06106	0,09951
2071,17334	-0,00904	0,03833	0,04651	0,08927	0,06104	0,09951
2069,24487	-0,00914	0,03822	0,04645	0,08919	0,06086	0,0994
2067,31641	-0,00918	0,03833	0,04653	0,08916	0,06099	0,09946
2065,38794	-0,00897	0,03846	0,04673	0,08922	0,06128	0,09967
2063,45947	-0,00908	0,03833	0,04671	0,08921	0,0611	0,09958
2061,53101	-0,00919	0,03836	0,0467	0,08914	0,061	0,0995
2059,60254	-0,00909	0,03841	0,04685	0,08918	0,06115	0,09961
2057,67407	-0,00909	0,03837	0,0469	0,08915	0,06108	0,0996
2055,74561	-0,00903	0,03844	0,0468	0,08908	0,06095	0,09952
2053,81714	-0,009	0,03848	0,04679	0,0891	0,06088	0,09946
2051,88867	-0,00907	0,0385	0,04686	0,08907	0,0609	0,09945
2049,96021	-0,00911	0,03856	0,04691	0,08904	0,06091	0,09948
2048,03174	-0,00914	0,03866	0,04696	0,08906	0,06093	0,09953
2046,10327	-0,00918	0,03876	0,04699	0,08906	0,06095	0,09956
2044,1748	-0,00913	0,03883	0,04706	0,08911	0,06099	0,0996
2042,24634	-0,00895	0,03892	0,04718	0,08908	0,06118	0,09976
2040,31787	-0,00895	0,03884	0,04714	0,08899	0,06114	0,09976
2038,3894	-0,00912	0,03876	0,04703	0,08904	0,06097	0,0996
2036,46094	-0,0092	0,03878	0,04705	0,08904	0,06102	0,09957
2034,53247	-0,00924	0,03866	0,04705	0,08901	0,06096	0,09958
2032,604	-0,00924	0,03858	0,04695	0,08904	0,06087	0,09958
2030,67554	-0,00931	0,0386	0,0469	0,08908	0,06085	0,09961
2028,74707	-0,00937	0,03858	0,04692	0,08909	0,06088	0,09965
2026,8186	-0,00936	0,03857	0,04685	0,08905	0,06086	0,09956
2024,89014	-0,00936	0,03856	0,0468	0,08903	0,06089	0,09953
2022,96167	-0,0094	0,03851	0,0468	0,08904	0,06099	0,09966
2021,0332	-0,00949	0,03847	0,04677	0,08907	0,06085	0,09962
2019,10474	-0,0093	0,03863	0,04696	0,08912	0,06109	0,09971
2017,17627	-0,00911	0,03873	0,04717	0,08905	0,06144	0,09998
2015,2478	-0,00934	0,03854	0,04695	0,08896	0,06099	0,09972
2013,31934	-0,00934	0,03853	0,04692	0,089	0,06077	0,09954
2011,39087	-0,00929	0,03863	0,04714	0,08908	0,06093	0,09966
2009,4624	-0,00936	0,03862	0,04718	0,08909	0,06093	0,09967
2007,53394	-0,00929	0,03863	0,04715	0,08905	0,06094	0,09961
2005,60547	-0,00933	0,03863	0,04716	0,08904	0,0609	0,09963
2003,677	-0,00937	0,03863	0,04722	0,08909	0,06099	0,09976
2001,74854	-0,00934	0,03859	0,04722	0,0891	0,06097	0,09973
1999,82007	-0,00925	0,03868	0,04729	0,08911	0,06105	0,09984
1997,8916	-0,00919	0,03871	0,04735	0,08908	0,06114	0,09995
1995,96313	-0,00937	0,03856	0,04713	0,08901	0,06074	0,0996
1994,03467	-0,00906	0,03887	0,04738	0,08909	0,06124	0,09996
1992,1062	-0,00872	0,03901	0,04767	0,08909	0,06176	0,10046
1990,17773	-0,00913	0,03867	0,04734	0,08895	0,06106	0,09997
1988,24927	-0,0092	0,03879	0,04731	0,08896	0,06101	0,09984
1986,3208	-0,00919	0,03874	0,04736	0,08895	0,06105	0,09986

1984,39233	-0,00935	0,03858	0,04725	0,08894	0,06082	0,09975
1982,46387	-0,00924	0,0388	0,04732	0,08902	0,06093	0,0999
1980,5354	-0,00924	0,03881	0,04727	0,08904	0,06081	0,09982
1978,60693	-0,00926	0,03877	0,04729	0,08908	0,06088	0,09983
1976,67847	-0,00925	0,03883	0,04738	0,08915	0,06098	0,09992
1974,75	-0,00924	0,03888	0,04748	0,08913	0,06098	0,09996
1972,82153	-0,0092	0,03887	0,04752	0,08905	0,06104	0,10003
1970,89307	-0,00933	0,03882	0,04739	0,08898	0,06076	0,09981
1968,9646	-0,009	0,03911	0,04762	0,089	0,06118	0,10008
1967,03613	-0,00866	0,03924	0,04784	0,089	0,06175	0,10057
1965,10767	-0,00922	0,03888	0,04746	0,0889	0,06099	0,10008
1963,1792	-0,00939	0,03892	0,04739	0,08894	0,06077	0,09987
1961,25073	-0,00921	0,03903	0,04751	0,08896	0,06107	0,10012
1959,32227	-0,00933	0,03893	0,04736	0,08887	0,06077	0,09996
1957,3938	-0,00931	0,03897	0,04738	0,0889	0,06076	0,09996
1955,46533	-0,00931	0,039	0,04737	0,08891	0,06092	0,10005
1953,53687	-0,00936	0,03891	0,04728	0,08891	0,06084	0,10001
1951,6084	-0,00943	0,03878	0,04724	0,08897	0,06066	0,09991
1949,67993	-0,00943	0,03886	0,04723	0,08898	0,06076	0,09988
1947,75146	-0,00944	0,03885	0,04724	0,08898	0,06092	0,10004
1945,823	-0,00952	0,03877	0,04722	0,08896	0,06088	0,10002
1943,89453	-0,00885	0,03916	0,04778	0,08899	0,06174	0,10059
1941,96606	-0,00876	0,03898	0,04785	0,0889	0,06176	0,10084
1940,0376	-0,00967	0,03858	0,04707	0,08884	0,06045	0,09989
1938,10913	-0,00963	0,03886	0,04705	0,08899	0,06058	0,09985
1936,18066	-0,00951	0,03888	0,0471	0,08894	0,06068	0,09998
1934,2522	-0,0096	0,0389	0,04705	0,08889	0,06061	0,09987
1932,32373	-0,00959	0,03883	0,04706	0,08892	0,06065	0,09991
1930,39526	-0,00957	0,03877	0,04706	0,08894	0,06055	0,09986
1928,4668	-0,00957	0,03872	0,04708	0,08895	0,06058	0,09989
1926,53833	-0,00974	0,03853	0,04684	0,08893	0,06028	0,09967
1924,60986	-0,00915	0,03903	0,04737	0,08906	0,06123	0,10026
1922,6814	-0,00886	0,03903	0,04754	0,08896	0,06176	0,10079
1920,75293	-0,00954	0,03875	0,047	0,08897	0,0608	0,10003
1918,82446	-0,00943	0,03905	0,04745	0,0892	0,06109	0,10012
1916,896	-0,00958	0,03842	0,04709	0,0889	0,06063	0,10005
1914,96753	-0,01	0,03826	0,04644	0,08879	0,06005	0,09952
1913,03906	-0,00982	0,03869	0,04667	0,08897	0,06052	0,09968
1911,1106	-0,00951	0,03871	0,04675	0,08891	0,06084	0,09999
1909,18213	-0,00928	0,0387	0,04673	0,0889	0,06105	0,1002
1907,25366	-0,00963	0,03842	0,04644	0,08887	0,06054	0,09981
1905,3252	-0,00995	0,03827	0,04627	0,08885	0,06024	0,09957
1903,39673	-0,00996	0,03825	0,04631	0,08891	0,0603	0,09966
1901,46826	-0,00994	0,03814	0,04626	0,08898	0,06033	0,09971
1899,53979	-0,01012	0,03798	0,04608	0,08897	0,06013	0,09959
1897,61133	-0,01004	0,0381	0,04608	0,08904	0,06021	0,09962
1895,68286	-0,0095	0,03835	0,04649	0,08917	0,06104	0,10021
1893,75439	-0,01011	0,03786	0,04597	0,08899	0,06023	0,09974
1891,82593	-0,01023	0,03806	0,04602	0,08917	0,0603	0,09968
1889,89746	-0,00936	0,03841	0,04683	0,08931	0,06169	0,10073

1887,96899	-0,01016	0,03764	0,04592	0,0889	0,0603	0,09986
1886,04053	-0,01043	0,03782	0,04568	0,08898	0,05995	0,09946
1884,11206	-0,01002	0,03803	0,04614	0,08914	0,06051	0,10002
1882,18359	-0,01037	0,03785	0,04582	0,08908	0,06	0,09971
1880,25513	-0,01041	0,03809	0,04593	0,08912	0,06015	0,09972
1878,32666	-0,01037	0,038	0,04599	0,08901	0,06019	0,09982
1876,39819	-0,01041	0,03804	0,04589	0,089	0,06009	0,09969
1874,46973	-0,01035	0,03808	0,04598	0,08899	0,0601	0,09976
1872,54126	-0,01029	0,03819	0,046	0,08903	0,0602	0,09985
1870,61279	-0,00966	0,03892	0,04683	0,08936	0,06119	0,10047
1868,68433	-0,00864	0,03904	0,0476	0,08925	0,06238	0,10163
1866,75586	-0,00957	0,03817	0,04644	0,08875	0,06096	0,10072
1864,82739	-0,01022	0,0384	0,04608	0,0889	0,06019	0,0999
1862,89893	-0,01021	0,03869	0,04637	0,08906	0,06014	0,09991
1860,97046	-0,01004	0,03881	0,04641	0,08899	0,06028	0,10005
1859,04199	-0,01	0,03887	0,04654	0,08902	0,06033	0,10009
1857,11353	-0,01005	0,03881	0,04658	0,08909	0,06027	0,10013
1855,18506	-0,01008	0,0388	0,04656	0,08911	0,06007	0,10002
1853,25659	-0,00994	0,03878	0,04653	0,08904	0,06015	0,10013
1851,32813	-0,00997	0,03897	0,04663	0,08917	0,06012	0,10003
1849,39966	-0,00978	0,03894	0,04679	0,08916	0,06032	0,10025
1847,47119	-0,00904	0,03933	0,04709	0,08916	0,06149	0,10103
1845,54272	-0,00923	0,03976	0,04777	0,08949	0,06122	0,10067
1843,61426	-0,00999	0,03845	0,0473	0,08901	0,05959	0,10014
1841,68579	-0,01015	0,03823	0,04633	0,08875	0,05951	0,1001
1839,75732	-0,00973	0,03922	0,04689	0,0893	0,06066	0,10058
1837,82886	-0,00969	0,03937	0,04708	0,08931	0,06058	0,10057
1835,90039	-0,00952	0,03916	0,04711	0,08926	0,06075	0,10083
1833,97192	-0,0101	0,0388	0,04673	0,08925	0,06007	0,10035
1832,04346	-0,00945	0,03957	0,04739	0,08952	0,06104	0,10082
1830,11499	-0,00833	0,03975	0,04832	0,08947	0,06252	0,10216
1828,18652	-0,00973	0,03848	0,04688	0,08892	0,06035	0,10085
1826,25806	-0,00945	0,03931	0,04735	0,08936	0,06112	0,10104
1824,32959	-0,00917	0,0392	0,04774	0,08934	0,06152	0,10152
1822,40112	-0,01025	0,03848	0,04649	0,08893	0,0599	0,10034
1820,47266	-0,01019	0,03908	0,04671	0,08926	0,06027	0,10037
1818,54419	-0,00993	0,03916	0,04706	0,08937	0,06064	0,10082
1816,61572	-0,0101	0,03884	0,04683	0,08925	0,06035	0,10077
1814,68726	-0,01029	0,03878	0,04661	0,08923	0,05997	0,10049
1812,75879	-0,0098	0,03926	0,04705	0,08939	0,06089	0,10101
1810,83032	-0,00938	0,03926	0,04743	0,08937	0,06158	0,1016
1808,90186	-0,00997	0,03861	0,04685	0,08922	0,06055	0,101
1806,97339	-0,01025	0,03863	0,04665	0,0893	0,06034	0,10076
1805,04492	-0,01045	0,03856	0,04645	0,08929	0,0602	0,10059
1803,11646	-0,01028	0,03865	0,0466	0,08948	0,0608	0,10095
1801,18799	-0,00967	0,03855	0,04701	0,08956	0,06188	0,1019
1799,25952	-0,01049	0,0376	0,04619	0,08916	0,06029	0,10095
1797,33105	-0,01058	0,03766	0,04585	0,08908	0,06011	0,10078
1795,40259	-0,01001	0,03838	0,04625	0,08931	0,06116	0,10139
1793,47412	-0,01057	0,0386	0,04664	0,08955	0,06025	0,10064

1791,54565	-0,01021	0,0379	0,04685	0,08915	0,06041	0,10133
1789,61719	-0,01076	0,03742	0,04556	0,08866	0,05954	0,10062
1787,68872	-0,01056	0,03845	0,04586	0,08917	0,05997	0,10042
1785,76025	-0,01033	0,0386	0,04658	0,08937	0,06033	0,10083
1783,83179	-0,01084	0,03803	0,04609	0,08911	0,05947	0,10037
1781,90332	-0,01004	0,03856	0,04653	0,08922	0,06075	0,10125
1779,97485	-0,0097	0,03868	0,0468	0,08925	0,06124	0,10173
1778,04639	-0,01087	0,03788	0,04583	0,08903	0,05925	0,10044
1776,11792	-0,00986	0,03843	0,04632	0,08922	0,06106	0,10166
1774,18945	-0,01007	0,03926	0,04702	0,08959	0,0609	0,10113
1772,26099	-0,01102	0,03775	0,04657	0,08907	0,05873	0,10013
1770,33252	-0,01088	0,03696	0,04561	0,08866	0,05917	0,1007
1768,40405	-0,01046	0,03815	0,04627	0,0894	0,06028	0,10117
1766,47559	-0,01177	0,03696	0,04505	0,089	0,05806	0,09996
1764,54712	-0,01057	0,03787	0,04545	0,08935	0,06024	0,10117
1762,61865	-0,01037	0,03868	0,04675	0,08996	0,06081	0,10156
1760,69019	-0,0117	0,03659	0,04516	0,08905	0,0584	0,10052
1758,76172	-0,01076	0,03773	0,04559	0,08955	0,06049	0,1015
1756,83325	-0,01058	0,03795	0,04638	0,08993	0,06073	0,1019
1754,90479	-0,01137	0,03669	0,04498	0,08924	0,05925	0,10109
1752,97632	-0,01124	0,03797	0,04558	0,08989	0,06014	0,10116
1751,04785	-0,01078	0,03823	0,04676	0,09018	0,06042	0,10171
1749,11938	-0,00988	0,03714	0,04632	0,08943	0,06163	0,1031
1747,19092	-0,00962	0,03776	0,04629	0,08984	0,06249	0,10343
1745,26245	-0,01067	0,03759	0,04589	0,09007	0,06089	0,10237
1743,33398	-0,0101	0,03749	0,04594	0,0901	0,06211	0,10336
1741,40552	-0,01055	0,0379	0,0463	0,09059	0,06149	0,10256
1739,47705	-0,01202	0,03645	0,04541	0,09016	0,05862	0,1011
1737,54858	-0,01077	0,03687	0,04513	0,09012	0,06094	0,10275
1735,62012	-0,01168	0,0385	0,04642	0,09125	0,06015	0,10148
1733,69165	-0,01287	0,03615	0,04608	0,09039	0,05655	0,10031
1731,76318	-0,01252	0,03545	0,04379	0,08931	0,05759	0,10076
1729,83472	-0,00956	0,03803	0,04639	0,09084	0,06326	0,10426
1727,90625	-0,01236	0,03639	0,04446	0,09026	0,05833	0,10111
1725,97778	-0,01149	0,03691	0,04463	0,09034	0,05979	0,10187
1724,04932	-0,01122	0,03724	0,04546	0,09051	0,06049	0,10234
1722,12085	-0,01191	0,03633	0,04429	0,08976	0,05904	0,10146
1720,19238	-0,01072	0,03759	0,04574	0,09039	0,06131	0,10274
1718,26392	-0,01082	0,03785	0,04686	0,09035	0,06051	0,10237
1716,33545	-0,0128	0,03546	0,04456	0,08871	0,05665	0,10028
1714,40698	-0,0115	0,03603	0,04479	0,08897	0,05961	0,10225
1712,47852	-0,01155	0,03667	0,04482	0,08942	0,05983	0,10221
1710,55005	-0,01233	0,03623	0,04403	0,0892	0,05833	0,10132
1708,62158	-0,0107	0,03721	0,04519	0,08961	0,06104	0,10311
1706,69312	-0,0108	0,03751	0,04628	0,08998	0,06078	0,10301
1704,76465	-0,01074	0,03583	0,04514	0,089	0,06022	0,10342
1702,83618	-0,01056	0,03734	0,04563	0,08976	0,06127	0,10339
1700,90771	-0,0118	0,03707	0,048	0,09105	0,05873	0,10224
1698,97925	-0,01421	0,03268	0,04358	0,08813	0,05408	0,09994
1697,05078	-0,01206	0,03648	0,04471	0,08905	0,05884	0,10167

1695,12231	-0,01358	0,03506	0,04487	0,08941	0,05549	0,10028
1693,19385	-0,0129	0,03427	0,04314	0,08881	0,05669	0,10127
1691,26538	-0,01062	0,03734	0,04569	0,09033	0,06176	0,10398
1689,33691	-0,01128	0,03603	0,04542	0,08999	0,0601	0,10368
1687,40845	-0,01029	0,03657	0,04527	0,09002	0,06166	0,10452
1685,47998	-0,01252	0,03771	0,04644	0,09096	0,05856	0,10165
1683,55151	-0,01123	0,03405	0,04609	0,08961	0,05805	0,1034
1681,62305	-0,01104	0,03477	0,0449	0,08957	0,05999	0,10421
1679,69458	-0,01114	0,03594	0,04513	0,09026	0,0609	0,10445
1677,76611	-0,01197	0,03557	0,04495	0,09044	0,05966	0,10362
1675,83765	-0,01234	0,03545	0,04595	0,09084	0,05901	0,10332
1673,90918	-0,0133	0,03369	0,04452	0,08995	0,0572	0,10261
1671,98071	-0,01143	0,03515	0,04508	0,09028	0,06045	0,10448
1670,05225	-0,01016	0,03643	0,04729	0,09099	0,06217	0,1057
1668,12378	-0,01282	0,03325	0,04469	0,0896	0,05765	0,10335
1666,19531	-0,01221	0,03451	0,0444	0,09009	0,05963	0,10408
1664,26685	-0,01251	0,03549	0,04556	0,09089	0,0595	0,1037
1662,33838	-0,01222	0,03414	0,04549	0,09028	0,05918	0,10422
1660,40991	-0,01253	0,03415	0,04498	0,09031	0,05906	0,10398
1658,48145	-0,01345	0,03412	0,04462	0,09038	0,05779	0,10291
1656,55298	-0,01105	0,03497	0,04616	0,09068	0,06191	0,10585
1654,62451	-0,01217	0,03633	0,04818	0,09178	0,06079	0,10448
1652,69604	-0,01187	0,03248	0,04854	0,09067	0,05719	0,10384
1650,76758	-0,01699	0,03016	0,04216	0,0885	0,05202	0,0994
1648,83911	-0,0099	0,03528	0,04796	0,09114	0,06497	0,1079
1646,91064	-0,01042	0,03494	0,04924	0,0912	0,06314	0,10711
1644,98218	-0,0159	0,03087	0,0439	0,08933	0,05444	0,10124
1643,05371	-0,0133	0,03327	0,04564	0,09058	0,05991	0,10445
1641,12524	-0,01433	0,03292	0,04554	0,0907	0,05841	0,10349
1639,19678	-0,01311	0,03325	0,04601	0,0907	0,06039	0,10491
1637,26831	-0,0127	0,03435	0,04769	0,09136	0,06164	0,1054
1635,33984	-0,01339	0,03243	0,04768	0,09088	0,05891	0,10454
1633,41138	-0,01577	0,03072	0,0443	0,0898	0,05555	0,10227
1631,48291	-0,01404	0,03271	0,04543	0,09082	0,05957	0,10444
1629,55444	-0,01469	0,03277	0,04618	0,09122	0,05898	0,10407
1627,62598	-0,01455	0,03184	0,04595	0,09069	0,05911	0,10458
1625,69751	-0,01498	0,0319	0,04578	0,09084	0,05914	0,10428
1623,76904	-0,01497	0,032	0,0468	0,09118	0,05932	0,10447
1621,84058	-0,01591	0,03048	0,04531	0,09034	0,05767	0,1039
1619,91211	-0,01516	0,03168	0,04537	0,09076	0,05961	0,10486
1617,98364	-0,01651	0,03248	0,04595	0,09111	0,05752	0,10289
1616,05518	-0,01754	0,03069	0,04446	0,08991	0,05381	0,10102
1614,12671	-0,01563	0,03173	0,0445	0,09028	0,05717	0,10339
1612,19824	-0,01414	0,03354	0,04574	0,09115	0,05963	0,10482
1610,26978	-0,0142	0,03368	0,04548	0,09094	0,05864	0,10422
1608,34131	-0,01335	0,03407	0,0457	0,09093	0,05992	0,10517
1606,41284	-0,0138	0,03421	0,04536	0,09091	0,05904	0,10442
1604,48438	-0,01365	0,03446	0,04529	0,09097	0,05882	0,10437
1602,55591	-0,01303	0,03499	0,04567	0,09118	0,05971	0,10503
1600,62744	-0,0132	0,03494	0,04545	0,09112	0,05912	0,1046

1598,69897	-0,01314	0,03505	0,04536	0,09121	0,05883	0,10447
1596,77051	-0,01277	0,03547	0,04564	0,09137	0,05941	0,10481
1594,84204	-0,01246	0,03575	0,04588	0,09144	0,05997	0,10525
1592,91357	-0,01274	0,03581	0,04568	0,09154	0,05952	0,10496
1590,98511	-0,01272	0,03585	0,04568	0,09165	0,05959	0,10491
1589,05664	-0,01247	0,03609	0,04592	0,09178	0,06002	0,10528
1587,12817	-0,01302	0,036	0,04566	0,09182	0,05916	0,10483
1585,19971	-0,01263	0,03615	0,04585	0,09191	0,05977	0,10541
1583,27124	-0,01251	0,03649	0,046	0,09197	0,05975	0,10529
1581,34277	-0,01296	0,03607	0,04559	0,09192	0,05879	0,10462
1579,41431	-0,01149	0,03685	0,0465	0,09238	0,06141	0,10649
1577,48584	-0,01263	0,03787	0,04702	0,09261	0,0597	0,10484
1575,55737	-0,01433	0,03548	0,04572	0,09142	0,05579	0,10286
1573,62891	-0,01307	0,03544	0,04499	0,09146	0,0584	0,1048
1571,70044	-0,01112	0,03814	0,04735	0,09284	0,06217	0,10686
1569,77197	-0,01116	0,03733	0,04809	0,09242	0,06118	0,10685
1567,84351	-0,01204	0,0361	0,04614	0,09166	0,05969	0,10602
1565,91504	-0,01148	0,0378	0,0471	0,09253	0,06103	0,10644
1563,98657	-0,01139	0,03685	0,04688	0,09221	0,06083	0,10669
1562,05811	-0,01081	0,03787	0,04719	0,09268	0,06197	0,10699
1560,12964	-0,00967	0,04026	0,05124	0,0944	0,06274	0,10733
1558,20117	-0,00928	0,03418	0,0492	0,09172	0,0601	0,10801
1556,27271	-0,01228	0,03559	0,04592	0,09152	0,05845	0,10532
1554,34424	-0,01168	0,03727	0,04702	0,09259	0,06	0,10613
1552,41577	-0,01244	0,03638	0,04604	0,09228	0,05827	0,10514
1550,4873	-0,00932	0,03816	0,04804	0,09293	0,06359	0,10895
1548,55884	-0,01064	0,03742	0,04714	0,09278	0,06152	0,10773
1546,63037	-0,01147	0,03757	0,04667	0,09289	0,06006	0,10632
1544,7019	-0,00892	0,03903	0,04904	0,09329	0,06397	0,10925
1542,77344	-0,00972	0,03813	0,04853	0,09294	0,0623	0,10839
1540,84497	-0,01054	0,03842	0,04933	0,09348	0,06003	0,10647
1538,9165	-0,01143	0,03529	0,04728	0,09169	0,05758	0,10561
1536,98804	-0,01214	0,03592	0,04534	0,0919	0,05855	0,1057
1535,05957	-0,00967	0,03875	0,04827	0,09356	0,06309	0,10856
1533,1311	-0,00874	0,03809	0,04921	0,09305	0,06354	0,10957
1531,20264	-0,01137	0,03654	0,04636	0,09228	0,06014	0,10701
1529,27417	-0,01013	0,03849	0,04767	0,09318	0,06264	0,10838
1527,3457	-0,00929	0,03865	0,04884	0,09316	0,06338	0,10929
1525,41724	-0,01059	0,03724	0,04732	0,09258	0,06121	0,10785
1523,48877	-0,0098	0,03852	0,04853	0,09322	0,06251	0,10845
1521,5603	-0,01007	0,03782	0,04877	0,09287	0,06103	0,10804
1519,63184	-0,01263	0,03598	0,04617	0,09206	0,05767	0,10568
1517,70337	-0,00892	0,03827	0,04897	0,09306	0,06417	0,11015
1515,7749	-0,00917	0,03766	0,04834	0,09251	0,06337	0,10989
1513,84644	-0,01125	0,03718	0,04664	0,09245	0,06052	0,10751
1511,91797	-0,01144	0,03764	0,04711	0,0928	0,06053	0,10749
1509,9895	-0,00897	0,03857	0,04836	0,09282	0,06425	0,11029
1508,06104	-0,00764	0,0403	0,05082	0,09374	0,06636	0,11151
1506,13257	-0,009	0,03707	0,04987	0,0925	0,06173	0,10944
1504,2041	-0,0142	0,03468	0,04434	0,09116	0,05512	0,10423

1502,27563	-0,01054	0,03781	0,04706	0,09289	0,06201	0,10858
1500,34717	-0,01122	0,03771	0,04732	0,09297	0,06105	0,10802
1498,4187	-0,01103	0,03772	0,04759	0,09282	0,0611	0,10812
1496,49023	-0,01237	0,03686	0,04689	0,09245	0,05852	0,10645
1494,56177	-0,0134	0,03586	0,04498	0,0919	0,05681	0,10541
1492,6333	-0,01094	0,03773	0,0468	0,09293	0,06115	0,10829
1490,70483	-0,00971	0,03848	0,04862	0,09335	0,0631	0,11009
1488,77637	-0,00967	0,03754	0,0482	0,09272	0,06299	0,11059
1486,8479	-0,01109	0,03703	0,04697	0,09264	0,06118	0,10932
1484,91943	-0,01226	0,03692	0,04609	0,09288	0,05958	0,10845
1482,99097	-0,01188	0,03731	0,04656	0,0933	0,06061	0,10962
1481,0625	-0,0117	0,03722	0,04674	0,09343	0,06133	0,11108
1479,13403	-0,01245	0,03699	0,04626	0,09354	0,06039	0,11137
1477,20557	-0,01145	0,03746	0,04722	0,09389	0,06212	0,1134
1475,2771	-0,01075	0,03766	0,04768	0,09393	0,06282	0,11417
1473,34863	-0,01198	0,03732	0,04732	0,09382	0,06032	0,11213
1471,42017	-0,01245	0,03603	0,04643	0,09318	0,05952	0,11215
1469,4917	-0,01235	0,03625	0,0455	0,09326	0,06027	0,11283
1467,56323	-0,01223	0,03745	0,04614	0,094	0,06092	0,11317
1465,63477	-0,01149	0,03758	0,04727	0,09403	0,06171	0,11393
1463,7063	-0,01294	0,03602	0,04582	0,09331	0,05911	0,11186
1461,77783	-0,01272	0,03642	0,04532	0,09341	0,05967	0,11173
1459,84937	-0,01003	0,03834	0,04775	0,09417	0,06404	0,11447
1457,9209	-0,00957	0,03841	0,04949	0,0943	0,06358	0,11443
1455,99243	-0,01461	0,03413	0,04507	0,09244	0,05483	0,10864
1454,06396	-0,0117	0,03629	0,04576	0,09299	0,06034	0,11179
1452,1355	-0,01145	0,03692	0,04626	0,0936	0,06112	0,11196
1450,20703	-0,01245	0,03652	0,04554	0,0934	0,05928	0,11033
1448,27856	-0,01112	0,03712	0,04655	0,09366	0,06127	0,11185
1446,3501	-0,01219	0,03624	0,04559	0,09343	0,05947	0,11059
1444,42163	-0,01233	0,03658	0,04516	0,09337	0,05928	0,10977
1442,49316	-0,01235	0,03669	0,0454	0,0933	0,05906	0,1094
1440,5647	-0,01187	0,03643	0,04519	0,09308	0,05932	0,10952
1438,63623	-0,01179	0,03715	0,04593	0,09352	0,05945	0,10922
1436,70776	-0,01191	0,03638	0,04688	0,09344	0,0587	0,1092
1434,7793	-0,01282	0,03498	0,0448	0,09243	0,05738	0,10843
1432,85083	-0,01135	0,03666	0,04539	0,09311	0,06028	0,11002
1430,92236	-0,01131	0,03701	0,04617	0,09341	0,06033	0,11031
1428,9939	-0,01161	0,03598	0,04541	0,09296	0,05945	0,11007
1427,06543	-0,012	0,03625	0,04484	0,09308	0,0587	0,10915
1425,13696	-0,01153	0,03673	0,04559	0,09315	0,05941	0,10956
1423,2085	-0,011	0,03644	0,04546	0,09288	0,06047	0,11022
1421,28003	-0,01241	0,03653	0,04493	0,09314	0,05845	0,10824
1419,35156	-0,01212	0,03645	0,04608	0,09318	0,05832	0,10844
1417,4231	-0,01158	0,03552	0,04531	0,09245	0,05893	0,10927
1415,49463	-0,01178	0,03614	0,04491	0,09288	0,05925	0,1091
1413,56616	-0,01273	0,03612	0,04467	0,09298	0,05797	0,10814
1411,6377	-0,01221	0,03614	0,04489	0,09284	0,05875	0,1088
1409,70923	-0,01251	0,03592	0,04473	0,09289	0,05847	0,10866
1407,78076	-0,01295	0,03588	0,04442	0,09298	0,05792	0,10828



1405,85229	-0,01194	0,03645	0,04549	0,09321	0,05972	0,10958
1403,92383	-0,01233	0,03566	0,04499	0,09296	0,05887	0,10933
1401,99536	-0,01278	0,03582	0,04432	0,09302	0,05809	0,10874
1400,06689	-0,01206	0,03645	0,04534	0,09329	0,05929	0,10994
1398,13843	-0,01184	0,03595	0,0453	0,09314	0,05962	0,11114
1396,20996	-0,01191	0,03636	0,04532	0,09349	0,05996	0,11195
1394,28149	-0,01231	0,03613	0,04541	0,09356	0,05943	0,11271
1392,35303	-0,01348	0,0353	0,04408	0,0932	0,05777	0,1118
1390,42456	-0,01283	0,0362	0,04448	0,09355	0,05906	0,11206
1388,49609	-0,01266	0,03645	0,04511	0,09352	0,05899	0,11199
1386,56763	-0,01291	0,03549	0,04476	0,09297	0,05824	0,11183
1384,63916	-0,01306	0,03501	0,04445	0,09286	0,0582	0,11195
1382,71069	-0,01316	0,03526	0,04448	0,0932	0,05818	0,11229
1380,78223	-0,01273	0,03588	0,0448	0,09365	0,05894	0,11303
1378,85376	-0,01282	0,03615	0,04486	0,09374	0,0591	0,11278
1376,92529	-0,01293	0,0365	0,04498	0,09376	0,05899	0,11204
1374,99683	-0,01163	0,03705	0,04594	0,09379	0,06065	0,11272
1373,06836	-0,01211	0,03635	0,04544	0,09357	0,05968	0,11201
1371,13989	-0,01304	0,03616	0,04452	0,09377	0,05834	0,11094
1369,21143	-0,01223	0,03682	0,04509	0,09417	0,05988	0,11261
1367,28296	-0,01259	0,03639	0,04474	0,09435	0,05954	0,1146
1365,35449	-0,01275	0,03634	0,04468	0,09468	0,05953	0,11617
1363,42603	-0,01135	0,03702	0,04597	0,0947	0,0617	0,11754
1361,49756	-0,01182	0,03646	0,04552	0,09419	0,06047	0,11537
1359,56909	-0,01296	0,03596	0,04454	0,09409	0,05853	0,11308
1357,64063	-0,01274	0,03627	0,04479	0,09418	0,05885	0,11259
1355,71216	-0,01244	0,03646	0,04513	0,09429	0,05914	0,11224
1353,78369	-0,01251	0,03628	0,04513	0,09444	0,05887	0,11178
1351,85522	-0,01254	0,03618	0,04524	0,09447	0,05887	0,11149
1349,92676	-0,0124	0,03631	0,04546	0,09451	0,05914	0,11152
1347,99829	-0,01247	0,03641	0,04547	0,09462	0,05901	0,11135
1346,06982	-0,01256	0,03659	0,04564	0,09469	0,05906	0,11131
1344,14136	-0,01272	0,03661	0,04572	0,09474	0,05882	0,11114
1342,21289	-0,01243	0,03696	0,04602	0,09493	0,05926	0,11136
1340,28442	-0,01134	0,0376	0,04685	0,09502	0,06123	0,11276
1338,35596	-0,01133	0,03712	0,04674	0,09495	0,06113	0,11287
1336,42749	-0,01222	0,03665	0,04619	0,09507	0,05971	0,11182
1334,49902	-0,01234	0,03683	0,04614	0,0952	0,05937	0,11155
1332,57056	-0,01205	0,03682	0,04608	0,09528	0,0592	0,11164
1330,64209	-0,0119	0,03688	0,0462	0,09534	0,05935	0,11186
1328,71362	-0,01202	0,03697	0,04644	0,09542	0,0594	0,11195
1326,78516	-0,0121	0,03699	0,04655	0,09559	0,05938	0,11202
1324,85669	-0,01203	0,03698	0,04659	0,09554	0,05961	0,11217
1322,92822	-0,01198	0,03691	0,04644	0,09546	0,05943	0,11206
1320,99976	-0,01171	0,03714	0,04653	0,09561	0,05975	0,1124
1319,07129	-0,01143	0,03741	0,04682	0,09557	0,06043	0,11304
1317,14282	-0,01168	0,03729	0,04665	0,09554	0,06003	0,11293
1315,21436	-0,01174	0,0372	0,04666	0,09579	0,06002	0,11314
1313,28589	-0,01145	0,03719	0,04695	0,09599	0,06057	0,11373
1311,35742	-0,01159	0,03702	0,04683	0,09608	0,06018	0,11357

1309,42896	-0,01165	0,03708	0,04687	0,09618	0,06	0,11362
1307,50049	-0,01144	0,03722	0,04701	0,0962	0,0602	0,11396
1305,57202	-0,01143	0,03722	0,04686	0,09625	0,06002	0,11397
1303,64355	-0,01136	0,0374	0,04693	0,09647	0,06013	0,11424
1301,71509	-0,01132	0,03742	0,04715	0,09671	0,06034	0,11462
1299,78662	-0,01131	0,03739	0,0473	0,09699	0,06051	0,11499
1297,85815	-0,01116	0,03767	0,04747	0,09733	0,06077	0,11558
1295,92969	-0,01114	0,03786	0,04758	0,09748	0,0608	0,11601
1294,00122	-0,01123	0,03804	0,04759	0,09751	0,06081	0,11646
1292,07275	-0,01122	0,03822	0,04757	0,09775	0,06089	0,11714
1290,14429	-0,01123	0,03832	0,04767	0,09809	0,06106	0,11793
1288,21582	-0,01111	0,03846	0,04773	0,09824	0,06128	0,11876
1286,28735	-0,01092	0,03849	0,04763	0,09835	0,06135	0,11949
1284,35889	-0,01088	0,03846	0,04768	0,09853	0,06154	0,12029
1282,43042	-0,01073	0,03848	0,04786	0,09876	0,06199	0,12161
1280,50195	-0,01058	0,0385	0,04795	0,09915	0,06237	0,1234
1278,57349	-0,01058	0,03852	0,04796	0,0996	0,06264	0,1253
1276,64502	-0,01057	0,03862	0,04799	0,09998	0,06301	0,12723
1274,71655	-0,01049	0,03887	0,04805	0,10037	0,06354	0,12901
1272,78809	-0,01034	0,0391	0,0482	0,10071	0,06414	0,13054
1270,85962	-0,01032	0,03929	0,04837	0,10104	0,06463	0,13173
1268,93115	-0,0103	0,03946	0,04847	0,10134	0,06488	0,13239
1267,00269	-0,0102	0,03947	0,04851	0,10136	0,06486	0,13269
1265,07422	-0,01021	0,03942	0,04853	0,10129	0,06464	0,13276
1263,14575	-0,01008	0,03946	0,04871	0,10145	0,06458	0,13265
1261,21729	-0,00976	0,03956	0,04901	0,10148	0,06465	0,13225
1259,28882	-0,00967	0,03972	0,049	0,10118	0,06432	0,13126
1257,36035	-0,00974	0,03984	0,04888	0,10098	0,06392	0,13008
1255,43188	-0,0097	0,03986	0,04894	0,1009	0,06384	0,12914
1253,50342	-0,00959	0,03989	0,04893	0,10081	0,06372	0,12844
1251,57495	-0,00942	0,03989	0,04896	0,10081	0,06367	0,12825
1249,64648	-0,00933	0,03994	0,04917	0,10092	0,0637	0,12841
1247,71802	-0,00924	0,04007	0,04928	0,10102	0,06352	0,12828
1245,78955	-0,00899	0,04018	0,0493	0,10103	0,06342	0,12772
1243,86108	-0,00884	0,04034	0,04932	0,10099	0,06334	0,12693
1241,93262	-0,00871	0,04055	0,0493	0,1009	0,06318	0,12604
1240,00415	-0,00858	0,04061	0,04939	0,10079	0,06323	0,12522
1238,07568	-0,00857	0,04067	0,04961	0,10091	0,06327	0,12464
1236,14722	-0,00839	0,04097	0,04981	0,1011	0,06317	0,12424
1234,21875	-0,00811	0,04131	0,04991	0,10111	0,06302	0,12385
1232,29028	-0,00802	0,04152	0,05009	0,1012	0,0629	0,12358
1230,36182	-0,0079	0,04155	0,05041	0,1014	0,06289	0,12335
1228,43335	-0,00756	0,04145	0,05045	0,10147	0,06297	0,12295
1226,50488	-0,00717	0,04155	0,05046	0,10159	0,0632	0,12278
1224,57642	-0,00697	0,04178	0,05073	0,10184	0,06339	0,12308
1222,64795	-0,00695	0,04192	0,05095	0,10206	0,06335	0,12346
1220,71948	-0,00673	0,04229	0,05124	0,10222	0,06337	0,12382
1218,79102	-0,00635	0,04277	0,05151	0,10237	0,06342	0,12412
1216,86255	-0,00616	0,04284	0,05155	0,10252	0,0634	0,12424
1214,93408	-0,00597	0,04283	0,05178	0,10259	0,06347	0,12414

1213,00562	-0,00563	0,04301	0,05215	0,10264	0,06355	0,1238
1211,07715	-0,00544	0,04316	0,05227	0,10272	0,06358	0,12333
1209,14868	-0,00528	0,04346	0,05232	0,1026	0,06356	0,12286
1207,22021	-0,00495	0,04384	0,05244	0,10251	0,06339	0,12233
1205,29175	-0,00474	0,04406	0,0526	0,10255	0,06336	0,12196
1203,36328	-0,00461	0,04423	0,05293	0,10263	0,06363	0,12199
1201,43481	-0,00428	0,04445	0,05314	0,10272	0,06374	0,12201
1199,50635	-0,00395	0,04475	0,05315	0,1028	0,06376	0,12182
1197,57788	-0,00378	0,04498	0,05346	0,10305	0,06395	0,12182
1195,64941	-0,00371	0,04513	0,05381	0,10357	0,06399	0,12189
1193,72095	-0,00367	0,04537	0,05396	0,10399	0,06398	0,12188
1191,79248	-0,00349	0,04561	0,0542	0,10415	0,06407	0,12203
1189,86401	-0,00315	0,04588	0,05445	0,10443	0,06416	0,12222
1187,93555	-0,00289	0,04608	0,05465	0,10494	0,06445	0,1224
1186,00708	-0,00273	0,04623	0,05488	0,10523	0,06462	0,12254
1184,07861	-0,00253	0,04659	0,05524	0,10542	0,06459	0,12256
1182,15015	-0,0023	0,04691	0,05563	0,10588	0,06474	0,12265
1180,22168	-0,00203	0,04707	0,05586	0,10619	0,06489	0,12276
1178,29321	-0,00175	0,04729	0,05599	0,10642	0,06503	0,12278
1176,36475	-0,00154	0,04769	0,05609	0,10682	0,06532	0,12291
1174,43628	-0,00135	0,04813	0,05627	0,10711	0,06551	0,12303
1172,50781	-0,00119	0,04831	0,05648	0,10723	0,06553	0,12305
1170,57935	-0,00109	0,04843	0,05662	0,10736	0,06559	0,12328
1168,65088	-0,00098	0,04867	0,05687	0,10761	0,06573	0,12365
1166,72241	-0,00087	0,04883	0,05716	0,10792	0,06593	0,12387
1164,79395	-0,00082	0,04901	0,05735	0,10818	0,06613	0,12395
1162,86548	-0,00076	0,0492	0,05747	0,10846	0,06624	0,12402
1160,93701	-0,0007	0,04935	0,05748	0,10876	0,06642	0,12425
1159,00854	-0,00069	0,04948	0,05755	0,10896	0,0666	0,12451
1157,08008	-0,00065	0,04946	0,05757	0,10906	0,06652	0,12457
1155,15161	-0,00055	0,04952	0,05749	0,10909	0,06651	0,12457
1153,22314	-0,00047	0,04975	0,05768	0,10936	0,06675	0,12484
1151,29468	-0,00035	0,04991	0,05806	0,1099	0,06698	0,12533
1149,36621	-0,0001	0,0501	0,05827	0,11048	0,06708	0,1258
1147,43774	0,00008	0,05033	0,05843	0,11119	0,06714	0,12632
1145,50928	0,00016	0,05045	0,05874	0,11178	0,06735	0,12681
1143,58081	0,0002	0,05065	0,05903	0,11203	0,06763	0,12715
1141,65234	0,00022	0,05091	0,05904	0,11216	0,06764	0,1274
1139,72388	0,00037	0,05109	0,05911	0,11224	0,06764	0,12751
1137,79541	0,0006	0,05135	0,05938	0,11233	0,06787	0,12753
1135,86694	0,00083	0,05155	0,0595	0,11245	0,06809	0,12754
1133,93848	0,00109	0,05154	0,05962	0,11259	0,06822	0,12762
1132,01001	0,00118	0,05171	0,05979	0,11278	0,06827	0,12778
1130,08154	0,0011	0,05193	0,05994	0,11296	0,06816	0,12789
1128,15308	0,00124	0,05196	0,06013	0,11318	0,06816	0,12797
1126,22461	0,00136	0,0521	0,06019	0,11333	0,06842	0,1281
1124,29614	0,0014	0,05233	0,06032	0,11339	0,06874	0,12833
1122,36768	0,00162	0,05248	0,06055	0,11345	0,06892	0,12858
1120,43921	0,00171	0,05266	0,06079	0,11351	0,06896	0,12876
1118,51074	0,00187	0,05281	0,06109	0,11364	0,06898	0,12887

1116,58228	0,00221	0,05296	0,06127	0,11377	0,06906	0,12891
1114,65381	0,00233	0,0533	0,06143	0,11397	0,06933	0,12927
1112,72534	0,00248	0,05363	0,06177	0,11422	0,06969	0,1298
1110,79688	0,00264	0,05381	0,06211	0,11429	0,06989	0,13005
1108,86841	0,00262	0,05396	0,06229	0,11441	0,07009	0,13043
1106,93994	0,00272	0,05412	0,06234	0,11455	0,07014	0,13079
1105,01147	0,0029	0,05438	0,06242	0,11442	0,0698	0,13074
1103,08301	0,00287	0,05463	0,06252	0,11454	0,06964	0,1309
1101,15454	0,00277	0,05475	0,06255	0,11492	0,0696	0,1312
1099,22607	0,0028	0,05476	0,06258	0,11491	0,06946	0,13123
1097,29761	0,00279	0,05484	0,06263	0,11487	0,06958	0,13138
1095,36914	0,00276	0,05498	0,06267	0,11505	0,06973	0,13163
1093,44067	0,00283	0,05497	0,06274	0,11502	0,06975	0,13175
1091,51221	0,00277	0,05489	0,06282	0,11511	0,06976	0,13187
1089,58374	0,00253	0,05492	0,06286	0,11523	0,06967	0,13181
1087,65527	0,00245	0,05503	0,06276	0,11494	0,06952	0,13168
1085,72681	0,00242	0,05495	0,06257	0,1147	0,06936	0,13179
1083,79834	0,00214	0,05462	0,06231	0,11454	0,06929	0,13184
1081,86987	0,00184	0,05446	0,06199	0,11436	0,06933	0,1317
1079,94141	0,00164	0,05437	0,06185	0,11435	0,06932	0,13159
1078,01294	0,00133	0,05405	0,0617	0,11416	0,06912	0,13136
1076,08447	0,0011	0,05373	0,06134	0,11383	0,06882	0,13113
1074,15601	0,0009	0,05329	0,06107	0,11358	0,06864	0,13097
1072,22754	0,00049	0,05285	0,06074	0,11328	0,06851	0,1307
1070,29907	0,0002	0,05264	0,06036	0,11308	0,06838	0,13063
1068,37061	0,00005	0,05237	0,06011	0,11299	0,06829	0,13068
1066,44214	-0,00027	0,052	0,05973	0,11278	0,0682	0,13061
1064,51367	-0,00048	0,0515	0,0595	0,11259	0,06828	0,13073
1062,58521	-0,00061	0,05103	0,05944	0,11245	0,06822	0,13099
1060,65674	-0,00097	0,05094	0,05902	0,11223	0,0679	0,13108
1058,72827	-0,00122	0,05071	0,05862	0,11203	0,06771	0,13123
1056,7998	-0,00137	0,05013	0,05853	0,11204	0,06772	0,13159
1054,87134	-0,00174	0,04984	0,05833	0,11212	0,06779	0,13208
1052,94287	-0,00208	0,04967	0,05802	0,1121	0,06786	0,13276
1051,0144	-0,0022	0,04933	0,05787	0,11216	0,06798	0,13362
1049,08594	-0,00239	0,04918	0,05777	0,11237	0,06802	0,13453
1047,15747	-0,00258	0,04915	0,0576	0,11246	0,06813	0,13535
1045,229	-0,0026	0,04895	0,05759	0,11246	0,06835	0,136
1043,30054	-0,00267	0,04874	0,05761	0,11238	0,06822	0,13615
1041,37207	-0,00283	0,04871	0,05736	0,11228	0,06808	0,13604
1039,4436	-0,00293	0,0487	0,05721	0,11243	0,06826	0,1361
1037,51514	-0,00324	0,04858	0,05713	0,11251	0,06825	0,13601
1035,58667	-0,00354	0,04853	0,05701	0,1124	0,06815	0,13615
1033,6582	-0,00359	0,04857	0,05713	0,11251	0,0683	0,1369
1031,72974	-0,00375	0,04856	0,05722	0,11271	0,06859	0,13794
1029,80127	-0,00383	0,04866	0,05726	0,11285	0,06889	0,13931
1027,8728	-0,00397	0,04871	0,05742	0,11311	0,0692	0,14076
1025,94434	-0,00423	0,04851	0,05733	0,11327	0,06946	0,1417
1024,01587	-0,00418	0,04844	0,05716	0,11322	0,06936	0,14202
1022,0874	-0,00398	0,04854	0,05731	0,11323	0,06905	0,14192

1020,15894	-0,00395	0,04835	0,05747	0,11298	0,06878	0,14116
1018,23047	-0,00404	0,04803	0,05738	0,1124	0,06832	0,13947
1016,302	-0,00416	0,04793	0,05739	0,11248	0,06783	0,13767
1014,37354	-0,00443	0,0478	0,05743	0,11275	0,06754	0,13634
1012,44507	-0,00485	0,04759	0,05701	0,11221	0,06726	0,135
1010,5166	-0,00507	0,04745	0,05683	0,11173	0,06705	0,13356
1008,58813	-0,00523	0,04731	0,05721	0,11173	0,06687	0,13239
1006,65967	-0,00547	0,04723	0,05724	0,11156	0,06653	0,13135
1004,7312	-0,00565	0,04727	0,05706	0,11142	0,06631	0,13058
1002,80273	-0,00584	0,04726	0,05716	0,1116	0,06641	0,13024
1000,87427	-0,00587	0,04713	0,05707	0,1116	0,06647	0,12973
998,9458	-0,00585	0,04694	0,05688	0,11124	0,06639	0,12904
997,01733	-0,0061	0,04682	0,0568	0,11097	0,06632	0,12855
995,08887	-0,00619	0,04692	0,05661	0,11087	0,06615	0,12814
993,1604	-0,00608	0,04698	0,0565	0,11092	0,06602	0,12794
991,23193	-0,00612	0,04678	0,05655	0,11108	0,06604	0,12806
989,30347	-0,00615	0,04666	0,0563	0,11098	0,06577	0,12783
987,375	-0,00627	0,04667	0,05595	0,11078	0,06553	0,12725
985,44653	-0,00653	0,04661	0,05602	0,11082	0,06563	0,12708
983,51807	-0,00659	0,04663	0,05601	0,11071	0,06559	0,12696
981,5896	-0,00662	0,04673	0,05577	0,11054	0,06563	0,12657
979,66113	-0,00672	0,0467	0,05572	0,11056	0,06578	0,12646
977,73267	-0,00669	0,04644	0,05561	0,11031	0,0656	0,1264
975,8042	-0,00675	0,0462	0,05538	0,11006	0,0654	0,12606
973,87573	-0,00694	0,04628	0,05526	0,11009	0,06523	0,12586
971,94727	-0,00694	0,0463	0,05509	0,11002	0,06507	0,12578
970,0188	-0,00708	0,0462	0,05524	0,11004	0,06533	0,12577
968,09033	-0,00748	0,04625	0,05551	0,11007	0,0656	0,12586
966,16187	-0,00761	0,04636	0,05516	0,10976	0,06532	0,12569
964,2334	-0,00752	0,04641	0,05494	0,10963	0,06501	0,12554
962,30493	-0,00745	0,04635	0,05515	0,10969	0,06502	0,1257
960,37646	-0,00757	0,04637	0,05497	0,10962	0,06502	0,12573
958,448	-0,00764	0,04643	0,05466	0,10957	0,06504	0,12563
956,51953	-0,00747	0,04631	0,05476	0,10969	0,06515	0,12568
954,59106	-0,00759	0,04635	0,05489	0,10993	0,06533	0,12583
952,6626	-0,00779	0,04657	0,0549	0,11002	0,06542	0,12596
950,73413	-0,00778	0,04646	0,05485	0,10974	0,06511	0,12577
948,80566	-0,00791	0,04623	0,05459	0,10949	0,06484	0,12547
946,8772	-0,0079	0,04619	0,05442	0,10959	0,06489	0,12553
944,94873	-0,00783	0,04631	0,0543	0,10972	0,06483	0,12564
943,02026	-0,00795	0,04633	0,05426	0,1098	0,0649	0,12549
941,0918	-0,00796	0,04632	0,05464	0,11001	0,0653	0,12556
939,16333	-0,00795	0,0464	0,0546	0,11001	0,06543	0,12575
937,23486	-0,00796	0,04634	0,05417	0,10973	0,06512	0,1257
935,3064	-0,00817	0,04614	0,05419	0,10958	0,06489	0,12577
933,37793	-0,00858	0,04584	0,05433	0,10966	0,06493	0,12594
931,44946	-0,00864	0,04584	0,05442	0,10972	0,065	0,12607
929,521	-0,00845	0,0462	0,0545	0,10972	0,06506	0,12625
927,59253	-0,00837	0,04634	0,05447	0,10977	0,06517	0,12644
925,66406	-0,00826	0,04621	0,05446	0,10992	0,06529	0,12682

923,7356	-0,00818	0,04608	0,05432	0,11007	0,06553	0,12725
921,80713	-0,00829	0,04615	0,05422	0,11007	0,06571	0,12742
919,87866	-0,00838	0,04624	0,05428	0,10993	0,06567	0,12757
917,9502	-0,00832	0,04626	0,05426	0,10985	0,06547	0,12777
916,02173	-0,00842	0,04654	0,05428	0,10989	0,06533	0,12787
914,09326	-0,00848	0,04657	0,05436	0,10997	0,06528	0,12777
912,16479	-0,00823	0,04636	0,05436	0,11008	0,06515	0,12746
910,23633	-0,00802	0,04649	0,05428	0,1102	0,06507	0,12722
908,30786	-0,00799	0,04653	0,05406	0,11007	0,06502	0,12723
906,37939	-0,0081	0,04652	0,0539	0,1098	0,06487	0,12711
904,45093	-0,00812	0,04675	0,05402	0,10986	0,06477	0,12682
902,52246	-0,00798	0,04667	0,05416	0,10998	0,06476	0,12677
900,59399	-0,00814	0,04637	0,05402	0,10994	0,06484	0,12657
898,66553	-0,00837	0,04634	0,05407	0,11005	0,06504	0,12631
896,73706	-0,00836	0,04639	0,05426	0,11022	0,06525	0,12654
894,80859	-0,00833	0,04635	0,05396	0,11021	0,06516	0,12652
892,88013	-0,00812	0,04634	0,05395	0,11028	0,065	0,12632
890,95166	-0,00796	0,04646	0,05416	0,11034	0,06495	0,12645
889,02319	-0,0082	0,04661	0,05384	0,11007	0,06475	0,12618
887,09473	-0,00848	0,0466	0,05375	0,11004	0,06483	0,12601
885,16626	-0,0086	0,04668	0,05398	0,11052	0,06526	0,12626
883,23779	-0,00852	0,04689	0,05404	0,11072	0,06533	0,12626
881,30933	-0,00818	0,04707	0,05417	0,11055	0,06505	0,12626
879,38086	-0,00779	0,04731	0,05437	0,1108	0,06492	0,12631
877,45239	-0,00767	0,04766	0,05457	0,11136	0,06522	0,12642
875,52393	-0,00751	0,04827	0,05491	0,11166	0,06559	0,1269
873,59546	-0,00705	0,04876	0,05525	0,11205	0,06573	0,12733
871,66699	-0,00659	0,04912	0,05555	0,11288	0,06628	0,12779
869,73853	-0,00605	0,04966	0,05613	0,11375	0,06718	0,12868
867,81006	-0,00551	0,04998	0,05665	0,11437	0,06779	0,12952
865,88159	-0,00519	0,05023	0,057	0,11486	0,06827	0,13025
863,95313	-0,00487	0,05064	0,0577	0,11535	0,06876	0,13075
862,02466	-0,00485	0,05092	0,05812	0,11574	0,06879	0,13062
860,09619	-0,005	0,05088	0,0579	0,11573	0,06836	0,13036
858,16772	-0,00497	0,05058	0,05773	0,11557	0,06825	0,13037
856,23926	-0,00515	0,0504	0,05765	0,11543	0,0685	0,13042
854,31079	-0,00546	0,05028	0,05754	0,11513	0,06856	0,13038
852,38232	-0,00566	0,05011	0,0576	0,11498	0,06844	0,13015
850,45386	-0,00574	0,0502	0,05781	0,11519	0,06818	0,13008
848,52539	-0,00527	0,05103	0,05841	0,11593	0,06838	0,13088
846,59692	-0,00424	0,05245	0,05943	0,11732	0,06918	0,13214
844,66846	-0,00336	0,05327	0,06032	0,11852	0,07004	0,13315
842,73999	-0,00234	0,05373	0,06144	0,11968	0,07141	0,13448
840,81152	-0,00053	0,0552	0,06328	0,12178	0,07319	0,13638
838,88306	0,00138	0,05707	0,06518	0,12416	0,07471	0,13841
836,95459	0,00324	0,0587	0,0669	0,12622	0,07613	0,14039
835,02612	0,00492	0,06028	0,06858	0,12808	0,07724	0,14192
833,09766	0,0055	0,06091	0,06934	0,12889	0,07757	0,14251
831,16919	0,00561	0,06067	0,06938	0,12878	0,07772	0,14263
829,24072	0,00581	0,06062	0,06946	0,12881	0,078	0,14282

827,31226	0,00598	0,06062	0,06924	0,12884	0,07799	0,1429
825,38379	0,00696	0,06133	0,07011	0,12976	0,07854	0,14364
823,45532	0,0082	0,06297	0,07209	0,13146	0,07957	0,14499
821,52686	0,00867	0,0638	0,07275	0,13191	0,0798	0,14546
819,59839	0,00879	0,06382	0,07271	0,13183	0,07992	0,14546
817,66992	0,00899	0,06414	0,07304	0,13218	0,08034	0,14563
815,74146	0,00959	0,06486	0,07352	0,13266	0,08083	0,14606
813,81299	0,0105	0,06563	0,07442	0,13345	0,08163	0,14698
811,88452	0,01093	0,0662	0,07487	0,13382	0,08202	0,14762
809,95605	0,01084	0,06666	0,07481	0,1337	0,08197	0,14771
808,02759	0,01111	0,06695	0,07527	0,13391	0,08213	0,14793
806,09912	0,01208	0,06737	0,07603	0,13445	0,08251	0,14852
804,17065	0,01289	0,06804	0,07679	0,13495	0,08297	0,14914
802,24219	0,01307	0,06868	0,07743	0,13528	0,08321	0,14942
800,31372	0,01344	0,0695	0,07801	0,13599	0,08349	0,14996
798,38525	0,01415	0,07015	0,07885	0,13685	0,08412	0,15073
796,45679	0,01455	0,07045	0,07955	0,13718	0,08464	0,15107
794,52832	0,01455	0,07072	0,07952	0,13725	0,08467	0,15098
792,59985	0,01434	0,07039	0,07893	0,13687	0,08427	0,15047
790,67139	0,01392	0,06952	0,0782	0,13613	0,08385	0,14998
788,74292	0,01342	0,06899	0,07768	0,13585	0,08375	0,14987
786,81445	0,01309	0,06893	0,0774	0,13569	0,08362	0,14972
784,88599	0,01245	0,06852	0,07667	0,13503	0,08316	0,14918
782,95752	0,01159	0,06773	0,07564	0,13429	0,08283	0,1486
781,02905	0,01122	0,06742	0,07516	0,13397	0,08248	0,14837
779,10059	0,01097	0,06719	0,0751	0,13385	0,08193	0,14819
777,17212	0,01116	0,06702	0,07527	0,13413	0,08205	0,14826
775,24365	0,01188	0,06767	0,0758	0,13495	0,0826	0,14885
773,31519	0,01223	0,06819	0,07649	0,13587	0,08292	0,14952
771,38672	0,01255	0,06826	0,07717	0,1367	0,0833	0,14998
769,45825	0,01279	0,06851	0,07741	0,1369	0,08336	0,14989
767,52979	0,01287	0,06862	0,07743	0,13667	0,08336	0,14977
765,60132	0,01337	0,06879	0,07764	0,13693	0,08384	0,15024
763,67285	0,01357	0,06919	0,07756	0,13694	0,08389	0,1506
761,74438	0,01329	0,06908	0,07725	0,13629	0,08355	0,1503
759,81592	0,01302	0,06847	0,07705	0,13577	0,08344	0,14986
757,88745	0,01254	0,06792	0,07682	0,13565	0,08328	0,14986
755,95898	0,01232	0,06767	0,07667	0,13575	0,08315	0,14972
754,03052	0,01263	0,06738	0,07655	0,13566	0,08292	0,14911
752,10205	0,01237	0,06688	0,07604	0,13548	0,08243	0,14877
750,17358	0,01199	0,06701	0,07577	0,13575	0,08255	0,14905
748,24512	0,01254	0,06745	0,07616	0,13627	0,08312	0,14959
746,31665	0,01306	0,0675	0,07652	0,13644	0,08335	0,14997
744,38818	0,01293	0,06811	0,07677	0,13643	0,08334	0,15014
742,45972	0,01278	0,06872	0,07697	0,13658	0,08313	0,15018
740,53125	0,0128	0,06838	0,07717	0,13672	0,08335	0,15041
738,60278	0,01307	0,06832	0,07741	0,13684	0,08372	0,15071
736,67432	0,01352	0,06899	0,07782	0,13704	0,08379	0,15104
734,74585	0,01371	0,06929	0,07845	0,13737	0,08436	0,1519
732,81738	0,01344	0,06911	0,07845	0,13773	0,08458	0,15213

730,88892	0,01333	0,06919	0,07829	0,13775	0,08438	0,15165
728,96045	0,01363	0,06914	0,07857	0,13755	0,0847	0,15179
727,03198	0,01418	0,06936	0,07897	0,13779	0,08523	0,15224
725,10352	0,01491	0,07012	0,07955	0,13828	0,08555	0,15266
723,17505	0,01537	0,07089	0,0801	0,13861	0,08598	0,15323
721,24658	0,01574	0,07203	0,08065	0,13918	0,08705	0,15409
719,31812	0,01634	0,07228	0,08111	0,13975	0,08714	0,15487
717,38965	0,01678	0,07178	0,08142	0,14016	0,08665	0,15511
715,46118	0,01736	0,07226	0,08201	0,14084	0,08762	0,15549
713,53271	0,01792	0,0725	0,08246	0,14105	0,08824	0,15574
711,60425	0,0178	0,07228	0,08254	0,14081	0,08781	0,15563
709,67578	0,01779	0,07237	0,08299	0,14149	0,08786	0,15641
707,74731	0,0182	0,07219	0,08342	0,14242	0,08825	0,1573
705,81885	0,01816	0,07213	0,08305	0,14221	0,08854	0,15713
703,89038	0,01764	0,0727	0,08261	0,14173	0,08868	0,15683
701,96191	0,01713	0,07298	0,08242	0,14144	0,08846	0,15656
700,03345	0,01691	0,07313	0,08259	0,14129	0,08844	0,15681
698,10498	0,01687	0,07374	0,08324	0,14176	0,08898	0,15777
696,17651	0,01692	0,07397	0,08349	0,14215	0,08931	0,15835
694,24805	0,017	0,07383	0,08361	0,14201	0,08919	0,15846
692,31958	0,01705	0,07414	0,08432	0,14243	0,08956	0,15881
690,39111	0,0179	0,07486	0,08538	0,14347	0,09094	0,15995
688,46265	0,01898	0,07549	0,08631	0,14408	0,09178	0,16082
686,53418	0,0193	0,07623	0,087	0,14481	0,09202	0,16135
684,60571	0,0198	0,07631	0,08702	0,14529	0,09217	0,16158
682,67725	0,02047	0,0764	0,08716	0,14527	0,09215	0,16156
680,74878	0,02081	0,07784	0,0874	0,14591	0,09315	0,1625
678,82031	0,02131	0,07803	0,08763	0,14596	0,0931	0,16238
676,89185	0,02189	0,07864	0,08786	0,14619	0,09316	0,16283
674,96338	0,02208	0,07874	0,08809	0,14632	0,09321	0,16355
673,03491	0,0221	0,07878	0,08833	0,14645	0,09327	0,16372
671,10645	0,02213	0,07883	0,08856	0,14658	0,09333	0,16389
669,17798	0,02216	0,07888	0,08879	0,14672	0,09338	0,16406
667,24951	0,02218	0,07892	0,08903	0,14685	0,09344	0,16423
665,32104	0,02221	0,07897	0,08926	0,14698	0,09349	0,1644
663,39258	0,02224	0,07902	0,08949	0,14711	0,09355	0,16457
661,46411	0,02226	0,07906	0,08972	0,14724	0,09361	0,16474
659,53564	0,02229	0,07911	0,08996	0,14737	0,09366	0,16491
657,60718	0,02232	0,07915	0,09019	0,14751	0,09372	0,16508
655,67871	0,02242	0,0792	0,09042	0,14764	0,09377	0,16525
653,75024	0,02261	0,07925	0,09066	0,14777	0,09383	0,16542
651,82178	0,02271	0,07929	0,09089	0,1479	0,09389	0,16559
649,89331	0,0229	0,07934	0,09112	0,14803	0,09394	0,16576
647,96484	0,02303	0,07939	0,09135	0,14816	0,094	0,16593
646,03638	0,02301	0,07943	0,09159	0,14837	0,09405	0,1661
644,10791	0,02294	0,07934	0,09152	0,14852	0,09377	0,16578
642,17944	0,02295	0,07929	0,09137	0,1485	0,09357	0,16575
640,25098	0,02274	0,07894	0,09092	0,14781	0,09325	0,16586
638,32251	0,02241	0,07897	0,09037	0,14737	0,09227	0,16512
636,39404	0,02266	0,07863	0,0906	0,14751	0,0923	0,16491



634,46558	0,02251	0,07828	0,09018	0,14734	0,09237	0,16495
632,53711	0,02183	0,07835	0,0898	0,14774	0,0919	0,16487
630,60864	0,02129	0,07794	0,08971	0,14761	0,09134	0,16439
628,68018	0,02083	0,07764	0,08958	0,14712	0,09144	0,16457
626,75171	0,02117	0,07746	0,08941	0,14702	0,09181	0,16512
624,82324	0,0215	0,07767	0,08913	0,14692	0,09172	0,16478
622,89478	0,02116	0,07755	0,08887	0,1472	0,09128	0,16441
620,96631	0,02135	0,07711	0,08896	0,1473	0,09098	0,16442
619,03784	0,02186	0,0783	0,0894	0,1472	0,09154	0,16447
617,10938	0,02206	0,07896	0,08979	0,14749	0,09213	0,16472
615,18091	0,02202	0,07868	0,08998	0,14767	0,09142	0,16453
613,25244	0,02184	0,07925	0,08995	0,14758	0,09079	0,16412
611,32397	0,02185	0,07922	0,09022	0,1476	0,09136	0,16439
609,39551	0,0219	0,07871	0,09024	0,14761	0,09127	0,16407
607,46704	0,02215	0,07857	0,08975	0,14724	0,09081	0,16353
605,53857	0,02232	0,07857	0,09006	0,14689	0,09125	0,1636
603,61011	0,02176	0,0783	0,09023	0,1471	0,09128	0,1631
601,68164	0,02213	0,07764	0,08963	0,1469	0,09093	0,16291
599,75317	0,02238	0,07755	0,08961	0,14652	0,0912	0,16325
597,82471	0,02112	0,0778	0,08956	0,14705	0,0915	0,16297
595,89624	0,02105	0,07786	0,08923	0,1467	0,09097	0,16223
593,96777	0,02216	0,07763	0,08937	0,14558	0,09108	0,16246
592,03931	0,02233	0,07724	0,08918	0,14558	0,09179	0,16326
590,11084	0,02107	0,07784	0,08901	0,14614	0,09099	0,16287
588,18237	0,02027	0,07824	0,08934	0,1467	0,09044	0,163
586,25391	0,02025	0,07765	0,08921	0,14699	0,09045	0,16359
584,32544	0,01937	0,07816	0,08913	0,14689	0,09044	0,16355
582,39697	0,02007	0,0788	0,08918	0,14689	0,09162	0,16432
580,46851	0,02115	0,07862	0,0888	0,14749	0,09206	0,16454
578,54004	0,02071	0,07867	0,08889	0,14784	0,09176	0,16442
576,61157	0,02205	0,07829	0,08919	0,14698	0,09262	0,16529
574,68311	0,0222	0,07801	0,08934	0,14718	0,09291	0,16549
572,75464	0,02071	0,07855	0,08999	0,14893	0,0927	0,16565
570,82617	0,02166	0,07866	0,09028	0,14964	0,09325	0,16661
568,89771	0,02267	0,07853	0,09021	0,14994	0,09377	0,16757
566,96924	0,02256	0,0788	0,09103	0,15091	0,09415	0,16833
565,04077	0,02239	0,07934	0,09195	0,15179	0,09465	0,16904
563,1123	0,02224	0,07977	0,0922	0,15213	0,09477	0,1698
561,18384	0,02258	0,07988	0,09246	0,15198	0,09466	0,17005
559,25537	0,02277	0,08013	0,09307	0,15268	0,09538	0,17076
557,3269	0,02282	0,08061	0,09366	0,15414	0,09652	0,17215
555,39844	0,0226	0,08107	0,09399	0,15482	0,09694	0,17275
553,46997	0,02225	0,08168	0,09447	0,15547	0,09692	0,17294
551,5415	0,02233	0,0815	0,09481	0,15601	0,09725	0,17317
549,61304	0,0214	0,0803	0,09426	0,15585	0,09778	0,17362
547,68457	0,0196	0,07955	0,09361	0,15619	0,09656	0,17354
545,7561	0,01978	0,07983	0,09485	0,15731	0,09699	0,17457
543,82764	0,02075	0,08055	0,09655	0,15897	0,10086	0,17768
541,89917	0,0202	0,08071	0,09734	0,16015	0,10177	0,17925
539,9707	0,01939	0,08063	0,09864	0,16115	0,10162	0,18033

538,04224	0,01821	0,08036	0,09825	0,16283	0,10206	0,18081
536,11377	0,01667	0,07935	0,09775	0,16386	0,10081	0,18075
534,1853	0,01559	0,07905	0,09993	0,16527	0,10263	0,18406
532,25684	0,01342	0,07888	0,09945	0,16639	0,1019	0,18365
530,32837	0,0126	0,07913	0,10063	0,16761	0,10278	0,18439
528,3999	0,0102	0,07695	0,10142	0,16884	0,10364	0,18699
526,47144	0,00521	0,07231	0,09633	0,16861	0,09561	0,18243
524,54297	0,00402	0,07392	0,09824	0,17153	0,09831	0,18507
522,6145	0,00254	0,07584	0,10233	0,17504	0,10519	0,19182
520,68604	-0,00155	0,07173	0,09953	0,17507	0,10116	0,19125
518,75757	-0,0062	0,06779	0,09765	0,17484	0,09846	0,19052
516,8291	-0,01007	0,06614	0,09757	0,17651	0,09882	0,19106
514,90063	-0,01151	0,06652	0,09929	0,1795	0,10219	0,19498
512,97217	-0,01549	0,06555	0,10126	0,18116	0,10492	0,19947
511,0437	-0,02165	0,06266	0,10003	0,18352	0,10368	0,19868
509,11523	-0,02624	0,0604	0,09844	0,18564	0,10228	0,19641
507,18677	-0,02998	0,05769	0,09828	0,1844	0,10099	0,19805
505,2583	-0,03296	0,0572	0,09838	0,18494	0,10146	0,20024
503,32983	-0,03624	0,05651	0,09687	0,18684	0,1006	0,19864
501,40137	-0,03872	0,05447	0,09612	0,18732	0,10059	0,1992
499,4729	-0,04078	0,0547	0,09771	0,18862	0,10335	0,20198

Figure 3.6 A					
n°spectre	Vd202	VD142	VD173	VD213	Vd180
cm-1	cd.(pH=6.5)	cd.(pH=9.5)	X.(nat.pH)	X.(pH=6.5)	X.(pH=9.5)
4001,5686	0,18076	0,18725	0,1092	0,20378	0,09408
3999,64014	0,18068	0,18713	0,10904	0,20354	0,09413
3997,71167	0,18067	0,18703	0,10896	0,20346	0,0941
3995,7832	0,18053	0,18683	0,10894	0,20344	0,0939
3993,85474	0,18039	0,18676	0,10883	0,20319	0,0939
3991,92627	0,18023	0,18662	0,10886	0,20303	0,09391
3989,9978	0,18011	0,18646	0,10878	0,20285	0,09372
3988,06934	0,18005	0,18644	0,10853	0,20264	0,09363
3986,14087	0,1799	0,18626	0,10861	0,2026	0,09365
3984,2124	0,17978	0,18601	0,10861	0,20241	0,09367
3982,28394	0,17964	0,18599	0,10842	0,20231	0,09355
3980,35547	0,17944	0,18589	0,10844	0,20219	0,0933
3978,427	0,17936	0,18572	0,10834	0,20192	0,09336
3976,49854	0,17938	0,18563	0,10831	0,20195	0,09339
3974,57007	0,17943	0,18544	0,10839	0,20185	0,09319
3972,6416	0,17927	0,18535	0,10822	0,20156	0,09315
3970,71313	0,17896	0,18533	0,1082	0,20149	0,09311
3968,78467	0,17897	0,18525	0,10834	0,20142	0,09302
3966,8562	0,17883	0,18517	0,1081	0,20113	0,09304
3964,92773	0,17849	0,18499	0,10792	0,20109	0,09309
3962,99927	0,17874	0,1848	0,10822	0,20128	0,09302
3961,0708	0,1788	0,18467	0,10819	0,20084	0,09281
3959,14233	0,17842	0,18463	0,10792	0,20046	0,09279
3957,21387	0,17831	0,18465	0,10788	0,20048	0,09278
3955,2854	0,17835	0,18447	0,10787	0,20039	0,09273
3953,35693	0,17831	0,18442	0,10791	0,20018	0,09277
3951,42847	0,17817	0,18419	0,1078	0,2001	0,09269
3949,5	0,17862	0,18361	0,10795	0,20049	0,09253
3947,57153	0,17826	0,18368	0,10765	0,19967	0,09217
3945,64307	0,17747	0,18381	0,10743	0,19926	0,09233
3943,7146	0,17828	0,18358	0,1083	0,20037	0,0928
3941,78613	0,17813	0,18355	0,10782	0,19948	0,09222
3939,85767	0,1771	0,18347	0,10707	0,19864	0,09203
3937,9292	0,17725	0,18345	0,10756	0,19919	0,09246
3936,00073	0,17721	0,18343	0,10741	0,19895	0,09229
3934,07227	0,17746	0,18323	0,1077	0,19933	0,09251
3932,1438	0,17808	0,18301	0,1082	0,19962	0,09246
3930,21533	0,1772	0,18276	0,10715	0,19824	0,09157
3928,28687	0,17643	0,18266	0,10678	0,19797	0,0917
3926,3584	0,1772	0,1827	0,10772	0,19901	0,09226
3924,42993	0,17748	0,18261	0,10771	0,19865	0,0919
3922,50146	0,17651	0,1824	0,10689	0,1976	0,09151
3920,573	0,17659	0,18226	0,10722	0,19814	0,09184
3918,64453	0,17701	0,18221	0,10766	0,19842	0,09195
3916,71606	0,17659	0,18203	0,10708	0,19759	0,09136
3914,7876	0,1758	0,18193	0,10628	0,1967	0,09095

3912,85913	0,17566	0,18197	0,10654	0,19702	0,09143
3910,93066	0,17592	0,18207	0,10702	0,19753	0,09187
3909,0022	0,17563	0,18194	0,10653	0,19685	0,09146
3907,07373	0,1761	0,18156	0,10719	0,19765	0,09176
3905,14526	0,17719	0,18153	0,10836	0,19881	0,09222
3903,2168	0,17629	0,18139	0,10696	0,19677	0,09105
3901,28833	0,17536	0,18081	0,1061	0,19553	0,09029
3899,35986	0,17581	0,18063	0,10667	0,19593	0,09039
3897,4314	0,17469	0,18075	0,10561	0,19495	0,09019
3895,50293	0,17438	0,18056	0,10538	0,19509	0,09035
3893,57446	0,17574	0,18058	0,10742	0,19739	0,09179
3891,646	0,17639	0,18116	0,10803	0,1975	0,09194
3889,71753	0,17354	0,1806	0,10426	0,19299	0,08922
3887,78906	0,17432	0,1799	0,10621	0,19595	0,09093
3885,8606	0,17618	0,18095	0,10861	0,19801	0,09249
3883,93213	0,17293	0,18031	0,10385	0,19207	0,08887
3882,00366	0,17471	0,17912	0,10628	0,19597	0,09066
3880,0752	0,17716	0,17993	0,10818	0,19724	0,09112
3878,14673	0,17289	0,17954	0,1037	0,19193	0,08859
3876,21826	0,17388	0,17937	0,1063	0,19594	0,09136
3874,28979	0,17611	0,17985	0,10716	0,19589	0,09078
3872,36133	0,17418	0,17898	0,10548	0,19397	0,08965
3870,43286	0,17407	0,17967	0,10742	0,19649	0,09182
3868,50439	0,17276	0,1796	0,10434	0,19176	0,08859
3866,57593	0,1725	0,17851	0,1045	0,19282	0,08921
3864,64746	0,17435	0,17935	0,10712	0,19572	0,09143
3862,71899	0,17394	0,17878	0,10497	0,19243	0,08879
3860,79053	0,17255	0,17845	0,10483	0,19294	0,08964
3858,86206	0,17296	0,1791	0,10548	0,19344	0,09012
3856,93359	0,17476	0,17822	0,10637	0,19449	0,08981
3855,00513	0,17232	0,18016	0,1082	0,19718	0,0938
3853,07666	0,17094	0,18193	0,10591	0,1926	0,09077
3851,14819	0,16861	0,17768	0,10067	0,18676	0,08577
3849,21973	0,17191	0,17728	0,10401	0,19152	0,08874
3847,29126	0,17218	0,17844	0,10508	0,19278	0,09021
3845,36279	0,17325	0,17803	0,10596	0,19362	0,09026
3843,43433	0,17316	0,17816	0,10605	0,1935	0,09044
3841,50586	0,17365	0,17762	0,10554	0,19255	0,08927
3839,57739	0,17316	0,17748	0,10638	0,19371	0,09021
3837,64893	0,17025	0,17852	0,10501	0,19204	0,09029
3835,72046	0,16951	0,17754	0,10258	0,1887	0,08776
3833,79199	0,17212	0,17678	0,1048	0,19158	0,08891
3831,86353	0,17211	0,17762	0,10526	0,192	0,0897
3829,93506	0,17078	0,1772	0,10353	0,18976	0,08836
3828,00659	0,17202	0,17689	0,10562	0,19242	0,08995
3826,07813	0,1722	0,17739	0,1053	0,19138	0,08926
3824,14966	0,17146	0,17657	0,10432	0,19073	0,08875
3822,22119	0,17284	0,17731	0,1076	0,19487	0,09183
3820,29272	0,1721	0,17739	0,10456	0,18938	0,08761
3818,36426	0,16995	0,17571	0,10293	0,18871	0,08742

3816,43579	0,16979	0,1772	0,10547	0,19236	0,09113
3814,50732	0,16829	0,17722	0,10227	0,18742	0,08772
3812,57886	0,16966	0,1758	0,10297	0,18867	0,08762
3810,65039	0,17084	0,17635	0,1047	0,19073	0,08922
3808,72192	0,17103	0,17647	0,10579	0,19197	0,09025
3806,79346	0,16996	0,17701	0,10502	0,19043	0,08973
3804,86499	0,16879	0,17582	0,10217	0,1871	0,08695
3802,93652	0,17098	0,17531	0,1058	0,19216	0,08994
3801,00806	0,16959	0,17704	0,10506	0,19021	0,08964
3799,07959	0,16728	0,17535	0,10094	0,18539	0,08614
3797,15112	0,17116	0,17471	0,1051	0,19079	0,08891
3795,22266	0,17004	0,17586	0,10417	0,1889	0,08858
3793,29419	0,16874	0,1753	0,10281	0,18758	0,08764
3791,36572	0,16999	0,17545	0,10469	0,18992	0,08916
3789,43726	0,1694	0,17571	0,10389	0,18859	0,08849
3787,50879	0,16924	0,17525	0,104	0,18886	0,08865
3785,58032	0,17036	0,17512	0,10498	0,18976	0,08904
3783,65186	0,16934	0,17496	0,10355	0,18794	0,08801
3781,72339	0,16902	0,17477	0,10394	0,18875	0,08862
3779,79492	0,1704	0,17474	0,10502	0,18951	0,08874
3777,86646	0,16896	0,17469	0,1032	0,18704	0,0875
3775,93799	0,16822	0,17451	0,10308	0,18734	0,08785
3774,00952	0,16857	0,17451	0,10368	0,18798	0,08817
3772,08105	0,16903	0,17442	0,10435	0,18863	0,08867
3770,15259	0,16968	0,17441	0,1047	0,18863	0,08854
3768,22412	0,16803	0,17405	0,1027	0,18614	0,08698
3766,29565	0,16863	0,17365	0,10366	0,18753	0,08765
3764,36719	0,1686	0,17397	0,10353	0,18702	0,08756
3762,43872	0,16752	0,17365	0,10258	0,18629	0,08728
3760,51025	0,16917	0,17364	0,10454	0,18878	0,08864
3758,58179	0,1693	0,17369	0,10378	0,18704	0,0873
3756,65332	0,16793	0,17296	0,10251	0,18551	0,0865
3754,72485	0,16802	0,17319	0,10339	0,18691	0,08761
3752,79639	0,16756	0,17355	0,10408	0,18802	0,08862
3750,86792	0,16689	0,17425	0,10442	0,18787	0,08863
3748,93945	0,16348	0,17353	0,09927	0,18108	0,0843
3747,01099	0,16621	0,17178	0,10171	0,18485	0,08569
3745,08252	0,16704	0,17393	0,10571	0,18916	0,08971
3743,15405	0,16335	0,17451	0,09998	0,18097	0,08457
3741,22559	0,16598	0,1713	0,10035	0,18235	0,08346
3739,29712	0,16793	0,17201	0,10401	0,18675	0,08681
3737,36865	0,16701	0,17349	0,10441	0,18652	0,08695
3735,44019	0,16799	0,17227	0,10417	0,18515	0,08445
3733,51172	0,16712	0,17199	0,10341	0,18424	0,08417
3731,58325	0,16425	0,17263	0,10117	0,18185	0,08387
3729,65479	0,16434	0,17243	0,10143	0,18206	0,08358
3727,72632	0,16609	0,17246	0,10361	0,18471	0,08482
3725,79785	0,16637	0,17265	0,10367	0,1844	0,08468
3723,86938	0,16605	0,17203	0,10267	0,1832	0,08392
3721,94092	0,16614	0,17185	0,1028	0,18374	0,08458

3720,01245	0,16576	0,17179	0,10219	0,18311	0,08458
3718,08398	0,16553	0,17162	0,10179	0,18314	0,08495
3716,15552	0,1656	0,17141	0,10164	0,18329	0,0854
3714,22705	0,16604	0,17112	0,10248	0,18447	0,08633
3712,29858	0,16615	0,1716	0,10313	0,18496	0,08654
3710,37012	0,16502	0,17111	0,10095	0,18141	0,08369
3708,44165	0,16418	0,17031	0,10006	0,18074	0,08282
3706,51318	0,16389	0,17069	0,09977	0,18103	0,08291
3704,58472	0,16397	0,17088	0,10084	0,18196	0,08393
3702,65625	0,16545	0,171	0,10255	0,18322	0,08485
3700,72778	0,16435	0,1709	0,10072	0,18068	0,08327
3698,79932	0,16311	0,17068	0,09978	0,18022	0,08314
3696,87085	0,16418	0,17051	0,10074	0,18164	0,0838
3694,94238	0,16379	0,1704	0,10013	0,18088	0,08368
3693,01392	0,1637	0,16991	0,09996	0,18072	0,0836
3691,08545	0,16522	0,16895	0,10113	0,18206	0,08362
3689,15698	0,16256	0,16914	0,09921	0,17998	0,08322
3687,22852	0,15922	0,16907	0,09577	0,17616	0,08165
3685,30005	0,1621	0,16802	0,09709	0,1777	0,08144
3683,37158	0,16316	0,16835	0,09877	0,17996	0,08339
3681,44312	0,16309	0,16913	0,09924	0,1805	0,08425
3679,51465	0,16451	0,16845	0,09912	0,17989	0,08297
3677,58618	0,16391	0,16841	0,10034	0,18193	0,08494
3675,65771	0,16512	0,16974	0,10174	0,18277	0,08494
3673,72925	0,1616	0,16866	0,09607	0,1753	0,08055
3671,80078	0,1618	0,1681	0,09832	0,17969	0,08385
3669,87231	0,1635	0,16951	0,10057	0,18185	0,0852
3667,94385	0,16207	0,16861	0,0969	0,17627	0,08148
3666,01538	0,16239	0,1683	0,09814	0,17864	0,08326
3664,08691	0,16289	0,16916	0,09928	0,18018	0,08472
3662,15845	0,16335	0,16906	0,09904	0,17967	0,08426
3660,22998	0,16277	0,16909	0,09863	0,17931	0,08413
3658,30151	0,16343	0,16896	0,09965	0,18065	0,08489
3656,37305	0,16343	0,1692	0,09973	0,18022	0,08484
3654,44458	0,16125	0,16893	0,09706	0,17689	0,08278
3652,51611	0,16369	0,16806	0,09939	0,17996	0,08395
3650,58765	0,1655	0,16858	0,10174	0,18242	0,0854
3648,65918	0,16326	0,1685	0,09853	0,17809	0,08245
3646,73071	0,16245	0,16753	0,09706	0,17616	0,08129
3644,80225	0,16233	0,16783	0,09738	0,17699	0,08248
3642,87378	0,1621	0,16831	0,09778	0,17801	0,08336
3640,94531	0,16286	0,16845	0,09862	0,17861	0,08351
3639,01685	0,16204	0,16863	0,09794	0,17773	0,08304
3637,08838	0,16187	0,1685	0,09788	0,17791	0,08292
3635,15991	0,16229	0,16865	0,09857	0,17832	0,08313
3633,23145	0,16188	0,1685	0,09755	0,1769	0,08187
3631,30298	0,16177	0,16821	0,09834	0,17824	0,08265
3629,37451	0,16265	0,16911	0,10043	0,17988	0,08361
3627,44604	0,15977	0,16858	0,09558	0,17321	0,07927
3625,51758	0,15987	0,16745	0,09556	0,17456	0,07989

3623,58911	0,16086	0,1681	0,09731	0,17687	0,08171
3621,66064	0,1611	0,16814	0,0973	0,17685	0,08173
3619,73218	0,1621	0,16771	0,09805	0,17798	0,08247
3617,80371	0,16136	0,16765	0,09579	0,1752	0,08075
3615,87524	0,16108	0,16715	0,09535	0,17541	0,08083
3613,94678	0,16258	0,16716	0,09707	0,17768	0,08249
3612,01831	0,16144	0,16718	0,09541	0,17552	0,08146
3610,08984	0,1599	0,16721	0,09498	0,17526	0,08158
3608,16138	0,16072	0,16728	0,09583	0,17578	0,08131
3606,23291	0,16018	0,16685	0,09438	0,17393	0,07978
3604,30444	0,15956	0,16702	0,09439	0,17444	0,08049
3602,37598	0,16021	0,1672	0,09535	0,17546	0,0812
3600,44751	0,16065	0,16689	0,09499	0,17499	0,08056
3598,51904	0,15996	0,16701	0,09419	0,1744	0,08012
3596,59058	0,16007	0,16704	0,09463	0,17492	0,08059
3594,66211	0,16075	0,16699	0,09498	0,17501	0,08073
3592,73364	0,15993	0,16722	0,09394	0,17364	0,08013
3590,80518	0,15948	0,1673	0,09391	0,17406	0,08087
3588,87671	0,16088	0,16729	0,09529	0,176	0,08194
3586,94824	0,16148	0,16699	0,09472	0,17476	0,08069
3585,01978	0,15955	0,16693	0,09277	0,1725	0,08007
3583,09131	0,15949	0,16725	0,09329	0,17376	0,08119
3581,16284	0,16001	0,16743	0,09373	0,17425	0,08173
3579,23438	0,15999	0,16753	0,09343	0,17384	0,08177
3577,30591	0,15989	0,16767	0,09327	0,17385	0,08173
3575,37744	0,15984	0,16763	0,09323	0,17381	0,08173
3573,44897	0,15971	0,1677	0,0931	0,17356	0,0818
3571,52051	0,1594	0,1677	0,09274	0,17328	0,08172
3569,59204	0,16009	0,1676	0,09354	0,17441	0,08228
3567,66357	0,16197	0,16742	0,09468	0,17552	0,08211
3565,73511	0,16091	0,16716	0,09294	0,17306	0,0807
3563,80664	0,15936	0,16734	0,09201	0,17239	0,08107
3561,87817	0,15961	0,16771	0,09257	0,17335	0,08201
3559,94971	0,15974	0,16779	0,09255	0,17304	0,08203
3558,02124	0,15938	0,1679	0,09233	0,17273	0,08198
3556,09277	0,15917	0,16813	0,09216	0,17275	0,08208
3554,16431	0,1595	0,16811	0,09246	0,17311	0,08224
3552,23584	0,15986	0,16807	0,09252	0,17299	0,08198
3550,30737	0,15912	0,16818	0,09166	0,17207	0,08172
3548,37891	0,15926	0,16813	0,09203	0,17268	0,08226
3546,45044	0,16025	0,16798	0,09264	0,17305	0,08218
3544,52197	0,15974	0,16796	0,0918	0,17191	0,08153
3542,59351	0,15913	0,16814	0,09132	0,17162	0,08168
3540,66504	0,15904	0,16842	0,0913	0,17156	0,08198
3538,73657	0,15899	0,16835	0,09135	0,17161	0,08209
3536,80811	0,15929	0,16824	0,0914	0,17173	0,08204
3534,87964	0,15921	0,16836	0,09096	0,1712	0,08186
3532,95117	0,15873	0,16825	0,09068	0,17095	0,0819
3531,02271	0,15884	0,16814	0,09093	0,1713	0,08193
3529,09424	0,15929	0,16811	0,09108	0,17137	0,08173

3527,16577	0,15903	0,16793	0,09073	0,17082	0,0815
3525,2373	0,1589	0,16784	0,0906	0,17063	0,08151
3523,30884	0,15909	0,16784	0,09053	0,17065	0,08153
3521,38037	0,15851	0,16783	0,09007	0,17019	0,08137
3519,4519	0,15823	0,16783	0,08987	0,17004	0,08135
3517,52344	0,15838	0,16784	0,08984	0,17009	0,0814
3515,59497	0,15828	0,16782	0,08969	0,16979	0,08129
3513,6665	0,15812	0,16784	0,08959	0,16952	0,0812
3511,73804	0,15809	0,16766	0,08967	0,16969	0,08128
3509,80957	0,15835	0,16741	0,08969	0,16967	0,08119
3507,8811	0,15798	0,16751	0,08911	0,16896	0,08102
3505,95264	0,15771	0,16749	0,08902	0,169	0,08126
3504,02417	0,15845	0,16728	0,08949	0,16938	0,08119
3502,0957	0,15833	0,16736	0,08912	0,16872	0,0807
3500,16724	0,15765	0,16746	0,08878	0,16834	0,08088
3498,23877	0,15774	0,1675	0,08894	0,16863	0,08114
3496,3103	0,15775	0,16753	0,0888	0,16849	0,08098
3494,38184	0,15762	0,16749	0,08858	0,16819	0,081
3492,45337	0,15759	0,16753	0,08847	0,16802	0,08103
3490,5249	0,15748	0,16751	0,08854	0,168	0,0811
3488,59644	0,15759	0,16747	0,08867	0,16812	0,08121
3486,66797	0,15766	0,16751	0,0884	0,16787	0,08106
3484,7395	0,1575	0,16752	0,08824	0,16769	0,0811
3482,81104	0,15767	0,16753	0,08852	0,16791	0,0812
3480,88257	0,15771	0,16757	0,08839	0,16769	0,08106
3478,9541	0,15729	0,1676	0,08807	0,16735	0,0811
3477,02563	0,15725	0,16767	0,08821	0,1674	0,08124
3475,09717	0,15747	0,16772	0,08826	0,16724	0,08121
3473,1687	0,15734	0,16764	0,08808	0,16694	0,08113
3471,24023	0,15714	0,16758	0,08808	0,16694	0,08118
3469,31177	0,15726	0,16755	0,08817	0,16711	0,0813
3467,3833	0,1573	0,16751	0,08809	0,16693	0,0812
3465,45483	0,15705	0,16753	0,08798	0,1666	0,08101
3463,52637	0,15701	0,16746	0,08809	0,16664	0,0811
3461,5979	0,15692	0,16731	0,08801	0,16644	0,08117
3459,66943	0,15677	0,16728	0,08788	0,16631	0,0811
3457,74097	0,15684	0,16733	0,08786	0,16631	0,08116
3455,8125	0,1567	0,16729	0,08773	0,16598	0,08123
3453,88403	0,1567	0,16721	0,0878	0,16606	0,08117
3451,95557	0,15674	0,16719	0,08773	0,16598	0,08111
3450,0271	0,15655	0,16707	0,08772	0,16586	0,08122
3448,09863	0,15678	0,16697	0,08804	0,16615	0,08121
3446,17017	0,15678	0,16704	0,08784	0,16578	0,08093
3444,2417	0,15641	0,16703	0,08764	0,16558	0,08102
3442,31323	0,15648	0,16704	0,08783	0,16584	0,0812
3440,38477	0,15644	0,16715	0,08767	0,16554	0,08108
3438,4563	0,15638	0,16708	0,08768	0,16545	0,08119
3436,52783	0,15652	0,16705	0,08792	0,16566	0,08134
3434,59937	0,15647	0,1672	0,08789	0,16569	0,0813
3432,6709	0,15644	0,1673	0,08799	0,16563	0,08136



3430,74243	0,15653	0,16731	0,08807	0,16545	0,08141
3428,81396	0,15659	0,16724	0,08804	0,1655	0,08142
3426,8855	0,15657	0,16724	0,08812	0,16558	0,08146
3424,95703	0,15646	0,16742	0,08815	0,1653	0,08149
3423,02856	0,15656	0,16744	0,08832	0,16531	0,08155
3421,1001	0,15683	0,16734	0,08846	0,1656	0,08157
3419,17163	0,15681	0,16745	0,08835	0,16553	0,08155
3417,24316	0,15671	0,16751	0,08844	0,16555	0,08168
3415,3147	0,15681	0,16745	0,08857	0,16571	0,08185
3413,38623	0,15685	0,16753	0,08854	0,16569	0,08184
3411,45776	0,1569	0,1677	0,08865	0,16576	0,08186
3409,5293	0,15696	0,16773	0,0888	0,16595	0,08188
3407,60083	0,15693	0,1678	0,08889	0,16597	0,0819
3405,67236	0,15696	0,16791	0,08897	0,16592	0,082
3403,7439	0,15711	0,16792	0,08904	0,16599	0,08197
3401,81543	0,15717	0,16797	0,08913	0,1661	0,08199
3399,88696	0,15727	0,168	0,08925	0,16624	0,08209
3397,9585	0,15744	0,16794	0,08931	0,16628	0,08202
3396,03003	0,15734	0,16788	0,08926	0,16613	0,08203
3394,10156	0,15733	0,16793	0,08938	0,16638	0,08215
3392,1731	0,1576	0,16801	0,08953	0,16667	0,0822
3390,24463	0,15751	0,16796	0,0895	0,16649	0,08222
3388,31616	0,15737	0,16811	0,08965	0,16648	0,08228
3386,3877	0,15758	0,16824	0,08977	0,16658	0,08232
3384,45923	0,15778	0,16805	0,08974	0,16668	0,08225
3382,53076	0,15779	0,16813	0,08983	0,16682	0,08221
3380,60229	0,15781	0,16822	0,08988	0,16686	0,08224
3378,67383	0,15791	0,16818	0,0899	0,16702	0,0823
3376,74536	0,158	0,16837	0,09002	0,1671	0,08233
3374,81689	0,15806	0,16837	0,09017	0,1671	0,08221
3372,88843	0,158	0,16828	0,09033	0,16721	0,08225
3370,95996	0,15799	0,16843	0,0903	0,16734	0,08239
3369,03149	0,15824	0,16851	0,09037	0,16759	0,08234
3367,10303	0,15837	0,16849	0,09064	0,16776	0,08237
3365,17456	0,15834	0,16841	0,09066	0,16777	0,08236
3363,24609	0,15846	0,16836	0,09075	0,16791	0,08218
3361,31763	0,15849	0,1685	0,09094	0,16804	0,08223
3359,38916	0,15842	0,16857	0,0909	0,16808	0,08232
3357,46069	0,15862	0,16854	0,09103	0,16826	0,0823
3355,53223	0,15874	0,16857	0,09123	0,16831	0,08228
3353,60376	0,15863	0,16852	0,09123	0,16822	0,08215
3351,67529	0,15875	0,16859	0,09127	0,16841	0,08212
3349,74683	0,15885	0,16868	0,09142	0,16862	0,08224
3347,81836	0,15875	0,16851	0,09152	0,16861	0,0822
3345,88989	0,15876	0,1685	0,09149	0,16864	0,08215
3343,96143	0,1588	0,16863	0,09162	0,16877	0,08216
3342,03296	0,15873	0,16858	0,09181	0,16882	0,08206
3340,10449	0,15882	0,16853	0,09175	0,16887	0,0821
3338,17603	0,15901	0,1685	0,09178	0,16903	0,0822
3336,24756	0,15901	0,16848	0,09192	0,16905	0,08207

3334,31909	0,15897	0,16852	0,09191	0,16906	0,08201
3332,39063	0,15891	0,16844	0,09193	0,16915	0,08205
3330,46216	0,15887	0,16832	0,09205	0,16921	0,08205
3328,53369	0,15902	0,16838	0,09212	0,16929	0,08205
3326,60522	0,15902	0,1684	0,09219	0,16931	0,082
3324,67676	0,15892	0,1683	0,09229	0,16926	0,0819
3322,74829	0,15897	0,16831	0,09224	0,16934	0,08184
3320,81982	0,159	0,16829	0,09222	0,16942	0,0819
3318,89136	0,15902	0,16821	0,09233	0,16936	0,08186
3316,96289	0,15898	0,16815	0,09231	0,16935	0,08173
3315,03442	0,15896	0,16802	0,09237	0,16938	0,08171
3313,10596	0,15899	0,16795	0,09245	0,16931	0,0817
3311,17749	0,15902	0,16793	0,09242	0,16935	0,08168
3309,24902	0,1591	0,16791	0,09256	0,16941	0,08165
3307,32056	0,15907	0,16793	0,09262	0,16945	0,08157
3305,39209	0,159	0,16783	0,09256	0,16948	0,08158
3303,46362	0,15895	0,16765	0,09258	0,16936	0,08164
3301,53516	0,15886	0,16753	0,09255	0,16935	0,08153
3299,60669	0,1588	0,16746	0,09259	0,16935	0,0813
3297,67822	0,15875	0,16739	0,09261	0,1692	0,08131
3295,74976	0,15874	0,16726	0,09251	0,16924	0,08137
3293,82129	0,15881	0,1672	0,09247	0,16925	0,08118
3291,89282	0,15875	0,16712	0,09246	0,16915	0,08107
3289,96436	0,15861	0,16694	0,09249	0,16912	0,08099
3288,03589	0,15854	0,16685	0,09245	0,169	0,08094
3286,10742	0,15844	0,1668	0,09236	0,16893	0,08095
3284,17896	0,15837	0,16664	0,0924	0,16898	0,08085
3282,25049	0,15838	0,16651	0,09239	0,16892	0,08072
3280,32202	0,15828	0,16644	0,09237	0,16873	0,08061
3278,39355	0,15827	0,16634	0,09232	0,16859	0,08059
3276,46509	0,15832	0,16626	0,09225	0,16854	0,08061
3274,53662	0,15826	0,16612	0,09233	0,16848	0,08048
3272,60815	0,15829	0,16598	0,0923	0,16847	0,08034
3270,67969	0,15825	0,16594	0,09214	0,16844	0,08035
3268,75122	0,15808	0,16585	0,09212	0,16831	0,08036
3266,82275	0,15799	0,16569	0,09213	0,16822	0,08029
3264,89429	0,15799	0,16563	0,0921	0,16825	0,08012
3262,96582	0,15798	0,16553	0,09205	0,16827	0,08001
3261,03735	0,15791	0,16534	0,092	0,16811	0,08008
3259,10889	0,15778	0,16532	0,09197	0,16795	0,08001
3257,18042	0,15772	0,16537	0,09202	0,16801	0,07982
3255,25195	0,15775	0,16519	0,09206	0,16801	0,07988
3253,32349	0,15767	0,165	0,09198	0,16781	0,07987
3251,39502	0,15756	0,16498	0,09192	0,16776	0,07976
3249,46655	0,15756	0,16496	0,09187	0,16774	0,07977
3247,53809	0,15754	0,16484	0,09181	0,16766	0,07964
3245,60962	0,15748	0,16466	0,09182	0,16768	0,07954
3243,68115	0,1574	0,16462	0,09174	0,16755	0,07956
3241,75269	0,15726	0,16458	0,09168	0,16745	0,07952
3239,82422	0,15727	0,16445	0,09175	0,16753	0,0795

3237,89575	0,1573	0,16442	0,09174	0,16744	0,07936
3235,96729	0,15721	0,16432	0,09162	0,16736	0,07924
3234,03882	0,15714	0,16418	0,0916	0,16737	0,07939
3232,11035	0,15705	0,16409	0,0917	0,16732	0,07937
3230,18188	0,15693	0,16398	0,09169	0,16725	0,07913
3228,25342	0,15689	0,16388	0,09153	0,16713	0,07909
3226,32495	0,15684	0,16377	0,09147	0,16699	0,07909
3224,39648	0,15675	0,16369	0,09146	0,16688	0,07897
3222,46802	0,15675	0,16351	0,09132	0,16694	0,07891
3220,53955	0,15671	0,16332	0,09128	0,16688	0,07893
3218,61108	0,15657	0,1633	0,09132	0,16662	0,07886
3216,68262	0,15653	0,16317	0,09128	0,16663	0,07875
3214,75415	0,15649	0,16306	0,0912	0,1666	0,07869
3212,82568	0,15637	0,16295	0,09113	0,16638	0,07861
3210,89722	0,1563	0,16278	0,09114	0,16639	0,07858
3208,96875	0,15623	0,16273	0,09111	0,16639	0,07853
3207,04028	0,15611	0,16262	0,09105	0,16622	0,07843
3205,11182	0,15607	0,16253	0,09111	0,16613	0,07845
3203,18335	0,15609	0,16256	0,09114	0,16607	0,0784
3201,25488	0,15602	0,1625	0,09106	0,16599	0,07826
3199,32642	0,15594	0,16235	0,09101	0,16601	0,07818
3197,39795	0,15594	0,16217	0,091	0,16601	0,07812
3195,46948	0,15581	0,16208	0,09101	0,16591	0,07808
3193,54102	0,15571	0,16209	0,09091	0,16581	0,07804
3191,61255	0,15578	0,16201	0,09084	0,16578	0,07809
3189,68408	0,15574	0,16185	0,09084	0,16573	0,07808
3187,75562	0,15563	0,16179	0,09085	0,16567	0,0779
3185,82715	0,15563	0,16167	0,09088	0,16573	0,07785
3183,89868	0,15559	0,16154	0,09082	0,16568	0,07782
3181,97021	0,15544	0,16157	0,09075	0,16543	0,07774
3180,04175	0,15541	0,16142	0,09077	0,16541	0,07779
3178,11328	0,15545	0,16121	0,09076	0,16541	0,07772
3176,18481	0,15537	0,16114	0,09075	0,16519	0,07757
3174,25635	0,15526	0,16104	0,0907	0,16514	0,07759
3172,32788	0,15519	0,16103	0,09067	0,16517	0,07761
3170,39941	0,15515	0,16094	0,09065	0,16509	0,07758
3168,47095	0,15513	0,16075	0,09062	0,16499	0,07755
3166,54248	0,15493	0,1607	0,09062	0,16494	0,0774
3164,61401	0,15475	0,16053	0,09054	0,16484	0,07724
3162,68555	0,15475	0,16035	0,09048	0,16474	0,07727
3160,75708	0,15471	0,16033	0,09047	0,16472	0,07729
3158,82861	0,15469	0,16022	0,09043	0,1647	0,07721
3156,90015	0,15456	0,16007	0,09037	0,16461	0,07711
3154,97168	0,15439	0,15999	0,09034	0,16447	0,07705
3153,04321	0,15442	0,15992	0,09039	0,16439	0,07706
3151,11475	0,15435	0,15984	0,09033	0,16438	0,07705
3149,18628	0,15412	0,15968	0,09014	0,16436	0,07695
3147,25781	0,15411	0,15945	0,09007	0,1643	0,07683
3145,32935	0,15407	0,15938	0,0901	0,1641	0,07675
3143,40088	0,15388	0,15933	0,0901	0,16394	0,07679

3141,47241	0,15392	0,15919	0,09004	0,16403	0,0768
3139,54395	0,15398	0,15912	0,09002	0,16401	0,07671
3137,61548	0,15369	0,15904	0,08993	0,16379	0,07667
3135,68701	0,1535	0,15892	0,08984	0,16377	0,07656
3133,75854	0,15348	0,1588	0,08989	0,16378	0,07646
3131,83008	0,15336	0,15864	0,08969	0,16352	0,07639
3129,90161	0,15331	0,15852	0,08956	0,16343	0,07633
3127,97314	0,15325	0,15841	0,08964	0,16347	0,0763
3126,04468	0,15308	0,1583	0,08954	0,1633	0,0762
3124,11621	0,15304	0,15823	0,0895	0,16322	0,07621
3122,18774	0,15305	0,15815	0,08944	0,16321	0,07617
3120,25928	0,15291	0,15803	0,08929	0,16314	0,07605
3118,33081	0,15276	0,15788	0,08931	0,1631	0,07601
3116,40234	0,15269	0,15776	0,08923	0,163	0,0759
3114,47388	0,15259	0,15765	0,08911	0,16283	0,07582
3112,54541	0,15242	0,15753	0,08907	0,16267	0,07577
3110,61694	0,15228	0,1574	0,08891	0,16258	0,07566
3108,68848	0,15219	0,1572	0,0889	0,16256	0,07563
3106,76001	0,15206	0,157	0,08893	0,16244	0,07558
3104,83154	0,15194	0,1569	0,08884	0,16232	0,07556
3102,90308	0,15187	0,15679	0,08883	0,1623	0,0755
3100,97461	0,15179	0,15672	0,08877	0,16215	0,0753
3099,04614	0,15167	0,15659	0,08866	0,16194	0,07523
3097,11768	0,1516	0,15641	0,08864	0,16195	0,07526
3095,18921	0,15149	0,1564	0,08852	0,16191	0,07521
3093,26074	0,15132	0,15638	0,08841	0,16168	0,07509
3091,33228	0,15126	0,15623	0,08835	0,16163	0,07506
3089,40381	0,15117	0,15614	0,08831	0,16174	0,07504
3087,47534	0,15114	0,15611	0,08833	0,16166	0,07493
3085,54688	0,15121	0,15605	0,08826	0,1615	0,07493
3083,61841	0,15103	0,15594	0,08818	0,16145	0,07492
3081,68994	0,15084	0,1558	0,08804	0,16134	0,07475
3079,76147	0,15082	0,15565	0,08796	0,16132	0,07467
3077,83301	0,15071	0,15558	0,08798	0,16132	0,07467
3075,90454	0,15055	0,15545	0,08783	0,1611	0,07452
3073,97607	0,15046	0,15522	0,0878	0,16096	0,0744
3072,04761	0,15033	0,15515	0,08775	0,16084	0,07436
3070,11914	0,15023	0,15509	0,08758	0,16076	0,07426
3068,19067	0,1503	0,15495	0,08761	0,16085	0,07423
3066,26221	0,15025	0,15484	0,08753	0,16072	0,07417
3064,33374	0,15002	0,15465	0,08739	0,16053	0,07408
3062,40527	0,1499	0,1545	0,08739	0,1605	0,07402
3060,47681	0,14981	0,15442	0,08735	0,16039	0,07384
3058,54834	0,14976	0,15436	0,08734	0,16028	0,07377
3056,61987	0,14968	0,1543	0,08725	0,16029	0,07382
3054,69141	0,14952	0,15408	0,08705	0,16021	0,07368
3052,76294	0,14956	0,15397	0,08702	0,16011	0,07362
3050,83447	0,14959	0,15396	0,08712	0,16014	0,0737
3048,90601	0,14942	0,15378	0,08698	0,15998	0,07361
3046,97754	0,14927	0,15372	0,08678	0,15972	0,07347

3045,04907	0,14923	0,15373	0,0868	0,15972	0,07347
3043,12061	0,14918	0,15361	0,08679	0,1597	0,07341
3041,19214	0,14909	0,15344	0,08668	0,1596	0,07327
3039,26367	0,14896	0,15329	0,08672	0,1595	0,07328
3037,33521	0,14884	0,15314	0,08667	0,15938	0,07322
3035,40674	0,14881	0,15305	0,08649	0,15934	0,073
3033,47827	0,1488	0,15298	0,08649	0,15939	0,07293
3031,5498	0,14863	0,15285	0,0865	0,15923	0,07289
3029,62134	0,14845	0,15275	0,08634	0,159	0,07279
3027,69287	0,14835	0,15268	0,08636	0,15898	0,07277
3025,7644	0,1483	0,1526	0,0864	0,15894	0,07279
3023,83594	0,14832	0,1526	0,08626	0,15886	0,07281
3021,90747	0,1482	0,15246	0,08621	0,1588	0,07273
3019,979	0,14811	0,15233	0,0862	0,15869	0,07267
3018,05054	0,14819	0,15238	0,08608	0,15868	0,0728
3016,12207	0,14818	0,15225	0,08599	0,1587	0,07275
3014,1936	0,1481	0,15205	0,08598	0,15869	0,07255
3012,26514	0,14804	0,15197	0,08598	0,15861	0,07249
3010,33667	0,14787	0,15183	0,08592	0,15844	0,07246
3008,4082	0,14765	0,15169	0,08584	0,15832	0,07244
3006,47974	0,14759	0,15162	0,08578	0,15821	0,07243
3004,55127	0,14756	0,15156	0,08576	0,15814	0,07236
3002,6228	0,1474	0,15145	0,08569	0,15813	0,07228
3000,69434	0,14731	0,15132	0,08562	0,15805	0,07222
2998,76587	0,14727	0,15124	0,08563	0,158	0,07215
2996,8374	0,14719	0,15117	0,08556	0,158	0,0721
2994,90894	0,14715	0,15102	0,08549	0,15797	0,07204
2992,98047	0,14712	0,15092	0,08551	0,15788	0,07189
2991,052	0,147	0,15087	0,08548	0,15782	0,07181
2989,12354	0,1469	0,15076	0,08545	0,15779	0,07179
2987,19507	0,14684	0,15063	0,08547	0,15775	0,0717
2985,2666	0,14673	0,1505	0,08548	0,15768	0,07169
2983,33813	0,14672	0,15041	0,08556	0,15763	0,07167
2981,40967	0,14673	0,1504	0,08566	0,15777	0,07164
2979,4812	0,14664	0,15033	0,0858	0,1579	0,07167
2977,55273	0,14664	0,15019	0,08599	0,15787	0,07162
2975,62427	0,14662	0,15012	0,08616	0,15809	0,07161
2973,6958	0,14647	0,1501	0,0865	0,15856	0,07175
2971,76733	0,14641	0,14995	0,08712	0,15897	0,07195
2969,83887	0,14645	0,14981	0,0878	0,15945	0,07224
2967,9104	0,14639	0,14978	0,08839	0,15995	0,07249
2965,98193	0,14632	0,14976	0,08889	0,16028	0,07256
2964,05347	0,14639	0,14978	0,08938	0,16047	0,07262
2962,125	0,14641	0,14975	0,08985	0,1606	0,07264
2960,19653	0,14634	0,14963	0,09014	0,16063	0,07267
2958,26807	0,14638	0,14958	0,09015	0,16055	0,07263
2956,3396	0,14635	0,14954	0,09004	0,16035	0,07242
2954,41113	0,14624	0,14947	0,08987	0,16009	0,07227
2952,48267	0,14615	0,14946	0,08952	0,15977	0,07217
2950,5542	0,14604	0,14938	0,08916	0,1594	0,07201

2948,62573	0,14604	0,14919	0,08887	0,15913	0,07186
2946,69727	0,14608	0,14911	0,08859	0,15902	0,07177
2944,7688	0,146	0,14914	0,08849	0,159	0,07182
2942,84033	0,1459	0,14908	0,08861	0,159	0,07183
2940,91187	0,14585	0,149	0,08876	0,15904	0,07176
2938,9834	0,14588	0,14899	0,08884	0,15915	0,07187
2937,05493	0,14597	0,14899	0,08894	0,15926	0,07198
2935,12646	0,14599	0,14895	0,08906	0,15927	0,07195
2933,198	0,14594	0,14889	0,08904	0,1593	0,07198
2931,26953	0,14597	0,14887	0,08891	0,15934	0,072
2929,34106	0,14605	0,14883	0,08868	0,15924	0,07189
2927,4126	0,14598	0,14872	0,08841	0,15903	0,07177
2925,48413	0,14588	0,14867	0,08822	0,1588	0,07164
2923,55566	0,14578	0,14852	0,08787	0,1585	0,07135
2921,6272	0,14558	0,14831	0,08738	0,15812	0,07109
2919,69873	0,14544	0,14824	0,087	0,15782	0,07091
2917,77026	0,14534	0,14808	0,08664	0,15759	0,0707
2915,8418	0,1452	0,14788	0,08631	0,15731	0,07056
2913,91333	0,14509	0,14778	0,08606	0,15714	0,07046
2911,98486	0,145	0,14768	0,08587	0,15704	0,07031
2910,0564	0,14494	0,14758	0,08564	0,15677	0,07017
2908,12793	0,14482	0,14749	0,0854	0,15651	0,07003
2906,19946	0,14463	0,14733	0,08523	0,15627	0,06993
2904,271	0,14453	0,14715	0,08498	0,15602	0,06986
2902,34253	0,14447	0,1471	0,08468	0,1559	0,06978
2900,41406	0,14432	0,14703	0,08449	0,15578	0,06972
2898,4856	0,14419	0,1469	0,08436	0,15563	0,06961
2896,55713	0,14417	0,14686	0,08421	0,15547	0,06952
2894,62866	0,14413	0,14676	0,08399	0,15533	0,06943
2892,7002	0,14403	0,14657	0,08388	0,15522	0,06927
2890,77173	0,14403	0,14648	0,08382	0,15509	0,06917
2888,84326	0,14391	0,14642	0,08364	0,15499	0,06916
2886,91479	0,14371	0,14634	0,08358	0,15493	0,06914
2884,98633	0,14367	0,14627	0,08362	0,15487	0,06908
2883,05786	0,14363	0,14616	0,08366	0,15491	0,06906
2881,12939	0,14363	0,14607	0,0838	0,15503	0,06912
2879,20093	0,14366	0,14603	0,08393	0,15517	0,06913
2877,27246	0,14355	0,14603	0,08402	0,15514	0,06903
2875,34399	0,14351	0,14601	0,08412	0,155	0,06906
2873,41553	0,14351	0,14598	0,0842	0,15508	0,06914
2871,48706	0,1434	0,14589	0,08424	0,15519	0,06907
2869,55859	0,1433	0,14579	0,08421	0,15505	0,06902
2867,63013	0,14331	0,14573	0,08402	0,15492	0,06903
2865,70166	0,1433	0,1456	0,08387	0,15491	0,06895
2863,77319	0,14328	0,14554	0,08389	0,15476	0,06894
2861,84473	0,14324	0,14558	0,08392	0,15459	0,06889
2859,91626	0,14317	0,14553	0,08398	0,15465	0,06876
2857,98779	0,14311	0,1455	0,08406	0,15461	0,06873
2856,05933	0,1431	0,14545	0,084	0,15433	0,06865
2854,13086	0,1431	0,14531	0,08377	0,15415	0,06852

2852,20239	0,14301	0,14521	0,08344	0,15395	0,0684
2850,27393	0,1428	0,14506	0,0831	0,1536	0,06818
2848,34546	0,14263	0,1449	0,08271	0,15329	0,06804
2846,41699	0,14251	0,14479	0,08228	0,15296	0,06795
2844,48853	0,14234	0,14465	0,08197	0,15266	0,06777
2842,56006	0,14226	0,14454	0,08172	0,15258	0,06766
2840,63159	0,14228	0,14446	0,08155	0,15241	0,0676
2838,70313	0,14221	0,14436	0,08142	0,15217	0,06753
2836,77466	0,14205	0,14422	0,0812	0,15207	0,0674
2834,84619	0,14194	0,14415	0,08106	0,15195	0,06729
2832,91772	0,14183	0,14409	0,08098	0,15182	0,06727
2830,98926	0,1417	0,14395	0,08084	0,15174	0,06724
2829,06079	0,14166	0,14388	0,08069	0,15165	0,06721
2827,13232	0,14167	0,14379	0,08054	0,15158	0,06714
2825,20386	0,14162	0,14369	0,08046	0,15147	0,06704
2823,27539	0,14153	0,14366	0,08045	0,15134	0,06701
2821,34692	0,14145	0,14357	0,08041	0,1512	0,06699
2819,41846	0,14139	0,14344	0,08037	0,15111	0,06686
2817,48999	0,14137	0,14332	0,0803	0,1511	0,06679
2815,56152	0,14133	0,14322	0,08023	0,15103	0,06683
2813,63306	0,14124	0,14317	0,08018	0,15089	0,06677
2811,70459	0,14119	0,14316	0,08006	0,15082	0,06666
2809,77612	0,14121	0,14314	0,07999	0,15079	0,06666
2807,84766	0,14115	0,14303	0,08002	0,15067	0,06661
2805,91919	0,14107	0,14296	0,07995	0,1506	0,06655
2803,99072	0,14107	0,14292	0,07988	0,15063	0,06662
2802,06226	0,141	0,14283	0,07988	0,15056	0,06656
2800,13379	0,14097	0,14275	0,07981	0,15049	0,06646
2798,20532	0,14098	0,14263	0,07976	0,15046	0,06648
2796,27686	0,14091	0,14258	0,07976	0,15037	0,06643
2794,34839	0,14086	0,14258	0,07969	0,15033	0,06634
2792,41992	0,14082	0,14246	0,07962	0,15031	0,06633
2790,49146	0,14079	0,14243	0,07959	0,15025	0,06639
2788,56299	0,14079	0,14242	0,07955	0,15019	0,06639
2786,63452	0,1407	0,14232	0,07953	0,15013	0,06628
2784,70605	0,14064	0,14227	0,07946	0,1501	0,06625
2782,77759	0,14066	0,14216	0,07945	0,15	0,06627
2780,84912	0,14059	0,14205	0,07946	0,14994	0,06621
2778,92065	0,1405	0,14206	0,07938	0,14995	0,0662
2776,99219	0,14046	0,14205	0,07936	0,14994	0,06619
2775,06372	0,14048	0,14192	0,07933	0,14996	0,06614
2773,13525	0,14044	0,14181	0,07925	0,14993	0,06611
2771,20679	0,14036	0,14182	0,07925	0,14985	0,06604
2769,27832	0,14035	0,14177	0,0792	0,14985	0,06598
2767,34985	0,14034	0,1417	0,0791	0,14975	0,06603
2765,42139	0,14029	0,14174	0,07904	0,14967	0,066
2763,49292	0,14027	0,14165	0,07898	0,14969	0,06588
2761,56445	0,14018	0,14151	0,07893	0,14968	0,06587
2759,63599	0,14008	0,1415	0,07891	0,14967	0,06592
2757,70752	0,14012	0,1414	0,07887	0,1496	0,06588

2755,77905	0,14006	0,14134	0,07876	0,14952	0,06585
2753,85059	0,13996	0,14137	0,07874	0,14946	0,06584
2751,92212	0,13997	0,14128	0,07876	0,14936	0,06581
2749,99365	0,13991	0,14119	0,07868	0,14931	0,06574
2748,06519	0,13986	0,14122	0,07864	0,14926	0,06569
2746,13672	0,13984	0,14119	0,07865	0,14919	0,06573
2744,20825	0,13973	0,14107	0,07864	0,14921	0,06573
2742,27979	0,13971	0,14097	0,07863	0,14919	0,06559
2740,35132	0,13967	0,14092	0,07857	0,1491	0,06552
2738,42285	0,13958	0,14086	0,07846	0,14905	0,06555
2736,49438	0,1396	0,14078	0,07846	0,14905	0,06553
2734,56592	0,13958	0,14077	0,07843	0,14904	0,0655
2732,63745	0,13953	0,14074	0,07835	0,14891	0,06548
2730,70898	0,13951	0,14064	0,07832	0,14889	0,0654
2728,78052	0,13947	0,14061	0,07827	0,14892	0,06534
2726,85205	0,13943	0,1406	0,07821	0,14878	0,0654
2724,92358	0,13935	0,1405	0,07819	0,14877	0,06544
2722,99512	0,13928	0,14047	0,07816	0,14878	0,06536
2721,06665	0,13928	0,14042	0,07809	0,14853	0,06526
2719,13818	0,13921	0,14032	0,07803	0,1484	0,06523
2717,20972	0,1392	0,14027	0,07797	0,14838	0,06523
2715,28125	0,1392	0,14022	0,07797	0,14832	0,06521
2713,35278	0,13913	0,14015	0,07799	0,14834	0,06522
2711,42432	0,13913	0,14003	0,07789	0,14832	0,06525
2709,49585	0,13909	0,13995	0,0778	0,14819	0,06519
2707,56738	0,139	0,14001	0,0778	0,14822	0,0651
2705,63892	0,139	0,14002	0,07772	0,14827	0,06508
2703,71045	0,13909	0,14	0,07768	0,1481	0,06504
2701,78198	0,13909	0,13996	0,07764	0,14805	0,06501
2699,85352	0,13899	0,13986	0,07758	0,14813	0,06505
2697,92505	0,13895	0,13987	0,0776	0,1481	0,06509
2695,99658	0,13887	0,13988	0,07761	0,14804	0,06505
2694,06812	0,13877	0,13982	0,07759	0,14798	0,06498
2692,13965	0,13877	0,13978	0,07754	0,14797	0,06491
2690,21118	0,13872	0,13972	0,07748	0,14798	0,06489
2688,28271	0,1387	0,13969	0,07744	0,14786	0,06491
2686,35425	0,1387	0,13962	0,07741	0,14782	0,06487
2684,42578	0,13861	0,13958	0,07741	0,14781	0,06482
2682,49731	0,13856	0,13958	0,07732	0,14775	0,06483
2680,56885	0,13859	0,13953	0,07726	0,14779	0,06479
2678,64038	0,13864	0,13955	0,07725	0,14781	0,06474
2676,71191	0,13864	0,13952	0,07716	0,14774	0,0648
2674,78345	0,13859	0,13946	0,07712	0,14777	0,06481
2672,85498	0,13855	0,13955	0,07713	0,14779	0,06474
2670,92651	0,13854	0,13953	0,07711	0,14768	0,0647
2668,99805	0,13852	0,13945	0,07715	0,14767	0,0647
2667,06958	0,13848	0,13949	0,07711	0,14771	0,06468
2665,14111	0,13843	0,13946	0,077	0,14768	0,06466
2663,21265	0,13848	0,13943	0,07699	0,14771	0,06468
2661,28418	0,1385	0,13944	0,07701	0,14773	0,06467



2659,35571	0,13845	0,13938	0,07699	0,14772	0,06464
2657,42725	0,13847	0,13929	0,07695	0,14769	0,06466
2655,49878	0,13845	0,1393	0,07687	0,14759	0,0646
2653,57031	0,13836	0,13936	0,07681	0,14763	0,06455
2651,64185	0,13836	0,13931	0,0768	0,14776	0,06462
2649,71338	0,13831	0,13925	0,07676	0,14773	0,06463
2647,78491	0,13824	0,13928	0,07675	0,14767	0,06458
2645,85645	0,1383	0,1393	0,07675	0,14768	0,0646
2643,92798	0,13836	0,13929	0,07672	0,14763	0,06466
2641,99951	0,13841	0,13923	0,07667	0,14759	0,06469
2640,07104	0,13838	0,13917	0,07664	0,14756	0,06468
2638,14258	0,13822	0,13921	0,07664	0,14756	0,06461
2636,21411	0,13816	0,13919	0,07663	0,14764	0,06452
2634,28564	0,13817	0,13913	0,0766	0,14753	0,06453
2632,35718	0,13813	0,13909	0,07655	0,14744	0,06454
2630,42871	0,13808	0,13902	0,07649	0,14751	0,06453
2628,50024	0,13806	0,13898	0,07644	0,14746	0,06453
2626,57178	0,13802	0,13896	0,07637	0,14735	0,06444
2624,64331	0,13794	0,13889	0,07631	0,1473	0,06439
2622,71484	0,13793	0,13885	0,0763	0,14724	0,06446
2620,78638	0,13788	0,13883	0,07628	0,14717	0,06439
2618,85791	0,13775	0,13874	0,07623	0,14707	0,06423
2616,92944	0,13773	0,13869	0,07615	0,14706	0,06426
2615,00098	0,13774	0,13864	0,07605	0,14703	0,0643
2613,07251	0,13761	0,1385	0,07596	0,14688	0,06427
2611,14404	0,13751	0,13838	0,07593	0,14678	0,06422
2609,21558	0,13746	0,1383	0,07588	0,14671	0,06418
2607,28711	0,1374	0,13825	0,0758	0,14654	0,06414
2605,35864	0,13735	0,13823	0,07578	0,14643	0,06409
2603,43018	0,13727	0,13814	0,07573	0,14632	0,06398
2601,50171	0,1372	0,13802	0,07563	0,14617	0,06391
2599,57324	0,13711	0,13798	0,07557	0,14604	0,06384
2597,64478	0,13698	0,13794	0,07555	0,1459	0,06374
2595,71631	0,13694	0,13783	0,07547	0,14582	0,06372
2593,78784	0,13689	0,13771	0,07535	0,14573	0,06368
2591,85938	0,13678	0,13766	0,07531	0,14551	0,06359
2589,93091	0,1367	0,13764	0,07528	0,14536	0,06353
2588,00244	0,13657	0,13754	0,07516	0,14528	0,06345
2586,07397	0,13652	0,13739	0,07508	0,14512	0,0634
2584,14551	0,13653	0,1373	0,07508	0,14502	0,06339
2582,21704	0,13641	0,13722	0,07502	0,14495	0,06337
2580,28857	0,13627	0,13712	0,07495	0,14482	0,06336
2578,36011	0,13615	0,13703	0,07487	0,1447	0,06331
2576,43164	0,13604	0,13693	0,0748	0,14451	0,06323
2574,50317	0,13597	0,13687	0,07479	0,14431	0,06317
2572,57471	0,13589	0,13683	0,07471	0,14423	0,06308
2570,64624	0,13582	0,13674	0,07463	0,14414	0,06303
2568,71777	0,13575	0,13667	0,07462	0,14402	0,06301
2566,78931	0,13568	0,13654	0,07455	0,14387	0,06295
2564,86084	0,13567	0,13639	0,07448	0,1437	0,06286

2562,93237	0,13562	0,13632	0,07442	0,14364	0,06277
2561,00391	0,13552	0,13625	0,07434	0,14356	0,06277
2559,07544	0,13543	0,13615	0,07428	0,1434	0,06272
2557,14697	0,13533	0,13604	0,07422	0,14333	0,06264
2555,21851	0,1353	0,13594	0,07414	0,14324	0,06267
2553,29004	0,13529	0,13591	0,07402	0,14304	0,06266
2551,36157	0,13517	0,13584	0,074	0,14296	0,06258
2549,43311	0,13503	0,13571	0,07397	0,14298	0,06253
2547,50464	0,13504	0,1356	0,07384	0,14284	0,06247
2545,57617	0,13503	0,13555	0,07382	0,14268	0,06242
2543,64771	0,13494	0,1355	0,07381	0,14268	0,06239
2541,71924	0,13492	0,13545	0,07373	0,14262	0,06236
2539,79077	0,13487	0,13546	0,0737	0,14248	0,06234
2537,8623	0,13477	0,13543	0,07364	0,14243	0,06226
2535,93384	0,1347	0,13535	0,07358	0,14233	0,06221
2534,00537	0,13456	0,13531	0,07353	0,14223	0,06217
2532,0769	0,13451	0,13529	0,07345	0,14221	0,06208
2530,14844	0,13459	0,13524	0,07336	0,14212	0,06204
2528,21997	0,13455	0,13515	0,07332	0,14199	0,06201
2526,2915	0,13448	0,13508	0,07332	0,1419	0,06194
2524,36304	0,13448	0,1351	0,07327	0,1418	0,06195
2522,43457	0,13445	0,13506	0,07317	0,14172	0,06198
2520,5061	0,13442	0,13496	0,07313	0,14161	0,06192
2518,57764	0,13438	0,13492	0,07311	0,14153	0,06181
2516,64917	0,1343	0,13491	0,07308	0,14151	0,06176
2514,7207	0,13429	0,13486	0,073	0,14142	0,06175
2512,79224	0,13431	0,13475	0,07294	0,14129	0,06173
2510,86377	0,13423	0,13466	0,07297	0,1412	0,06175
2508,9353	0,13416	0,13459	0,07297	0,14115	0,06176
2507,00684	0,13415	0,13447	0,07294	0,14111	0,06171
2505,07837	0,13412	0,13439	0,07291	0,14105	0,06167
2503,1499	0,13405	0,13442	0,07286	0,14099	0,0617
2501,22144	0,13399	0,1344	0,07284	0,1409	0,06168
2499,29297	0,13399	0,13431	0,07281	0,14082	0,06162
2497,3645	0,134	0,13434	0,07276	0,14081	0,06164
2495,43604	0,13392	0,13439	0,07272	0,1408	0,0616
2493,50757	0,13383	0,13434	0,07268	0,1407	0,06151
2491,5791	0,13386	0,13433	0,07264	0,14063	0,06155
2489,65063	0,13383	0,1343	0,07258	0,14057	0,06155
2487,72217	0,13372	0,13426	0,07251	0,14047	0,06147
2485,7937	0,13368	0,13424	0,07248	0,14042	0,06148
2483,86523	0,13366	0,13416	0,07247	0,14037	0,06152
2481,93677	0,13362	0,13417	0,07245	0,14032	0,06152
2480,0083	0,13358	0,13418	0,07247	0,14034	0,06149
2478,07983	0,13352	0,13408	0,07246	0,14027	0,06148
2476,15137	0,13346	0,13411	0,07242	0,14017	0,06148
2474,2229	0,13341	0,13414	0,07244	0,14013	0,06145
2472,29443	0,13338	0,13405	0,07241	0,13997	0,06147
2470,36597	0,13335	0,13399	0,0723	0,13982	0,06146
2468,4375	0,13334	0,13395	0,07226	0,13982	0,06142

2466,50903	0,13335	0,13394	0,07223	0,13978	0,06138
2464,58057	0,13326	0,13392	0,0722	0,13969	0,06136
2462,6521	0,13321	0,13382	0,07222	0,13963	0,06137
2460,72363	0,13323	0,1338	0,07224	0,13957	0,06138
2458,79517	0,13312	0,13381	0,07219	0,13951	0,06138
2456,8667	0,13308	0,13376	0,07214	0,1395	0,06132
2454,93823	0,13311	0,13372	0,0721	0,13954	0,06123
2453,00977	0,13304	0,13368	0,07205	0,13952	0,0612
2451,0813	0,13299	0,1336	0,07195	0,13941	0,06122
2449,15283	0,13295	0,13355	0,07184	0,13927	0,0612
2447,22437	0,13286	0,13353	0,07186	0,13917	0,06116
2445,2959	0,13276	0,13347	0,07189	0,13907	0,06115
2443,36743	0,13276	0,1334	0,07181	0,13898	0,06112
2441,43896	0,13278	0,1333	0,07173	0,13895	0,06107
2439,5105	0,13269	0,13324	0,07168	0,1389	0,06104
2437,58203	0,13265	0,13327	0,07165	0,13881	0,06099
2435,65356	0,1327	0,13328	0,07166	0,13874	0,06101
2433,7251	0,13262	0,13323	0,07163	0,13864	0,06102
2431,79663	0,13248	0,13321	0,07157	0,13857	0,06098
2429,86816	0,13249	0,13314	0,07156	0,13858	0,061
2427,9397	0,13247	0,13307	0,07153	0,13853	0,06098
2426,01123	0,13236	0,13305	0,07148	0,13849	0,06094
2424,08276	0,13238	0,13303	0,07149	0,13844	0,06087
2422,1543	0,13242	0,13305	0,07147	0,13831	0,0608
2420,22583	0,13237	0,13306	0,07143	0,13821	0,06089
2418,29736	0,13234	0,13303	0,07147	0,13822	0,06093
2416,3689	0,13229	0,13304	0,07146	0,13824	0,06087
2414,44043	0,13222	0,13305	0,07138	0,13814	0,06088
2412,51196	0,13222	0,13303	0,07135	0,13805	0,06085
2410,5835	0,13224	0,13301	0,07135	0,13805	0,06083
2408,65503	0,13222	0,133	0,07131	0,13799	0,06087
2406,72656	0,13217	0,13299	0,07125	0,13793	0,0608
2404,7981	0,13213	0,13293	0,07127	0,13796	0,06077
2402,86963	0,1321	0,13293	0,07126	0,13792	0,06081
2400,94116	0,13203	0,13294	0,07119	0,1378	0,06075
2399,0127	0,132	0,13285	0,07123	0,13774	0,06072
2397,08423	0,13198	0,13286	0,07124	0,1377	0,06076
2395,15576	0,13195	0,13293	0,0712	0,13765	0,06073
2393,22729	0,13193	0,13286	0,07117	0,13763	0,06067
2391,29883	0,1319	0,13287	0,07114	0,13762	0,06067
2389,37036	0,13187	0,13291	0,07111	0,13761	0,06066
2387,44189	0,13185	0,13282	0,07107	0,13748	0,06058
2385,51343	0,13182	0,13279	0,07104	0,13737	0,06039
2383,58496	0,1318	0,13277	0,07101	0,13742	0,06007
2381,65649	0,13177	0,13274	0,07098	0,13747	0,05937
2379,72803	0,13175	0,13272	0,07094	0,13742	0,05846
2377,79956	0,13172	0,13269	0,07091	0,13735	0,05801
2375,87109	0,1317	0,13266	0,07088	0,13728	0,05799
2373,94263	0,13167	0,13264	0,07085	0,13721	0,05862
2372,01416	0,13165	0,13261	0,07081	0,13714	0,05957

2370,08569	0,13162	0,13259	0,07078	0,13708	0,06018
2368,15723	0,1316	0,13256	0,07075	0,13701	0,06074
2366,22876	0,13157	0,13254	0,07071	0,13694	0,06094
2364,30029	0,13155	0,13251	0,07068	0,13687	0,06079
2362,37183	0,13152	0,13248	0,07065	0,1368	0,06028
2360,44336	0,13149	0,13246	0,07062	0,13673	0,06007
2358,51489	0,13147	0,13243	0,07058	0,13666	0,05979
2356,58643	0,13144	0,13241	0,07055	0,13659	0,05916
2354,65796	0,13142	0,13238	0,07052	0,13652	0,05895
2352,72949	0,13139	0,13235	0,07049	0,13645	0,05653
2350,80103	0,13137	0,13233	0,07045	0,13638	0,05425
2348,87256	0,13134	0,1323	0,07042	0,13631	0,05474
2346,94409	0,13132	0,13228	0,07039	0,13624	0,05649
2345,01563	0,13129	0,13225	0,07036	0,13618	0,05253
2343,08716	0,13127	0,13222	0,07032	0,13611	0,05262
2341,15869	0,13124	0,1322	0,07029	0,13604	0,05692
2339,23022	0,13122	0,13217	0,07026	0,13597	0,05979
2337,30176	0,13119	0,13215	0,07023	0,1359	0,06109
2335,37329	0,13117	0,13212	0,07019	0,13583	0,0612
2333,44482	0,13114	0,13209	0,07016	0,13576	0,06141
2331,51636	0,13111	0,13207	0,07013	0,13569	0,06072
2329,58789	0,13109	0,13204	0,07009	0,13562	0,06018
2327,65942	0,13106	0,13202	0,07006	0,13555	0,06018
2325,73096	0,13104	0,13199	0,07003	0,13548	0,05994
2323,80249	0,13101	0,13196	0,07	0,13541	0,05935
2321,87402	0,13099	0,13194	0,06996	0,13534	0,05847
2319,94556	0,13096	0,13191	0,06993	0,13527	0,05817
2318,01709	0,13094	0,13189	0,0699	0,13521	0,05844
2316,08862	0,13091	0,13186	0,06987	0,13514	0,05855
2314,16016	0,13089	0,13184	0,06983	0,13507	0,05808
2312,23169	0,13086	0,13181	0,0698	0,135	0,05752
2310,30322	0,13084	0,13178	0,06977	0,13493	0,05745
2308,37476	0,13081	0,13176	0,06974	0,135	0,05764
2306,44629	0,13079	0,13173	0,0697	0,13496	0,05796
2304,51782	0,13076	0,13171	0,06967	0,13492	0,05829
2302,58936	0,13073	0,13168	0,06964	0,1349	0,05854
2300,66089	0,13071	0,13165	0,0696	0,13487	0,05874
2298,73242	0,13068	0,13153	0,06957	0,13485	0,05892
2296,80396	0,13066	0,13148	0,06954	0,13484	0,0591
2294,87549	0,13063	0,13138	0,06951	0,13477	0,05926
2292,94702	0,13061	0,13128	0,06947	0,13474	0,05939
2291,01855	0,13058	0,13128	0,06944	0,13474	0,05955
2289,09009	0,13056	0,13125	0,06941	0,13466	0,05967
2287,16162	0,13053	0,13128	0,06938	0,1346	0,05976
2285,23315	0,13051	0,13132	0,06934	0,13462	0,05996
2283,30469	0,13048	0,13114	0,06931	0,13468	0,05981
2281,37622	0,13046	0,13093	0,06928	0,13463	0,05955
2279,44775	0,13043	0,13106	0,06925	0,13454	0,05983
2277,51929	0,13041	0,13123	0,06921	0,13447	0,06
2275,59082	0,13038	0,13118	0,06918	0,13434	0,05984

2273,66235	0,13035	0,13108	0,06915	0,13423	0,05982
2271,73389	0,13033	0,13108	0,06912	0,13418	0,05984
2269,80542	0,1303	0,13109	0,06908	0,13419	0,05978
2267,87695	0,13028	0,13109	0,06905	0,13418	0,05975
2265,94849	0,13025	0,13102	0,06902	0,1341	0,0598
2264,02002	0,13023	0,13096	0,06902	0,13404	0,05988
2262,09155	0,1302	0,13098	0,06899	0,13403	0,05993
2260,16309	0,13018	0,13103	0,06894	0,13399	0,05998
2258,23462	0,13013	0,13103	0,06887	0,1339	0,05996
2256,30615	0,13007	0,13092	0,0688	0,13386	0,05993
2254,37769	0,13001	0,13086	0,0688	0,13381	0,06002
2252,44922	0,13005	0,1309	0,06878	0,13373	0,06011
2250,52075	0,13003	0,13083	0,06869	0,1337	0,06008
2248,59229	0,13001	0,13074	0,06866	0,1336	0,06007
2246,66382	0,13001	0,13074	0,06863	0,1335	0,06011
2244,73535	0,12991	0,13065	0,06859	0,13351	0,06007
2242,80688	0,12992	0,13058	0,06857	0,13349	0,06006
2240,87842	0,12991	0,13064	0,06851	0,13346	0,06008
2238,94995	0,12982	0,13064	0,06848	0,13339	0,06009
2237,02148	0,12982	0,13059	0,06849	0,13334	0,0601
2235,09302	0,12978	0,13055	0,06845	0,1333	0,06003
2233,16455	0,12976	0,13048	0,0684	0,13321	0,06004
2231,23608	0,12978	0,13041	0,06835	0,13316	0,06014
2229,30762	0,1297	0,13037	0,0683	0,13312	0,06007
2227,37915	0,12964	0,13032	0,06826	0,13306	0,06
2225,45068	0,12965	0,13031	0,06821	0,13297	0,06001
2223,52222	0,12967	0,13031	0,06813	0,1328	0,05999
2221,59375	0,12967	0,13025	0,06803	0,13279	0,05997
2219,66528	0,12963	0,13016	0,06793	0,13278	0,05995
2217,73682	0,1296	0,13014	0,06796	0,13271	0,05997
2215,80835	0,1296	0,13023	0,06803	0,13287	0,06006
2213,87988	0,12958	0,13022	0,06801	0,13288	0,06007
2211,95142	0,1295	0,13006	0,06793	0,13263	0,06001
2210,02295	0,12947	0,13003	0,06789	0,13248	0,05998
2208,09448	0,1294	0,13008	0,06786	0,13237	0,05994
2206,16602	0,1293	0,13001	0,0678	0,13235	0,05992
2204,23755	0,12927	0,12986	0,06775	0,13233	0,05989
2202,30908	0,12928	0,12977	0,06764	0,13221	0,05981
2200,38062	0,12926	0,1298	0,06755	0,13214	0,05973
2198,45215	0,1292	0,12975	0,0675	0,13205	0,05974
2196,52368	0,12911	0,12964	0,06743	0,13198	0,05974
2194,59521	0,12899	0,12961	0,0674	0,13196	0,05968
2192,66675	0,12894	0,12951	0,06737	0,13182	0,05964
2190,73828	0,12899	0,12941	0,0673	0,13171	0,05963
2188,80981	0,12899	0,1294	0,06722	0,13174	0,05967
2186,88135	0,12893	0,12935	0,06713	0,13159	0,05965
2184,95288	0,12882	0,1293	0,06712	0,13147	0,05958
2183,02441	0,12879	0,12934	0,06715	0,13153	0,05957
2181,09595	0,12879	0,12934	0,06711	0,13148	0,05958
2179,16748	0,12869	0,12924	0,06706	0,13139	0,05958

2177,23901	0,12865	0,12921	0,06703	0,13132	0,05955
2175,31055	0,12866	0,12922	0,06696	0,13114	0,05948
2173,38208	0,12862	0,12918	0,06694	0,13113	0,05948
2171,45361	0,12853	0,12912	0,06685	0,13113	0,0594
2169,52515	0,1284	0,12897	0,06671	0,13096	0,05924
2167,59668	0,12836	0,12894	0,06673	0,13092	0,05929
2165,66821	0,12839	0,12904	0,06674	0,13092	0,05932
2163,73975	0,12835	0,12894	0,06671	0,1308	0,05926
2161,81128	0,12832	0,12882	0,0667	0,13081	0,05927
2159,88281	0,12833	0,12882	0,06661	0,13081	0,05925
2157,95435	0,12829	0,12874	0,06653	0,13068	0,05924
2156,02588	0,12828	0,12868	0,06652	0,13063	0,05921
2154,09741	0,12829	0,12867	0,06646	0,13064	0,05912
2152,16895	0,12822	0,1286	0,06637	0,13057	0,05908
2150,24048	0,1282	0,12851	0,06631	0,13045	0,05904
2148,31201	0,12818	0,12841	0,0663	0,1304	0,05895
2146,38354	0,12806	0,12833	0,0662	0,13038	0,05889
2144,45508	0,12801	0,12835	0,06611	0,13025	0,05882
2142,52661	0,12803	0,1284	0,06604	0,13017	0,05877
2140,59814	0,12807	0,12838	0,06589	0,13011	0,05877
2138,66968	0,12806	0,12835	0,06583	0,12995	0,05874
2136,74121	0,128	0,12837	0,06581	0,12988	0,05866
2134,81274	0,12795	0,12828	0,06567	0,12974	0,05863
2132,88428	0,1279	0,12815	0,06563	0,12966	0,0586
2130,95581	0,12784	0,12818	0,06561	0,12977	0,05857
2129,02734	0,12779	0,12818	0,06549	0,12973	0,05856
2127,09888	0,1278	0,12808	0,06543	0,12961	0,0585
2125,17041	0,12774	0,12798	0,06537	0,12956	0,05844
2123,24194	0,12765	0,1279	0,06528	0,12944	0,05847
2121,31348	0,12761	0,12784	0,06522	0,1293	0,0585
2119,38501	0,12749	0,12773	0,06519	0,12925	0,05843
2117,45654	0,12743	0,1277	0,06517	0,12924	0,05835
2115,52808	0,12751	0,12773	0,06507	0,12923	0,05834
2113,59961	0,12751	0,12768	0,06499	0,12917	0,05832
2111,67114	0,12753	0,12768	0,06498	0,12903	0,05826
2109,74268	0,12753	0,12767	0,06497	0,12903	0,05822
2107,81421	0,1274	0,12759	0,06491	0,129	0,05818
2105,88574	0,12737	0,12749	0,06478	0,12884	0,05814
2103,95728	0,12731	0,1274	0,06466	0,12874	0,05807
2102,02881	0,12715	0,12727	0,06457	0,12863	0,05794
2100,10034	0,12709	0,12714	0,06441	0,12852	0,05788
2098,17188	0,12701	0,12712	0,06432	0,12852	0,05784
2096,24341	0,12695	0,1271	0,06425	0,1284	0,05774
2094,31494	0,127	0,12695	0,06412	0,12819	0,05762
2092,38647	0,12697	0,12681	0,06403	0,1282	0,05753
2090,45801	0,12693	0,12671	0,06391	0,12819	0,05747
2088,52954	0,12679	0,12656	0,06379	0,12801	0,05745
2086,60107	0,12669	0,12642	0,06376	0,12794	0,05745
2084,67261	0,12678	0,12632	0,06365	0,12788	0,05732
2082,74414	0,12675	0,12624	0,06349	0,12773	0,05718

2080,81567	0,1267	0,12618	0,06346	0,12772	0,05717
2078,88721	0,12672	0,12615	0,06348	0,12768	0,0571
2076,95874	0,1267	0,12616	0,06348	0,12758	0,05702
2075,03027	0,12668	0,12612	0,0634	0,12754	0,05705
2073,10181	0,12666	0,12608	0,06326	0,12744	0,05703
2071,17334	0,12664	0,12609	0,06323	0,12732	0,05702
2069,24487	0,12653	0,12607	0,06321	0,12732	0,0571
2067,31641	0,12655	0,12602	0,06322	0,12743	0,05716
2065,38794	0,12674	0,126	0,06322	0,12743	0,05712
2063,45947	0,12658	0,12601	0,06311	0,12722	0,05703
2061,53101	0,12643	0,12604	0,06311	0,12714	0,05708
2059,60254	0,12657	0,12605	0,06311	0,12717	0,0572
2057,67407	0,12651	0,126	0,06305	0,12718	0,05721
2055,74561	0,12646	0,12597	0,06302	0,12719	0,05722
2053,81714	0,12649	0,12594	0,06301	0,12708	0,05728
2051,88867	0,12644	0,12598	0,06305	0,12699	0,05728
2049,96021	0,12655	0,12607	0,06299	0,127	0,05728
2048,03174	0,12673	0,12602	0,06292	0,12698	0,05736
2046,10327	0,1267	0,12604	0,06296	0,12692	0,05737
2044,1748	0,12669	0,12619	0,06296	0,12689	0,05736
2042,24634	0,12692	0,12616	0,06301	0,12693	0,05739
2040,31787	0,127	0,12621	0,06298	0,12683	0,05738
2038,3894	0,12699	0,12632	0,06281	0,12667	0,05741
2036,46094	0,12705	0,12622	0,06277	0,12656	0,05744
2034,53247	0,12709	0,1262	0,06277	0,12649	0,05736
2032,604	0,12713	0,12623	0,06264	0,12647	0,05728
2030,67554	0,12712	0,12618	0,06255	0,12636	0,05725
2028,74707	0,12716	0,12611	0,06251	0,12625	0,05714
2026,8186	0,12721	0,126	0,06238	0,12619	0,05704
2024,89014	0,12721	0,1259	0,06228	0,12609	0,05702
2022,96167	0,12722	0,12586	0,0623	0,12601	0,05696
2021,0332	0,12709	0,12586	0,06226	0,12599	0,05695
2019,10474	0,12718	0,12587	0,06236	0,12613	0,05698
2017,17627	0,12749	0,12582	0,06242	0,12612	0,0569
2015,2478	0,12736	0,12585	0,06221	0,12582	0,0569
2013,31934	0,12729	0,126	0,06217	0,12585	0,05701
2011,39087	0,12745	0,12604	0,06221	0,12591	0,05711
2009,4624	0,12747	0,126	0,06216	0,12574	0,05719
2007,53394	0,12759	0,12597	0,06219	0,12574	0,05715
2005,60547	0,12764	0,12595	0,06219	0,12576	0,05713
2003,677	0,12763	0,12596	0,06211	0,12567	0,05713
2001,74854	0,12753	0,12605	0,062	0,12553	0,05706
1999,82007	0,1275	0,12606	0,06204	0,12554	0,05713
1997,8916	0,12757	0,12596	0,06197	0,12542	0,05714
1995,96313	0,12733	0,12594	0,06172	0,12523	0,0571
1994,03467	0,12754	0,12592	0,06193	0,12557	0,05727
1992,1062	0,12793	0,12587	0,06204	0,12558	0,05714
1990,17773	0,12753	0,12588	0,06173	0,12515	0,05691
1988,24927	0,12737	0,12582	0,0618	0,12528	0,05701
1986,3208	0,12738	0,12579	0,06176	0,12527	0,057

1984,39233	0,12726	0,12584	0,06162	0,12511	0,05702
1982,46387	0,12728	0,12581	0,06168	0,12515	0,05714
1980,5354	0,12716	0,12574	0,06162	0,12508	0,05718
1978,60693	0,12723	0,12576	0,06157	0,12501	0,05713
1976,67847	0,1273	0,1258	0,06154	0,12492	0,05704
1974,75	0,12725	0,12575	0,0616	0,12494	0,05706
1972,82153	0,1273	0,12572	0,06162	0,12495	0,05701
1970,89307	0,1271	0,12569	0,06145	0,12479	0,05695
1968,9646	0,12714	0,12558	0,06165	0,12492	0,05703
1967,03613	0,12734	0,12547	0,06179	0,12494	0,05688
1965,10767	0,12686	0,12547	0,06136	0,12452	0,05679
1963,1792	0,12662	0,12553	0,06128	0,12449	0,05691
1961,25073	0,12673	0,12549	0,06138	0,12459	0,05682
1959,32227	0,12659	0,12542	0,06116	0,1244	0,0568
1957,3938	0,12657	0,12537	0,06114	0,12431	0,05688
1955,46533	0,12665	0,12522	0,06119	0,12427	0,0567
1953,53687	0,12666	0,12516	0,061	0,12418	0,0566
1951,6084	0,12653	0,12516	0,06084	0,12402	0,05663
1949,67993	0,1265	0,12504	0,06092	0,12406	0,05661
1947,75146	0,12649	0,12496	0,06085	0,12401	0,05653
1945,823	0,12633	0,12486	0,06075	0,12381	0,05655
1943,89453	0,12689	0,12461	0,06121	0,12422	0,05661
1941,96606	0,12702	0,12451	0,06111	0,12401	0,05632
1940,0376	0,12619	0,12464	0,0605	0,12336	0,05633
1938,10913	0,12619	0,12468	0,0606	0,12361	0,05665
1936,18066	0,12631	0,12466	0,06058	0,12363	0,05664
1934,2522	0,12617	0,12461	0,06045	0,12347	0,05652
1932,32373	0,12607	0,12451	0,06045	0,12339	0,05638
1930,39526	0,12603	0,12449	0,06044	0,12342	0,05641
1928,4668	0,12605	0,12451	0,06032	0,12331	0,05636
1926,53833	0,12575	0,12449	0,06016	0,12307	0,05635
1924,60986	0,12628	0,12438	0,06054	0,12351	0,05649
1922,6814	0,12663	0,12417	0,06041	0,12335	0,05592
1920,75293	0,12599	0,1241	0,06013	0,12311	0,05595
1918,82446	0,12635	0,12407	0,06052	0,12347	0,05636
1916,896	0,12636	0,12391	0,05992	0,1227	0,05568
1914,96753	0,12579	0,12385	0,05951	0,12246	0,05567
1913,03906	0,12612	0,12387	0,0599	0,12296	0,05604
1911,1106	0,12656	0,12377	0,0599	0,12296	0,05577
1909,18213	0,1267	0,1236	0,0598	0,12284	0,05558
1907,25366	0,1265	0,12351	0,05958	0,12256	0,05554
1905,3252	0,12636	0,12351	0,05941	0,12253	0,05558
1903,39673	0,12645	0,12351	0,05942	0,12261	0,05561
1901,46826	0,12658	0,12341	0,05942	0,12257	0,05553
1899,53979	0,12657	0,12333	0,05922	0,12248	0,05543
1897,61133	0,12672	0,1232	0,0592	0,12259	0,05554
1895,68286	0,12732	0,12298	0,05939	0,12271	0,05545
1893,75439	0,12681	0,12304	0,05885	0,12212	0,05511
1891,82593	0,12671	0,12306	0,05891	0,12243	0,05541
1889,89746	0,12774	0,1228	0,05937	0,12279	0,0553



1887,96899	0,12701	0,12274	0,05867	0,12189	0,0548
1886,04053	0,12667	0,12292	0,05863	0,1221	0,05513
1884,11206	0,12719	0,12297	0,0588	0,12222	0,05511
1882,18359	0,12689	0,12287	0,05847	0,12183	0,05497
1880,25513	0,12695	0,12282	0,05857	0,12204	0,05518
1878,32666	0,12704	0,12284	0,05853	0,12192	0,05511
1876,39819	0,12692	0,12283	0,05846	0,12187	0,05517
1874,46973	0,12699	0,1228	0,05841	0,12177	0,05514
1872,54126	0,12688	0,12277	0,05839	0,12174	0,05518
1870,61279	0,12748	0,12269	0,05908	0,12256	0,0556
1868,68433	0,12848	0,12242	0,05935	0,12259	0,05501
1866,75586	0,12741	0,1224	0,05837	0,12147	0,05446
1864,82739	0,12672	0,12272	0,05836	0,12163	0,05513
1862,89893	0,1268	0,12295	0,05847	0,12157	0,05537
1860,97046	0,12672	0,123	0,05844	0,12144	0,05529
1859,04199	0,12652	0,12296	0,05854	0,1215	0,05531
1857,11353	0,12628	0,12288	0,05845	0,12134	0,05526
1855,18506	0,12608	0,12296	0,05845	0,12135	0,05542
1853,25659	0,12594	0,12294	0,05842	0,12127	0,05541
1851,32813	0,12589	0,12292	0,05847	0,12139	0,05551
1849,39966	0,12604	0,12278	0,05838	0,1212	0,05523
1847,47119	0,12626	0,12236	0,05851	0,1214	0,05519
1845,54272	0,12623	0,12246	0,05905	0,12201	0,05574
1843,61426	0,12575	0,12245	0,05822	0,12065	0,05459
1841,68579	0,12507	0,12222	0,05746	0,12008	0,05429
1839,75732	0,12524	0,12237	0,05815	0,12109	0,05517
1837,82886	0,12522	0,12239	0,05827	0,12115	0,05518
1835,90039	0,12531	0,12227	0,05809	0,12095	0,05488
1833,97192	0,12474	0,12243	0,05777	0,12058	0,05485
1832,04346	0,12542	0,12229	0,05846	0,12141	0,05536
1830,11499	0,12661	0,12184	0,05878	0,12157	0,0549
1828,18652	0,12509	0,12188	0,0575	0,12015	0,05426
1826,25806	0,12524	0,12201	0,05813	0,12105	0,05504
1824,32959	0,12577	0,12189	0,0583	0,1208	0,05467
1822,40112	0,12459	0,12204	0,05745	0,1199	0,05441
1820,47266	0,12465	0,12219	0,05775	0,1205	0,05503
1818,54419	0,12517	0,12202	0,05785	0,12041	0,05482
1816,61572	0,12494	0,12201	0,05756	0,11999	0,0546
1814,68726	0,12467	0,12208	0,0574	0,11992	0,05472
1812,75879	0,1252	0,1219	0,05775	0,12039	0,05481
1810,83032	0,12577	0,12168	0,05776	0,12042	0,05451
1808,90186	0,12526	0,12161	0,05716	0,1199	0,05426
1806,97339	0,1249	0,1216	0,05707	0,11997	0,05443
1805,04492	0,12483	0,12152	0,05698	0,11982	0,05436
1803,11646	0,12521	0,12121	0,05719	0,12001	0,05421
1801,18799	0,12583	0,12061	0,05736	0,12025	0,05367
1799,25952	0,12502	0,12054	0,0566	0,11947	0,05311
1797,33105	0,12482	0,12061	0,05635	0,11932	0,05308
1795,40259	0,12518	0,12038	0,05669	0,11989	0,05349
1793,47412	0,1249	0,12048	0,05694	0,12022	0,05392

1791,54565	0,12557	0,12032	0,05668	0,11925	0,05265
1789,61719	0,12462	0,12041	0,05586	0,11826	0,05256
1787,68872	0,12436	0,12083	0,05652	0,11941	0,05394
1785,76025	0,12484	0,12087	0,05676	0,11959	0,05387
1783,83179	0,12432	0,12074	0,05613	0,11884	0,05341
1781,90332	0,12482	0,12049	0,05645	0,11929	0,05363
1779,97485	0,12522	0,12028	0,0566	0,11934	0,05349
1778,04639	0,12424	0,1204	0,05583	0,1186	0,05313
1776,11792	0,12488	0,1201	0,05615	0,11926	0,05329
1774,18945	0,12462	0,12031	0,05675	0,12007	0,05422
1772,26099	0,12416	0,12021	0,05594	0,1185	0,05288
1770,33252	0,12413	0,11952	0,05521	0,11765	0,05198
1768,40405	0,12439	0,11978	0,05614	0,11898	0,05306
1766,47559	0,12313	0,11997	0,05504	0,11756	0,05234
1764,54712	0,1236	0,11968	0,05566	0,11865	0,05299
1762,61865	0,12413	0,11985	0,0566	0,11965	0,05363
1760,69019	0,12319	0,11962	0,05494	0,11727	0,0518
1758,76172	0,12343	0,1195	0,05561	0,1186	0,0527
1756,83325	0,12371	0,11961	0,05602	0,11899	0,05273
1754,90479	0,12291	0,11945	0,05486	0,1175	0,05181
1752,97632	0,12277	0,11968	0,05577	0,11893	0,05331
1751,04785	0,12378	0,11963	0,05649	0,11935	0,05296
1749,11938	0,12457	0,11882	0,05572	0,11829	0,05129
1747,19092	0,1245	0,11889	0,05613	0,11927	0,05224
1745,26245	0,12363	0,11937	0,05605	0,11914	0,05255
1743,33398	0,12402	0,11902	0,05606	0,11923	0,0522
1741,40552	0,12366	0,11926	0,05652	0,12028	0,0532
1739,47705	0,1227	0,11955	0,05537	0,11851	0,05208
1737,54858	0,12334	0,11895	0,05522	0,11851	0,05184
1735,62012	0,12264	0,11961	0,05658	0,12076	0,05433
1733,69165	0,12215	0,11986	0,05546	0,11838	0,05186
1731,76318	0,12175	0,11884	0,05373	0,11668	0,05063
1729,83472	0,12449	0,11876	0,05624	0,11988	0,0525
1727,90625	0,12218	0,11945	0,05474	0,11793	0,05191
1725,97778	0,12268	0,11925	0,05505	0,11856	0,05225
1724,04932	0,12314	0,11938	0,05547	0,1191	0,05268
1722,12085	0,12245	0,11926	0,05445	0,11798	0,05181
1720,19238	0,1236	0,11902	0,05572	0,11965	0,05292
1718,26392	0,12342	0,11932	0,05616	0,12004	0,05308
1716,33545	0,12173	0,11922	0,05391	0,11692	0,05077
1714,40698	0,12332	0,11886	0,0544	0,11749	0,05096
1712,47852	0,12342	0,11941	0,05476	0,11837	0,05204
1710,55005	0,12265	0,11967	0,05407	0,11771	0,05186
1708,62158	0,12396	0,11916	0,05495	0,11873	0,05239
1706,69312	0,12435	0,1193	0,05549	0,11919	0,05285
1704,76465	0,12459	0,11884	0,05413	0,11698	0,05075
1702,83618	0,12427	0,11905	0,0551	0,11879	0,05274
1700,90771	0,12445	0,12006	0,05648	0,11957	0,05337
1698,97925	0,122	0,11864	0,0518	0,11351	0,04876
1697,05078	0,12243	0,11862	0,05355	0,11737	0,05179

1695,12231	0,12179	0,12	0,05343	0,11633	0,05152
1693,19385	0,12245	0,11937	0,05245	0,11503	0,05026
1691,26538	0,12427	0,11953	0,05493	0,11865	0,05301
1689,33691	0,1244	0,11977	0,05418	0,11694	0,05162
1687,40845	0,12493	0,1192	0,05444	0,11762	0,0518
1685,47998	0,12262	0,1204	0,0553	0,11938	0,05428
1683,55151	0,12427	0,11965	0,05389	0,11561	0,04977
1681,62305	0,12476	0,11911	0,05347	0,11578	0,05023
1679,69458	0,12436	0,11971	0,05391	0,11712	0,05186
1677,76611	0,12386	0,12001	0,05374	0,11715	0,05217
1675,83765	0,12413	0,12032	0,05432	0,1175	0,05244
1673,90918	0,12318	0,12018	0,05283	0,11512	0,05081
1671,98071	0,1242	0,11983	0,05368	0,1167	0,05171
1670,05225	0,12551	0,12017	0,05527	0,11851	0,05269
1668,12378	0,12363	0,12045	0,05268	0,11478	0,05042
1666,19531	0,12355	0,1206	0,05309	0,11624	0,05174
1664,26685	0,12354	0,1212	0,05405	0,11774	0,05334
1662,33838	0,12423	0,12092	0,0532	0,1162	0,05177
1660,40991	0,12354	0,12115	0,05294	0,11619	0,05228
1658,48145	0,12259	0,12174	0,05278	0,11613	0,05287
1656,55298	0,12528	0,12088	0,0539	0,11735	0,05284
1654,62451	0,12431	0,12137	0,05545	0,11979	0,05531
1652,69604	0,12326	0,1224	0,05431	0,11659	0,0514
1650,76758	0,12018	0,12147	0,04948	0,11176	0,05028
1648,83911	0,12691	0,12044	0,05474	0,11849	0,05364
1646,91064	0,12615	0,12108	0,05485	0,11848	0,05343
1644,98218	0,12191	0,12146	0,05043	0,11311	0,05113
1643,05371	0,12423	0,12144	0,0524	0,11609	0,05313
1641,12524	0,12372	0,12201	0,05202	0,11579	0,05351
1639,19678	0,12473	0,12147	0,05213	0,11598	0,05304
1637,26831	0,12513	0,12135	0,05313	0,11746	0,0542
1635,33984	0,12492	0,12146	0,05213	0,11537	0,05225
1633,41138	0,12283	0,12129	0,04961	0,11254	0,05082
1631,48291	0,12398	0,12115	0,05109	0,115	0,0525
1629,55444	0,124	0,12118	0,0513	0,11534	0,05294
1627,62598	0,1244	0,12077	0,05062	0,11426	0,05166
1625,69751	0,12392	0,12077	0,05056	0,11463	0,0521
1623,76904	0,12429	0,12065	0,05094	0,1151	0,05211
1621,84058	0,12353	0,1203	0,04953	0,11281	0,05033
1619,91211	0,1239	0,12007	0,05017	0,11408	0,05132
1617,98364	0,12254	0,12052	0,05053	0,11512	0,05299
1616,05518	0,12141	0,12053	0,04894	0,11224	0,05096
1614,12671	0,12312	0,1202	0,04961	0,11306	0,05101
1612,19824	0,12424	0,12048	0,05111	0,11519	0,05265
1610,26978	0,12391	0,12057	0,05104	0,11489	0,05259
1608,34131	0,12474	0,12015	0,05136	0,11509	0,05226
1606,41284	0,12422	0,12024	0,05126	0,11496	0,05253
1604,48438	0,12408	0,12029	0,05123	0,11486	0,05259
1602,55591	0,1245	0,12012	0,05151	0,1153	0,05256
1600,62744	0,12412	0,11998	0,05146	0,11504	0,05246

1598,69897	0,12389	0,12001	0,05159	0,11493	0,05264
1596,77051	0,12415	0,11994	0,05177	0,1152	0,05272
1594,84204	0,12434	0,11967	0,0519	0,11523	0,05256
1592,91357	0,12387	0,11961	0,0518	0,11512	0,05263
1590,98511	0,12373	0,11944	0,05169	0,11505	0,05259
1589,05664	0,12384	0,11938	0,05187	0,1151	0,05257
1587,12817	0,12317	0,11962	0,05167	0,11493	0,05257
1585,19971	0,12338	0,11947	0,05172	0,11496	0,05246
1583,27124	0,12326	0,11946	0,05188	0,11515	0,05278
1581,34277	0,12288	0,11937	0,05139	0,11466	0,05237
1579,41431	0,12418	0,11891	0,052	0,11549	0,0525
1577,48584	0,12258	0,11942	0,05238	0,11629	0,05396
1575,55737	0,12107	0,11931	0,05053	0,11322	0,05152
1573,62891	0,12228	0,11876	0,05039	0,11318	0,05097
1571,70044	0,12385	0,11908	0,05292	0,11659	0,05353
1569,77197	0,12409	0,11882	0,05275	0,11563	0,05223
1567,84351	0,12307	0,11847	0,05116	0,11386	0,05118
1565,91504	0,12319	0,11902	0,05232	0,11563	0,05303
1563,98657	0,12335	0,11881	0,05167	0,11437	0,05195
1562,05811	0,12317	0,11881	0,05236	0,11578	0,05308
1560,12964	0,12391	0,11979	0,05544	0,11946	0,05509
1558,20117	0,12401	0,11866	0,05223	0,11297	0,04887
1556,27271	0,12222	0,11859	0,05069	0,11291	0,05076
1554,34424	0,12238	0,11935	0,05188	0,1147	0,05254
1552,41577	0,12178	0,11942	0,05107	0,11368	0,05201
1550,4873	0,1246	0,11881	0,05273	0,11581	0,05248
1548,55884	0,12347	0,11922	0,05201	0,11492	0,05233
1546,63037	0,12263	0,1196	0,05193	0,11505	0,05298
1544,7019	0,12508	0,11926	0,05327	0,11648	0,05298
1542,77344	0,1245	0,11921	0,0526	0,11548	0,05241
1540,84497	0,12325	0,11972	0,05332	0,11642	0,05346
1538,9165	0,12195	0,11946	0,05075	0,11254	0,05027
1536,98804	0,1221	0,11955	0,05019	0,11271	0,05115
1535,05957	0,12456	0,11986	0,05296	0,11626	0,05365
1533,1311	0,12571	0,1195	0,05276	0,1154	0,05215
1531,20264	0,12353	0,11969	0,05059	0,11336	0,05152
1529,27417	0,12442	0,12002	0,05217	0,11562	0,05329
1527,3457	0,12528	0,11973	0,05269	0,11553	0,0527
1525,41724	0,12426	0,11952	0,05124	0,11382	0,05176
1523,48877	0,12483	0,11975	0,05236	0,11553	0,05316
1521,5603	0,12414	0,11976	0,05202	0,11446	0,05206
1519,63184	0,12233	0,11956	0,04984	0,11216	0,05097
1517,70337	0,12568	0,11914	0,05198	0,11497	0,05201
1515,7749	0,12531	0,11885	0,05134	0,11392	0,05117
1513,84644	0,12345	0,11917	0,05051	0,11349	0,05162
1511,91797	0,12337	0,11949	0,05067	0,11387	0,05208
1509,9895	0,12536	0,11869	0,05148	0,11433	0,05162
1508,06104	0,12587	0,11867	0,05332	0,11642	0,05309
1506,13257	0,12373	0,11878	0,05132	0,1131	0,05021
1504,2041	0,12022	0,11904	0,04763	0,10988	0,04966

1502,27563	0,12322	0,11927	0,05043	0,11374	0,05201
1500,34717	0,12291	0,11946	0,05036	0,11353	0,0521
1498,4187	0,1233	0,11902	0,05048	0,11355	0,05195
1496,49023	0,1217	0,11929	0,04959	0,11239	0,05166
1494,56177	0,12054	0,11945	0,04835	0,11089	0,05074
1492,6333	0,12275	0,11932	0,05018	0,11323	0,05185
1490,70483	0,12404	0,11895	0,05114	0,11412	0,0518
1488,77637	0,12437	0,11831	0,05054	0,11296	0,05037
1486,8479	0,12283	0,11857	0,04975	0,11231	0,0506
1484,91943	0,12142	0,11898	0,04937	0,11216	0,05102
1482,99097	0,12216	0,11887	0,04989	0,11255	0,05113
1481,0625	0,12243	0,11856	0,04985	0,11229	0,05083
1479,13403	0,12167	0,11868	0,04956	0,11213	0,05084
1477,20557	0,1228	0,11842	0,05033	0,11285	0,05079
1475,2771	0,12312	0,11801	0,05057	0,11304	0,05074
1473,34863	0,12196	0,1181	0,05027	0,11282	0,05081
1471,42017	0,12175	0,1177	0,04985	0,11169	0,04942
1469,4917	0,12125	0,11793	0,05012	0,11222	0,05001
1467,56323	0,12111	0,11842	0,05141	0,114	0,05154
1465,63477	0,12239	0,1179	0,05229	0,11426	0,051
1463,7063	0,12109	0,11791	0,05088	0,1124	0,04985
1461,77783	0,12059	0,11814	0,05081	0,11277	0,05004
1459,84937	0,12284	0,11761	0,05287	0,1149	0,05099
1457,9209	0,1229	0,11756	0,05363	0,11512	0,05072
1455,99243	0,1189	0,11782	0,04952	0,10976	0,04788
1454,06396	0,12102	0,11738	0,05055	0,11157	0,04863
1452,1355	0,12126	0,11771	0,0509	0,11238	0,04954
1450,20703	0,12023	0,11783	0,05003	0,11167	0,04939
1448,27856	0,12138	0,11721	0,05046	0,11189	0,04912
1446,3501	0,12033	0,11715	0,04925	0,1105	0,04843
1444,42163	0,1199	0,11734	0,04918	0,11073	0,04878
1442,49316	0,11977	0,11741	0,04927	0,11052	0,04891
1440,5647	0,11967	0,11724	0,04875	0,11001	0,04857
1438,63623	0,11964	0,11733	0,04924	0,11091	0,0494
1436,70776	0,12027	0,11693	0,04939	0,11005	0,04826
1434,7793	0,11923	0,11656	0,04781	0,1081	0,04705
1432,85083	0,11998	0,11666	0,04882	0,10996	0,04846
1430,92236	0,12029	0,11676	0,04924	0,11022	0,04867
1428,9939	0,11992	0,11663	0,04832	0,10877	0,04757
1427,06543	0,11907	0,11682	0,04806	0,10894	0,04822
1425,13696	0,11965	0,1166	0,04837	0,10927	0,04824
1423,2085	0,12013	0,11618	0,04804	0,10866	0,04743
1421,28003	0,11865	0,11661	0,04782	0,10883	0,04837
1419,35156	0,11935	0,11636	0,04802	0,10883	0,0479
1417,4231	0,11996	0,11572	0,04708	0,1076	0,04655
1415,49463	0,11936	0,11611	0,04723	0,10832	0,04763
1413,56616	0,1183	0,11644	0,04711	0,10823	0,04804
1411,6377	0,11863	0,1162	0,04722	0,10818	0,04773
1409,70923	0,11822	0,11632	0,0469	0,10797	0,04772
1407,78076	0,11785	0,1164	0,04667	0,10806	0,04781

1405,85229	0,11898	0,11611	0,04734	0,10869	0,04781
1403,92383	0,1188	0,11614	0,04679	0,10774	0,04734
1401,99536	0,11814	0,11639	0,04673	0,10812	0,04794
1400,06689	0,1188	0,11631	0,04754	0,10883	0,04806
1398,13843	0,1191	0,11604	0,04737	0,10813	0,04733
1396,20996	0,11903	0,11592	0,04753	0,10876	0,04801
1394,28149	0,11911	0,11595	0,04743	0,1086	0,04796
1392,35303	0,11811	0,11628	0,04662	0,10757	0,04757
1390,42456	0,11819	0,11633	0,04738	0,10886	0,04833
1388,49609	0,11849	0,11631	0,04769	0,10937	0,0484
1386,56763	0,11803	0,11602	0,04662	0,10824	0,0473
1384,63916	0,11728	0,11565	0,04607	0,10789	0,04697
1382,71069	0,11734	0,11609	0,04659	0,10851	0,04771
1380,78223	0,11811	0,11676	0,04753	0,10934	0,04841
1378,85376	0,11827	0,11699	0,04775	0,10922	0,04861
1376,92529	0,11841	0,11713	0,04771	0,10901	0,04887
1374,99683	0,11965	0,11678	0,04803	0,10944	0,04863
1373,06836	0,11937	0,1167	0,04728	0,10855	0,04806
1371,13989	0,11844	0,11722	0,04675	0,10818	0,04843
1369,21143	0,11905	0,1171	0,0472	0,10874	0,04858
1367,28296	0,11869	0,11701	0,04681	0,10819	0,04822
1365,35449	0,11846	0,11709	0,04674	0,10837	0,04849
1363,42603	0,11991	0,11646	0,04739	0,10893	0,04838
1361,49756	0,11952	0,11627	0,04682	0,10794	0,04788
1359,56909	0,11832	0,11676	0,0462	0,10754	0,04812
1357,64063	0,11847	0,11675	0,04635	0,10778	0,04833
1355,71216	0,11843	0,11662	0,04641	0,10765	0,04819
1353,78369	0,11798	0,11665	0,04628	0,1075	0,04809
1351,85522	0,11784	0,11647	0,04624	0,10743	0,04816
1349,92676	0,11797	0,11635	0,04632	0,10734	0,04822
1347,99829	0,11807	0,11644	0,04629	0,10725	0,04829
1346,06982	0,11819	0,11641	0,04628	0,10732	0,04828
1344,14136	0,11806	0,11638	0,04623	0,10722	0,0482
1342,21289	0,11826	0,11625	0,0464	0,10732	0,04823
1340,28442	0,11913	0,11579	0,04684	0,10759	0,04792
1338,35596	0,11895	0,11576	0,04661	0,10709	0,04753
1336,42749	0,1182	0,11605	0,04618	0,10663	0,04763
1334,49902	0,11818	0,11603	0,04607	0,10657	0,04781
1332,57056	0,11823	0,11597	0,04612	0,1065	0,048
1330,64209	0,11823	0,11599	0,0464	0,1067	0,04806
1328,71362	0,11831	0,11588	0,04646	0,10693	0,04809
1326,78516	0,11823	0,11583	0,04631	0,10698	0,04831
1324,85669	0,11812	0,1158	0,04631	0,10697	0,04836
1322,92822	0,11803	0,11565	0,04633	0,10691	0,04833
1320,99976	0,11825	0,1155	0,04653	0,10709	0,04838
1319,07129	0,1188	0,11528	0,04672	0,10737	0,04827
1317,14282	0,11861	0,11515	0,04645	0,10726	0,04822
1315,21436	0,11833	0,11528	0,04634	0,10728	0,04838
1313,28589	0,11863	0,11542	0,04646	0,10749	0,04851
1311,35742	0,11856	0,11555	0,04636	0,10728	0,04847

1309,42896	0,11854	0,11567	0,0464	0,10725	0,04851
1307,50049	0,11893	0,11578	0,04665	0,1076	0,04873
1305,57202	0,11927	0,11586	0,04685	0,10784	0,04897
1303,64355	0,11945	0,11599	0,04707	0,10825	0,04912
1301,71509	0,11946	0,11617	0,04726	0,10871	0,04927
1299,78662	0,1196	0,11632	0,04747	0,10886	0,04946
1297,85815	0,11976	0,11653	0,04773	0,10911	0,04968
1295,92969	0,11982	0,11662	0,04797	0,10955	0,04985
1294,00122	0,11991	0,11668	0,04831	0,10992	0,0499
1292,07275	0,11988	0,1168	0,04861	0,1102	0,05004
1290,14429	0,11985	0,11664	0,04887	0,11051	0,05035
1288,21582	0,11994	0,11675	0,04938	0,11101	0,05046
1286,28735	0,12001	0,11708	0,04998	0,11167	0,05047
1284,35889	0,12006	0,11711	0,05049	0,11232	0,05093
1282,43042	0,12019	0,1175	0,05111	0,11289	0,05156
1280,50195	0,12058	0,11828	0,05169	0,11346	0,05188
1278,57349	0,12105	0,11895	0,05208	0,11421	0,05211
1276,64502	0,1215	0,11966	0,05248	0,11503	0,05241
1274,71655	0,12214	0,12029	0,05293	0,11579	0,05263
1272,78809	0,12274	0,12093	0,05335	0,11666	0,05287
1270,85962	0,12297	0,12173	0,05387	0,11751	0,05323
1268,93115	0,12302	0,12233	0,05447	0,11823	0,0538
1267,00269	0,12327	0,12282	0,05492	0,11907	0,05432
1265,07422	0,12357	0,12344	0,05521	0,11964	0,05458
1263,14575	0,12367	0,12402	0,05546	0,11998	0,05489
1261,21729	0,12394	0,12441	0,0555	0,12048	0,05518
1259,28882	0,12436	0,12467	0,05532	0,12052	0,05537
1257,36035	0,12439	0,12499	0,05512	0,12036	0,0557
1255,43188	0,12429	0,12531	0,05492	0,12033	0,05583
1253,50342	0,12452	0,12569	0,05459	0,11998	0,05576
1251,57495	0,12492	0,12621	0,05427	0,11987	0,05598
1249,64648	0,12528	0,12678	0,05411	0,11987	0,05619
1247,71802	0,12569	0,12728	0,05398	0,1197	0,05632
1245,78955	0,12614	0,12747	0,05382	0,12003	0,05667
1243,86108	0,12646	0,12767	0,05385	0,12038	0,05692
1241,93262	0,12667	0,128	0,05405	0,12041	0,05701
1240,00415	0,12695	0,12809	0,05426	0,12064	0,05723
1238,07568	0,12738	0,12836	0,05439	0,12095	0,0574
1236,14722	0,12773	0,12865	0,05457	0,12115	0,05757
1234,21875	0,12794	0,12871	0,05495	0,12149	0,05793
1232,29028	0,12818	0,12908	0,05543	0,12203	0,05816
1230,36182	0,12837	0,12938	0,05588	0,12252	0,05828
1228,43335	0,12855	0,12932	0,05609	0,12261	0,05859
1226,50488	0,12886	0,12946	0,05615	0,12244	0,05881
1224,57642	0,1291	0,12975	0,05629	0,12245	0,05887
1222,64795	0,12927	0,1299	0,05647	0,12239	0,05899
1220,71948	0,12973	0,13016	0,05684	0,12216	0,05904
1218,79102	0,13036	0,13056	0,05717	0,12193	0,05904
1216,86255	0,13078	0,13074	0,05738	0,12172	0,05904
1214,93408	0,13122	0,13087	0,05786	0,12177	0,05903

1213,00562	0,13189	0,13128	0,05848	0,12197	0,05921
1211,07715	0,13248	0,13179	0,05915	0,12224	0,05955
1209,14868	0,13292	0,13232	0,0599	0,12278	0,05981
1207,22021	0,13341	0,13287	0,06058	0,12322	0,06003
1205,29175	0,13405	0,1334	0,06139	0,1234	0,06044
1203,36328	0,13476	0,13402	0,06255	0,12366	0,06081
1201,43481	0,13539	0,13462	0,06379	0,12409	0,06083
1199,50635	0,1362	0,13499	0,0646	0,12451	0,06106
1197,57788	0,13688	0,13545	0,06505	0,12476	0,06151
1195,64941	0,13698	0,13622	0,06545	0,12511	0,06161
1193,72095	0,13744	0,13684	0,06561	0,12544	0,06165
1191,79248	0,13825	0,13729	0,06574	0,12558	0,06193
1189,86401	0,13863	0,13792	0,06607	0,12591	0,06221
1187,93555	0,13911	0,13859	0,06634	0,1262	0,06246
1186,00708	0,13995	0,13925	0,06651	0,1265	0,06274
1184,07861	0,14065	0,14008	0,06657	0,12711	0,06306
1182,15015	0,14124	0,14098	0,06636	0,12763	0,06339
1180,22168	0,14191	0,14195	0,06585	0,12821	0,06372
1178,29321	0,14247	0,14301	0,06519	0,12898	0,06399
1176,36475	0,14302	0,1439	0,06474	0,12964	0,06422
1174,43628	0,14379	0,14463	0,06444	0,1302	0,06445
1172,50781	0,14453	0,14541	0,06409	0,13068	0,0647
1170,57935	0,14507	0,14598	0,06396	0,13096	0,06513
1168,65088	0,14558	0,1465	0,06389	0,13115	0,06566
1166,72241	0,14619	0,14739	0,06366	0,13157	0,06592
1164,79395	0,14673	0,14826	0,06357	0,13206	0,06598
1162,86548	0,14726	0,14888	0,06357	0,13247	0,0662
1160,93701	0,14814	0,14943	0,06344	0,13316	0,06638
1159,00854	0,14885	0,14987	0,06328	0,13362	0,06635
1157,08008	0,14884	0,15028	0,06317	0,13366	0,06647
1155,15161	0,14901	0,15078	0,06308	0,13385	0,06664
1153,22314	0,14956	0,15125	0,06308	0,13406	0,06662
1151,29468	0,14977	0,15165	0,06329	0,13425	0,06677
1149,36621	0,15006	0,15218	0,06369	0,13462	0,06714
1147,43774	0,15068	0,15273	0,06423	0,13506	0,06752
1145,50928	0,15121	0,15316	0,06482	0,13547	0,06786
1143,58081	0,15169	0,15373	0,06521	0,13569	0,06825
1141,65234	0,15208	0,1542	0,06528	0,13575	0,06846
1139,72388	0,15254	0,15455	0,06521	0,13593	0,0684
1137,79541	0,15317	0,15512	0,06503	0,13613	0,0686
1135,86694	0,15344	0,1555	0,0649	0,13607	0,06885
1133,93848	0,15366	0,15583	0,06507	0,13632	0,06897
1132,01001	0,1542	0,15632	0,06518	0,13662	0,06911
1130,08154	0,15447	0,15629	0,06515	0,13618	0,06904
1128,15308	0,15453	0,15597	0,06532	0,13606	0,06909
1126,22461	0,15469	0,15608	0,0655	0,13642	0,06943
1124,29614	0,155	0,15652	0,06566	0,13651	0,06968
1122,36768	0,15509	0,15682	0,06569	0,13667	0,06988
1120,43921	0,15468	0,1569	0,06544	0,13671	0,06999
1118,51074	0,15478	0,15708	0,06535	0,13659	0,07013



1116,58228	0,15533	0,15729	0,06535	0,13668	0,07041
1114,65381	0,15543	0,15742	0,06523	0,13684	0,07057
1112,72534	0,15547	0,15763	0,06531	0,13699	0,07073
1110,79688	0,15545	0,15774	0,06545	0,137	0,07105
1108,86841	0,1554	0,15766	0,06551	0,13696	0,07133
1106,93994	0,15541	0,15772	0,06569	0,1369	0,07145
1105,01147	0,15535	0,15789	0,06569	0,13681	0,07152
1103,08301	0,15571	0,15803	0,06545	0,13683	0,07167
1101,15454	0,15599	0,15804	0,06534	0,13677	0,07195
1099,22607	0,15587	0,15803	0,06527	0,13653	0,07209
1097,29761	0,15609	0,15826	0,06529	0,1363	0,07198
1095,36914	0,15623	0,15838	0,06537	0,1364	0,07192
1093,44067	0,156	0,15847	0,06523	0,13656	0,07214
1091,51221	0,1558	0,15866	0,06517	0,13639	0,07227
1089,58374	0,15553	0,15866	0,06494	0,13638	0,07228
1087,65527	0,15552	0,1586	0,06457	0,13658	0,07243
1085,72681	0,15576	0,15834	0,06454	0,13656	0,07243
1083,79834	0,15548	0,15812	0,06437	0,13652	0,07243
1081,86987	0,15517	0,15819	0,06408	0,1365	0,07244
1079,94141	0,15518	0,15807	0,06405	0,13648	0,07214
1078,01294	0,1549	0,15792	0,06402	0,13649	0,07195
1076,08447	0,15461	0,15795	0,06408	0,13656	0,07189
1074,15601	0,1543	0,15784	0,06408	0,1366	0,07174
1072,22754	0,15397	0,15785	0,06383	0,13636	0,0716
1070,29907	0,15407	0,15804	0,06361	0,13626	0,07143
1068,37061	0,15405	0,15808	0,06334	0,13646	0,07123
1066,44214	0,15384	0,15812	0,06312	0,13665	0,07095
1064,51367	0,15364	0,15816	0,06294	0,1367	0,07084
1062,58521	0,15336	0,15802	0,06271	0,13656	0,07075
1060,65674	0,15349	0,15777	0,06268	0,1365	0,07041
1058,72827	0,1535	0,1577	0,06266	0,13653	0,07038
1056,7998	0,15301	0,15772	0,06262	0,13646	0,0704
1054,87134	0,15288	0,15763	0,06294	0,13666	0,06997
1052,94287	0,15292	0,15736	0,06373	0,13702	0,06993
1051,0144	0,15273	0,15681	0,06484	0,13707	0,07017
1049,08594	0,15274	0,15639	0,06619	0,1372	0,07001
1047,15747	0,15271	0,15633	0,06782	0,13771	0,06998
1045,229	0,15234	0,15635	0,06972	0,13823	0,07029
1043,30054	0,15226	0,15639	0,07164	0,13874	0,07039
1041,37207	0,15236	0,15627	0,07275	0,13925	0,07024
1039,4436	0,15216	0,15608	0,07293	0,1398	0,07025
1037,51514	0,15197	0,15596	0,07298	0,14055	0,07053
1035,58667	0,15215	0,15574	0,07316	0,1414	0,07081
1033,6582	0,15224	0,15581	0,07353	0,1421	0,07111
1031,72974	0,15201	0,15628	0,07364	0,1425	0,07143
1029,80127	0,15192	0,15669	0,07293	0,14297	0,07158
1027,8728	0,15174	0,15723	0,07162	0,14358	0,07188
1025,94434	0,15182	0,15801	0,06998	0,14392	0,0725
1024,01587	0,15218	0,15876	0,06823	0,14399	0,07293
1022,0874	0,15192	0,15957	0,06654	0,14382	0,07295

1020,15894	0,15176	0,16015	0,06496	0,14327	0,07265
1018,23047	0,15188	0,16001	0,06364	0,14234	0,07224
1016,302	0,15158	0,15952	0,06246	0,14109	0,07193
1014,37354	0,15126	0,15874	0,06146	0,1398	0,07158
1012,44507	0,15095	0,15735	0,06059	0,13872	0,07093
1010,5166	0,15067	0,156	0,05958	0,13779	0,07027
1008,58813	0,15072	0,15518	0,05876	0,13685	0,06991
1006,65967	0,15082	0,15454	0,05811	0,13578	0,06949
1004,7312	0,15059	0,15394	0,05751	0,13486	0,06895
1002,80273	0,14983	0,15339	0,0573	0,13458	0,06874
1000,87427	0,14908	0,15294	0,05713	0,13455	0,0688
998,9458	0,14889	0,15278	0,05654	0,13424	0,06872
997,01733	0,14869	0,15262	0,05593	0,13393	0,06867
995,08887	0,14843	0,1524	0,05561	0,13352	0,06869
993,1604	0,14851	0,15238	0,05534	0,1329	0,06847
991,23193	0,14847	0,15217	0,05493	0,1326	0,06827
989,30347	0,14843	0,15183	0,0546	0,13252	0,06818
987,375	0,14833	0,15171	0,05426	0,13224	0,06801
985,44653	0,14799	0,15156	0,05388	0,13195	0,06801
983,51807	0,14812	0,15151	0,05378	0,13173	0,06799
981,5896	0,14842	0,15154	0,05373	0,13141	0,06787
979,66113	0,14837	0,15127	0,05358	0,13126	0,06794
977,73267	0,14835	0,15107	0,0534	0,13137	0,06797
975,8042	0,14821	0,15105	0,05309	0,13121	0,06792
973,87573	0,14801	0,15098	0,05285	0,13117	0,06805
971,94727	0,14775	0,15086	0,0527	0,13152	0,0681
970,0188	0,14741	0,15088	0,05255	0,13152	0,06784
968,09033	0,1476	0,15103	0,05243	0,1313	0,06773
966,16187	0,14775	0,15084	0,05223	0,131	0,06781
964,2334	0,14757	0,15083	0,05212	0,1306	0,06798
962,30493	0,14776	0,15106	0,05226	0,13065	0,06833
960,37646	0,1477	0,15068	0,05242	0,13081	0,06836
958,448	0,14754	0,15043	0,0524	0,13076	0,06818
956,51953	0,14776	0,15081	0,0524	0,13085	0,06826
954,59106	0,14763	0,15086	0,05259	0,1311	0,06822
952,6626	0,14753	0,15059	0,05255	0,13127	0,06799
950,73413	0,14765	0,1504	0,0523	0,13127	0,06793
948,80566	0,14735	0,15007	0,0521	0,13128	0,06801
946,8772	0,14699	0,14993	0,05171	0,13119	0,06814
944,94873	0,14711	0,15017	0,05143	0,13086	0,06823
943,02026	0,14727	0,15005	0,05139	0,13076	0,06838
941,0918	0,1469	0,1497	0,05122	0,13075	0,06852
939,16333	0,14648	0,14994	0,05114	0,13059	0,06844
937,23486	0,1466	0,15028	0,0511	0,13031	0,06836
935,3064	0,14669	0,15005	0,05092	0,12984	0,06844
933,37793	0,14646	0,14988	0,05083	0,12984	0,06852
931,44946	0,14643	0,14999	0,05079	0,12997	0,06846
929,521	0,14643	0,15	0,05064	0,12974	0,06822
927,59253	0,14627	0,1502	0,05073	0,12979	0,0682
925,66406	0,14629	0,15047	0,05093	0,12943	0,06844

923,7356	0,14639	0,15052	0,05081	0,1289	0,06854
921,80713	0,14654	0,1506	0,05085	0,12917	0,06858
919,87866	0,14679	0,15063	0,05079	0,1295	0,06853
917,9502	0,14679	0,1507	0,0504	0,12969	0,0683
916,02173	0,14668	0,15098	0,05047	0,12961	0,06819
914,09326	0,14684	0,15105	0,05035	0,12945	0,0683
912,16479	0,1471	0,15073	0,04996	0,12971	0,06848
910,23633	0,14699	0,15037	0,05007	0,12969	0,06849
908,30786	0,1469	0,15038	0,04984	0,12926	0,06836
906,37939	0,14709	0,15057	0,04958	0,12921	0,06839
904,45093	0,14699	0,15037	0,04975	0,12948	0,06852
902,52246	0,14688	0,15022	0,04942	0,12926	0,06857
900,59399	0,14685	0,15021	0,04906	0,12886	0,06865
898,66553	0,14664	0,14993	0,04913	0,12887	0,06867
896,73706	0,14686	0,15024	0,04914	0,12889	0,06856
894,80859	0,14695	0,15058	0,04926	0,1288	0,06874
892,88013	0,1466	0,15052	0,04948	0,12849	0,06922
890,95166	0,14723	0,15094	0,04944	0,12823	0,06928
889,02319	0,14781	0,15095	0,04924	0,12858	0,06895
887,09473	0,14738	0,15076	0,04907	0,12905	0,06878
885,16626	0,14771	0,15136	0,049	0,12888	0,06889
883,23779	0,14819	0,15197	0,04922	0,12876	0,06919
881,30933	0,14829	0,15221	0,04949	0,12924	0,06945
879,38086	0,14907	0,15216	0,04964	0,12976	0,06985
877,45239	0,1497	0,15251	0,05001	0,13042	0,07059
875,52393	0,15078	0,15396	0,05071	0,13189	0,07134
873,59546	0,15311	0,15587	0,05162	0,1342	0,07225
871,66699	0,1554	0,15824	0,05276	0,13732	0,07361
869,73853	0,15768	0,16123	0,05391	0,14111	0,0753
867,81006	0,15999	0,16391	0,05494	0,14437	0,07677
865,88159	0,16165	0,16569	0,05595	0,14623	0,07765
863,95313	0,16252	0,16676	0,05656	0,14756	0,07825
862,02466	0,16318	0,16753	0,05664	0,14853	0,07853
860,09619	0,16356	0,16732	0,05669	0,14819	0,07811
858,16772	0,16253	0,16607	0,05657	0,14691	0,07753
856,23926	0,16057	0,16503	0,05602	0,14528	0,07714
854,31079	0,15888	0,16375	0,05524	0,14307	0,07647
852,38232	0,15813	0,16284	0,05474	0,14174	0,07605
850,45386	0,15883	0,16383	0,05497	0,14262	0,07658
848,52539	0,16172	0,16664	0,05624	0,14585	0,07825
846,59692	0,16714	0,17204	0,05902	0,15201	0,08129
844,66846	0,17203	0,17759	0,0617	0,15835	0,08425
842,73999	0,17664	0,18209	0,06384	0,16433	0,08701
840,81152	0,18604	0,19151	0,06863	0,17557	0,09206
838,88306	0,19774	0,20462	0,07488	0,19	0,09833
836,95459	0,20808	0,21609	0,08036	0,20299	0,10411
835,02612	0,21795	0,22657	0,08573	0,215	0,10923
833,09766	0,22251	0,23157	0,08786	0,2202	0,11099
831,16919	0,222	0,23064	0,08714	0,21918	0,11063
829,24072	0,22165	0,22967	0,087	0,21899	0,11082

827,31226	0,22095	0,22868	0,08673	0,21847	0,11046
825,38379	0,22551	0,23309	0,08938	0,22352	0,1129
823,45532	0,23455	0,24272	0,09454	0,23437	0,11753
821,52686	0,23719	0,24619	0,09594	0,23777	0,11836
819,59839	0,2368	0,24587	0,09564	0,23696	0,1181
817,66992	0,23877	0,24801	0,09682	0,23939	0,11949
815,74146	0,24153	0,25132	0,09851	0,24276	0,12095
813,81299	0,2455	0,25541	0,10079	0,24724	0,12294
811,88452	0,2478	0,25745	0,10198	0,25002	0,12409
809,95605	0,24704	0,25636	0,10133	0,24903	0,12372
808,02759	0,24717	0,25606	0,10134	0,24908	0,12422
806,09912	0,24979	0,25806	0,10284	0,25187	0,12574
804,17065	0,25269	0,26046	0,1043	0,25471	0,12694
802,24219	0,2541	0,2619	0,10518	0,25661	0,12777
800,31372	0,25651	0,26431	0,10694	0,25959	0,12926
798,38525	0,2607	0,26802	0,10947	0,26388	0,13156
796,45679	0,26376	0,27035	0,11109	0,26711	0,13332
794,52832	0,26487	0,27128	0,11144	0,26837	0,13385
792,59985	0,26357	0,27064	0,11042	0,26693	0,13297
790,67139	0,25995	0,26755	0,10849	0,26296	0,1308
788,74292	0,25686	0,26452	0,10713	0,25966	0,12925
786,81445	0,25519	0,26294	0,1063	0,25797	0,12878
784,88599	0,25204	0,25949	0,10429	0,25438	0,12742
782,95752	0,24766	0,25451	0,10165	0,2489	0,12521
781,02905	0,24595	0,25248	0,10021	0,24601	0,12392
779,10059	0,24651	0,25292	0,09987	0,24612	0,12392
777,17212	0,24845	0,25499	0,10089	0,24867	0,12519
775,24365	0,25309	0,25978	0,10343	0,25408	0,12774
773,31519	0,25823	0,26489	0,10582	0,25932	0,13028
771,38672	0,26142	0,26796	0,10733	0,26241	0,13147
769,45825	0,26299	0,26952	0,10817	0,2642	0,13198
767,52979	0,26421	0,27123	0,10888	0,26562	0,133
765,60132	0,26558	0,27327	0,10984	0,26709	0,13415
763,67285	0,26635	0,27398	0,11007	0,26779	0,1345
761,74438	0,26544	0,27243	0,10894	0,26643	0,13364
759,81592	0,26309	0,26988	0,10725	0,26391	0,13262
757,88745	0,26166	0,26854	0,10641	0,26271	0,13209
755,95898	0,26126	0,26809	0,10662	0,2623	0,13148
754,03052	0,2603	0,26721	0,10628	0,2612	0,13106
752,10205	0,25897	0,26578	0,10504	0,2596	0,13043
750,17358	0,25854	0,26542	0,1048	0,25891	0,13006
748,24512	0,25987	0,2675	0,10597	0,26081	0,13101
746,31665	0,261	0,2693	0,10717	0,26281	0,13199
744,38818	0,26157	0,26998	0,10802	0,26369	0,13269
742,45972	0,26325	0,27112	0,10836	0,26511	0,13343
740,53125	0,26444	0,27211	0,10817	0,26617	0,13377
738,60278	0,26483	0,27356	0,10853	0,26723	0,13437
736,67432	0,26635	0,27563	0,10973	0,26924	0,13557
734,74585	0,26753	0,2767	0,1106	0,27038	0,1364
732,81738	0,26655	0,27638	0,11023	0,26929	0,1361

730,88892	0,26613	0,27593	0,11013	0,26907	0,13593
728,96045	0,26748	0,27689	0,11128	0,27164	0,13664
727,03198	0,26902	0,27858	0,11259	0,27404	0,13738
725,10352	0,27135	0,28075	0,11409	0,2771	0,13894
723,17505	0,27337	0,28332	0,1153	0,28057	0,1404
721,24658	0,27372	0,28453	0,1157	0,28099	0,14033
719,31812	0,27491	0,28589	0,11688	0,28185	0,14109
717,38965	0,27769	0,28879	0,11874	0,28486	0,14304
715,46118	0,27998	0,2911	0,11976	0,28694	0,14451
713,53271	0,28058	0,29179	0,11988	0,28803	0,14523
711,60425	0,27961	0,29099	0,11907	0,28744	0,14467
709,67578	0,27895	0,29037	0,11854	0,28615	0,14418
707,74731	0,27967	0,29113	0,11948	0,28653	0,1449
705,81885	0,2797	0,29118	0,11971	0,28682	0,14505
703,89038	0,27836	0,2897	0,11876	0,28538	0,14393
701,96191	0,27717	0,28859	0,11808	0,28357	0,14303
700,03345	0,27673	0,28887	0,11767	0,28308	0,14312
698,10498	0,27677	0,28952	0,11794	0,28325	0,14352
696,17651	0,27659	0,28968	0,11822	0,2828	0,14372
694,24805	0,27695	0,28996	0,11822	0,28321	0,14388
692,31958	0,27838	0,29087	0,11902	0,28474	0,14402
690,39111	0,27991	0,29212	0,11997	0,2865	0,1443
688,46265	0,28182	0,29395	0,12105	0,28895	0,14555
686,53418	0,28375	0,2962	0,12277	0,29106	0,14645
684,60571	0,28449	0,297	0,12312	0,2919	0,14625
682,67725	0,28574	0,29823	0,12332	0,29335	0,14692
680,74878	0,2879	0,30115	0,12555	0,29565	0,14834
678,82031	0,28924	0,30297	0,12694	0,29735	0,14979
676,89185	0,2907	0,30441	0,12755	0,29912	0,15039
674,96338	0,29265	0,3069	0,12876	0,3016	0,15214
673,03491	0,29402	0,30836	0,12906	0,30331	0,15257
671,10645	0,29498	0,30815	0,12954	0,30351	0,15301
669,17798	0,29587	0,30906	0,13002	0,30405	0,15345
667,24951	0,29613	0,3103	0,1305	0,30407	0,15389
665,32104	0,29639	0,31032	0,13098	0,30433	0,15433
663,39258	0,29666	0,31033	0,13146	0,30525	0,15476
661,46411	0,29697	0,31035	0,13159	0,30546	0,1552
659,53564	0,29728	0,31037	0,13171	0,30564	0,15564
657,60718	0,29727	0,31038	0,13183	0,30615	0,15608
655,67871	0,29699	0,3104	0,13205	0,3056	0,15652
653,75024	0,29641	0,31042	0,13228	0,30473	0,15695
651,82178	0,29602	0,31044	0,1325	0,30468	0,15739
649,89331	0,29673	0,31045	0,13272	0,30544	0,15783
647,96484	0,29856	0,31103	0,13294	0,30736	0,15827
646,03638	0,30041	0,31255	0,13317	0,30954	0,15871
644,10791	0,30021	0,31288	0,1324	0,30944	0,15844
642,17944	0,30002	0,31279	0,13203	0,30888	0,15783
640,25098	0,30102	0,3125	0,13224	0,30944	0,15792
638,32251	0,30099	0,31253	0,13198	0,31002	0,15806
636,39404	0,30124	0,31349	0,13213	0,31091	0,15881

634,46558	0,30139	0,31347	0,13216	0,31046	0,15905
632,53711	0,30011	0,31277	0,13127	0,30859	0,15823
630,60864	0,29864	0,31204	0,12989	0,30682	0,15706
628,68018	0,2978	0,31101	0,12912	0,30516	0,15575
626,75171	0,29772	0,30999	0,12898	0,30521	0,1561
624,82324	0,29728	0,30993	0,12891	0,30559	0,1566
622,89478	0,29693	0,31065	0,12885	0,30489	0,15594
620,96631	0,29732	0,31078	0,12837	0,30459	0,15591
619,03784	0,29809	0,31076	0,12836	0,30449	0,15569
617,10938	0,29959	0,31101	0,12947	0,30546	0,15604
615,18091	0,30056	0,31108	0,13026	0,30685	0,15741
613,25244	0,301	0,31128	0,13012	0,30625	0,15813
611,32397	0,30197	0,31111	0,13004	0,30588	0,15861
609,39551	0,30238	0,31065	0,13026	0,30658	0,15843
607,46704	0,30251	0,3111	0,13006	0,30625	0,15793
605,53857	0,30243	0,31116	0,12963	0,30555	0,15765
603,61011	0,30123	0,31006	0,129	0,30528	0,15704
601,68164	0,30074	0,30911	0,1281	0,30462	0,15738
599,75317	0,30072	0,30825	0,12766	0,30344	0,15774
597,82471	0,2994	0,30743	0,12728	0,30258	0,15688
595,89624	0,29855	0,3069	0,12672	0,30159	0,15661
593,96777	0,29908	0,30609	0,12594	0,30056	0,15695
592,03931	0,2992	0,30572	0,12481	0,30085	0,15755
590,11084	0,29812	0,30659	0,12457	0,30075	0,15746
588,18237	0,29813	0,30653	0,12452	0,30001	0,15633
586,25391	0,29881	0,30553	0,12375	0,30048	0,1562
584,32544	0,29806	0,3059	0,12368	0,3014	0,15656
582,39697	0,29831	0,30627	0,12362	0,3019	0,15704
580,46851	0,29838	0,3063	0,12306	0,30125	0,15742
578,54004	0,29696	0,30601	0,12302	0,29974	0,15713
576,61157	0,29729	0,30426	0,12277	0,29943	0,15747
574,68311	0,29736	0,30412	0,1223	0,29994	0,15714
572,75464	0,29675	0,30641	0,12291	0,3012	0,15708
570,82617	0,29835	0,30784	0,12428	0,30387	0,15923
568,89771	0,30032	0,30913	0,12578	0,30661	0,1611
566,96924	0,3015	0,31163	0,12754	0,30916	0,1614
565,04077	0,30158	0,31271	0,12859	0,31012	0,161
563,1123	0,30057	0,31242	0,12851	0,30949	0,16132
561,18384	0,30003	0,31293	0,12885	0,31036	0,16196
559,25537	0,2999	0,31306	0,12952	0,31061	0,16152
557,3269	0,30043	0,313	0,12954	0,30955	0,16148
555,39844	0,30116	0,31345	0,12977	0,31017	0,16216
553,46997	0,30025	0,31314	0,13045	0,31065	0,16259
551,5415	0,29839	0,31225	0,13043	0,30999	0,16243
549,61304	0,2973	0,31085	0,12973	0,30943	0,162
547,68457	0,29552	0,30871	0,1286	0,30775	0,1626
545,7561	0,29333	0,30656	0,12836	0,30482	0,16234
543,82764	0,29323	0,30527	0,12971	0,3028	0,15999
541,89917	0,29281	0,30512	0,12984	0,30208	0,15929
539,9707	0,29133	0,30512	0,12956	0,30199	0,15985

538,04224	0,29066	0,30407	0,13061	0,30187	0,15939
536,11377	0,29002	0,30354	0,13142	0,30167	0,16007
534,1853	0,28975	0,3031	0,13322	0,3014	0,16025
532,25684	0,28763	0,30111	0,13411	0,29868	0,15864
530,32837	0,28579	0,29955	0,13386	0,29621	0,15573
528,3999	0,28211	0,29591	0,13252	0,29385	0,15433
526,47144	0,27411	0,28979	0,1289	0,28792	0,1561
524,54297	0,27224	0,28671	0,12946	0,2838	0,1532
522,6145	0,27166	0,28425	0,13162	0,28043	0,14822
520,68604	0,26412	0,27887	0,12945	0,27469	0,14736
518,75757	0,25713	0,27398	0,12656	0,2691	0,14642
516,8291	0,25443	0,27076	0,12539	0,26497	0,14385
514,90063	0,25297	0,26698	0,12645	0,26284	0,1396
512,97217	0,24873	0,26349	0,12705	0,25826	0,13575
511,0437	0,24364	0,25934	0,1249	0,2531	0,13268
509,11523	0,23941	0,2537	0,12231	0,24764	0,12928
507,18677	0,2341	0,24961	0,12162	0,24099	0,12578
505,2583	0,23098	0,24605	0,12183	0,23998	0,12309
503,32983	0,22764	0,24157	0,12005	0,23743	0,12266
501,40137	0,22432	0,23884	0,11873	0,23235	0,11975
499,4729	0,22402	0,2374	0,11903	0,22953	0,11686

Figure 3.6 B					
n°spectre	Vd202	VD142	Vd63	Vd192	Vd186
cm-1	cd.(pH=6.5)	cd.(pH=9.5)	X.(nat.pH)	X.(pH=6.5)	X.(pH=9.5)
4001,5686	0,18076	0,18725	0,21328	0,22967	0,17316
3999,64014	0,18068	0,18713	0,21314	0,2293	0,17296
3997,71167	0,18067	0,18703	0,21305	0,22928	0,17283
3995,7832	0,18053	0,18683	0,21295	0,22918	0,17276
3993,85474	0,18039	0,18676	0,21275	0,22889	0,17261
3991,92627	0,18023	0,18662	0,21277	0,22894	0,17244
3989,9978	0,18011	0,18646	0,21282	0,22883	0,17234
3988,06934	0,18005	0,18644	0,21261	0,22847	0,17231
3986,14087	0,1799	0,18626	0,21249	0,2284	0,17224
3984,2124	0,17978	0,18601	0,21236	0,22824	0,17211
3982,28394	0,17964	0,18599	0,21225	0,22801	0,17207
3980,35547	0,17944	0,18589	0,21219	0,22785	0,17187
3978,427	0,17936	0,18572	0,21202	0,22762	0,17165
3976,49854	0,17938	0,18563	0,21203	0,22749	0,17161
3974,57007	0,17943	0,18544	0,21197	0,22729	0,17147
3972,6416	0,17927	0,18535	0,21179	0,22705	0,17131
3970,71313	0,17896	0,18533	0,21175	0,22692	0,17133
3968,78467	0,17897	0,18525	0,21155	0,22676	0,17117
3966,8562	0,17883	0,18517	0,21126	0,22641	0,17092
3964,92773	0,17849	0,18499	0,21124	0,22629	0,17094
3962,99927	0,17874	0,1848	0,21136	0,22638	0,17089
3961,0708	0,1788	0,18467	0,21113	0,22595	0,17059
3959,14233	0,17842	0,18463	0,21095	0,22566	0,17051
3957,21387	0,17831	0,18465	0,21089	0,22566	0,1705
3955,2854	0,17835	0,18447	0,21082	0,22543	0,1704
3953,35693	0,17831	0,18442	0,21099	0,22528	0,17028
3951,42847	0,17817	0,18419	0,21056	0,22522	0,17013
3949,5	0,17862	0,18361	0,21034	0,22529	0,17023
3947,57153	0,17826	0,18368	0,21043	0,22449	0,16986
3945,64307	0,17747	0,18381	0,21012	0,22427	0,16955
3943,7146	0,17828	0,18358	0,21065	0,22517	0,17001
3941,78613	0,17813	0,18355	0,21049	0,22407	0,1696
3939,85767	0,1771	0,18347	0,20973	0,22347	0,16922
3937,9292	0,17725	0,18345	0,21006	0,22404	0,16959
3936,00073	0,17721	0,18343	0,20992	0,22345	0,16933
3934,07227	0,17746	0,18323	0,21001	0,22395	0,16933
3932,1438	0,17808	0,18301	0,2105	0,22428	0,16939
3930,21533	0,1772	0,18276	0,2096	0,22263	0,16863
3928,28687	0,17643	0,18266	0,20911	0,22254	0,16853
3926,3584	0,1772	0,1827	0,20984	0,22359	0,16889
3924,42993	0,17748	0,18261	0,20977	0,22299	0,16867
3922,50146	0,17651	0,1824	0,20891	0,22201	0,16834
3920,573	0,17659	0,18226	0,20923	0,22261	0,16848
3918,64453	0,17701	0,18221	0,20971	0,22307	0,16859
3916,71606	0,17659	0,18203	0,20903	0,22209	0,16824
3914,7876	0,1758	0,18193	0,20825	0,22088	0,16776



3912,85913	0,17566	0,18197	0,20844	0,22144	0,16786
3910,93066	0,17592	0,18207	0,20883	0,22216	0,1683
3909,0022	0,17563	0,18194	0,20843	0,22107	0,16784
3907,07373	0,1761	0,18156	0,20878	0,22183	0,16773
3905,14526	0,17719	0,18153	0,20972	0,22316	0,16835
3903,2168	0,17629	0,18139	0,20885	0,221	0,16767
3901,28833	0,17536	0,18081	0,20797	0,21998	0,16701
3899,35986	0,17581	0,18063	0,20809	0,22017	0,167
3897,4314	0,17469	0,18075	0,20738	0,21895	0,16658
3895,50293	0,17438	0,18056	0,20704	0,21894	0,16635
3893,57446	0,17574	0,18058	0,20859	0,22163	0,16727
3891,646	0,17639	0,18116	0,2095	0,22198	0,16793
3889,71753	0,17354	0,1806	0,20612	0,21677	0,16594
3887,78906	0,17432	0,1799	0,20723	0,21996	0,16638
3885,8606	0,17618	0,18095	0,20995	0,22282	0,16812
3883,93213	0,17293	0,18031	0,20585	0,21589	0,16556
3882,00366	0,17471	0,17912	0,20713	0,2196	0,16595
3880,0752	0,17716	0,17993	0,20917	0,22073	0,16688
3878,14673	0,17289	0,17954	0,20523	0,21531	0,16477
3876,21826	0,17388	0,17937	0,2072	0,22007	0,16624
3874,28979	0,17611	0,17985	0,20812	0,2194	0,16634
3872,36133	0,17418	0,17898	0,2064	0,21746	0,16518
3870,43286	0,17407	0,17967	0,20866	0,22117	0,16729
3868,50439	0,17276	0,1796	0,2059	0,21543	0,16529
3866,57593	0,1725	0,17851	0,20535	0,21652	0,16459
3864,64746	0,17435	0,17935	0,20802	0,21996	0,16637
3862,71899	0,17394	0,17878	0,20585	0,21541	0,16447
3860,79053	0,17255	0,17845	0,20567	0,21652	0,16469
3858,86206	0,17296	0,1791	0,20633	0,21687	0,16533
3856,93359	0,17476	0,17822	0,20628	0,21708	0,16453
3855,00513	0,17232	0,18016	0,20935	0,22298	0,1682
3853,07666	0,17094	0,18193	0,20887	0,21727	0,16784
3851,14819	0,16861	0,17768	0,20228	0,20962	0,16254
3849,21973	0,17191	0,17728	0,20439	0,2145	0,1633
3847,29126	0,17218	0,17844	0,20567	0,21606	0,16468
3845,36279	0,17325	0,17803	0,20619	0,2166	0,16457
3843,43433	0,17316	0,17816	0,2065	0,2169	0,16483
3841,50586	0,17365	0,17762	0,20569	0,21519	0,16384
3839,57739	0,17316	0,17748	0,20643	0,21674	0,16436
3837,64893	0,17025	0,17852	0,2063	0,21601	0,16527
3835,72046	0,16951	0,17754	0,20363	0,21178	0,16305
3833,79199	0,17212	0,17678	0,20466	0,21434	0,16292
3831,86353	0,17211	0,17762	0,2056	0,21528	0,16393
3829,93506	0,17078	0,1772	0,20393	0,21256	0,16284
3828,00659	0,17202	0,17689	0,20526	0,21548	0,16358
3826,07813	0,1722	0,17739	0,20513	0,21415	0,16354
3824,14966	0,17146	0,17657	0,20389	0,21334	0,16254
3822,22119	0,17284	0,17731	0,20732	0,21878	0,1649
3820,29272	0,1721	0,17739	0,20467	0,21122	0,16254
3818,36426	0,16995	0,17571	0,20252	0,21112	0,16141

3816,43579	0,16979	0,1772	0,20586	0,21658	0,16445
3814,50732	0,16829	0,17722	0,20303	0,21027	0,16253
3812,57886	0,16966	0,1758	0,20266	0,2111	0,1615
3810,65039	0,17084	0,17635	0,20421	0,21343	0,16242
3808,72192	0,17103	0,17647	0,20512	0,21499	0,16317
3806,79346	0,16996	0,17701	0,20504	0,21374	0,16343
3804,86499	0,16879	0,17582	0,20187	0,20929	0,16107
3802,93652	0,17098	0,17531	0,20474	0,21509	0,16258
3801,00806	0,16959	0,17704	0,20539	0,21327	0,16346
3799,07959	0,16728	0,17535	0,20083	0,20758	0,16037
3797,15112	0,17116	0,17471	0,20374	0,21314	0,1615
3795,22266	0,17004	0,17586	0,20362	0,21142	0,16191
3793,29419	0,16874	0,1753	0,20205	0,20973	0,16086
3791,36572	0,16999	0,17545	0,20368	0,21243	0,16183
3789,43726	0,1694	0,17571	0,20316	0,21108	0,16163
3787,50879	0,16924	0,17525	0,20289	0,21139	0,16147
3785,58032	0,17036	0,17512	0,20366	0,21211	0,16177
3783,65186	0,16934	0,17496	0,20243	0,20996	0,16092
3781,72339	0,16902	0,17477	0,20275	0,21101	0,16114
3779,79492	0,1704	0,17474	0,20375	0,2117	0,16144
3777,86646	0,16896	0,17469	0,20213	0,2091	0,16053
3775,93799	0,16822	0,17451	0,20196	0,20942	0,16061
3774,00952	0,16857	0,17451	0,20232	0,21009	0,16088
3772,08105	0,16903	0,17442	0,20274	0,21093	0,16096
3770,15259	0,16968	0,17441	0,20324	0,21081	0,161
3768,22412	0,16803	0,17405	0,20145	0,20809	0,1601
3766,29565	0,16863	0,17365	0,20195	0,20948	0,16015
3764,36719	0,1686	0,17397	0,20205	0,2089	0,1601
3762,43872	0,16752	0,17365	0,20116	0,20794	0,15959
3760,51025	0,16917	0,17364	0,20284	0,21067	0,16038
3758,58179	0,1693	0,17369	0,20222	0,2086	0,15982
3756,65332	0,16793	0,17296	0,20083	0,20714	0,159
3754,72485	0,16802	0,17319	0,20172	0,20886	0,1596
3752,79639	0,16756	0,17355	0,20266	0,21041	0,16055
3750,86792	0,16689	0,17425	0,20353	0,21047	0,16136
3748,93945	0,16348	0,17353	0,19906	0,2029	0,15846
3747,01099	0,16621	0,17178	0,19982	0,20614	0,15802
3745,08252	0,16704	0,17393	0,20417	0,21266	0,16166
3743,15405	0,16335	0,17451	0,19999	0,20315	0,1592
3741,22559	0,16598	0,1713	0,1983	0,20246	0,15666
3739,29712	0,16793	0,17201	0,20127	0,20804	0,15881
3737,36865	0,16701	0,17349	0,20238	0,20841	0,1601
3735,44019	0,16799	0,17227	0,20149	0,20536	0,15846
3733,51172	0,16712	0,17199	0,20078	0,20467	0,15816
3731,58325	0,16425	0,17263	0,19953	0,2031	0,15818
3729,65479	0,16434	0,17243	0,19921	0,20275	0,15776
3727,72632	0,16609	0,17246	0,20075	0,20536	0,15849
3725,79785	0,16637	0,17265	0,20104	0,20509	0,15857
3723,86938	0,16605	0,17203	0,20006	0,20361	0,15765
3721,94092	0,16614	0,17185	0,20016	0,20429	0,15777

3720,01245	0,16576	0,17179	0,19966	0,20384	0,15759
3718,08398	0,16553	0,17162	0,19943	0,20402	0,15754
3716,15552	0,1656	0,17141	0,1992	0,20421	0,15734
3714,22705	0,16604	0,17112	0,1999	0,20611	0,15769
3712,29858	0,16615	0,1716	0,20101	0,20658	0,15854
3710,37012	0,16502	0,17111	0,19898	0,2022	0,15684
3708,44165	0,16418	0,17031	0,19797	0,20195	0,15587
3706,51318	0,16389	0,17069	0,19743	0,20119	0,15604
3704,58472	0,16397	0,17088	0,19807	0,20217	0,1565
3702,65625	0,16545	0,171	0,19972	0,2042	0,15713
3700,72778	0,16435	0,1709	0,19828	0,20129	0,15627
3698,79932	0,16311	0,17068	0,19748	0,20095	0,15588
3696,87085	0,16418	0,17051	0,19825	0,20232	0,15601
3694,94238	0,16379	0,1704	0,19776	0,20163	0,15584
3693,01392	0,1637	0,16991	0,19747	0,20161	0,15556
3691,08545	0,16522	0,16895	0,19818	0,20272	0,1554
3689,15698	0,16256	0,16914	0,19729	0,20145	0,15543
3687,22852	0,15922	0,16907	0,19455	0,19787	0,15433
3685,30005	0,1621	0,16802	0,19463	0,19813	0,15344
3683,37158	0,16316	0,16835	0,19604	0,2009	0,15447
3681,44312	0,16309	0,16913	0,19697	0,20193	0,15543
3679,51465	0,16451	0,16845	0,19645	0,20017	0,15437
3677,58618	0,16391	0,16841	0,1977	0,20351	0,15572
3675,65771	0,16512	0,16974	0,19973	0,2041	0,1568
3673,72925	0,1616	0,16866	0,19441	0,19577	0,1534
3671,80078	0,1618	0,1681	0,19614	0,20136	0,15483
3669,87231	0,1635	0,16951	0,19902	0,20367	0,15664
3667,94385	0,16207	0,16861	0,19526	0,19694	0,15378
3666,01538	0,16239	0,1683	0,19601	0,1998	0,15436
3664,08691	0,16289	0,16916	0,19732	0,20167	0,15564
3662,15845	0,16335	0,16906	0,19707	0,2008	0,15529
3660,22998	0,16277	0,16909	0,19694	0,20037	0,15515
3658,30151	0,16343	0,16896	0,19785	0,20187	0,15556
3656,37305	0,16343	0,1692	0,19827	0,20182	0,15598
3654,44458	0,16125	0,16893	0,19584	0,19802	0,15478
3652,51611	0,16369	0,16806	0,19716	0,20101	0,15491
3650,58765	0,1655	0,16858	0,19974	0,20409	0,15649
3648,65918	0,16326	0,1685	0,19744	0,19885	0,15514
3646,73071	0,16245	0,16753	0,19553	0,19675	0,15365
3644,80225	0,16233	0,16783	0,19586	0,198	0,15419
3642,87378	0,1621	0,16831	0,19659	0,19941	0,15507
3640,94531	0,16286	0,16845	0,19719	0,20011	0,15537
3639,01685	0,16204	0,16863	0,19673	0,19902	0,1553
3637,08838	0,16187	0,1685	0,19682	0,19917	0,15524
3635,15991	0,16229	0,16865	0,19751	0,19992	0,15562
3633,23145	0,16188	0,1685	0,19661	0,19775	0,15505
3631,30298	0,16177	0,16821	0,19726	0,19966	0,15545
3629,37451	0,16265	0,16911	0,19957	0,20203	0,15701
3627,44604	0,15977	0,16858	0,19547	0,19399	0,15466
3625,51758	0,15987	0,16745	0,19497	0,19525	0,15401

3623,58911	0,16086	0,1681	0,19668	0,19819	0,15534
3621,66064	0,1611	0,16814	0,19678	0,19817	0,15554
3619,73218	0,1621	0,16771	0,19761	0,1996	0,15573
3617,80371	0,16136	0,16765	0,1959	0,19646	0,15473
3615,87524	0,16108	0,16715	0,19542	0,19682	0,15464
3613,94678	0,16258	0,16716	0,19706	0,19959	0,15559
3612,01831	0,16144	0,16718	0,1959	0,19746	0,15491
3610,08984	0,1599	0,16721	0,19571	0,1978	0,15526
3608,16138	0,16072	0,16728	0,19633	0,19803	0,15552
3606,23291	0,16018	0,16685	0,19503	0,1959	0,15463
3604,30444	0,15956	0,16702	0,19518	0,19685	0,15517
3602,37598	0,16021	0,1672	0,1962	0,19821	0,15575
3600,44751	0,16065	0,16689	0,19613	0,19769	0,15545
3598,51904	0,15996	0,16701	0,19544	0,19663	0,15541
3596,59058	0,16007	0,16704	0,19581	0,19733	0,15578
3594,66211	0,16075	0,16699	0,19624	0,19787	0,156
3592,73364	0,15993	0,16722	0,19534	0,19657	0,15582
3590,80518	0,15948	0,1673	0,19542	0,19761	0,15623
3588,87671	0,16088	0,16729	0,19692	0,19975	0,15696
3586,94824	0,16148	0,16699	0,19649	0,19761	0,15625
3585,01978	0,15955	0,16693	0,19478	0,19594	0,15573
3583,09131	0,15949	0,16725	0,19533	0,19761	0,15639
3581,16284	0,16001	0,16743	0,196	0,19831	0,15687
3579,23438	0,15999	0,16753	0,19583	0,19815	0,15692
3577,30591	0,15989	0,16767	0,19574	0,19801	0,15699
3575,37744	0,15984	0,16763	0,19583	0,19804	0,15708
3573,44897	0,15971	0,1677	0,19584	0,19814	0,15724
3571,52051	0,1594	0,1677	0,19566	0,19773	0,15732
3569,59204	0,16009	0,1676	0,1964	0,19897	0,15774
3567,66357	0,16197	0,16742	0,19743	0,19953	0,15778
3565,73511	0,16091	0,16716	0,19604	0,19661	0,15685
3563,80664	0,15936	0,16734	0,19531	0,19671	0,15703
3561,87817	0,15961	0,16771	0,19601	0,19813	0,15775
3559,94971	0,15974	0,16779	0,19611	0,19775	0,1578
3558,02124	0,15938	0,1679	0,19603	0,19742	0,15781
3556,09277	0,15917	0,16813	0,1961	0,19743	0,15792
3554,16431	0,1595	0,16811	0,19646	0,19801	0,15812
3552,23584	0,15986	0,16807	0,19654	0,19797	0,15814
3550,30737	0,15912	0,16818	0,19592	0,19704	0,1579
3548,37891	0,15926	0,16813	0,19637	0,19772	0,15819
3546,45044	0,16025	0,16798	0,19682	0,19786	0,15836
3544,52197	0,15974	0,16796	0,19612	0,19688	0,15804
3542,59351	0,15913	0,16814	0,19596	0,19691	0,1581
3540,66504	0,15904	0,16842	0,19605	0,19692	0,15837
3538,73657	0,15899	0,16835	0,19614	0,19706	0,15851
3536,80811	0,15929	0,16824	0,19623	0,19718	0,15853
3534,87964	0,15921	0,16836	0,19589	0,19664	0,15846
3532,95117	0,15873	0,16825	0,19568	0,19647	0,15842
3531,02271	0,15884	0,16814	0,19587	0,19679	0,15855
3529,09424	0,15929	0,16811	0,19601	0,19672	0,15864

3527,16577	0,15903	0,16793	0,1957	0,19617	0,15841
3525,2373	0,1589	0,16784	0,19559	0,19619	0,15836
3523,30884	0,15909	0,16784	0,19563	0,19611	0,15849
3521,38037	0,15851	0,16783	0,19531	0,1956	0,15846
3519,4519	0,15823	0,16783	0,19529	0,19563	0,15852
3517,52344	0,15838	0,16784	0,1953	0,19558	0,1586
3515,59497	0,15828	0,16782	0,19509	0,19539	0,15853
3513,6665	0,15812	0,16784	0,19509	0,19536	0,15846
3511,73804	0,15809	0,16766	0,19518	0,19534	0,15864
3509,80957	0,15835	0,16741	0,1952	0,19528	0,15881
3507,8811	0,15798	0,16751	0,19485	0,19477	0,15856
3505,95264	0,15771	0,16749	0,19476	0,19482	0,15844
3504,02417	0,15845	0,16728	0,1952	0,19515	0,15855
3502,0957	0,15833	0,16736	0,19498	0,19452	0,15846
3500,16724	0,15765	0,16746	0,19464	0,19428	0,15846
3498,23877	0,15774	0,1675	0,19481	0,19451	0,15859
3496,3103	0,15775	0,16753	0,19483	0,19435	0,15864
3494,38184	0,15762	0,16749	0,19472	0,19428	0,15859
3492,45337	0,15759	0,16753	0,19466	0,19422	0,15855
3490,5249	0,15748	0,16751	0,19479	0,19422	0,15875
3488,59644	0,15759	0,16747	0,19503	0,19426	0,15889
3486,66797	0,15766	0,16751	0,19491	0,19394	0,15888
3484,7395	0,1575	0,16752	0,19488	0,19395	0,15909
3482,81104	0,15767	0,16753	0,19508	0,19425	0,15921
3480,88257	0,15771	0,16757	0,195	0,19395	0,15911
3478,9541	0,15729	0,1676	0,19488	0,19364	0,15912
3477,02563	0,15725	0,16767	0,19499	0,19377	0,15923
3475,09717	0,15747	0,16772	0,19499	0,19368	0,15939
3473,1687	0,15734	0,16764	0,1949	0,19359	0,15945
3471,24023	0,15714	0,16758	0,19488	0,19362	0,15935
3469,31177	0,15726	0,16755	0,19496	0,19353	0,15937
3467,3833	0,1573	0,16751	0,19503	0,19341	0,15936
3465,45483	0,15705	0,16753	0,19497	0,19331	0,15938
3463,52637	0,15701	0,16746	0,19498	0,19328	0,15945
3461,5979	0,15692	0,16731	0,19487	0,19311	0,15933
3459,66943	0,15677	0,16728	0,19472	0,19306	0,15938
3457,74097	0,15684	0,16733	0,19482	0,19302	0,15945
3455,8125	0,1567	0,16729	0,19486	0,19282	0,1594
3453,88403	0,1567	0,16721	0,19487	0,1929	0,15952
3451,95557	0,15674	0,16719	0,19485	0,19277	0,15941
3450,0271	0,15655	0,16707	0,1949	0,19279	0,15932
3448,09863	0,15678	0,16697	0,19512	0,19298	0,15958
3446,17017	0,15678	0,16704	0,19497	0,19251	0,15955
3444,2417	0,15641	0,16703	0,19499	0,19245	0,15956
3442,31323	0,15648	0,16704	0,19529	0,19268	0,15968
3440,38477	0,15644	0,16715	0,19514	0,19247	0,1596
3438,4563	0,15638	0,16708	0,19518	0,19261	0,15981
3436,52783	0,15652	0,16705	0,19547	0,19274	0,15996
3434,59937	0,15647	0,1672	0,19547	0,1927	0,15988
3432,6709	0,15644	0,1673	0,1955	0,19282	0,15997

3430,74243	0,15653	0,16731	0,19566	0,19267	0,15988
3428,81396	0,15659	0,16724	0,19585	0,19258	0,15984
3426,8855	0,15657	0,16724	0,19593	0,1927	0,16004
3424,95703	0,15646	0,16742	0,19597	0,19263	0,16005
3423,02856	0,15656	0,16744	0,19611	0,19273	0,16019
3421,1001	0,15683	0,16734	0,19626	0,19284	0,16038
3419,17163	0,15681	0,16745	0,19633	0,19265	0,16028
3417,24316	0,15671	0,16751	0,19638	0,19274	0,16029
3415,3147	0,15681	0,16745	0,1965	0,19299	0,16042
3413,38623	0,15685	0,16753	0,19669	0,19305	0,16041
3411,45776	0,1569	0,1677	0,19683	0,19306	0,1605
3409,5293	0,15696	0,16773	0,19688	0,19304	0,16058
3407,60083	0,15693	0,1678	0,19687	0,19304	0,1605
3405,67236	0,15696	0,16791	0,19695	0,19312	0,16061
3403,7439	0,15711	0,16792	0,19711	0,19322	0,16069
3401,81543	0,15717	0,16797	0,19724	0,19333	0,16062
3399,88696	0,15727	0,168	0,19722	0,19348	0,16081
3397,9585	0,15744	0,16794	0,19722	0,19351	0,16086
3396,03003	0,15734	0,16788	0,19735	0,19339	0,16076
3394,10156	0,15733	0,16793	0,19737	0,19352	0,16085
3392,1731	0,1576	0,16801	0,19734	0,19364	0,1609
3390,24463	0,15751	0,16796	0,19743	0,19358	0,16098
3388,31616	0,15737	0,16811	0,19751	0,19366	0,16112
3386,3877	0,15758	0,16824	0,19753	0,19372	0,16112
3384,45923	0,15778	0,16805	0,19758	0,1937	0,16105
3382,53076	0,15779	0,16813	0,19763	0,19376	0,16105
3380,60229	0,15781	0,16822	0,19767	0,19391	0,16114
3378,67383	0,15791	0,16818	0,19771	0,19398	0,16117
3376,74536	0,158	0,16837	0,1977	0,19387	0,16114
3374,81689	0,15806	0,16837	0,19771	0,19389	0,1611
3372,88843	0,158	0,16828	0,19779	0,19405	0,16104
3370,95996	0,15799	0,16843	0,19792	0,19405	0,16101
3369,03149	0,15824	0,16851	0,19802	0,19416	0,16101
3367,10303	0,15837	0,16849	0,19804	0,19438	0,16095
3365,17456	0,15834	0,16841	0,19793	0,19427	0,16082
3363,24609	0,15846	0,16836	0,1979	0,19414	0,16074
3361,31763	0,15849	0,1685	0,19805	0,19427	0,1607
3359,38916	0,15842	0,16857	0,19807	0,19433	0,16062
3357,46069	0,15862	0,16854	0,19811	0,19436	0,16055
3355,53223	0,15874	0,16857	0,19816	0,19438	0,16054
3353,60376	0,15863	0,16852	0,19813	0,19435	0,16054
3351,67529	0,15875	0,16859	0,19815	0,19435	0,16039
3349,74683	0,15885	0,16868	0,19815	0,19443	0,16028
3347,81836	0,15875	0,16851	0,19811	0,19457	0,16034
3345,88989	0,15876	0,1685	0,19814	0,19449	0,16022
3343,96143	0,1588	0,16863	0,19823	0,19449	0,16016
3342,03296	0,15873	0,16858	0,19827	0,19466	0,16027
3340,10449	0,15882	0,16853	0,19823	0,19468	0,16017
3338,17603	0,15901	0,1685	0,19825	0,19473	0,16017
3336,24756	0,15901	0,16848	0,19827	0,19465	0,16016

3334,31909	0,15897	0,16852	0,19817	0,19448	0,1599
3332,39063	0,15891	0,16844	0,19822	0,19449	0,15979
3330,46216	0,15887	0,16832	0,19836	0,19448	0,15981
3328,53369	0,15902	0,16838	0,19835	0,19453	0,15979
3326,60522	0,15902	0,1684	0,19836	0,19461	0,15979
3324,67676	0,15892	0,1683	0,19839	0,19461	0,15976
3322,74829	0,15897	0,16831	0,19826	0,19459	0,15967
3320,81982	0,159	0,16829	0,19819	0,19458	0,15953
3318,89136	0,15902	0,16821	0,1982	0,19463	0,15945
3316,96289	0,15898	0,16815	0,19818	0,19474	0,15951
3315,03442	0,15896	0,16802	0,19812	0,19478	0,15946
3313,10596	0,15899	0,16795	0,19803	0,19467	0,15929
3311,17749	0,15902	0,16793	0,19803	0,19469	0,15922
3309,24902	0,1591	0,16791	0,19802	0,19476	0,15918
3307,32056	0,15907	0,16793	0,19787	0,19467	0,15916
3305,39209	0,159	0,16783	0,19783	0,19478	0,1591
3303,46362	0,15895	0,16765	0,19775	0,19482	0,15894
3301,53516	0,15886	0,16753	0,19753	0,19457	0,15888
3299,60669	0,1588	0,16746	0,19752	0,19449	0,15879
3297,67822	0,15875	0,16739	0,19749	0,19443	0,15859
3295,74976	0,15874	0,16726	0,19727	0,19434	0,15847
3293,82129	0,15881	0,1672	0,1972	0,19429	0,1583
3291,89282	0,15875	0,16712	0,1972	0,1942	0,15817
3289,96436	0,15861	0,16694	0,19699	0,19412	0,15814
3288,03589	0,15854	0,16685	0,19673	0,19392	0,1579
3286,10742	0,15844	0,1668	0,19666	0,19388	0,15774
3284,17896	0,15837	0,16664	0,1966	0,19396	0,15782
3282,25049	0,15838	0,16651	0,19644	0,19383	0,15772
3280,32202	0,15828	0,16644	0,19634	0,19379	0,15756
3278,39355	0,15827	0,16634	0,19617	0,19374	0,15746
3276,46509	0,15832	0,16626	0,19604	0,19362	0,15726
3274,53662	0,15826	0,16612	0,196	0,19356	0,1571
3272,60815	0,15829	0,16598	0,19583	0,19334	0,15697
3270,67969	0,15825	0,16594	0,1957	0,19335	0,15692
3268,75122	0,15808	0,16585	0,19561	0,19338	0,15691
3266,82275	0,15799	0,16569	0,19545	0,19312	0,15667
3264,89429	0,15799	0,16563	0,19533	0,19303	0,15645
3262,96582	0,15798	0,16553	0,19522	0,19301	0,15639
3261,03735	0,15791	0,16534	0,19513	0,19288	0,15629
3259,10889	0,15778	0,16532	0,19504	0,19279	0,15624
3257,18042	0,15772	0,16537	0,19488	0,19273	0,15615
3255,25195	0,15775	0,16519	0,19469	0,19267	0,156
3253,32349	0,15767	0,165	0,19453	0,19266	0,15589
3251,39502	0,15756	0,16498	0,19448	0,19263	0,15578
3249,46655	0,15756	0,16496	0,19444	0,19244	0,15564
3247,53809	0,15754	0,16484	0,19431	0,19237	0,1555
3245,60962	0,15748	0,16466	0,19409	0,19237	0,15544
3243,68115	0,1574	0,16462	0,19398	0,19216	0,15537
3241,75269	0,15726	0,16458	0,19398	0,19207	0,1551
3239,82422	0,15727	0,16445	0,19383	0,1921	0,155

3237,89575	0,1573	0,16442	0,19367	0,19202	0,155
3235,96729	0,15721	0,16432	0,19352	0,19194	0,15486
3234,03882	0,15714	0,16418	0,19337	0,19193	0,15474
3232,11035	0,15705	0,16409	0,1933	0,19193	0,15466
3230,18188	0,15693	0,16398	0,19307	0,19179	0,15453
3228,25342	0,15689	0,16388	0,19292	0,19164	0,15436
3226,32495	0,15684	0,16377	0,19295	0,19162	0,15422
3224,39648	0,15675	0,16369	0,19278	0,19157	0,15417
3222,46802	0,15675	0,16351	0,19264	0,19151	0,15407
3220,53955	0,15671	0,16332	0,19258	0,19141	0,15395
3218,61108	0,15657	0,1633	0,19238	0,19126	0,15382
3216,68262	0,15653	0,16317	0,19223	0,19122	0,15365
3214,75415	0,15649	0,16306	0,19218	0,19117	0,15352
3212,82568	0,15637	0,16295	0,19199	0,191	0,15333
3210,89722	0,1563	0,16278	0,19183	0,19089	0,1532
3208,96875	0,15623	0,16273	0,19177	0,19084	0,15321
3207,04028	0,15611	0,16262	0,19164	0,19077	0,15306
3205,11182	0,15607	0,16253	0,19148	0,19073	0,15288
3203,18335	0,15609	0,16256	0,19135	0,19064	0,15281
3201,25488	0,15602	0,1625	0,19128	0,19061	0,15277
3199,32642	0,15594	0,16235	0,19124	0,19066	0,15271
3197,39795	0,15594	0,16217	0,19108	0,19056	0,15255
3195,46948	0,15581	0,16208	0,19092	0,19047	0,15239
3193,54102	0,15571	0,16209	0,19086	0,19041	0,1523
3191,61255	0,15578	0,16201	0,19075	0,19028	0,15214
3189,68408	0,15574	0,16185	0,19068	0,19023	0,15204
3187,75562	0,15563	0,16179	0,19065	0,19021	0,15195
3185,82715	0,15563	0,16167	0,1905	0,19014	0,15184
3183,89868	0,15559	0,16154	0,1903	0,19002	0,15177
3181,97021	0,15544	0,16157	0,19017	0,18991	0,15161
3180,04175	0,15541	0,16142	0,19012	0,18995	0,15146
3178,11328	0,15545	0,16121	0,19002	0,18988	0,15146
3176,18481	0,15537	0,16114	0,18986	0,18971	0,1514
3174,25635	0,15526	0,16104	0,18985	0,18971	0,15124
3172,32788	0,15519	0,16103	0,1898	0,18964	0,15113
3170,39941	0,15515	0,16094	0,18961	0,18952	0,15107
3168,47095	0,15513	0,16075	0,18945	0,18951	0,15096
3166,54248	0,15493	0,1607	0,18929	0,1894	0,15078
3164,61401	0,15475	0,16053	0,18915	0,18917	0,15065
3162,68555	0,15475	0,16035	0,18906	0,18912	0,15057
3160,75708	0,15471	0,16033	0,18894	0,18911	0,15047
3158,82861	0,15469	0,16022	0,18878	0,18898	0,15041
3156,90015	0,15456	0,16007	0,18865	0,18888	0,15025
3154,97168	0,15439	0,15999	0,18853	0,18877	0,15009
3153,04321	0,15442	0,15992	0,18847	0,18874	0,15007
3151,11475	0,15435	0,15984	0,18838	0,18874	0,14993
3149,18628	0,15412	0,15968	0,18814	0,1886	0,14973
3147,25781	0,15411	0,15945	0,18795	0,18853	0,14957
3145,32935	0,15407	0,15938	0,18782	0,18848	0,14947
3143,40088	0,15388	0,15933	0,18768	0,18833	0,14943



3141,47241	0,15392	0,15919	0,18763	0,18823	0,14928
3139,54395	0,15398	0,15912	0,18756	0,18818	0,14915
3137,61548	0,15369	0,15904	0,18738	0,18802	0,14905
3135,68701	0,1535	0,15892	0,18722	0,18788	0,14887
3133,75854	0,15348	0,1588	0,18708	0,18784	0,14872
3131,83008	0,15336	0,15864	0,18696	0,18766	0,1486
3129,90161	0,15331	0,15852	0,18685	0,18759	0,14851
3127,97314	0,15325	0,15841	0,18672	0,1876	0,14838
3126,04468	0,15308	0,1583	0,18661	0,18743	0,14818
3124,11621	0,15304	0,15823	0,18653	0,18733	0,14808
3122,18774	0,15305	0,15815	0,18637	0,18724	0,14797
3120,25928	0,15291	0,15803	0,18614	0,18715	0,1479
3118,33081	0,15276	0,15788	0,18608	0,18714	0,14785
3116,40234	0,15269	0,15776	0,18607	0,187	0,14772
3114,47388	0,15259	0,15765	0,18591	0,18687	0,14765
3112,54541	0,15242	0,15753	0,18573	0,18669	0,14744
3110,61694	0,15228	0,1574	0,18559	0,18654	0,14724
3108,68848	0,15219	0,1572	0,1855	0,1867	0,14732
3106,76001	0,15206	0,157	0,1854	0,18651	0,14711
3104,83154	0,15194	0,1569	0,18518	0,18611	0,14678
3102,90308	0,15187	0,15679	0,185	0,18616	0,1468
3100,97461	0,15179	0,15672	0,18489	0,18615	0,14671
3099,04614	0,15167	0,15659	0,18477	0,18598	0,14655
3097,11768	0,1516	0,15641	0,18468	0,18591	0,14646
3095,18921	0,15149	0,1564	0,18459	0,18565	0,14625
3093,26074	0,15132	0,15638	0,18442	0,18552	0,14616
3091,33228	0,15126	0,15623	0,18428	0,18553	0,14615
3089,40381	0,15117	0,15614	0,18426	0,18545	0,14601
3087,47534	0,15114	0,15611	0,18422	0,18542	0,14588
3085,54688	0,15121	0,15605	0,18413	0,18526	0,14578
3083,61841	0,15103	0,15594	0,18404	0,1851	0,14563
3081,68994	0,15084	0,1558	0,18384	0,18508	0,14551
3079,76147	0,15082	0,15565	0,18365	0,18492	0,14545
3077,83301	0,15071	0,15558	0,18359	0,18482	0,14528
3075,90454	0,15055	0,15545	0,1834	0,18472	0,14509
3073,97607	0,15046	0,15522	0,18323	0,18457	0,14504
3072,04761	0,15033	0,15515	0,18318	0,18455	0,14494
3070,11914	0,15023	0,15509	0,18306	0,18449	0,14484
3068,19067	0,1503	0,15495	0,18299	0,18441	0,14483
3066,26221	0,15025	0,15484	0,18286	0,18433	0,1447
3064,33374	0,15002	0,15465	0,18266	0,1842	0,1445
3062,40527	0,1499	0,1545	0,18256	0,1841	0,14444
3060,47681	0,14981	0,15442	0,18243	0,184	0,14434
3058,54834	0,14976	0,15436	0,18232	0,18393	0,14418
3056,61987	0,14968	0,1543	0,18217	0,18389	0,14406
3054,69141	0,14952	0,15408	0,18202	0,18381	0,14389
3052,76294	0,14956	0,15397	0,18199	0,18382	0,14385
3050,83447	0,14959	0,15396	0,18194	0,1839	0,1439
3048,90601	0,14942	0,15378	0,18182	0,18372	0,14374
3046,97754	0,14927	0,15372	0,18164	0,18347	0,14357

3045,04907	0,14923	0,15373	0,1815	0,18347	0,14351
3043,12061	0,14918	0,15361	0,18144	0,18346	0,14336
3041,19214	0,14909	0,15344	0,18133	0,1833	0,14328
3039,26367	0,14896	0,15329	0,18109	0,18321	0,14325
3037,33521	0,14884	0,15314	0,18092	0,18314	0,14304
3035,40674	0,14881	0,15305	0,18089	0,18307	0,14291
3033,47827	0,1488	0,15298	0,18085	0,18311	0,14285
3031,5498	0,14863	0,15285	0,18076	0,18292	0,14265
3029,62134	0,14845	0,15275	0,18064	0,1826	0,14252
3027,69287	0,14835	0,15268	0,18052	0,18257	0,14248
3025,7644	0,1483	0,1526	0,18049	0,18251	0,14234
3023,83594	0,14832	0,1526	0,18041	0,18238	0,14225
3021,90747	0,1482	0,15246	0,18027	0,18235	0,14219
3019,979	0,14811	0,15233	0,18015	0,18228	0,1421
3018,05054	0,14819	0,15238	0,18011	0,18216	0,14208
3016,12207	0,14818	0,15225	0,18002	0,18203	0,14198
3014,1936	0,1481	0,15205	0,17986	0,18212	0,14188
3012,26514	0,14804	0,15197	0,17978	0,1822	0,14186
3010,33667	0,14787	0,15183	0,17974	0,18186	0,14177
3008,4082	0,14765	0,15169	0,17958	0,18168	0,1416
3006,47974	0,14759	0,15162	0,17942	0,18173	0,14151
3004,55127	0,14756	0,15156	0,17934	0,18164	0,14149
3002,6228	0,1474	0,15145	0,17925	0,18155	0,14138
3000,69434	0,14731	0,15132	0,1792	0,18144	0,14127
2998,76587	0,14727	0,15124	0,17923	0,18143	0,14122
2996,8374	0,14719	0,15117	0,17912	0,18147	0,14109
2994,90894	0,14715	0,15102	0,17907	0,18133	0,14096
2992,98047	0,14712	0,15092	0,17913	0,18122	0,14096
2991,052	0,147	0,15087	0,17893	0,1812	0,14099
2989,12354	0,1469	0,15076	0,17879	0,18111	0,14093
2987,19507	0,14684	0,15063	0,17885	0,18106	0,14084
2985,2666	0,14673	0,1505	0,17879	0,18108	0,14081
2983,33813	0,14672	0,15041	0,17881	0,18106	0,14081
2981,40967	0,14673	0,1504	0,17896	0,18112	0,14089
2979,4812	0,14664	0,15033	0,17911	0,18113	0,14093
2977,55273	0,14664	0,15019	0,17928	0,18116	0,141
2975,62427	0,14662	0,15012	0,17953	0,18144	0,14126
2973,6958	0,14647	0,1501	0,17999	0,18172	0,14165
2971,76733	0,14641	0,14995	0,18071	0,18201	0,14223
2969,83887	0,14645	0,14981	0,18159	0,18263	0,14299
2967,9104	0,14639	0,14978	0,18261	0,18332	0,14378
2965,98193	0,14632	0,14976	0,18355	0,18383	0,14446
2964,05347	0,14639	0,14978	0,18431	0,18417	0,14494
2962,125	0,14641	0,14975	0,18497	0,18447	0,14547
2960,19653	0,14634	0,14963	0,18541	0,18465	0,14589
2958,26807	0,14638	0,14958	0,1855	0,18462	0,14582
2956,3396	0,14635	0,14954	0,18537	0,18444	0,14554
2954,41113	0,14624	0,14947	0,18519	0,18403	0,14522
2952,48267	0,14615	0,14946	0,18485	0,18371	0,14476
2950,5542	0,14604	0,14938	0,18431	0,18358	0,14429

2948,62573	0,14604	0,14919	0,18377	0,18326	0,14392
2946,69727	0,14608	0,14911	0,18351	0,18309	0,14374
2944,7688	0,146	0,14914	0,18365	0,1832	0,14374
2942,84033	0,1459	0,14908	0,18383	0,18325	0,14387
2940,91187	0,14585	0,149	0,18403	0,18339	0,14412
2938,9834	0,14588	0,14899	0,18441	0,1837	0,14453
2937,05493	0,14597	0,14899	0,18483	0,18401	0,14496
2935,12646	0,14599	0,14895	0,18533	0,18419	0,14525
2933,198	0,14594	0,14889	0,18569	0,18424	0,14546
2931,26953	0,14597	0,14887	0,1858	0,18431	0,14558
2929,34106	0,14605	0,14883	0,18594	0,18431	0,1455
2927,4126	0,14598	0,14872	0,18583	0,18408	0,14524
2925,48413	0,14588	0,14867	0,18547	0,18374	0,14484
2923,55566	0,14578	0,14852	0,18515	0,18343	0,14429
2921,6272	0,14558	0,14831	0,18463	0,18303	0,14375
2919,69873	0,14544	0,14824	0,18395	0,18247	0,14319
2917,77026	0,14534	0,14808	0,18325	0,18188	0,14244
2915,8418	0,1452	0,14788	0,18245	0,18145	0,14178
2913,91333	0,14509	0,14778	0,18165	0,1812	0,14134
2911,98486	0,145	0,14768	0,18085	0,1809	0,14087
2910,0564	0,14494	0,14758	0,18011	0,18055	0,14046
2908,12793	0,14482	0,14749	0,17956	0,18026	0,14011
2906,19946	0,14463	0,14733	0,17902	0,17996	0,13972
2904,271	0,14453	0,14715	0,17852	0,17972	0,13945
2902,34253	0,14447	0,1471	0,17816	0,17958	0,13918
2900,41406	0,14432	0,14703	0,1778	0,1794	0,13885
2898,4856	0,14419	0,1469	0,17746	0,17922	0,13857
2896,55713	0,14417	0,14686	0,17718	0,17905	0,13836
2894,62866	0,14413	0,14676	0,17686	0,17884	0,13812
2892,7002	0,14403	0,14657	0,17654	0,17864	0,13787
2890,77173	0,14403	0,14648	0,17633	0,17842	0,13772
2888,84326	0,14391	0,14642	0,1761	0,17823	0,13761
2886,91479	0,14371	0,14634	0,17591	0,17819	0,13751
2884,98633	0,14367	0,14627	0,17591	0,17824	0,13751
2883,05786	0,14363	0,14616	0,17593	0,17834	0,13752
2881,12939	0,14363	0,14607	0,17591	0,17847	0,13769
2879,20093	0,14366	0,14603	0,176	0,17855	0,13788
2877,27246	0,14355	0,14603	0,17615	0,17857	0,13787
2875,34399	0,14351	0,14601	0,17641	0,17856	0,13797
2873,41553	0,14351	0,14598	0,17677	0,17863	0,13808
2871,48706	0,1434	0,14589	0,17691	0,17874	0,1381
2869,55859	0,1433	0,14579	0,17684	0,17881	0,13822
2867,63013	0,14331	0,14573	0,1768	0,17892	0,1382
2865,70166	0,1433	0,1456	0,17682	0,17898	0,13809
2863,77319	0,14328	0,14554	0,17692	0,17889	0,13816
2861,84473	0,14324	0,14558	0,17712	0,17887	0,1383
2859,91626	0,14317	0,14553	0,17734	0,17898	0,1384
2857,98779	0,14311	0,1455	0,17744	0,17888	0,1383
2856,05933	0,1431	0,14545	0,17723	0,17863	0,13799
2854,13086	0,1431	0,14531	0,1768	0,1785	0,13765

2852,20239	0,14301	0,14521	0,17628	0,1782	0,13725
2850,27393	0,1428	0,14506	0,1756	0,17776	0,13675
2848,34546	0,14263	0,1449	0,17484	0,17738	0,1362
2846,41699	0,14251	0,14479	0,17413	0,17694	0,13563
2844,48853	0,14234	0,14465	0,17348	0,17659	0,13514
2842,56006	0,14226	0,14454	0,1729	0,17628	0,13477
2840,63159	0,14228	0,14446	0,17247	0,17595	0,13444
2838,70313	0,14221	0,14436	0,17217	0,17577	0,13415
2836,77466	0,14205	0,14422	0,1718	0,17558	0,13393
2834,84619	0,14194	0,14415	0,17144	0,17537	0,13374
2832,91772	0,14183	0,14409	0,17126	0,17529	0,13356
2830,98926	0,1417	0,14395	0,17112	0,17517	0,13337
2829,06079	0,14166	0,14388	0,17087	0,17494	0,13318
2827,13232	0,14167	0,14379	0,17074	0,17481	0,13307
2825,20386	0,14162	0,14369	0,17068	0,17481	0,13299
2823,27539	0,14153	0,14366	0,17051	0,1747	0,13282
2821,34692	0,14145	0,14357	0,17038	0,17452	0,13272
2819,41846	0,14139	0,14344	0,17026	0,17447	0,1327
2817,48999	0,14137	0,14332	0,17013	0,17451	0,13265
2815,56152	0,14133	0,14322	0,17	0,1745	0,13255
2813,63306	0,14124	0,14317	0,16987	0,17443	0,13241
2811,70459	0,14119	0,14316	0,16982	0,17444	0,1323
2809,77612	0,14121	0,14314	0,16975	0,17445	0,13218
2807,84766	0,14115	0,14303	0,16958	0,17435	0,1321
2805,91919	0,14107	0,14296	0,16947	0,1742	0,13209
2803,99072	0,14107	0,14292	0,16941	0,17408	0,13193
2802,06226	0,141	0,14283	0,16928	0,17407	0,13184
2800,13379	0,14097	0,14275	0,16917	0,17404	0,13186
2798,20532	0,14098	0,14263	0,16913	0,17399	0,13175
2796,27686	0,14091	0,14258	0,16902	0,17399	0,13167
2794,34839	0,14086	0,14258	0,16888	0,17389	0,13156
2792,41992	0,14082	0,14246	0,16886	0,1738	0,13145
2790,49146	0,14079	0,14243	0,16884	0,1738	0,13144
2788,56299	0,14079	0,14242	0,16876	0,17379	0,13134
2786,63452	0,1407	0,14232	0,16871	0,17373	0,13119
2784,70605	0,14064	0,14227	0,16861	0,17358	0,13122
2782,77759	0,14066	0,14216	0,16848	0,17357	0,13123
2780,84912	0,14059	0,14205	0,16845	0,17363	0,13109
2778,92065	0,1405	0,14206	0,16844	0,17353	0,13095
2776,99219	0,14046	0,14205	0,16836	0,17346	0,13087
2775,06372	0,14048	0,14192	0,16821	0,17342	0,13083
2773,13525	0,14044	0,14181	0,16812	0,17334	0,13078
2771,20679	0,14036	0,14182	0,16804	0,1733	0,13063
2769,27832	0,14035	0,14177	0,16794	0,17332	0,13051
2767,34985	0,14034	0,1417	0,16794	0,17333	0,13054
2765,42139	0,14029	0,14174	0,1679	0,17326	0,13051
2763,49292	0,14027	0,14165	0,16777	0,17319	0,13044
2761,56445	0,14018	0,14151	0,16766	0,17316	0,1304
2759,63599	0,14008	0,1415	0,16758	0,17311	0,13035
2757,70752	0,14012	0,1414	0,16753	0,17303	0,13025

2755,77905	0,14006	0,14134	0,16747	0,17293	0,13017
2753,85059	0,13996	0,14137	0,16743	0,17287	0,13016
2751,92212	0,13997	0,14128	0,16738	0,17287	0,13012
2749,99365	0,13991	0,14119	0,16728	0,17284	0,13002
2748,06519	0,13986	0,14122	0,16718	0,17282	0,13002
2746,13672	0,13984	0,14119	0,16707	0,17283	0,12998
2744,20825	0,13973	0,14107	0,16698	0,1728	0,12983
2742,27979	0,13971	0,14097	0,16692	0,17281	0,12979
2740,35132	0,13967	0,14092	0,1669	0,17279	0,12971
2738,42285	0,13958	0,14086	0,16689	0,17262	0,12956
2736,49438	0,1396	0,14078	0,16683	0,17252	0,12956
2734,56592	0,13958	0,14077	0,16678	0,17251	0,12955
2732,63745	0,13953	0,14074	0,16672	0,17243	0,12944
2730,70898	0,13951	0,14064	0,1666	0,17236	0,12937
2728,78052	0,13947	0,14061	0,16652	0,17236	0,12931
2726,85205	0,13943	0,1406	0,16651	0,17232	0,1292
2724,92358	0,13935	0,1405	0,16645	0,17217	0,12912
2722,99512	0,13928	0,14047	0,16631	0,17218	0,12907
2721,06665	0,13928	0,14042	0,16621	0,17226	0,12904
2719,13818	0,13921	0,14032	0,16617	0,1722	0,12899
2717,20972	0,1392	0,14027	0,16614	0,17215	0,12893
2715,28125	0,1392	0,14022	0,16609	0,17215	0,12891
2713,35278	0,13913	0,14015	0,16602	0,17215	0,12881
2711,42432	0,13913	0,14003	0,16595	0,17213	0,12867
2709,49585	0,13909	0,13995	0,16589	0,17209	0,12867
2707,56738	0,139	0,14001	0,16585	0,17202	0,12869
2705,63892	0,139	0,14002	0,1658	0,1719	0,12861
2703,71045	0,13909	0,14	0,16574	0,1719	0,12857
2701,78198	0,13909	0,13996	0,16567	0,17191	0,12858
2699,85352	0,13899	0,13986	0,16555	0,17182	0,12855
2697,92505	0,13895	0,13987	0,16546	0,17185	0,12853
2695,99658	0,13887	0,13988	0,16541	0,1718	0,12849
2694,06812	0,13877	0,13982	0,16536	0,17164	0,12841
2692,13965	0,13877	0,13978	0,16534	0,17164	0,12841
2690,21118	0,13872	0,13972	0,1653	0,17164	0,12843
2688,28271	0,1387	0,13969	0,1653	0,17161	0,12832
2686,35425	0,1387	0,13962	0,16529	0,1716	0,12822
2684,42578	0,13861	0,13958	0,1652	0,17158	0,12814
2682,49731	0,13856	0,13958	0,16515	0,17165	0,1281
2680,56885	0,13859	0,13953	0,16509	0,17173	0,12815
2678,64038	0,13864	0,13955	0,16502	0,17172	0,12811
2676,71191	0,13864	0,13952	0,16494	0,1717	0,12801
2674,78345	0,13859	0,13946	0,16487	0,17173	0,12799
2672,85498	0,13855	0,13955	0,16489	0,17175	0,12792
2670,92651	0,13854	0,13953	0,16484	0,17173	0,12788
2668,99805	0,13852	0,13945	0,16473	0,17184	0,12795
2667,06958	0,13848	0,13949	0,16472	0,17193	0,12791
2665,14111	0,13843	0,13946	0,16465	0,17192	0,12789
2663,21265	0,13848	0,13943	0,16458	0,17193	0,12791
2661,28418	0,1385	0,13944	0,16461	0,17191	0,12785

2659,35571	0,13845	0,13938	0,16458	0,17186	0,12784
2657,42725	0,13847	0,13929	0,16455	0,17181	0,12783
2655,49878	0,13845	0,1393	0,16453	0,17182	0,12777
2653,57031	0,13836	0,13936	0,16446	0,17191	0,12775
2651,64185	0,13836	0,13931	0,16443	0,17191	0,1277
2649,71338	0,13831	0,13925	0,1644	0,17189	0,12768
2647,78491	0,13824	0,13928	0,16432	0,1719	0,12766
2645,85645	0,1383	0,1393	0,16434	0,17187	0,12761
2643,92798	0,13836	0,13929	0,16436	0,17187	0,12762
2641,99951	0,13841	0,13923	0,1643	0,17182	0,12759
2640,07104	0,13838	0,13917	0,16424	0,17178	0,12752
2638,14258	0,13822	0,13921	0,16419	0,17178	0,12749
2636,21411	0,13816	0,13919	0,16413	0,17171	0,12741
2634,28564	0,13817	0,13913	0,16411	0,17176	0,12735
2632,35718	0,13813	0,13909	0,16409	0,1719	0,12737
2630,42871	0,13808	0,13902	0,16399	0,17187	0,12732
2628,50024	0,13806	0,13898	0,16389	0,17177	0,12723
2626,57178	0,13802	0,13896	0,16384	0,17168	0,12729
2624,64331	0,13794	0,13889	0,16375	0,17165	0,12731
2622,71484	0,13793	0,13885	0,16367	0,1716	0,12718
2620,78638	0,13788	0,13883	0,16363	0,17145	0,1271
2618,85791	0,13775	0,13874	0,16356	0,17138	0,12711
2616,92944	0,13773	0,13869	0,16346	0,17139	0,12704
2615,00098	0,13774	0,13864	0,1634	0,17132	0,12688
2613,07251	0,13761	0,1385	0,16334	0,17125	0,12676
2611,14404	0,13751	0,13838	0,16329	0,17121	0,12667
2609,21558	0,13746	0,1383	0,16321	0,17108	0,1266
2607,28711	0,1374	0,13825	0,16305	0,1709	0,12651
2605,35864	0,13735	0,13823	0,16298	0,17083	0,12646
2603,43018	0,13727	0,13814	0,16298	0,17072	0,12645
2601,50171	0,1372	0,13802	0,16283	0,17054	0,12632
2599,57324	0,13711	0,13798	0,16272	0,17041	0,12617
2597,64478	0,13698	0,13794	0,16267	0,17025	0,12603
2595,71631	0,13694	0,13783	0,16252	0,17009	0,12593
2593,78784	0,13689	0,13771	0,16248	0,17002	0,12586
2591,85938	0,13678	0,13766	0,16243	0,1699	0,12575
2589,93091	0,1367	0,13764	0,16225	0,16976	0,12566
2588,00244	0,13657	0,13754	0,16216	0,16957	0,12546
2586,07397	0,13652	0,13739	0,16208	0,16944	0,12533
2584,14551	0,13653	0,1373	0,16196	0,16937	0,12539
2582,21704	0,13641	0,13722	0,16189	0,16918	0,12522
2580,28857	0,13627	0,13712	0,16185	0,16898	0,125
2578,36011	0,13615	0,13703	0,16175	0,16888	0,12499
2576,43164	0,13604	0,13693	0,16161	0,16876	0,12494
2574,50317	0,13597	0,13687	0,16151	0,16867	0,12483
2572,57471	0,13589	0,13683	0,1614	0,16855	0,12477
2570,64624	0,13582	0,13674	0,16127	0,16835	0,12472
2568,71777	0,13575	0,13667	0,16123	0,16816	0,1246
2566,78931	0,13568	0,13654	0,16114	0,16798	0,12443
2564,86084	0,13567	0,13639	0,16103	0,16789	0,12435

2562,93237	0,13562	0,13632	0,16097	0,16791	0,12429
2561,00391	0,13552	0,13625	0,16084	0,16787	0,12416
2559,07544	0,13543	0,13615	0,16073	0,16777	0,12406
2557,14697	0,13533	0,13604	0,1607	0,1677	0,124
2555,21851	0,1353	0,13594	0,16059	0,16755	0,12394
2553,29004	0,13529	0,13591	0,16044	0,1674	0,12388
2551,36157	0,13517	0,13584	0,16036	0,16728	0,12374
2549,43311	0,13503	0,13571	0,16031	0,16715	0,12365
2547,50464	0,13504	0,1356	0,16019	0,16708	0,1236
2545,57617	0,13503	0,13555	0,16008	0,16694	0,12347
2543,64771	0,13494	0,1355	0,16006	0,16686	0,1234
2541,71924	0,13492	0,13545	0,16005	0,16688	0,1234
2539,79077	0,13487	0,13546	0,16	0,16673	0,12334
2537,8623	0,13477	0,13543	0,15997	0,1666	0,1233
2535,93384	0,1347	0,13535	0,15991	0,16659	0,12331
2534,00537	0,13456	0,13531	0,15976	0,16652	0,12328
2532,0769	0,13451	0,13529	0,15969	0,16643	0,1232
2530,14844	0,13459	0,13524	0,15969	0,16636	0,12313
2528,21997	0,13455	0,13515	0,15961	0,16628	0,12307
2526,2915	0,13448	0,13508	0,15949	0,1662	0,12297
2524,36304	0,13448	0,1351	0,15938	0,16611	0,12293
2522,43457	0,13445	0,13506	0,15939	0,16604	0,12287
2520,5061	0,13442	0,13496	0,1594	0,16603	0,12275
2518,57764	0,13438	0,13492	0,1593	0,16601	0,12271
2516,64917	0,1343	0,13491	0,15922	0,16596	0,12262
2514,7207	0,13429	0,13486	0,15911	0,16594	0,12245
2512,79224	0,13431	0,13475	0,15904	0,16588	0,1224
2510,86377	0,13423	0,13466	0,15903	0,16581	0,12244
2508,9353	0,13416	0,13459	0,15896	0,16576	0,12243
2507,00684	0,13415	0,13447	0,15887	0,16568	0,12239
2505,07837	0,13412	0,13439	0,1588	0,16558	0,12235
2503,1499	0,13405	0,13442	0,15877	0,16549	0,12232
2501,22144	0,13399	0,1344	0,15874	0,16537	0,12224
2499,29297	0,13399	0,13431	0,15869	0,16533	0,12226
2497,3645	0,134	0,13434	0,15868	0,16538	0,12228
2495,43604	0,13392	0,13439	0,15867	0,16531	0,12211
2493,50757	0,13383	0,13434	0,15855	0,16514	0,12198
2491,5791	0,13386	0,13433	0,15843	0,16506	0,12199
2489,65063	0,13383	0,1343	0,15834	0,165	0,12196
2487,72217	0,13372	0,13426	0,15826	0,16496	0,12191
2485,7937	0,13368	0,13424	0,15826	0,16495	0,12189
2483,86523	0,13366	0,13416	0,15827	0,16489	0,1218
2481,93677	0,13362	0,13417	0,15818	0,16479	0,12168
2480,0083	0,13358	0,13418	0,15818	0,16477	0,12164
2478,07983	0,13352	0,13408	0,15818	0,16477	0,12163
2476,15137	0,13346	0,13411	0,15809	0,16464	0,12161
2474,2229	0,13341	0,13414	0,15808	0,16449	0,12156
2472,29443	0,13338	0,13405	0,15806	0,16445	0,12155
2470,36597	0,13335	0,13399	0,15792	0,16436	0,12145
2468,4375	0,13334	0,13395	0,15786	0,16418	0,1213

2466,50903	0,13335	0,13394	0,15787	0,16413	0,12129
2464,58057	0,13326	0,13392	0,15785	0,16418	0,12131
2462,6521	0,13321	0,13382	0,15782	0,16414	0,12128
2460,72363	0,13323	0,1338	0,15773	0,16406	0,12123
2458,79517	0,13312	0,13381	0,15763	0,16401	0,1211
2456,8667	0,13308	0,13376	0,15757	0,16396	0,12108
2454,93823	0,13311	0,13372	0,15749	0,16387	0,12108
2453,00977	0,13304	0,13368	0,15743	0,16376	0,12093
2451,0813	0,13299	0,1336	0,15739	0,16366	0,12082
2449,15283	0,13295	0,13355	0,15731	0,16369	0,12083
2447,22437	0,13286	0,13353	0,15726	0,16367	0,12073
2445,2959	0,13276	0,13347	0,15722	0,16357	0,12062
2443,36743	0,13276	0,1334	0,15715	0,16358	0,12061
2441,43896	0,13278	0,1333	0,15713	0,16356	0,12056
2439,5105	0,13269	0,13324	0,15708	0,16348	0,12055
2437,58203	0,13265	0,13327	0,15698	0,16343	0,1206
2435,65356	0,1327	0,13328	0,15697	0,16337	0,12054
2433,7251	0,13262	0,13323	0,15694	0,16334	0,12052
2431,79663	0,13248	0,13321	0,15689	0,16327	0,12048
2429,86816	0,13249	0,13314	0,15687	0,16314	0,12038
2427,9397	0,13247	0,13307	0,15678	0,16306	0,12041
2426,01123	0,13236	0,13305	0,15671	0,16305	0,12039
2424,08276	0,13238	0,13303	0,15665	0,163	0,12034
2422,1543	0,13242	0,13305	0,1566	0,16288	0,12032
2420,22583	0,13237	0,13306	0,15657	0,16275	0,12023
2418,29736	0,13234	0,13303	0,15653	0,16262	0,12017
2416,3689	0,13229	0,13304	0,15643	0,16255	0,12012
2414,44043	0,13222	0,13305	0,15634	0,16261	0,12008
2412,51196	0,13222	0,13303	0,15636	0,1626	0,12015
2410,5835	0,13224	0,13301	0,15635	0,16248	0,12015
2408,65503	0,13222	0,133	0,15631	0,16243	0,12004
2406,72656	0,13217	0,13299	0,15633	0,16238	0,11994
2404,7981	0,13213	0,13293	0,15629	0,16227	0,11983
2402,86963	0,1321	0,13293	0,15624	0,16231	0,11976
2400,94116	0,13203	0,13294	0,1562	0,16232	0,11979
2399,0127	0,132	0,13285	0,15616	0,16214	0,11982
2397,08423	0,13198	0,13286	0,15612	0,16207	0,11978
2395,15576	0,13195	0,13293	0,15607	0,16215	0,11974
2393,22729	0,13193	0,13286	0,15603	0,16207	0,1197
2391,29883	0,1319	0,13287	0,15599	0,16204	0,11965
2389,37036	0,13187	0,13291	0,15595	0,16205	0,11961
2387,44189	0,13185	0,13282	0,15591	0,16183	0,11957
2385,51343	0,13182	0,13279	0,15586	0,16179	0,11953
2383,58496	0,1318	0,13277	0,15582	0,16174	0,11948
2381,65649	0,13177	0,13274	0,15578	0,1617	0,11944
2379,72803	0,13175	0,13272	0,15574	0,16165	0,1194
2377,79956	0,13172	0,13269	0,15569	0,16161	0,11936
2375,87109	0,1317	0,13266	0,15565	0,16157	0,11931
2373,94263	0,13167	0,13264	0,15561	0,16152	0,11927
2372,01416	0,13165	0,13261	0,15557	0,16148	0,11923



2370,08569	0,13162	0,13259	0,15553	0,16143	0,11919
2368,15723	0,1316	0,13256	0,15548	0,16139	0,11914
2366,22876	0,13157	0,13254	0,15544	0,16134	0,1191
2364,30029	0,13155	0,13251	0,1554	0,1613	0,11906
2362,37183	0,13152	0,13248	0,15536	0,16126	0,11901
2360,44336	0,13149	0,13246	0,15531	0,16121	0,11897
2358,51489	0,13147	0,13243	0,15527	0,16117	0,11893
2356,58643	0,13144	0,13241	0,15523	0,16112	0,11889
2354,65796	0,13142	0,13238	0,15519	0,16108	0,11884
2352,72949	0,13139	0,13235	0,15515	0,16104	0,1188
2350,80103	0,13137	0,13233	0,1551	0,16099	0,11876
2348,87256	0,13134	0,1323	0,15506	0,16095	0,11872
2346,94409	0,13132	0,13228	0,15502	0,1609	0,11867
2345,01563	0,13129	0,13225	0,15498	0,16086	0,11863
2343,08716	0,13127	0,13222	0,15493	0,16082	0,11859
2341,15869	0,13124	0,1322	0,15489	0,16077	0,11855
2339,23022	0,13122	0,13217	0,15485	0,16073	0,1185
2337,30176	0,13119	0,13215	0,15481	0,16068	0,11846
2335,37329	0,13117	0,13212	0,15477	0,16064	0,11842
2333,44482	0,13114	0,13209	0,15472	0,16059	0,11838
2331,51636	0,13111	0,13207	0,15468	0,16055	0,11833
2329,58789	0,13109	0,13204	0,15464	0,16051	0,11829
2327,65942	0,13106	0,13202	0,1546	0,16046	0,11825
2325,73096	0,13104	0,13199	0,15455	0,16042	0,1182
2323,80249	0,13101	0,13196	0,15451	0,16037	0,11816
2321,87402	0,13099	0,13194	0,15447	0,16033	0,11812
2319,94556	0,13096	0,13191	0,15443	0,16029	0,11808
2318,01709	0,13094	0,13189	0,15439	0,16024	0,11803
2316,08862	0,13091	0,13186	0,15434	0,1602	0,11799
2314,16016	0,13089	0,13184	0,1543	0,16015	0,11795
2312,23169	0,13086	0,13181	0,15426	0,16011	0,11791
2310,30322	0,13084	0,13178	0,15422	0,16007	0,11786
2308,37476	0,13081	0,13176	0,15417	0,16002	0,11782
2306,44629	0,13079	0,13173	0,15413	0,15998	0,11778
2304,51782	0,13076	0,13171	0,15409	0,15993	0,11774
2302,58936	0,13073	0,13168	0,15405	0,15989	0,11769
2300,66089	0,13071	0,13165	0,15401	0,15984	0,11765
2298,73242	0,13068	0,13153	0,15396	0,1598	0,11761
2296,80396	0,13066	0,13148	0,15392	0,15976	0,11757
2294,87549	0,13063	0,13138	0,15388	0,15971	0,11752
2292,94702	0,13061	0,13128	0,15384	0,15967	0,11748
2291,01855	0,13058	0,13128	0,15379	0,15962	0,11744
2289,09009	0,13056	0,13125	0,15375	0,15958	0,11739
2287,16162	0,13053	0,13128	0,15371	0,15954	0,11735
2285,23315	0,13051	0,13132	0,15367	0,15949	0,11731
2283,30469	0,13048	0,13114	0,15363	0,15945	0,11727
2281,37622	0,13046	0,13093	0,15358	0,1594	0,11722
2279,44775	0,13043	0,13106	0,15354	0,15936	0,11718
2277,51929	0,13041	0,13123	0,1535	0,15932	0,11714
2275,59082	0,13038	0,13118	0,15346	0,15927	0,1171

2273,66235	0,13035	0,13108	0,15341	0,15924	0,11704
2271,73389	0,13033	0,13108	0,15337	0,15913	0,11699
2269,80542	0,1303	0,13109	0,15333	0,15899	0,11699
2267,87695	0,13028	0,13109	0,15329	0,159	0,11699
2265,94849	0,13025	0,13102	0,15325	0,15896	0,11697
2264,02002	0,13023	0,13096	0,15326	0,15895	0,11701
2262,09155	0,1302	0,13098	0,15321	0,15892	0,11701
2260,16309	0,13018	0,13103	0,1531	0,15898	0,11701
2258,23462	0,13013	0,13103	0,15296	0,15904	0,11705
2256,30615	0,13007	0,13092	0,15296	0,15895	0,117
2254,37769	0,13001	0,13086	0,153	0,15887	0,11696
2252,44922	0,13005	0,1309	0,15287	0,15882	0,117
2250,52075	0,13003	0,13083	0,15281	0,15872	0,11696
2248,59229	0,13001	0,13074	0,15277	0,15866	0,11688
2246,66382	0,13001	0,13074	0,15268	0,15869	0,11685
2244,73535	0,12991	0,13065	0,15269	0,15863	0,11679
2242,80688	0,12992	0,13058	0,15266	0,15852	0,11674
2240,87842	0,12991	0,13064	0,15258	0,15847	0,11678
2238,94995	0,12982	0,13064	0,15251	0,15848	0,11676
2237,02148	0,12982	0,13059	0,15244	0,1584	0,11665
2235,09302	0,12978	0,13055	0,1524	0,15829	0,11662
2233,16455	0,12976	0,13048	0,15234	0,15835	0,11662
2231,23608	0,12978	0,13041	0,15229	0,15829	0,11652
2229,30762	0,1297	0,13037	0,15225	0,15817	0,11647
2227,37915	0,12964	0,13032	0,15217	0,15818	0,11647
2225,45068	0,12965	0,13031	0,1521	0,15814	0,11643
2223,52222	0,12967	0,13031	0,15203	0,15813	0,11636
2221,59375	0,12967	0,13025	0,15193	0,15814	0,11623
2219,66528	0,12963	0,13016	0,15187	0,15802	0,11611
2217,73682	0,1296	0,13014	0,15185	0,15793	0,11614
2215,80835	0,1296	0,13023	0,15183	0,15796	0,11621
2213,87988	0,12958	0,13022	0,1518	0,15787	0,11615
2211,95142	0,1295	0,13006	0,15179	0,15763	0,11601
2210,02295	0,12947	0,13003	0,15178	0,15755	0,11589
2208,09448	0,1294	0,13008	0,15166	0,15749	0,11577
2206,16602	0,1293	0,13001	0,15153	0,15732	0,11569
2204,23755	0,12927	0,12986	0,15143	0,15722	0,11571
2202,30908	0,12928	0,12977	0,15134	0,15715	0,11569
2200,38062	0,12926	0,1298	0,15126	0,15703	0,11561
2198,45215	0,1292	0,12975	0,15121	0,15695	0,11549
2196,52368	0,12911	0,12964	0,15119	0,15698	0,11547
2194,59521	0,12899	0,12961	0,15109	0,15696	0,11556
2192,66675	0,12894	0,12951	0,15096	0,15683	0,1155
2190,73828	0,12899	0,12941	0,15089	0,15673	0,11531
2188,80981	0,12899	0,1294	0,15089	0,15661	0,11523
2186,88135	0,12893	0,12935	0,15085	0,15652	0,1152
2184,95288	0,12882	0,1293	0,15076	0,15646	0,11516
2183,02441	0,12879	0,12934	0,15069	0,15637	0,11514
2181,09595	0,12879	0,12934	0,15058	0,15638	0,11514
2179,16748	0,12869	0,12924	0,1505	0,15631	0,11511

2177,23901	0,12865	0,12921	0,1504	0,15611	0,11509
2175,31055	0,12866	0,12922	0,15025	0,15607	0,11503
2173,38208	0,12862	0,12918	0,15028	0,1562	0,11497
2171,45361	0,12853	0,12912	0,15024	0,15614	0,11489
2169,52515	0,1284	0,12897	0,15001	0,15599	0,11475
2167,59668	0,12836	0,12894	0,15007	0,15608	0,11477
2165,66821	0,12839	0,12904	0,15016	0,15611	0,1148
2163,73975	0,12835	0,12894	0,15004	0,15601	0,11471
2161,81128	0,12832	0,12882	0,15001	0,15599	0,1147
2159,88281	0,12833	0,12882	0,14995	0,15594	0,11461
2157,95435	0,12829	0,12874	0,14982	0,15593	0,11446
2156,02588	0,12828	0,12868	0,14982	0,15591	0,11451
2154,09741	0,12829	0,12867	0,14977	0,15584	0,1145
2152,16895	0,12822	0,1286	0,14966	0,15586	0,11438
2150,24048	0,1282	0,12851	0,14964	0,15584	0,11436
2148,31201	0,12818	0,12841	0,1496	0,15585	0,11433
2146,38354	0,12806	0,12833	0,14958	0,15577	0,11424
2144,45508	0,12801	0,12835	0,14956	0,15564	0,11422
2142,52661	0,12803	0,1284	0,1495	0,15573	0,11418
2140,59814	0,12807	0,12838	0,14942	0,15569	0,11405
2138,66968	0,12806	0,12835	0,14937	0,15557	0,11397
2136,74121	0,128	0,12837	0,14929	0,15562	0,11395
2134,81274	0,12795	0,12828	0,14915	0,15546	0,11395
2132,88428	0,1279	0,12815	0,14903	0,15521	0,11388
2130,95581	0,12784	0,12818	0,14898	0,15523	0,11382
2129,02734	0,12779	0,12818	0,14892	0,15531	0,11379
2127,09888	0,1278	0,12808	0,14885	0,15521	0,11371
2125,17041	0,12774	0,12798	0,1488	0,15504	0,11364
2123,24194	0,12765	0,1279	0,14866	0,15491	0,11354
2121,31348	0,12761	0,12784	0,14857	0,15479	0,1134
2119,38501	0,12749	0,12773	0,14855	0,15475	0,11333
2117,45654	0,12743	0,1277	0,14849	0,15473	0,11334
2115,52808	0,12751	0,12773	0,14841	0,15465	0,1133
2113,59961	0,12751	0,12768	0,14831	0,1545	0,11314
2111,67114	0,12753	0,12768	0,14819	0,15439	0,11309
2109,74268	0,12753	0,12767	0,14806	0,15442	0,11308
2107,81421	0,1274	0,12759	0,14789	0,15445	0,11292
2105,88574	0,12737	0,12749	0,14784	0,15444	0,11286
2103,95728	0,12731	0,1274	0,14779	0,15439	0,11286
2102,02881	0,12715	0,12727	0,14762	0,15433	0,11282
2100,10034	0,12709	0,12714	0,1475	0,15432	0,11275
2098,17188	0,12701	0,12712	0,14739	0,15424	0,1126
2096,24341	0,12695	0,1271	0,14721	0,15417	0,11253
2094,31494	0,127	0,12695	0,14715	0,15413	0,11249
2092,38647	0,12697	0,12681	0,14712	0,15416	0,11236
2090,45801	0,12693	0,12671	0,147	0,15432	0,11234
2088,52954	0,12679	0,12656	0,14689	0,15437	0,11233
2086,60107	0,12669	0,12642	0,1468	0,15423	0,1122
2084,67261	0,12678	0,12632	0,14668	0,15406	0,11216
2082,74414	0,12675	0,12624	0,14662	0,15406	0,1122

2080,81567	0,1267	0,12618	0,14655	0,15415	0,1122
2078,88721	0,12672	0,12615	0,14644	0,15398	0,11223
2076,95874	0,1267	0,12616	0,14631	0,15388	0,11229
2075,03027	0,12668	0,12612	0,14621	0,15405	0,11227
2073,10181	0,12666	0,12608	0,14624	0,15412	0,11228
2071,17334	0,12664	0,12609	0,14627	0,15416	0,11232
2069,24487	0,12653	0,12607	0,14618	0,1542	0,11222
2067,31641	0,12655	0,12602	0,14622	0,15415	0,11215
2065,38794	0,12674	0,126	0,14629	0,15406	0,11213
2063,45947	0,12658	0,12601	0,14621	0,15387	0,112
2061,53101	0,12643	0,12604	0,14617	0,15373	0,11193
2059,60254	0,12657	0,12605	0,1462	0,15371	0,11199
2057,67407	0,12651	0,126	0,14622	0,15366	0,11208
2055,74561	0,12646	0,12597	0,14622	0,15364	0,11218
2053,81714	0,12649	0,12594	0,14629	0,15366	0,11218
2051,88867	0,12644	0,12598	0,14632	0,15372	0,11211
2049,96021	0,12655	0,12607	0,14627	0,15373	0,1121
2048,03174	0,12673	0,12602	0,14633	0,15367	0,1122
2046,10327	0,1267	0,12604	0,1464	0,15361	0,11227
2044,1748	0,12669	0,12619	0,14646	0,15363	0,11233
2042,24634	0,12692	0,12616	0,14658	0,15375	0,1124
2040,31787	0,127	0,12621	0,14658	0,15385	0,11246
2038,3894	0,12699	0,12632	0,14661	0,15394	0,11259
2036,46094	0,12705	0,12622	0,14667	0,15401	0,11265
2034,53247	0,12709	0,1262	0,14671	0,15402	0,1126
2032,604	0,12713	0,12623	0,14674	0,15412	0,11269
2030,67554	0,12712	0,12618	0,14658	0,15416	0,11274
2028,74707	0,12716	0,12611	0,14651	0,15419	0,11269
2026,8186	0,12721	0,126	0,14651	0,15437	0,11275
2024,89014	0,12721	0,1259	0,14642	0,15449	0,1128
2022,96167	0,12722	0,12586	0,14644	0,15435	0,11278
2021,0332	0,12709	0,12586	0,14646	0,15424	0,11281
2019,10474	0,12718	0,12587	0,14654	0,15448	0,11285
2017,17627	0,12749	0,12582	0,14661	0,15459	0,11283
2015,2478	0,12736	0,12585	0,14646	0,15439	0,11289
2013,31934	0,12729	0,126	0,14656	0,15441	0,11306
2011,39087	0,12745	0,12604	0,14674	0,15457	0,11313
2009,4624	0,12747	0,126	0,1467	0,15468	0,11325
2007,53394	0,12759	0,12597	0,14676	0,1548	0,1134
2005,60547	0,12764	0,12595	0,14689	0,1548	0,11346
2003,677	0,12763	0,12596	0,14693	0,15478	0,11352
2001,74854	0,12753	0,12605	0,14691	0,15477	0,1135
1999,82007	0,1275	0,12606	0,14696	0,15477	0,11357
1997,8916	0,12757	0,12596	0,14694	0,15462	0,1136
1995,96313	0,12733	0,12594	0,14686	0,15449	0,11348
1994,03467	0,12754	0,12592	0,147	0,15483	0,11353
1992,1062	0,12793	0,12587	0,14685	0,15477	0,11344
1990,17773	0,12753	0,12588	0,14652	0,15441	0,11324
1988,24927	0,12737	0,12582	0,14658	0,15456	0,1132
1986,3208	0,12738	0,12579	0,14647	0,15447	0,11311

1984,39233	0,12726	0,12584	0,14637	0,15434	0,11309
1982,46387	0,12728	0,12581	0,14641	0,15445	0,11313
1980,5354	0,12716	0,12574	0,14631	0,15436	0,11306
1978,60693	0,12723	0,12576	0,14636	0,15428	0,11303
1976,67847	0,1273	0,1258	0,1463	0,15419	0,11296
1974,75	0,12725	0,12575	0,14615	0,15413	0,11288
1972,82153	0,1273	0,12572	0,14607	0,15396	0,1128
1970,89307	0,1271	0,12569	0,14594	0,15371	0,11268
1968,9646	0,12714	0,12558	0,14604	0,15388	0,11262
1967,03613	0,12734	0,12547	0,14599	0,15381	0,11243
1965,10767	0,12686	0,12547	0,14561	0,15333	0,11215
1963,1792	0,12662	0,12553	0,14556	0,15331	0,11222
1961,25073	0,12673	0,12549	0,14557	0,15322	0,1122
1959,32227	0,12659	0,12542	0,14536	0,15308	0,11195
1957,3938	0,12657	0,12537	0,14529	0,15327	0,11188
1955,46533	0,12665	0,12522	0,14524	0,15325	0,11184
1953,53687	0,12666	0,12516	0,14507	0,15321	0,11175
1951,6084	0,12653	0,12516	0,14484	0,15313	0,11165
1949,67993	0,1265	0,12504	0,14479	0,15297	0,11162
1947,75146	0,12649	0,12496	0,14478	0,15274	0,1116
1945,823	0,12633	0,12486	0,14464	0,15275	0,11155
1943,89453	0,12689	0,12461	0,14475	0,15314	0,11161
1941,96606	0,12702	0,12451	0,14459	0,15256	0,1114
1940,0376	0,12619	0,12464	0,14426	0,15205	0,11127
1938,10913	0,12619	0,12468	0,14435	0,15245	0,11137
1936,18066	0,12631	0,12466	0,14425	0,15243	0,11121
1934,2522	0,12617	0,12461	0,14418	0,15239	0,11118
1932,32373	0,12607	0,12451	0,14416	0,15233	0,11118
1930,39526	0,12603	0,12449	0,14406	0,15228	0,11111
1928,4668	0,12605	0,12451	0,14395	0,15219	0,11105
1926,53833	0,12575	0,12449	0,1438	0,15208	0,11096
1924,60986	0,12628	0,12438	0,14402	0,15246	0,11104
1922,6814	0,12663	0,12417	0,1437	0,15201	0,11085
1920,75293	0,12599	0,1241	0,1434	0,15211	0,11086
1918,82446	0,12635	0,12407	0,14381	0,15284	0,11114
1916,896	0,12636	0,12391	0,14342	0,15188	0,11083
1914,96753	0,12579	0,12385	0,14321	0,15181	0,11081
1913,03906	0,12612	0,12387	0,14367	0,15257	0,11118
1911,1106	0,12656	0,12377	0,14376	0,15259	0,11123
1909,18213	0,1267	0,1236	0,14379	0,15277	0,11123
1907,25366	0,1265	0,12351	0,14385	0,15287	0,11135
1905,3252	0,12636	0,12351	0,1439	0,153	0,11156
1903,39673	0,12645	0,12351	0,14401	0,1533	0,11175
1901,46826	0,12658	0,12341	0,14411	0,15349	0,11182
1899,53979	0,12657	0,12333	0,14406	0,15352	0,11187
1897,61133	0,12672	0,1232	0,14413	0,15384	0,11204
1895,68286	0,12732	0,12298	0,14435	0,15404	0,11207
1893,75439	0,12681	0,12304	0,1441	0,15349	0,11194
1891,82593	0,12671	0,12306	0,14429	0,15399	0,11218
1889,89746	0,12774	0,1228	0,14457	0,15418	0,11215

1887,96899	0,12701	0,12274	0,144	0,15323	0,11185
1886,04053	0,12667	0,12292	0,14406	0,15376	0,11206
1884,11206	0,12719	0,12297	0,14418	0,15409	0,11212
1882,18359	0,12689	0,12287	0,14401	0,15372	0,11209
1880,25513	0,12695	0,12282	0,1442	0,15385	0,11222
1878,32666	0,12704	0,12284	0,14416	0,15378	0,11218
1876,39819	0,12692	0,12283	0,14418	0,15389	0,11227
1874,46973	0,12699	0,1228	0,14419	0,15381	0,11223
1872,54126	0,12688	0,12277	0,14411	0,15379	0,11216
1870,61279	0,12748	0,12269	0,14457	0,15449	0,11242
1868,68433	0,12848	0,12242	0,14455	0,15385	0,11192
1866,75586	0,12741	0,1224	0,14372	0,15264	0,11135
1864,82739	0,12672	0,12272	0,14376	0,15311	0,11174
1862,89893	0,1268	0,12295	0,14376	0,15323	0,11186
1860,97046	0,12672	0,123	0,14347	0,15296	0,11163
1859,04199	0,12652	0,12296	0,14328	0,15283	0,11153
1857,11353	0,12628	0,12288	0,14302	0,15237	0,11125
1855,18506	0,12608	0,12296	0,1428	0,15212	0,11108
1853,25659	0,12594	0,12294	0,14241	0,15179	0,11069
1851,32813	0,12589	0,12292	0,14227	0,15189	0,11038
1849,39966	0,12604	0,12278	0,14203	0,15152	0,11002
1847,47119	0,12626	0,12236	0,1418	0,15139	0,10969
1845,54272	0,12623	0,12246	0,14213	0,15211	0,11001
1843,61426	0,12575	0,12245	0,14118	0,1502	0,1092
1841,68579	0,12507	0,12222	0,14042	0,14949	0,10857
1839,75732	0,12524	0,12237	0,1409	0,15059	0,10885
1837,82886	0,12522	0,12239	0,14079	0,15048	0,10876
1835,90039	0,12531	0,12227	0,14056	0,15011	0,10857
1833,97192	0,12474	0,12243	0,14032	0,14996	0,10866
1832,04346	0,12542	0,12229	0,14086	0,15098	0,10893
1830,11499	0,12661	0,12184	0,14098	0,15069	0,10859
1828,18652	0,12509	0,12188	0,13995	0,14936	0,1082
1826,25806	0,12524	0,12201	0,14061	0,15058	0,10867
1824,32959	0,12577	0,12189	0,14063	0,15013	0,1085
1822,40112	0,12459	0,12204	0,13992	0,14936	0,10832
1820,47266	0,12465	0,12219	0,1404	0,15034	0,10885
1818,54419	0,12517	0,12202	0,14054	0,15042	0,10895
1816,61572	0,12494	0,12201	0,14034	0,15017	0,10881
1814,68726	0,12467	0,12208	0,14035	0,15021	0,10885
1812,75879	0,1252	0,1219	0,14057	0,15062	0,10895
1810,83032	0,12577	0,12168	0,14053	0,15058	0,1089
1808,90186	0,12526	0,12161	0,14024	0,15028	0,1088
1806,97339	0,1249	0,1216	0,14027	0,15061	0,10887
1805,04492	0,12483	0,12152	0,14022	0,1507	0,10898
1803,11646	0,12521	0,12121	0,1404	0,15107	0,10906
1801,18799	0,12583	0,12061	0,14031	0,1511	0,10878
1799,25952	0,12502	0,12054	0,1396	0,1503	0,1085
1797,33105	0,12482	0,12061	0,13944	0,15016	0,10837
1795,40259	0,12518	0,12038	0,13973	0,15092	0,10854
1793,47412	0,1249	0,12048	0,14002	0,15169	0,10912

1791,54565	0,12557	0,12032	0,13944	0,14982	0,10836
1789,61719	0,12462	0,12041	0,13887	0,14893	0,10797
1787,68872	0,12436	0,12083	0,13964	0,15051	0,10871
1785,76025	0,12484	0,12087	0,13975	0,15046	0,10877
1783,83179	0,12432	0,12074	0,13916	0,14954	0,10837
1781,90332	0,12482	0,12049	0,13931	0,14979	0,10817
1779,97485	0,12522	0,12028	0,13924	0,14975	0,10804
1778,04639	0,12424	0,1204	0,13866	0,14912	0,10804
1776,11792	0,12488	0,1201	0,13876	0,14949	0,10773
1774,18945	0,12462	0,12031	0,1393	0,15104	0,10842
1772,26099	0,12416	0,12021	0,13827	0,14906	0,10771
1770,33252	0,12413	0,11952	0,13725	0,14759	0,10646
1768,40405	0,12439	0,11978	0,13809	0,14935	0,10712
1766,47559	0,12313	0,11997	0,13702	0,14778	0,10661
1764,54712	0,1236	0,11968	0,13726	0,14845	0,10644
1762,61865	0,12413	0,11985	0,13808	0,14961	0,10723
1760,69019	0,12319	0,11962	0,13635	0,14668	0,10605
1758,76172	0,12343	0,1195	0,13691	0,14827	0,10636
1756,83325	0,12371	0,11961	0,13731	0,14883	0,10682
1754,90479	0,12291	0,11945	0,13617	0,14689	0,10609
1752,97632	0,12277	0,11968	0,13717	0,14882	0,10705
1751,04785	0,12378	0,11963	0,13765	0,149	0,10723
1749,11938	0,12457	0,11882	0,13656	0,14683	0,10595
1747,19092	0,1245	0,11889	0,13712	0,14792	0,10651
1745,26245	0,12363	0,11937	0,13735	0,14814	0,10705
1743,33398	0,12402	0,11902	0,13731	0,14788	0,10682
1741,40552	0,12366	0,11926	0,13799	0,14937	0,1078
1739,47705	0,1227	0,11955	0,13721	0,14737	0,10747
1737,54858	0,12334	0,11895	0,13701	0,14718	0,10689
1735,62012	0,12264	0,11961	0,13879	0,15112	0,10913
1733,69165	0,12215	0,11986	0,13752	0,14763	0,1082
1731,76318	0,12175	0,11884	0,13578	0,14578	0,10688
1729,83472	0,12449	0,11876	0,13784	0,14912	0,1078
1727,90625	0,12218	0,11945	0,13688	0,14779	0,10771
1725,97778	0,12268	0,11925	0,13702	0,14831	0,1075
1724,04932	0,12314	0,11938	0,1375	0,14893	0,10806
1722,12085	0,12245	0,11926	0,13658	0,14745	0,10745
1720,19238	0,1236	0,11902	0,13761	0,1495	0,10794
1718,26392	0,12342	0,11932	0,13807	0,14988	0,10849
1716,33545	0,12173	0,11922	0,13595	0,14634	0,10715
1714,40698	0,12332	0,11886	0,13623	0,14719	0,10683
1712,47852	0,12342	0,11941	0,13698	0,14847	0,10747
1710,55005	0,12265	0,11967	0,13678	0,14786	0,1076
1708,62158	0,12396	0,11916	0,13747	0,14896	0,10779
1706,69312	0,12435	0,1193	0,13805	0,14979	0,10831
1704,76465	0,12459	0,11884	0,13649	0,14711	0,1068
1702,83618	0,12427	0,11905	0,13764	0,15009	0,108
1700,90771	0,12445	0,12006	0,13904	0,15101	0,10886
1698,97925	0,122	0,11864	0,13475	0,14423	0,1059
1697,05078	0,12243	0,11862	0,13682	0,14907	0,10793

1695,12231	0,12179	0,12	0,13728	0,14799	0,10864
1693,19385	0,12245	0,11937	0,13613	0,14629	0,10731
1691,26538	0,12427	0,11953	0,13852	0,15071	0,10897
1689,33691	0,1244	0,11977	0,13802	0,14888	0,10884
1687,40845	0,12493	0,1192	0,13811	0,14957	0,10868
1685,47998	0,12262	0,1204	0,13986	0,15306	0,11123
1683,55151	0,12427	0,11965	0,13758	0,14663	0,10805
1681,62305	0,12476	0,11911	0,13748	0,14769	0,10789
1679,69458	0,12436	0,11971	0,13834	0,14964	0,10924
1677,76611	0,12386	0,12001	0,13818	0,14977	0,10977
1675,83765	0,12413	0,12032	0,13862	0,15016	0,11
1673,90918	0,12318	0,12018	0,13706	0,14735	0,10898
1671,98071	0,1242	0,11983	0,13763	0,14892	0,10929
1670,05225	0,12551	0,12017	0,13895	0,15044	0,10981
1668,12378	0,12363	0,12045	0,13651	0,14619	0,10843
1666,19531	0,12355	0,1206	0,13697	0,14809	0,10916
1664,26685	0,12354	0,1212	0,13812	0,15032	0,11048
1662,33838	0,12423	0,12092	0,1371	0,14786	0,10943
1660,40991	0,12354	0,12115	0,13717	0,1483	0,10978
1658,48145	0,12259	0,12174	0,1374	0,14859	0,11051
1656,55298	0,12528	0,12088	0,1378	0,14897	0,11005
1654,62451	0,12431	0,12137	0,1396	0,15291	0,11212
1652,69604	0,12326	0,1224	0,1379	0,14585	0,10952
1650,76758	0,12018	0,12147	0,13455	0,14385	0,10923
1648,83911	0,12691	0,12044	0,13845	0,15032	0,11044
1646,91064	0,12615	0,12108	0,13866	0,14994	0,11088
1644,98218	0,12191	0,12146	0,13542	0,14544	0,10976
1643,05371	0,12423	0,12144	0,13725	0,14863	0,11073
1641,12524	0,12372	0,12201	0,13745	0,14864	0,11134
1639,19678	0,12473	0,12147	0,13741	0,14827	0,11081
1637,26831	0,12513	0,12135	0,13856	0,15064	0,11177
1635,33984	0,12492	0,12146	0,13741	0,14801	0,11066
1633,41138	0,12283	0,12129	0,13552	0,14564	0,10966
1631,48291	0,12398	0,12115	0,13704	0,14827	0,11046
1629,55444	0,124	0,12118	0,13752	0,14906	0,11111
1627,62598	0,1244	0,12077	0,13684	0,1475	0,11017
1625,69751	0,12392	0,12077	0,13725	0,14828	0,11039
1623,76904	0,12429	0,12065	0,13779	0,14874	0,11058
1621,84058	0,12353	0,1203	0,13654	0,14631	0,10958
1619,91211	0,1239	0,12007	0,13728	0,1481	0,11021
1617,98364	0,12254	0,12052	0,13821	0,1505	0,11196
1616,05518	0,12141	0,12053	0,13656	0,14707	0,11076
1614,12671	0,12312	0,1202	0,13682	0,14755	0,11036
1612,19824	0,12424	0,12048	0,13806	0,15004	0,11138
1610,26978	0,12391	0,12057	0,13779	0,14975	0,11145
1608,34131	0,12474	0,12015	0,13771	0,14966	0,11111
1606,41284	0,12422	0,12024	0,13766	0,15003	0,11144
1604,48438	0,12408	0,12029	0,13759	0,14992	0,11136
1602,55591	0,1245	0,12012	0,1376	0,1501	0,11115
1600,62744	0,12412	0,11998	0,13726	0,14998	0,11106



1598,69897	0,12389	0,12001	0,13719	0,15009	0,11102
1596,77051	0,12415	0,11994	0,13718	0,15032	0,11083
1594,84204	0,12434	0,11967	0,13695	0,15009	0,11044
1592,91357	0,12387	0,11961	0,13667	0,14996	0,11032
1590,98511	0,12373	0,11944	0,13636	0,14992	0,11023
1589,05664	0,12384	0,11938	0,13614	0,14983	0,11017
1587,12817	0,12317	0,11962	0,13582	0,1495	0,11019
1585,19971	0,12338	0,11947	0,13558	0,14927	0,10983
1583,27124	0,12326	0,11946	0,13547	0,14956	0,10993
1581,34277	0,12288	0,11937	0,13493	0,14861	0,10966
1579,41431	0,12418	0,11891	0,13514	0,14882	0,10926
1577,48584	0,12258	0,11942	0,13565	0,15083	0,11067
1575,55737	0,12107	0,11931	0,13362	0,14707	0,10934
1573,62891	0,12228	0,11876	0,13308	0,14617	0,10807
1571,70044	0,12385	0,11908	0,13509	0,14995	0,10948
1569,77197	0,12409	0,11882	0,1344	0,14801	0,10885
1567,84351	0,12307	0,11847	0,13299	0,14621	0,1079
1565,91504	0,12319	0,11902	0,13416	0,1488	0,10901
1563,98657	0,12335	0,11881	0,13335	0,14691	0,10809
1562,05811	0,12317	0,11881	0,13399	0,14868	0,10896
1560,12964	0,12391	0,11979	0,13647	0,15235	0,111
1558,20117	0,12401	0,11866	0,13179	0,14201	0,1053
1556,27271	0,12222	0,11859	0,13194	0,14529	0,10722
1554,34424	0,12238	0,11935	0,13333	0,14789	0,10882
1552,41577	0,12178	0,11942	0,1326	0,14689	0,10851
1550,4873	0,1246	0,11881	0,13376	0,14815	0,10862
1548,55884	0,12347	0,11922	0,13334	0,14755	0,10894
1546,63037	0,12263	0,1196	0,13331	0,14844	0,10952
1544,7019	0,12508	0,11926	0,13404	0,149	0,10954
1542,77344	0,1245	0,11921	0,13362	0,14817	0,10935
1540,84497	0,12325	0,11972	0,13444	0,14988	0,1105
1538,9165	0,12195	0,11946	0,13185	0,14425	0,10862
1536,98804	0,1221	0,11955	0,13213	0,14595	0,10926
1535,05957	0,12456	0,11986	0,13469	0,15049	0,11122
1533,1311	0,12571	0,1195	0,13426	0,14872	0,11065
1531,20264	0,12353	0,11969	0,13292	0,14721	0,11023
1529,27417	0,12442	0,12002	0,1343	0,15004	0,11161
1527,3457	0,12528	0,11973	0,13432	0,14988	0,11178
1525,41724	0,12426	0,11952	0,13301	0,14818	0,11108
1523,48877	0,12483	0,11975	0,13401	0,1501	0,11199
1521,5603	0,12414	0,11976	0,13325	0,14849	0,11148
1519,63184	0,12233	0,11956	0,13149	0,14657	0,11062
1517,70337	0,12568	0,11914	0,13313	0,1486	0,11091
1515,7749	0,12531	0,11885	0,13241	0,14725	0,11035
1513,84644	0,12345	0,11917	0,13196	0,14753	0,11078
1511,91797	0,12337	0,11949	0,13219	0,14821	0,1114
1509,9895	0,12536	0,11869	0,13209	0,148	0,11054
1508,06104	0,12587	0,11867	0,13327	0,1503	0,11151
1506,13257	0,12373	0,11878	0,13089	0,14502	0,10958
1504,2041	0,12022	0,11904	0,12893	0,14397	0,10931

1502,27563	0,12322	0,11927	0,13126	0,1478	0,11054
1500,34717	0,12291	0,11946	0,13124	0,14761	0,11094
1498,4187	0,1233	0,11902	0,13116	0,14752	0,11057
1496,49023	0,1217	0,11929	0,13059	0,1468	0,11059
1494,56177	0,12054	0,11945	0,12959	0,14519	0,11
1492,6333	0,12275	0,11932	0,13102	0,14756	0,11046
1490,70483	0,12404	0,11895	0,13163	0,14816	0,11042
1488,77637	0,12437	0,11831	0,13069	0,14608	0,10892
1486,8479	0,12283	0,11857	0,13041	0,14611	0,10916
1484,91943	0,12142	0,11898	0,13042	0,14641	0,10964
1482,99097	0,12216	0,11887	0,13077	0,14685	0,10961
1481,0625	0,12243	0,11856	0,13067	0,14667	0,10945
1479,13403	0,12167	0,11868	0,13049	0,1465	0,10939
1477,20557	0,1228	0,11842	0,13102	0,1469	0,10904
1475,2771	0,12312	0,11801	0,13146	0,1472	0,10897
1473,34863	0,12196	0,1181	0,13162	0,1472	0,10934
1471,42017	0,12175	0,1177	0,13115	0,14539	0,10871
1469,4917	0,12125	0,11793	0,13198	0,14612	0,1093
1467,56323	0,12111	0,11842	0,13369	0,14813	0,11066
1465,63477	0,12239	0,1179	0,1341	0,14781	0,11035
1463,7063	0,12109	0,11791	0,1329	0,1463	0,10947
1461,77783	0,12059	0,11814	0,13307	0,14664	0,1095
1459,84937	0,12284	0,11761	0,13439	0,14862	0,10984
1457,9209	0,1229	0,11756	0,13454	0,14836	0,10968
1455,99243	0,1189	0,11782	0,13139	0,14321	0,10777
1454,06396	0,12102	0,11738	0,13222	0,14486	0,10756
1452,1355	0,12126	0,11771	0,13267	0,14594	0,10782
1450,20703	0,12023	0,11783	0,13193	0,14532	0,10747
1448,27856	0,12138	0,11721	0,13183	0,14519	0,10696
1446,3501	0,12033	0,11715	0,13083	0,14361	0,10629
1444,42163	0,1199	0,11734	0,13087	0,14404	0,10627
1442,49316	0,11977	0,11741	0,13088	0,14419	0,1063
1440,5647	0,11967	0,11724	0,13039	0,1434	0,10574
1438,63623	0,11964	0,11733	0,131	0,14493	0,10631
1436,70776	0,12027	0,11693	0,13061	0,14388	0,10588
1434,7793	0,11923	0,11656	0,12919	0,14169	0,1051
1432,85083	0,11998	0,11666	0,13028	0,14359	0,10568
1430,92236	0,12029	0,11676	0,13054	0,14392	0,10583
1428,9939	0,11992	0,11663	0,12937	0,14209	0,10484
1427,06543	0,11907	0,11682	0,12935	0,14288	0,10519
1425,13696	0,11965	0,1166	0,12955	0,14339	0,10526
1423,2085	0,12013	0,11618	0,129	0,14224	0,10451
1421,28003	0,11865	0,11661	0,12918	0,14327	0,10542
1419,35156	0,11935	0,11636	0,12924	0,14308	0,10542
1417,4231	0,11996	0,11572	0,12819	0,14103	0,10419
1415,49463	0,11936	0,11611	0,12854	0,14216	0,10471
1413,56616	0,1183	0,11644	0,12859	0,14235	0,10523
1411,6377	0,11863	0,1162	0,12861	0,1419	0,10511
1409,70923	0,11822	0,11632	0,1284	0,14187	0,10521
1407,78076	0,11785	0,1164	0,12817	0,1419	0,10534

1405,85229	0,11898	0,11611	0,12854	0,14233	0,10556
1403,92383	0,1188	0,11614	0,12797	0,14165	0,10564
1401,99536	0,11814	0,11639	0,12807	0,14209	0,10608
1400,06689	0,1188	0,11631	0,12874	0,14264	0,10618
1398,13843	0,1191	0,11604	0,12842	0,14176	0,10577
1396,20996	0,11903	0,11592	0,12864	0,14246	0,10648
1394,28149	0,11911	0,11595	0,12859	0,14236	0,10671
1392,35303	0,11811	0,11628	0,12813	0,14183	0,10672
1390,42456	0,11819	0,11633	0,12892	0,14339	0,10758
1388,49609	0,11849	0,11631	0,12931	0,14365	0,10793
1386,56763	0,11803	0,11602	0,12841	0,14166	0,10706
1384,63916	0,11728	0,11565	0,12785	0,14127	0,10673
1382,71069	0,11734	0,11609	0,12841	0,14234	0,10738
1380,78223	0,11811	0,11676	0,12913	0,14318	0,1081
1378,85376	0,11827	0,11699	0,12893	0,14325	0,10824
1376,92529	0,11841	0,11713	0,12881	0,14355	0,10818
1374,99683	0,11965	0,11678	0,1288	0,14365	0,10783
1373,06836	0,11937	0,1167	0,12785	0,14289	0,10749
1371,13989	0,11844	0,11722	0,12759	0,14334	0,10782
1369,21143	0,11905	0,1171	0,12779	0,14384	0,10802
1367,28296	0,11869	0,11701	0,12738	0,14311	0,10789
1365,35449	0,11846	0,11709	0,12753	0,14334	0,108
1363,42603	0,11991	0,11646	0,1278	0,14355	0,10776
1361,49756	0,11952	0,11627	0,12731	0,14267	0,10731
1359,56909	0,11832	0,11676	0,12716	0,14258	0,10746
1357,64063	0,11847	0,11675	0,12713	0,14278	0,10758
1355,71216	0,11843	0,11662	0,12687	0,14267	0,10741
1353,78369	0,11798	0,11665	0,12676	0,14259	0,10718
1351,85522	0,11784	0,11647	0,12681	0,14267	0,1071
1349,92676	0,11797	0,11635	0,12677	0,14277	0,10714
1347,99829	0,11807	0,11644	0,1266	0,14287	0,10704
1346,06982	0,11819	0,11641	0,12659	0,14299	0,10685
1344,14136	0,11806	0,11638	0,12659	0,1429	0,10676
1342,21289	0,11826	0,11625	0,12659	0,14312	0,10672
1340,28442	0,11913	0,11579	0,12666	0,14321	0,10641
1338,35596	0,11895	0,11576	0,12641	0,14257	0,10607
1336,42749	0,1182	0,11605	0,12622	0,14244	0,10604
1334,49902	0,11818	0,11603	0,12629	0,1426	0,10605
1332,57056	0,11823	0,11597	0,12637	0,14269	0,10609
1330,64209	0,11823	0,11599	0,12657	0,1431	0,10606
1328,71362	0,11831	0,11588	0,1267	0,14316	0,1058
1326,78516	0,11823	0,11583	0,12677	0,14305	0,10559
1324,85669	0,11812	0,1158	0,12698	0,1433	0,10546
1322,92822	0,11803	0,11565	0,12711	0,14335	0,1054
1320,99976	0,11825	0,1155	0,12725	0,14347	0,10549
1319,07129	0,1188	0,11528	0,1274	0,14366	0,10544
1317,14282	0,11861	0,11515	0,12734	0,14339	0,10527
1315,21436	0,11833	0,11528	0,12733	0,14331	0,10524
1313,28589	0,11863	0,11542	0,1274	0,14349	0,10509
1311,35742	0,11856	0,11555	0,12744	0,14357	0,10496

1309,42896	0,11854	0,11567	0,12745	0,1441	0,10523
1307,50049	0,11893	0,11578	0,12763	0,14472	0,10554
1305,57202	0,11927	0,11586	0,12811	0,14502	0,10588
1303,64355	0,11945	0,11599	0,12851	0,14537	0,10623
1301,71509	0,11946	0,11617	0,12897	0,14573	0,10641
1299,78662	0,1196	0,11632	0,12953	0,14616	0,10672
1297,85815	0,11976	0,11653	0,12984	0,14666	0,10689
1295,92969	0,11982	0,11662	0,13015	0,14708	0,10702
1294,00122	0,11991	0,11668	0,13056	0,14746	0,10758
1292,07275	0,11988	0,1168	0,13103	0,14784	0,10813
1290,14429	0,11985	0,11664	0,13188	0,14823	0,10866
1288,21582	0,11994	0,11675	0,13301	0,14855	0,10944
1286,28735	0,12001	0,11708	0,13421	0,14903	0,11038
1284,35889	0,12006	0,11711	0,13558	0,14975	0,11157
1282,43042	0,12019	0,1175	0,13709	0,15058	0,11276
1280,50195	0,12058	0,11828	0,13867	0,15156	0,11405
1278,57349	0,12105	0,11895	0,14033	0,15252	0,11575
1276,64502	0,1215	0,11966	0,1421	0,15362	0,11729
1274,71655	0,12214	0,12029	0,14387	0,15476	0,11849
1272,78809	0,12274	0,12093	0,14541	0,15568	0,11978
1270,85962	0,12297	0,12173	0,14653	0,15684	0,12105
1268,93115	0,12302	0,12233	0,14738	0,15796	0,12191
1267,00269	0,12327	0,12282	0,14793	0,15845	0,12241
1265,07422	0,12357	0,12344	0,14781	0,15853	0,12271
1263,14575	0,12367	0,12402	0,14737	0,15835	0,1225
1261,21729	0,12394	0,12441	0,14681	0,15795	0,122
1259,28882	0,12436	0,12467	0,14601	0,1577	0,12177
1257,36035	0,12439	0,12499	0,14545	0,15754	0,12162
1255,43188	0,12429	0,12531	0,1451	0,15739	0,12178
1253,50342	0,12452	0,12569	0,14479	0,15766	0,12203
1251,57495	0,12492	0,12621	0,14461	0,15804	0,12168
1249,64648	0,12528	0,12678	0,14433	0,15826	0,12153
1247,71802	0,12569	0,12728	0,14402	0,15869	0,12172
1245,78955	0,12614	0,12747	0,14361	0,15902	0,12161
1243,86108	0,12646	0,12767	0,14295	0,15927	0,12148
1241,93262	0,12667	0,128	0,1423	0,15989	0,12139
1240,00415	0,12695	0,12809	0,1418	0,16012	0,12102
1238,07568	0,12738	0,12836	0,14139	0,15984	0,12063
1236,14722	0,12773	0,12865	0,14112	0,15983	0,1205
1234,21875	0,12794	0,12871	0,14108	0,15978	0,1205
1232,29028	0,12818	0,12908	0,14123	0,15955	0,12052
1230,36182	0,12837	0,12938	0,14148	0,15964	0,12058
1228,43335	0,12855	0,12932	0,14181	0,15994	0,12083
1226,50488	0,12886	0,12946	0,14244	0,16038	0,12123
1224,57642	0,1291	0,12975	0,14325	0,1608	0,12139
1222,64795	0,12927	0,1299	0,14392	0,16089	0,12162
1220,71948	0,12973	0,13016	0,14466	0,16101	0,12194
1218,79102	0,13036	0,13056	0,14552	0,16134	0,12211
1216,86255	0,13078	0,13074	0,14619	0,16127	0,12232
1214,93408	0,13122	0,13087	0,14686	0,16108	0,1224

1213,00562	0,13189	0,13128	0,14762	0,16149	0,12245
1211,07715	0,13248	0,13179	0,14861	0,162	0,12263
1209,14868	0,13292	0,13232	0,14999	0,1624	0,12289
1207,22021	0,13341	0,13287	0,15165	0,1631	0,12344
1205,29175	0,13405	0,1334	0,15372	0,16387	0,12416
1203,36328	0,13476	0,13402	0,1557	0,16446	0,12466
1201,43481	0,13539	0,13462	0,15671	0,16507	0,12514
1199,50635	0,1362	0,13499	0,15713	0,16573	0,12581
1197,57788	0,13688	0,13545	0,15755	0,16635	0,12634
1195,64941	0,13698	0,13622	0,15782	0,16717	0,12678
1193,72095	0,13744	0,13684	0,15795	0,168	0,12739
1191,79248	0,13825	0,13729	0,1581	0,1683	0,12803
1189,86401	0,13863	0,13792	0,1582	0,16897	0,12875
1187,93555	0,13911	0,13859	0,15849	0,17031	0,12952
1186,00708	0,13995	0,13925	0,15891	0,17107	0,13
1184,07861	0,14065	0,14008	0,15916	0,17146	0,13047
1182,15015	0,14124	0,14098	0,15963	0,17215	0,1313
1180,22168	0,14191	0,14195	0,16052	0,17282	0,1321
1178,29321	0,14247	0,14301	0,16142	0,17368	0,13285
1176,36475	0,14302	0,1439	0,16223	0,1748	0,13384
1174,43628	0,14379	0,14463	0,16313	0,17575	0,13486
1172,50781	0,14453	0,14541	0,1641	0,17633	0,13592
1170,57935	0,14507	0,14598	0,16509	0,17696	0,13677
1168,65088	0,14558	0,1465	0,16589	0,17774	0,13702
1166,72241	0,14619	0,14739	0,16651	0,17826	0,13728
1164,79395	0,14673	0,14826	0,16731	0,17907	0,13803
1162,86548	0,14726	0,14888	0,16819	0,18026	0,13881
1160,93701	0,14814	0,14943	0,1687	0,181	0,13937
1159,00854	0,14885	0,14987	0,16886	0,1814	0,13967
1157,08008	0,14884	0,15028	0,16882	0,18157	0,1395
1155,15161	0,14901	0,15078	0,16862	0,18162	0,13934
1153,22314	0,14956	0,15125	0,1686	0,18181	0,13946
1151,29468	0,14977	0,15165	0,16906	0,18166	0,13961
1149,36621	0,15006	0,15218	0,16973	0,1815	0,13996
1147,43774	0,15068	0,15273	0,17047	0,18209	0,14027
1145,50928	0,15121	0,15316	0,17134	0,18274	0,14055
1143,58081	0,15169	0,15373	0,17213	0,18309	0,14108
1141,65234	0,15208	0,1542	0,17287	0,18352	0,14135
1139,72388	0,15254	0,15455	0,17378	0,1838	0,14156
1137,79541	0,15317	0,15512	0,17481	0,18414	0,14205
1135,86694	0,15344	0,1555	0,17582	0,18438	0,14234
1133,93848	0,15366	0,15583	0,17653	0,18435	0,14242
1132,01001	0,1542	0,15632	0,1766	0,18473	0,14259
1130,08154	0,15447	0,15629	0,17653	0,18476	0,14261
1128,15308	0,15453	0,15597	0,17707	0,18446	0,14261
1126,22461	0,15469	0,15608	0,17801	0,18489	0,14299
1124,29614	0,155	0,15652	0,1788	0,18521	0,14343
1122,36768	0,15509	0,15682	0,17872	0,18485	0,14361
1120,43921	0,15468	0,1569	0,17779	0,18504	0,14376
1118,51074	0,15478	0,15708	0,17681	0,18593	0,14395

1116,58228	0,15533	0,15729	0,17621	0,18615	0,14422
1114,65381	0,15543	0,15742	0,17597	0,18575	0,14436
1112,72534	0,15547	0,15763	0,17585	0,18558	0,14439
1110,79688	0,15545	0,15774	0,17586	0,18521	0,14456
1108,86841	0,1554	0,15766	0,17591	0,18492	0,14452
1106,93994	0,15541	0,15772	0,17593	0,18509	0,14451
1105,01147	0,15535	0,15789	0,17615	0,18509	0,14476
1103,08301	0,15571	0,15803	0,17646	0,18518	0,14471
1101,15454	0,15599	0,15804	0,17677	0,18539	0,14473
1099,22607	0,15587	0,15803	0,17709	0,18526	0,1451
1097,29761	0,15609	0,15826	0,17746	0,18526	0,14533
1095,36914	0,15623	0,15838	0,17781	0,18566	0,14561
1093,44067	0,156	0,15847	0,17786	0,18603	0,14589
1091,51221	0,1558	0,15866	0,17779	0,18586	0,14586
1089,58374	0,15553	0,15866	0,17754	0,18537	0,14585
1087,65527	0,15552	0,1586	0,17701	0,18526	0,14588
1085,72681	0,15576	0,15834	0,17661	0,18558	0,14566
1083,79834	0,15548	0,15812	0,17623	0,18606	0,14523
1081,86987	0,15517	0,15819	0,17558	0,18636	0,14511
1079,94141	0,15518	0,15807	0,17492	0,18626	0,14534
1078,01294	0,1549	0,15792	0,17432	0,1863	0,14496
1076,08447	0,15461	0,15795	0,1735	0,18664	0,14431
1074,15601	0,1543	0,15784	0,1728	0,18676	0,14437
1072,22754	0,15397	0,15785	0,17232	0,18695	0,14446
1070,29907	0,15407	0,15804	0,17169	0,18739	0,14442
1068,37061	0,15405	0,15808	0,17137	0,1876	0,14456
1066,44214	0,15384	0,15812	0,17151	0,188	0,14442
1064,51367	0,15364	0,15816	0,17164	0,18871	0,14424
1062,58521	0,15336	0,15802	0,17172	0,18918	0,14432
1060,65674	0,15349	0,15777	0,17165	0,18943	0,14419
1058,72827	0,1535	0,1577	0,17159	0,18932	0,14388
1056,7998	0,15301	0,15772	0,17174	0,18899	0,14383
1054,87134	0,15288	0,15763	0,17204	0,18909	0,14407
1052,94287	0,15292	0,15736	0,17264	0,18945	0,14438
1051,0144	0,15273	0,15681	0,17358	0,18968	0,14464
1049,08594	0,15274	0,15639	0,17459	0,19019	0,14505
1047,15747	0,15271	0,15633	0,17549	0,19101	0,14572
1045,229	0,15234	0,15635	0,17606	0,19156	0,14611
1043,30054	0,15226	0,15639	0,1762	0,1921	0,14632
1041,37207	0,15236	0,15627	0,17618	0,19258	0,14684
1039,4436	0,15216	0,15608	0,17604	0,19276	0,14718
1037,51514	0,15197	0,15596	0,17585	0,19323	0,1473
1035,58667	0,15215	0,15574	0,17609	0,19405	0,14774
1033,6582	0,15224	0,15581	0,17654	0,19453	0,14861
1031,72974	0,15201	0,15628	0,1771	0,19486	0,14963
1029,80127	0,15192	0,15669	0,17787	0,19543	0,15027
1027,8728	0,15174	0,15723	0,17833	0,19599	0,15076
1025,94434	0,15182	0,15801	0,17844	0,19655	0,15126
1024,01587	0,15218	0,15876	0,17833	0,197	0,15147
1022,0874	0,15192	0,15957	0,17764	0,19701	0,15188

1020,15894	0,15176	0,16015	0,17636	0,19689	0,15189
1018,23047	0,15188	0,16001	0,17483	0,1965	0,15066
1016,302	0,15158	0,15952	0,17308	0,1954	0,14882
1014,37354	0,15126	0,15874	0,17098	0,19415	0,14664
1012,44507	0,15095	0,15735	0,16857	0,19312	0,1445
1010,5166	0,15067	0,156	0,16627	0,19207	0,14284
1008,58813	0,15072	0,15518	0,1645	0,19129	0,14154
1006,65967	0,15082	0,15454	0,16307	0,19053	0,1403
1004,7312	0,15059	0,15394	0,1617	0,18937	0,13915
1002,80273	0,14983	0,15339	0,16037	0,18849	0,13862
1000,87427	0,14908	0,15294	0,15899	0,18784	0,1382
998,9458	0,14889	0,15278	0,15771	0,18754	0,13741
997,01733	0,14869	0,15262	0,15663	0,18783	0,13701
995,08887	0,14843	0,1524	0,15572	0,18771	0,13655
993,1604	0,14851	0,15238	0,15487	0,18732	0,13588
991,23193	0,14847	0,15217	0,15397	0,18711	0,13593
989,30347	0,14843	0,15183	0,15303	0,18674	0,13598
987,375	0,14833	0,15171	0,1523	0,18663	0,13559
985,44653	0,14799	0,15156	0,1517	0,18673	0,13563
983,51807	0,14812	0,15151	0,15098	0,18651	0,13576
981,5896	0,14842	0,15154	0,15054	0,18646	0,13548
979,66113	0,14837	0,15127	0,15028	0,18667	0,13519
977,73267	0,14835	0,15107	0,14987	0,18647	0,13514
975,8042	0,14821	0,15105	0,14954	0,18624	0,13515
973,87573	0,14801	0,15098	0,149	0,18634	0,13469
971,94727	0,14775	0,15086	0,1483	0,18663	0,13429
970,0188	0,14741	0,15088	0,14779	0,18683	0,13458
968,09033	0,1476	0,15103	0,14737	0,18627	0,13449
966,16187	0,14775	0,15084	0,14689	0,18611	0,13422
964,2334	0,14757	0,15083	0,14626	0,18666	0,13437
962,30493	0,14776	0,15106	0,14566	0,18653	0,13424
960,37646	0,1477	0,15068	0,14498	0,18658	0,13391
958,448	0,14754	0,15043	0,14429	0,18702	0,13353
956,51953	0,14776	0,15081	0,14388	0,18688	0,13337
954,59106	0,14763	0,15086	0,14364	0,18674	0,13356
952,6626	0,14753	0,15059	0,14349	0,18688	0,13356
950,73413	0,14765	0,1504	0,14299	0,1867	0,13363
948,80566	0,14735	0,15007	0,1424	0,18614	0,13342
946,8772	0,14699	0,14993	0,14225	0,18602	0,13309
944,94873	0,14711	0,15017	0,1421	0,18651	0,13331
943,02026	0,14727	0,15005	0,14181	0,18665	0,13343
941,0918	0,1469	0,1497	0,14166	0,18665	0,13333
939,16333	0,14648	0,14994	0,14168	0,18707	0,13309
937,23486	0,1466	0,15028	0,14149	0,18702	0,13268
935,3064	0,14669	0,15005	0,14131	0,1868	0,13257
933,37793	0,14646	0,14988	0,14143	0,18714	0,13274
931,44946	0,14643	0,14999	0,1411	0,18692	0,13296
929,521	0,14643	0,15	0,14063	0,18659	0,13303
927,59253	0,14627	0,1502	0,14072	0,18701	0,13286
925,66406	0,14629	0,15047	0,14085	0,18697	0,13263

923,7356	0,14639	0,15052	0,14069	0,18645	0,13271
921,80713	0,14654	0,1506	0,1403	0,18661	0,13301
919,87866	0,14679	0,15063	0,13993	0,18681	0,13333
917,9502	0,14679	0,1507	0,13991	0,1863	0,13339
916,02173	0,14668	0,15098	0,13999	0,18665	0,13299
914,09326	0,14684	0,15105	0,13997	0,18733	0,13313
912,16479	0,1471	0,15073	0,14013	0,18693	0,13345
910,23633	0,14699	0,15037	0,14034	0,18709	0,13329
908,30786	0,1469	0,15038	0,14026	0,18741	0,13349
906,37939	0,14709	0,15057	0,14007	0,18711	0,13363
904,45093	0,14699	0,15037	0,14003	0,18672	0,13343
902,52246	0,14688	0,15022	0,14007	0,18601	0,13334
900,59399	0,14685	0,15021	0,14003	0,18611	0,13316
898,66553	0,14664	0,14993	0,13978	0,18672	0,13314
896,73706	0,14686	0,15024	0,13951	0,18671	0,13324
894,80859	0,14695	0,15058	0,13945	0,18667	0,13327
892,88013	0,1466	0,15052	0,13949	0,18681	0,13335
890,95166	0,14723	0,15094	0,13945	0,1867	0,13329
889,02319	0,14781	0,15095	0,13952	0,18648	0,13328
887,09473	0,14738	0,15076	0,13976	0,18694	0,13332
885,16626	0,14771	0,15136	0,13962	0,18731	0,13305
883,23779	0,14819	0,15197	0,13915	0,18735	0,13294
881,30933	0,14829	0,15221	0,13934	0,18817	0,13338
879,38086	0,14907	0,15216	0,13988	0,18905	0,1339
877,45239	0,1497	0,15251	0,14007	0,19007	0,13439
875,52393	0,15078	0,15396	0,14063	0,19227	0,13539
873,59546	0,15311	0,15587	0,14198	0,19525	0,13701
871,66699	0,1554	0,15824	0,14369	0,19941	0,13923
869,73853	0,15768	0,16123	0,14554	0,20439	0,14203
867,81006	0,15999	0,16391	0,14691	0,20804	0,14419
865,88159	0,16165	0,16569	0,14782	0,21066	0,14541
863,95313	0,16252	0,16676	0,14876	0,21293	0,14658
862,02466	0,16318	0,16753	0,14924	0,21388	0,14723
860,09619	0,16356	0,16732	0,14887	0,21392	0,14714
858,16772	0,16253	0,16607	0,14804	0,21333	0,14634
856,23926	0,16057	0,16503	0,14721	0,21135	0,14472
854,31079	0,15888	0,16375	0,14652	0,20843	0,1434
852,38232	0,15813	0,16284	0,14626	0,2067	0,14303
850,45386	0,15883	0,16383	0,14651	0,20745	0,14386
848,52539	0,16172	0,16664	0,14821	0,21149	0,14678
846,59692	0,16714	0,17204	0,15213	0,21981	0,15162
844,66846	0,17203	0,17759	0,15568	0,22794	0,15618
842,73999	0,17664	0,18209	0,15863	0,2353	0,16085
840,81152	0,18604	0,19151	0,16525	0,25017	0,16987
838,88306	0,19774	0,20462	0,17435	0,26901	0,18133
836,95459	0,20808	0,21609	0,18297	0,28537	0,19195
835,02612	0,21795	0,22657	0,19145	0,30073	0,20249
833,09766	0,22251	0,23157	0,1955	0,30703	0,20711
831,16919	0,222	0,23064	0,19486	0,30553	0,206
829,24072	0,22165	0,22967	0,1945	0,30565	0,20571



827,31226	0,22095	0,22868	0,19401	0,3051	0,20539
825,38379	0,22551	0,23309	0,19796	0,31116	0,21024
823,45532	0,23455	0,24272	0,20653	0,32426	0,21968
821,52686	0,23719	0,24619	0,20954	0,32854	0,22243
819,59839	0,2368	0,24587	0,20918	0,3279	0,22214
817,66992	0,23877	0,24801	0,21124	0,33101	0,22475
815,74146	0,24153	0,25132	0,21443	0,33538	0,22822
813,81299	0,2455	0,25541	0,21849	0,34048	0,23222
811,88452	0,2478	0,25745	0,22071	0,34286	0,23378
809,95605	0,24704	0,25636	0,22023	0,34108	0,23234
808,02759	0,24717	0,25606	0,22094	0,34097	0,2326
806,09912	0,24979	0,25806	0,22387	0,34396	0,23528
804,17065	0,25269	0,26046	0,2269	0,34667	0,23774
802,24219	0,2541	0,2619	0,22878	0,34839	0,23951
800,31372	0,25651	0,26431	0,23189	0,35178	0,24283
798,38525	0,2607	0,26802	0,23648	0,35679	0,24751
796,45679	0,26376	0,27035	0,2394	0,36045	0,25075
794,52832	0,26487	0,27128	0,24024	0,36185	0,25203
792,59985	0,26357	0,27064	0,2385	0,36031	0,25088
790,67139	0,25995	0,26755	0,23417	0,35564	0,24676
788,74292	0,25686	0,26452	0,23069	0,35113	0,24286
786,81445	0,25519	0,26294	0,22908	0,34856	0,2411
784,88599	0,25204	0,25949	0,22594	0,34482	0,23808
782,95752	0,24766	0,25451	0,22121	0,33925	0,23344
781,02905	0,24595	0,25248	0,21879	0,33607	0,2312
779,10059	0,24651	0,25292	0,21873	0,33607	0,23144
777,17212	0,24845	0,25499	0,22028	0,33885	0,23364
775,24365	0,25309	0,25978	0,22464	0,34523	0,2387
773,31519	0,25823	0,26489	0,22981	0,35209	0,24411
771,38672	0,26142	0,26796	0,23288	0,3565	0,24737
769,45825	0,26299	0,26952	0,23415	0,35914	0,24913
767,52979	0,26421	0,27123	0,2355	0,36146	0,2507
765,60132	0,26558	0,27327	0,23708	0,36394	0,25222
763,67285	0,26635	0,27398	0,23758	0,36508	0,2529
761,74438	0,26544	0,27243	0,23615	0,36303	0,25141
759,81592	0,26309	0,26988	0,23334	0,35957	0,24873
757,88745	0,26166	0,26854	0,23144	0,35805	0,24736
755,95898	0,26126	0,26809	0,2309	0,3578	0,24678
754,03052	0,2603	0,26721	0,23025	0,35687	0,24564
752,10205	0,25897	0,26578	0,22864	0,35489	0,24388
750,17358	0,25854	0,26542	0,22774	0,35433	0,24312
748,24512	0,25987	0,2675	0,22938	0,35714	0,24464
746,31665	0,261	0,2693	0,23095	0,35975	0,24631
744,38818	0,26157	0,26998	0,23133	0,36092	0,24738
742,45972	0,26325	0,27112	0,23235	0,36227	0,24858
740,53125	0,26444	0,27211	0,23343	0,36359	0,2498
738,60278	0,26483	0,27356	0,2344	0,36542	0,25139
736,67432	0,26635	0,27563	0,23608	0,36749	0,25312
734,74585	0,26753	0,2767	0,23731	0,36844	0,25414
732,81738	0,26655	0,27638	0,23665	0,36773	0,25366

730,88892	0,26613	0,27593	0,23608	0,36753	0,2532
728,96045	0,26748	0,27689	0,23723	0,36983	0,2545
727,03198	0,26902	0,27858	0,23883	0,37245	0,25653
725,10352	0,27135	0,28075	0,24153	0,37561	0,25947
723,17505	0,27337	0,28332	0,24425	0,37885	0,26224
721,24658	0,27372	0,28453	0,24493	0,37942	0,26269
719,31812	0,27491	0,28589	0,24656	0,381	0,26343
717,38965	0,27769	0,28879	0,24979	0,38514	0,26619
715,46118	0,27998	0,2911	0,25211	0,38819	0,26896
713,53271	0,28058	0,29179	0,25289	0,38919	0,27032
711,60425	0,27961	0,29099	0,25171	0,38841	0,26962
709,67578	0,27895	0,29037	0,25085	0,38787	0,2691
707,74731	0,27967	0,29113	0,252	0,38881	0,27036
705,81885	0,2797	0,29118	0,25164	0,38912	0,27043
703,89038	0,27836	0,2897	0,24934	0,38757	0,26873
701,96191	0,27717	0,28859	0,24785	0,38576	0,26779
700,03345	0,27673	0,28887	0,24741	0,38565	0,26779
698,10498	0,27677	0,28952	0,24774	0,38604	0,26801
696,17651	0,27659	0,28968	0,24801	0,38547	0,26795
694,24805	0,27695	0,28996	0,24836	0,38549	0,2683
692,31958	0,27838	0,29087	0,24981	0,38699	0,27028
690,39111	0,27991	0,29212	0,25121	0,38862	0,2719
688,46265	0,28182	0,29395	0,25264	0,39087	0,27318
686,53418	0,28375	0,2962	0,25423	0,39383	0,2756
684,60571	0,28449	0,297	0,25426	0,39518	0,27639
682,67725	0,28574	0,29823	0,25521	0,39653	0,27714
680,74878	0,2879	0,30115	0,25795	0,39909	0,27995
678,82031	0,28924	0,30297	0,2598	0,40107	0,28213
676,89185	0,2907	0,30441	0,26192	0,40263	0,28434
674,96338	0,29265	0,3069	0,26453	0,40569	0,28762
673,03491	0,29402	0,30836	0,26595	0,40753	0,28951
671,10645	0,29498	0,30815	0,26693	0,40798	0,29
669,17798	0,29587	0,30906	0,26916	0,40844	0,29049
667,24951	0,29613	0,3103	0,26935	0,40889	0,29099
665,32104	0,29639	0,31032	0,26954	0,4092	0,29082
663,39258	0,29666	0,31033	0,26973	0,40952	0,29065
661,46411	0,29697	0,31035	0,26976	0,40983	0,29048
659,53564	0,29728	0,31037	0,26979	0,41014	0,29032
657,60718	0,29727	0,31038	0,26982	0,41045	0,29015
655,67871	0,29699	0,3104	0,2694	0,4087	0,28989
653,75024	0,29641	0,31042	0,26606	0,40896	0,28939
651,82178	0,29602	0,31044	0,26744	0,40921	0,2889
649,89331	0,29673	0,31045	0,26848	0,41054	0,29036
647,96484	0,29856	0,31103	0,27031	0,41177	0,29172
646,03638	0,30041	0,31255	0,27354	0,41468	0,29394
644,10791	0,30021	0,31288	0,27315	0,41429	0,29401
642,17944	0,30002	0,31279	0,27226	0,4138	0,29359
640,25098	0,30102	0,3125	0,27374	0,414	0,29356
638,32251	0,30099	0,31253	0,27446	0,4135	0,29386
636,39404	0,30124	0,31349	0,27463	0,414	0,29458

634,46558	0,30139	0,31347	0,27395	0,41345	0,29413
632,53711	0,30011	0,31277	0,27266	0,41151	0,29312
630,60864	0,29864	0,31204	0,27141	0,40974	0,29178
628,68018	0,2978	0,31101	0,26959	0,40784	0,29009
626,75171	0,29772	0,30999	0,2686	0,40663	0,28877
624,82324	0,29728	0,30993	0,26864	0,40621	0,28819
622,89478	0,29693	0,31065	0,26858	0,40583	0,28861
620,96631	0,29732	0,31078	0,26878	0,40586	0,28932
619,03784	0,29809	0,31076	0,26946	0,4059	0,28982
617,10938	0,29959	0,31101	0,27068	0,40671	0,29071
615,18091	0,30056	0,31108	0,27201	0,40817	0,29182
613,25244	0,301	0,31128	0,27242	0,40824	0,29198
611,32397	0,30197	0,31111	0,2729	0,40858	0,29204
609,39551	0,30238	0,31065	0,2745	0,40982	0,29294
607,46704	0,30251	0,3111	0,27523	0,40985	0,29305
605,53857	0,30243	0,31116	0,27441	0,40915	0,29229
603,61011	0,30123	0,31006	0,27356	0,40833	0,29127
601,68164	0,30074	0,30911	0,27252	0,40734	0,28935
599,75317	0,30072	0,30825	0,27097	0,4062	0,28767
597,82471	0,2994	0,30743	0,26992	0,40515	0,28697
595,89624	0,29855	0,3069	0,2694	0,40458	0,28572
593,96777	0,29908	0,30609	0,26823	0,40416	0,28427
592,03931	0,2992	0,30572	0,26688	0,40424	0,28379
590,11084	0,29812	0,30659	0,26626	0,40426	0,28368
588,18237	0,29813	0,30653	0,26539	0,40433	0,28341
586,25391	0,29881	0,30553	0,26415	0,40509	0,28312
584,32544	0,29806	0,3059	0,26331	0,40534	0,28275
582,39697	0,29831	0,30627	0,26252	0,40574	0,28202
580,46851	0,29838	0,3063	0,26138	0,40532	0,2815
578,54004	0,29696	0,30601	0,26054	0,40425	0,28141
576,61157	0,29729	0,30426	0,26064	0,40565	0,28113
574,68311	0,29736	0,30412	0,26085	0,40649	0,28124
572,75464	0,29675	0,30641	0,2615	0,40709	0,28238
570,82617	0,29835	0,30784	0,26313	0,41028	0,28402
568,89771	0,30032	0,30913	0,26501	0,41296	0,28591
566,96924	0,3015	0,31163	0,26779	0,41516	0,28804
565,04077	0,30158	0,31271	0,26933	0,41585	0,28884
563,1123	0,30057	0,31242	0,26844	0,41469	0,28851
561,18384	0,30003	0,31293	0,26851	0,41526	0,28925
559,25537	0,2999	0,31306	0,26931	0,41569	0,28997
557,3269	0,30043	0,313	0,26997	0,41539	0,28955
555,39844	0,30116	0,31345	0,27051	0,41538	0,28878
553,46997	0,30025	0,31314	0,26974	0,41385	0,28797
551,5415	0,29839	0,31225	0,26929	0,41176	0,28712
549,61304	0,2973	0,31085	0,26969	0,41051	0,28603
547,68457	0,29552	0,30871	0,26895	0,40863	0,28519
545,7561	0,29333	0,30656	0,26825	0,40446	0,28357
543,82764	0,29323	0,30527	0,26907	0,40058	0,28085
541,89917	0,29281	0,30512	0,27049	0,39784	0,27964
539,9707	0,29133	0,30512	0,27279	0,39549	0,27982

538,04224	0,29066	0,30407	0,27585	0,39626	0,27957
536,11377	0,29002	0,30354	0,27848	0,39631	0,27924
534,1853	0,28975	0,3031	0,28139	0,3908	0,27775
532,25684	0,28763	0,30111	0,28395	0,38616	0,27528
530,32837	0,28579	0,29955	0,28636	0,3834	0,27391
528,3999	0,28211	0,29591	0,28821	0,37711	0,27124
526,47144	0,27411	0,28979	0,28909	0,36899	0,26629
524,54297	0,27224	0,28671	0,29196	0,3624	0,26281
522,6145	0,27166	0,28425	0,29492	0,35575	0,25928
520,68604	0,26412	0,27887	0,29712	0,34567	0,25355
518,75757	0,25713	0,27398	0,30005	0,337	0,2491
516,8291	0,25443	0,27076	0,30248	0,33125	0,24459
514,90063	0,25297	0,26698	0,30428	0,32366	0,2397
512,97217	0,24873	0,26349	0,30515	0,31678	0,23638
511,0437	0,24364	0,25934	0,30772	0,30814	0,2294
509,11523	0,23941	0,2537	0,31138	0,29823	0,22305
507,18677	0,2341	0,24961	0,31297	0,29163	0,22024
505,2583	0,23098	0,24605	0,31488	0,28648	0,21486
503,32983	0,22764	0,24157	0,31626	0,28264	0,21214
501,40137	0,22432	0,23884	0,31651	0,27734	0,21057
499,4729	0,22402	0,2374	0,31809	0,27163	0,20621

Figure 3.6 C					
n°spectre	Vd202	VD142	Vd133	VD199	Vd139
cm-1	cd.(pH=6.5)	cd.(pH=9.5)	X.(nat.pH)	X.(pH=6.5)	X.(pH=9.5)
4001,5686	0,18076	0,18725	0,13001	0,18779	0,17294
3999,64014	0,18068	0,18713	0,1299	0,18761	0,17269
3997,71167	0,18067	0,18703	0,12998	0,18759	0,17256
3995,7832	0,18053	0,18683	0,12984	0,18758	0,17265
3993,85474	0,18039	0,18676	0,12962	0,18738	0,17258
3991,92627	0,18023	0,18662	0,12963	0,18724	0,17255
3989,9978	0,18011	0,18646	0,12957	0,18719	0,17254
3988,06934	0,18005	0,18644	0,12936	0,18693	0,17208
3986,14087	0,1799	0,18626	0,12934	0,18675	0,17185
3984,2124	0,17978	0,18601	0,12937	0,18676	0,17189
3982,28394	0,17964	0,18599	0,1293	0,1865	0,17184
3980,35547	0,17944	0,18589	0,12921	0,18624	0,1717
3978,427	0,17936	0,18572	0,12906	0,18621	0,17144
3976,49854	0,17938	0,18563	0,12902	0,18624	0,1718
3974,57007	0,17943	0,18544	0,129	0,18624	0,17206
3972,6416	0,17927	0,18535	0,12884	0,18604	0,17164
3970,71313	0,17896	0,18533	0,12889	0,18587	0,17148
3968,78467	0,17897	0,18525	0,12889	0,18596	0,17147
3966,8562	0,17883	0,18517	0,1287	0,18561	0,17099
3964,92773	0,17849	0,18499	0,12875	0,18519	0,17076
3962,99927	0,17874	0,1848	0,12883	0,18557	0,17144
3961,0708	0,1788	0,18467	0,12867	0,18552	0,17129
3959,14233	0,17842	0,18463	0,1286	0,1851	0,17078
3957,21387	0,17831	0,18465	0,12858	0,18508	0,17083
3955,2854	0,17835	0,18447	0,12853	0,18502	0,17069
3953,35693	0,17831	0,18442	0,12849	0,18496	0,1705
3951,42847	0,17817	0,18419	0,12843	0,18485	0,17059
3949,5	0,17862	0,18361	0,12847	0,18527	0,17215
3947,57153	0,17826	0,18368	0,12818	0,18477	0,17115
3945,64307	0,17747	0,18381	0,12802	0,18398	0,16951
3943,7146	0,17828	0,18358	0,12851	0,18505	0,17195
3941,78613	0,17813	0,18355	0,12819	0,18464	0,1712
3939,85767	0,1771	0,18347	0,1278	0,18343	0,16895
3937,9292	0,17725	0,18345	0,12815	0,18384	0,16976
3936,00073	0,17721	0,18343	0,12802	0,18369	0,16952
3934,07227	0,17746	0,18323	0,12819	0,18395	0,17021
3932,1438	0,17808	0,18301	0,12847	0,18469	0,17182
3930,21533	0,1772	0,18276	0,12761	0,18355	0,17025
3928,28687	0,17643	0,18266	0,12731	0,18278	0,16868
3926,3584	0,1772	0,1827	0,12796	0,18369	0,17019
3924,42993	0,17748	0,18261	0,12786	0,18377	0,17119
3922,50146	0,17651	0,1824	0,12722	0,18273	0,16917
3920,573	0,17659	0,18226	0,1275	0,18295	0,16921
3918,64453	0,17701	0,18221	0,12785	0,18348	0,17024
3916,71606	0,17659	0,18203	0,12744	0,18288	0,16926
3914,7876	0,1758	0,18193	0,12694	0,18175	0,1676

3912,85913	0,17566	0,18197	0,12705	0,18186	0,16813
3910,93066	0,17592	0,18207	0,12747	0,1824	0,16852
3909,0022	0,17563	0,18194	0,12717	0,18186	0,16753
3907,07373	0,1761	0,18156	0,12733	0,18245	0,16963
3905,14526	0,17719	0,18153	0,1283	0,18377	0,17173
3903,2168	0,17629	0,18139	0,12761	0,18257	0,1685
3901,28833	0,17536	0,18081	0,12666	0,18154	0,167
3899,35986	0,17581	0,18063	0,12672	0,18199	0,16844
3897,4314	0,17469	0,18075	0,12623	0,18062	0,16614
3895,50293	0,17438	0,18056	0,12599	0,1802	0,16654
3893,57446	0,17574	0,18058	0,12725	0,18225	0,17033
3891,646	0,17639	0,18116	0,12823	0,18306	0,17014
3889,71753	0,17354	0,1806	0,12549	0,17905	0,16318
3887,78906	0,17432	0,1799	0,12614	0,18058	0,16777
3885,8606	0,17618	0,18095	0,12869	0,18298	0,16979
3883,93213	0,17293	0,18031	0,1252	0,17839	0,16228
3882,00366	0,17471	0,17912	0,12599	0,18107	0,16957
3880,0752	0,17716	0,17993	0,12786	0,18357	0,17235
3878,14673	0,17289	0,17954	0,12456	0,17822	0,16304
3876,21826	0,17388	0,17937	0,12638	0,18022	0,16765
3874,28979	0,17611	0,17985	0,12712	0,1821	0,16998
3872,36133	0,17418	0,17898	0,12536	0,17985	0,16766
3870,43286	0,17407	0,17967	0,1278	0,18074	0,16772
3868,50439	0,17276	0,1796	0,12549	0,17838	0,16243
3866,57593	0,1725	0,17851	0,12468	0,17819	0,16489
3864,64746	0,17435	0,17935	0,12731	0,18062	0,16826
3862,71899	0,17394	0,17878	0,12539	0,17945	0,16617
3860,79053	0,17255	0,17845	0,12537	0,17838	0,16473
3858,86206	0,17296	0,1791	0,12603	0,17875	0,165
3856,93359	0,17476	0,17822	0,12556	0,18049	0,17027
3855,00513	0,17232	0,18016	0,12966	0,17967	0,165
3853,07666	0,17094	0,18193	0,12975	0,17715	0,15486
3851,14819	0,16861	0,17768	0,12281	0,17322	0,15549
3849,21973	0,17191	0,17728	0,12404	0,17738	0,1651
3847,29126	0,17218	0,17844	0,12547	0,17803	0,16435
3845,36279	0,17325	0,17803	0,12577	0,17917	0,16695
3843,43433	0,17316	0,17816	0,12621	0,17917	0,16673
3841,50586	0,17365	0,17762	0,12541	0,1793	0,16706
3839,57739	0,17316	0,17748	0,12612	0,17928	0,16825
3837,64893	0,17025	0,17852	0,12663	0,17646	0,16149
3835,72046	0,16951	0,17754	0,12405	0,17485	0,15819
3833,79199	0,17212	0,17678	0,12452	0,17772	0,16517
3831,86353	0,17211	0,17762	0,12572	0,17782	0,16427
3829,93506	0,17078	0,1772	0,124	0,17609	0,16185
3828,00659	0,17202	0,17689	0,12508	0,17803	0,16623
3826,07813	0,1722	0,17739	0,1254	0,1779	0,16511
3824,14966	0,17146	0,17657	0,12406	0,17682	0,16507
3822,22119	0,17284	0,17731	0,12743	0,17951	0,16773
3820,29272	0,1721	0,17739	0,12521	0,17748	0,1631
3818,36426	0,16995	0,17571	0,12295	0,17519	0,16256

3816,43579	0,16979	0,1772	0,12662	0,17618	0,16263
3814,50732	0,16829	0,17722	0,12417	0,17343	0,15631
3812,57886	0,16966	0,1758	0,12296	0,17481	0,16161
3810,65039	0,17084	0,17635	0,12436	0,17646	0,16436
3808,72192	0,17103	0,17647	0,12543	0,17708	0,16494
3806,79346	0,16996	0,17701	0,12587	0,17592	0,16092
3804,86499	0,16879	0,17582	0,12273	0,17376	0,15895
3802,93652	0,17098	0,17531	0,12507	0,17712	0,16677
3801,00806	0,16959	0,17704	0,12646	0,17566	0,16143
3799,07959	0,16728	0,17535	0,12187	0,17206	0,15666
3797,15112	0,17116	0,17471	0,12396	0,17674	0,16679
3795,22266	0,17004	0,17586	0,12437	0,17542	0,16191
3793,29419	0,16874	0,1753	0,12275	0,17384	0,16016
3791,36572	0,16999	0,17545	0,12422	0,17554	0,1636
3789,43726	0,1694	0,17571	0,12389	0,17484	0,16151
3787,50879	0,16924	0,17525	0,12368	0,17482	0,16208
3785,58032	0,17036	0,17512	0,12438	0,1759	0,16459
3783,65186	0,16934	0,17496	0,12329	0,17451	0,16213
3781,72339	0,16902	0,17477	0,12364	0,17453	0,16201
3779,79492	0,1704	0,17474	0,12445	0,17597	0,16462
3777,86646	0,16896	0,17469	0,1231	0,17407	0,16145
3775,93799	0,16822	0,17451	0,12298	0,17339	0,16049
3774,00952	0,16857	0,17451	0,12334	0,17387	0,16143
3772,08105	0,16903	0,17442	0,12376	0,17464	0,1627
3770,15259	0,16968	0,17441	0,12439	0,17524	0,16297
3768,22412	0,16803	0,17405	0,12292	0,17298	0,15938
3766,29565	0,16863	0,17365	0,12304	0,17392	0,16222
3764,36719	0,1686	0,17397	0,12318	0,17385	0,16152
3762,43872	0,16752	0,17365	0,12241	0,17263	0,16002
3760,51025	0,16917	0,17364	0,12388	0,17483	0,16371
3758,58179	0,1693	0,17369	0,12329	0,17435	0,16306
3756,65332	0,16793	0,17296	0,12201	0,17267	0,16112
3754,72485	0,16802	0,17319	0,12307	0,17329	0,16191
3752,79639	0,16756	0,17355	0,12429	0,17329	0,16206
3750,86792	0,16689	0,17425	0,12562	0,17285	0,15949
3748,93945	0,16348	0,17353	0,1214	0,16807	0,14984
3747,01099	0,16621	0,17178	0,12106	0,17117	0,16033
3745,08252	0,16704	0,17393	0,12597	0,17356	0,16029
3743,15405	0,16335	0,17451	0,12242	0,16812	0,14675
3741,22559	0,16598	0,1713	0,11914	0,17013	0,15901
3739,29712	0,16793	0,17201	0,12181	0,17304	0,16479
3737,36865	0,16701	0,17349	0,12319	0,17232	0,16048
3735,44019	0,16799	0,17227	0,12147	0,17282	0,1634
3733,51172	0,16712	0,17199	0,12106	0,172	0,16183
3731,58325	0,16425	0,17263	0,1204	0,16877	0,15455
3729,65479	0,16434	0,17243	0,11942	0,16862	0,1564
3727,72632	0,16609	0,17246	0,12051	0,17086	0,16104
3725,79785	0,16637	0,17265	0,12101	0,17108	0,16055
3723,86938	0,16605	0,17203	0,12009	0,1705	0,1603
3721,94092	0,16614	0,17185	0,1204	0,17084	0,16056

3720,01245	0,16576	0,17179	0,12041	0,1703	0,15915
3718,08398	0,16553	0,17162	0,12053	0,17006	0,15873
3716,15552	0,1656	0,17141	0,12071	0,17024	0,15859
3714,22705	0,16604	0,17112	0,12143	0,17107	0,16037
3712,29858	0,16615	0,1716	0,12238	0,17146	0,15983
3710,37012	0,16502	0,17111	0,12031	0,16941	0,15675
3708,44165	0,16418	0,17031	0,11893	0,16837	0,15775
3706,51318	0,16389	0,17069	0,11834	0,1682	0,15585
3704,58472	0,16397	0,17088	0,11906	0,16852	0,15687
3702,65625	0,16545	0,171	0,12064	0,17026	0,15996
3700,72778	0,16435	0,1709	0,11938	0,1687	0,15665
3698,79932	0,16311	0,17068	0,11862	0,16742	0,15503
3696,87085	0,16418	0,17051	0,11932	0,16867	0,15768
3694,94238	0,16379	0,1704	0,11923	0,16816	0,15656
3693,01392	0,1637	0,16991	0,119	0,16813	0,15659
3691,08545	0,16522	0,16895	0,11945	0,16997	0,16042
3689,15698	0,16256	0,16914	0,11939	0,16732	0,15479
3687,22852	0,15922	0,16907	0,11747	0,16338	0,14652
3685,30005	0,1621	0,16802	0,11674	0,16609	0,15365
3683,37158	0,16316	0,16835	0,11797	0,16766	0,15667
3681,44312	0,16309	0,16913	0,1192	0,16782	0,15503
3679,51465	0,16451	0,16845	0,11836	0,16887	0,15817
3677,58618	0,16391	0,16841	0,11976	0,16922	0,15923
3675,65771	0,16512	0,16974	0,12208	0,17075	0,15895
3673,72925	0,1616	0,16866	0,11717	0,16548	0,15013
3671,80078	0,1618	0,1681	0,1185	0,16664	0,15508
3669,87231	0,1635	0,16951	0,12143	0,16886	0,1564
3667,94385	0,16207	0,16861	0,11764	0,1662	0,15184
3666,01538	0,16239	0,1683	0,11801	0,16707	0,15535
3664,08691	0,16289	0,16916	0,11955	0,16798	0,1559
3662,15845	0,16335	0,16906	0,11928	0,1682	0,15609
3660,22998	0,16277	0,16909	0,11898	0,16759	0,15573
3658,30151	0,16343	0,16896	0,11967	0,16864	0,15769
3656,37305	0,16343	0,1692	0,1204	0,16879	0,15613
3654,44458	0,16125	0,16893	0,11832	0,1658	0,15142
3652,51611	0,16369	0,16806	0,119	0,16867	0,15863
3650,58765	0,1655	0,16858	0,12156	0,17142	0,16193
3648,65918	0,16326	0,1685	0,11947	0,16829	0,15618
3646,73071	0,16245	0,16753	0,11735	0,16711	0,15522
3644,80225	0,16233	0,16783	0,1176	0,16753	0,15541
3642,87378	0,1621	0,16831	0,11815	0,16752	0,15549
3640,94531	0,16286	0,16845	0,11856	0,16822	0,15712
3639,01685	0,16204	0,16863	0,11809	0,16721	0,15558
3637,08838	0,16187	0,1685	0,11782	0,16706	0,15617
3635,15991	0,16229	0,16865	0,11841	0,16766	0,15691
3633,23145	0,16188	0,1685	0,11728	0,16693	0,15646
3631,30298	0,16177	0,16821	0,11751	0,1672	0,15785
3629,37451	0,16265	0,16911	0,11991	0,1687	0,1574
3627,44604	0,15977	0,16858	0,1162	0,16447	0,14992
3625,51758	0,15987	0,16745	0,11505	0,16467	0,15398



3623,58911	0,16086	0,1681	0,11658	0,16622	0,15625
3621,66064	0,1611	0,16814	0,11671	0,16659	0,15646
3619,73218	0,1621	0,16771	0,11759	0,16807	0,15869
3617,80371	0,16136	0,16765	0,11613	0,16687	0,1552
3615,87524	0,16108	0,16715	0,11518	0,16661	0,15602
3613,94678	0,16258	0,16716	0,11669	0,16886	0,15987
3612,01831	0,16144	0,16718	0,11596	0,16743	0,15658
3610,08984	0,1599	0,16721	0,11558	0,16582	0,15406
3608,16138	0,16072	0,16728	0,11572	0,16663	0,15634
3606,23291	0,16018	0,16685	0,11434	0,16553	0,15574
3604,30444	0,15956	0,16702	0,11429	0,16502	0,15481
3602,37598	0,16021	0,1672	0,11492	0,16586	0,15664
3600,44751	0,16065	0,16689	0,1145	0,166	0,15819
3598,51904	0,15996	0,16701	0,1136	0,16527	0,15638
3596,59058	0,16007	0,16704	0,11394	0,16559	0,15705
3594,66211	0,16075	0,16699	0,11442	0,16615	0,1586
3592,73364	0,15993	0,16722	0,11359	0,16505	0,15629
3590,80518	0,15948	0,1673	0,11375	0,16476	0,15569
3588,87671	0,16088	0,16729	0,11498	0,16654	0,15865
3586,94824	0,16148	0,16699	0,1142	0,16691	0,1597
3585,01978	0,15955	0,16693	0,11294	0,16473	0,1555
3583,09131	0,15949	0,16725	0,11355	0,1649	0,15617
3581,16284	0,16001	0,16743	0,11408	0,1655	0,15711
3579,23438	0,15999	0,16753	0,11388	0,16531	0,15689
3577,30591	0,15989	0,16767	0,11372	0,16522	0,15683
3575,37744	0,15984	0,16763	0,11384	0,1653	0,15702
3573,44897	0,15971	0,1677	0,11391	0,16525	0,15677
3571,52051	0,1594	0,1677	0,11359	0,16499	0,15629
3569,59204	0,16009	0,1676	0,11406	0,16594	0,15827
3567,66357	0,16197	0,16742	0,11457	0,16784	0,16272
3565,73511	0,16091	0,16716	0,11319	0,16636	0,16018
3563,80664	0,15936	0,16734	0,11269	0,16487	0,15689
3561,87817	0,15961	0,16771	0,11332	0,1653	0,15757
3559,94971	0,15974	0,16779	0,11343	0,16539	0,15774
3558,02124	0,15938	0,1679	0,1133	0,16511	0,15691
3556,09277	0,15917	0,16813	0,11325	0,16504	0,15641
3554,16431	0,1595	0,16811	0,11338	0,16541	0,15779
3552,23584	0,15986	0,16807	0,11334	0,16569	0,15883
3550,30737	0,15912	0,16818	0,11289	0,16504	0,15685
3548,37891	0,15926	0,16813	0,11311	0,16538	0,15751
3546,45044	0,16025	0,16798	0,11323	0,16624	0,15985
3544,52197	0,15974	0,16796	0,11272	0,16568	0,15864
3542,59351	0,15913	0,16814	0,11264	0,16511	0,15729
3540,66504	0,15904	0,16842	0,11268	0,16488	0,15676
3538,73657	0,15899	0,16835	0,11271	0,16503	0,15693
3536,80811	0,15929	0,16824	0,11269	0,16546	0,15792
3534,87964	0,15921	0,16836	0,11242	0,16519	0,15742
3532,95117	0,15873	0,16825	0,11231	0,16474	0,15655
3531,02271	0,15884	0,16814	0,11231	0,16506	0,15734
3529,09424	0,15929	0,16811	0,11223	0,16554	0,15847

3527,16577	0,15903	0,16793	0,11203	0,16516	0,15798
3525,2373	0,1589	0,16784	0,11195	0,165	0,15787
3523,30884	0,15909	0,16784	0,11182	0,16522	0,15828
3521,38037	0,15851	0,16783	0,11154	0,16468	0,1571
3519,4519	0,15823	0,16783	0,11154	0,16441	0,15658
3517,52344	0,15838	0,16784	0,11148	0,16455	0,15673
3515,59497	0,15828	0,16782	0,11133	0,16443	0,15647
3513,6665	0,15812	0,16784	0,11131	0,16422	0,15643
3511,73804	0,15809	0,16766	0,11121	0,16429	0,15686
3509,80957	0,15835	0,16741	0,11116	0,16465	0,15774
3507,8811	0,15798	0,16751	0,11096	0,16416	0,15681
3505,95264	0,15771	0,16749	0,11086	0,16392	0,15621
3504,02417	0,15845	0,16728	0,11102	0,16478	0,1581
3502,0957	0,15833	0,16736	0,11079	0,16449	0,15797
3500,16724	0,15765	0,16746	0,11057	0,16378	0,15628
3498,23877	0,15774	0,1675	0,11067	0,16416	0,15664
3496,3103	0,15775	0,16753	0,11066	0,16423	0,15709
3494,38184	0,15762	0,16749	0,11062	0,16392	0,15656
3492,45337	0,15759	0,16753	0,11056	0,16397	0,1562
3490,5249	0,15748	0,16751	0,11058	0,16409	0,15645
3488,59644	0,15759	0,16747	0,11059	0,16417	0,157
3486,66797	0,15766	0,16751	0,11038	0,16402	0,15678
3484,7395	0,1575	0,16752	0,11039	0,16392	0,15639
3482,81104	0,15767	0,16753	0,11058	0,16432	0,15712
3480,88257	0,15771	0,16757	0,11046	0,16439	0,15724
3478,9541	0,15729	0,1676	0,1103	0,16387	0,15632
3477,02563	0,15725	0,16767	0,11033	0,16385	0,15643
3475,09717	0,15747	0,16772	0,11026	0,16412	0,15675
3473,1687	0,15734	0,16764	0,11018	0,16401	0,15648
3471,24023	0,15714	0,16758	0,11021	0,16388	0,15629
3469,31177	0,15726	0,16755	0,11015	0,16398	0,15654
3467,3833	0,1573	0,16751	0,11012	0,16402	0,15688
3465,45483	0,15705	0,16753	0,11013	0,16376	0,15661
3463,52637	0,15701	0,16746	0,11007	0,16359	0,15679
3461,5979	0,15692	0,16731	0,11007	0,1635	0,15697
3459,66943	0,15677	0,16728	0,11006	0,16339	0,15649
3457,74097	0,15684	0,16733	0,10991	0,16343	0,15647
3455,8125	0,1567	0,16729	0,10977	0,16333	0,15645
3453,88403	0,1567	0,16721	0,10974	0,16332	0,15653
3451,95557	0,15674	0,16719	0,10973	0,16326	0,15633
3450,0271	0,15655	0,16707	0,1098	0,16318	0,15614
3448,09863	0,15678	0,16697	0,10977	0,16361	0,15733
3446,17017	0,15678	0,16704	0,10954	0,16356	0,15729
3444,2417	0,15641	0,16703	0,10957	0,1633	0,15641
3442,31323	0,15648	0,16704	0,10976	0,16347	0,1568
3440,38477	0,15644	0,16715	0,10977	0,16323	0,15656
3438,4563	0,15638	0,16708	0,10976	0,16326	0,15642
3436,52783	0,15652	0,16705	0,10979	0,1636	0,15676
3434,59937	0,15647	0,1672	0,10979	0,16347	0,15661
3432,6709	0,15644	0,1673	0,10975	0,16343	0,1568

3430,74243	0,15653	0,16731	0,10974	0,16351	0,15683
3428,81396	0,15659	0,16724	0,10981	0,1635	0,15668
3426,8855	0,15657	0,16724	0,10982	0,16358	0,15694
3424,95703	0,15646	0,16742	0,10982	0,16361	0,1569
3423,02856	0,15656	0,16744	0,10991	0,16373	0,15719
3421,1001	0,15683	0,16734	0,11004	0,1639	0,15778
3419,17163	0,15681	0,16745	0,11008	0,16385	0,1574
3417,24316	0,15671	0,16751	0,11002	0,16378	0,15697
3415,3147	0,15681	0,16745	0,11006	0,16378	0,15716
3413,38623	0,15685	0,16753	0,11018	0,16391	0,15726
3411,45776	0,1569	0,1677	0,1102	0,16406	0,15731
3409,5293	0,15696	0,16773	0,1103	0,16398	0,15749
3407,60083	0,15693	0,1678	0,11043	0,16399	0,15752
3405,67236	0,15696	0,16791	0,11041	0,16413	0,15752
3403,7439	0,15711	0,16792	0,11041	0,1642	0,15776
3401,81543	0,15717	0,16797	0,11048	0,1642	0,15775
3399,88696	0,15727	0,168	0,11053	0,16422	0,15783
3397,9585	0,15744	0,16794	0,11065	0,16442	0,15822
3396,03003	0,15734	0,16788	0,11074	0,16447	0,15794
3394,10156	0,15733	0,16793	0,1108	0,16451	0,15801
3392,1731	0,1576	0,16801	0,11087	0,16473	0,15848
3390,24463	0,15751	0,16796	0,11083	0,16467	0,15808
3388,31616	0,15737	0,16811	0,11082	0,1646	0,15803
3386,3877	0,15758	0,16824	0,11096	0,16483	0,15837
3384,45923	0,15778	0,16805	0,11092	0,16492	0,15833
3382,53076	0,15779	0,16813	0,11077	0,16493	0,15833
3380,60229	0,15781	0,16822	0,11087	0,16507	0,15839
3378,67383	0,15791	0,16818	0,11101	0,16512	0,15843
3376,74536	0,158	0,16837	0,11107	0,16507	0,15849
3374,81689	0,15806	0,16837	0,11118	0,16513	0,15865
3372,88843	0,158	0,16828	0,11115	0,1651	0,15874
3370,95996	0,15799	0,16843	0,11119	0,16503	0,15877
3369,03149	0,15824	0,16851	0,11137	0,16516	0,15911
3367,10303	0,15837	0,16849	0,11135	0,16523	0,15939
3365,17456	0,15834	0,16841	0,11132	0,16518	0,15921
3363,24609	0,15846	0,16836	0,11139	0,16515	0,15921
3361,31763	0,15849	0,1685	0,1115	0,16511	0,15942
3359,38916	0,15842	0,16857	0,11162	0,16516	0,15925
3357,46069	0,15862	0,16854	0,11163	0,16519	0,15933
3355,53223	0,15874	0,16857	0,11166	0,16511	0,15966
3353,60376	0,15863	0,16852	0,1117	0,16509	0,15946
3351,67529	0,15875	0,16859	0,11172	0,16516	0,15948
3349,74683	0,15885	0,16868	0,1118	0,16516	0,15971
3347,81836	0,15875	0,16851	0,11185	0,16512	0,15957
3345,88989	0,15876	0,1685	0,11184	0,16509	0,15957
3343,96143	0,1588	0,16863	0,11189	0,16509	0,15975
3342,03296	0,15873	0,16858	0,11195	0,16506	0,1598
3340,10449	0,15882	0,16853	0,11194	0,16505	0,15976
3338,17603	0,15901	0,1685	0,11199	0,16519	0,15993
3336,24756	0,15901	0,16848	0,11196	0,16525	0,16011

3334,31909	0,15897	0,16852	0,11192	0,16514	0,15991
3332,39063	0,15891	0,16844	0,11203	0,16512	0,15977
3330,46216	0,15887	0,16832	0,11204	0,16512	0,15982
3328,53369	0,15902	0,16838	0,11206	0,16507	0,15988
3326,60522	0,15902	0,1684	0,11213	0,16503	0,15994
3324,67676	0,15892	0,1683	0,11204	0,16505	0,15987
3322,74829	0,15897	0,16831	0,11204	0,16512	0,15979
3320,81982	0,159	0,16829	0,11207	0,16515	0,1598
3318,89136	0,15902	0,16821	0,11199	0,16504	0,15982
3316,96289	0,15898	0,16815	0,112	0,16498	0,15977
3315,03442	0,15896	0,16802	0,11203	0,16506	0,15976
3313,10596	0,15899	0,16795	0,11197	0,165	0,15981
3311,17749	0,15902	0,16793	0,11194	0,16499	0,15986
3309,24902	0,1591	0,16791	0,112	0,16512	0,16
3307,32056	0,15907	0,16793	0,11197	0,16506	0,15986
3305,39209	0,159	0,16783	0,11196	0,16495	0,15963
3303,46362	0,15895	0,16765	0,11198	0,16485	0,15966
3301,53516	0,15886	0,16753	0,1118	0,16468	0,15947
3299,60669	0,1588	0,16746	0,11175	0,16459	0,15933
3297,67822	0,15875	0,16739	0,11187	0,16451	0,15931
3295,74976	0,15874	0,16726	0,11179	0,16438	0,15913
3293,82129	0,15881	0,1672	0,11167	0,16435	0,15928
3291,89282	0,15875	0,16712	0,11164	0,16433	0,15931
3289,96436	0,15861	0,16694	0,11166	0,1642	0,15912
3288,03589	0,15854	0,16685	0,11165	0,16415	0,15901
3286,10742	0,15844	0,1668	0,1115	0,16408	0,1588
3284,17896	0,15837	0,16664	0,11144	0,16391	0,15883
3282,25049	0,15838	0,16651	0,11141	0,1638	0,15871
3280,32202	0,15828	0,16644	0,1113	0,16369	0,15838
3278,39355	0,15827	0,16634	0,1113	0,16364	0,15853
3276,46509	0,15832	0,16626	0,11131	0,16363	0,15865
3274,53662	0,15826	0,16612	0,1112	0,16351	0,15849
3272,60815	0,15829	0,16598	0,11115	0,16346	0,15826
3270,67969	0,15825	0,16594	0,1112	0,16346	0,1581
3268,75122	0,15808	0,16585	0,11108	0,16323	0,15807
3266,82275	0,15799	0,16569	0,11101	0,1631	0,15798
3264,89429	0,15799	0,16563	0,11103	0,16314	0,15789
3262,96582	0,15798	0,16553	0,11096	0,16297	0,15775
3261,03735	0,15791	0,16534	0,11092	0,1628	0,15764
3259,10889	0,15778	0,16532	0,11082	0,1627	0,15765
3257,18042	0,15772	0,16537	0,11074	0,16263	0,15769
3255,25195	0,15775	0,16519	0,11077	0,16259	0,15761
3253,32349	0,15767	0,165	0,11067	0,16248	0,15734
3251,39502	0,15756	0,16498	0,11054	0,16245	0,15719
3249,46655	0,15756	0,16496	0,11051	0,16233	0,15717
3247,53809	0,15754	0,16484	0,11051	0,16218	0,15724
3245,60962	0,15748	0,16466	0,11045	0,16219	0,15732
3243,68115	0,1574	0,16462	0,11033	0,16199	0,15708
3241,75269	0,15726	0,16458	0,11023	0,16183	0,15684
3239,82422	0,15727	0,16445	0,11025	0,1619	0,15684

3237,89575	0,1573	0,16442	0,11027	0,16187	0,15671
3235,96729	0,15721	0,16432	0,11012	0,16177	0,15661
3234,03882	0,15714	0,16418	0,11007	0,16173	0,15663
3232,11035	0,15705	0,16409	0,11006	0,16166	0,1565
3230,18188	0,15693	0,16398	0,10993	0,16153	0,15646
3228,25342	0,15689	0,16388	0,10991	0,16139	0,15645
3226,32495	0,15684	0,16377	0,1099	0,16119	0,15626
3224,39648	0,15675	0,16369	0,10984	0,16101	0,15611
3222,46802	0,15675	0,16351	0,10977	0,16104	0,15609
3220,53955	0,15671	0,16332	0,10966	0,16102	0,15615
3218,61108	0,15657	0,1633	0,10963	0,16081	0,15592
3216,68262	0,15653	0,16317	0,10958	0,16079	0,15572
3214,75415	0,15649	0,16306	0,1095	0,1608	0,15588
3212,82568	0,15637	0,16295	0,10943	0,1606	0,15571
3210,89722	0,1563	0,16278	0,10938	0,16051	0,15556
3208,96875	0,15623	0,16273	0,10936	0,16037	0,15559
3207,04028	0,15611	0,16262	0,10931	0,1602	0,15534
3205,11182	0,15607	0,16253	0,10925	0,16029	0,15533
3203,18335	0,15609	0,16256	0,10916	0,16022	0,15532
3201,25488	0,15602	0,1625	0,1091	0,16002	0,15511
3199,32642	0,15594	0,16235	0,10916	0,16	0,15521
3197,39795	0,15594	0,16217	0,10909	0,15994	0,1552
3195,46948	0,15581	0,16208	0,10897	0,15984	0,15501
3193,54102	0,15571	0,16209	0,10895	0,15978	0,15494
3191,61255	0,15578	0,16201	0,10889	0,15971	0,15486
3189,68408	0,15574	0,16185	0,10881	0,15961	0,15476
3187,75562	0,15563	0,16179	0,10877	0,15954	0,15473
3185,82715	0,15563	0,16167	0,10873	0,15956	0,15478
3183,89868	0,15559	0,16154	0,10868	0,15944	0,15467
3181,97021	0,15544	0,16157	0,10866	0,1592	0,15442
3180,04175	0,15541	0,16142	0,10862	0,15912	0,15449
3178,11328	0,15545	0,16121	0,10856	0,15907	0,1546
3176,18481	0,15537	0,16114	0,10855	0,15891	0,15437
3174,25635	0,15526	0,16104	0,10852	0,15883	0,1542
3172,32788	0,15519	0,16103	0,1084	0,15875	0,15423
3170,39941	0,15515	0,16094	0,10834	0,1586	0,15417
3168,47095	0,15513	0,16075	0,1083	0,15856	0,15405
3166,54248	0,15493	0,1607	0,1082	0,15842	0,15395
3164,61401	0,15475	0,16053	0,1081	0,15825	0,15386
3162,68555	0,15475	0,16035	0,10808	0,15823	0,15379
3160,75708	0,15471	0,16033	0,10806	0,15813	0,15369
3158,82861	0,15469	0,16022	0,10798	0,1581	0,15357
3156,90015	0,15456	0,16007	0,10791	0,15806	0,15352
3154,97168	0,15439	0,15999	0,10784	0,15792	0,15343
3153,04321	0,15442	0,15992	0,10779	0,15783	0,15339
3151,11475	0,15435	0,15984	0,10779	0,15766	0,1534
3149,18628	0,15412	0,15968	0,10769	0,15755	0,15324
3147,25781	0,15411	0,15945	0,10757	0,15753	0,15311
3145,32935	0,15407	0,15938	0,10761	0,15738	0,15312
3143,40088	0,15388	0,15933	0,10755	0,15719	0,15296

3141,47241	0,15392	0,15919	0,10738	0,15717	0,15278
3139,54395	0,15398	0,15912	0,10736	0,15721	0,15281
3137,61548	0,15369	0,15904	0,10726	0,15704	0,15257
3135,68701	0,1535	0,15892	0,10716	0,15681	0,15251
3133,75854	0,15348	0,1588	0,10714	0,15678	0,15283
3131,83008	0,15336	0,15864	0,10701	0,15665	0,15252
3129,90161	0,15331	0,15852	0,10702	0,15647	0,15214
3127,97314	0,15325	0,15841	0,10699	0,15642	0,15226
3126,04468	0,15308	0,1583	0,10681	0,15624	0,15218
3124,11621	0,15304	0,15823	0,10679	0,15617	0,15209
3122,18774	0,15305	0,15815	0,10673	0,15616	0,15208
3120,25928	0,15291	0,15803	0,10664	0,15594	0,15194
3118,33081	0,15276	0,15788	0,10662	0,15583	0,15195
3116,40234	0,15269	0,15776	0,10662	0,15575	0,15191
3114,47388	0,15259	0,15765	0,10653	0,15556	0,15165
3112,54541	0,15242	0,15753	0,10636	0,15548	0,1515
3110,61694	0,15228	0,1574	0,10632	0,15538	0,15141
3108,68848	0,15219	0,1572	0,10633	0,15523	0,15128
3106,76001	0,15206	0,157	0,10619	0,15515	0,15115
3104,83154	0,15194	0,1569	0,10606	0,15502	0,15098
3102,90308	0,15187	0,15679	0,10598	0,15487	0,15102
3100,97461	0,15179	0,15672	0,10596	0,15476	0,15106
3099,04614	0,15167	0,15659	0,10592	0,15455	0,15075
3097,11768	0,1516	0,15641	0,1058	0,15446	0,15065
3095,18921	0,15149	0,1564	0,1057	0,15447	0,15066
3093,26074	0,15132	0,15638	0,10563	0,15429	0,15045
3091,33228	0,15126	0,15623	0,10557	0,1542	0,15033
3089,40381	0,15117	0,15614	0,10555	0,15413	0,15029
3087,47534	0,15114	0,15611	0,10544	0,15401	0,15023
3085,54688	0,15121	0,15605	0,10532	0,15403	0,15012
3083,61841	0,15103	0,15594	0,10533	0,15392	0,15009
3081,68994	0,15084	0,1558	0,10533	0,15373	0,15013
3079,76147	0,15082	0,15565	0,10523	0,15368	0,15008
3077,83301	0,15071	0,15558	0,10516	0,15365	0,14997
3075,90454	0,15055	0,15545	0,10511	0,15349	0,14962
3073,97607	0,15046	0,15522	0,10498	0,15328	0,14942
3072,04761	0,15033	0,15515	0,10491	0,1531	0,1495
3070,11914	0,15023	0,15509	0,10486	0,15294	0,14936
3068,19067	0,1503	0,15495	0,10477	0,153	0,14935
3066,26221	0,15025	0,15484	0,10482	0,15308	0,14945
3064,33374	0,15002	0,15465	0,10478	0,15283	0,14924
3062,40527	0,1499	0,1545	0,10458	0,15258	0,14903
3060,47681	0,14981	0,15442	0,1045	0,15249	0,14889
3058,54834	0,14976	0,15436	0,10444	0,15244	0,14888
3056,61987	0,14968	0,1543	0,10434	0,15236	0,14899
3054,69141	0,14952	0,15408	0,10433	0,15222	0,14872
3052,76294	0,14956	0,15397	0,10431	0,1521	0,14848
3050,83447	0,14959	0,15396	0,10426	0,15205	0,14862
3048,90601	0,14942	0,15378	0,10413	0,15198	0,14853
3046,97754	0,14927	0,15372	0,10402	0,15182	0,14835

3045,04907	0,14923	0,15373	0,10404	0,15164	0,14832
3043,12061	0,14918	0,15361	0,10402	0,15155	0,1482
3041,19214	0,14909	0,15344	0,10395	0,15151	0,14805
3039,26367	0,14896	0,15329	0,10386	0,15143	0,14794
3037,33521	0,14884	0,15314	0,10376	0,1513	0,14789
3035,40674	0,14881	0,15305	0,10375	0,15124	0,14785
3033,47827	0,1488	0,15298	0,10373	0,15119	0,1479
3031,5498	0,14863	0,15285	0,10363	0,15102	0,14792
3029,62134	0,14845	0,15275	0,10355	0,1509	0,14762
3027,69287	0,14835	0,15268	0,10352	0,15081	0,14739
3025,7644	0,1483	0,1526	0,10351	0,15072	0,14741
3023,83594	0,14832	0,1526	0,10344	0,15066	0,14735
3021,90747	0,1482	0,15246	0,10341	0,15055	0,14719
3019,979	0,14811	0,15233	0,10339	0,15054	0,14714
3018,05054	0,14819	0,15238	0,10326	0,15063	0,14715
3016,12207	0,14818	0,15225	0,10313	0,15064	0,14708
3014,1936	0,1481	0,15205	0,1032	0,15059	0,14706
3012,26514	0,14804	0,15197	0,1032	0,15044	0,14708
3010,33667	0,14787	0,15183	0,10304	0,15022	0,14692
3008,4082	0,14765	0,15169	0,10302	0,15001	0,14673
3006,47974	0,14759	0,15162	0,10301	0,14998	0,14673
3004,55127	0,14756	0,15156	0,10289	0,15002	0,14673
3002,6228	0,1474	0,15145	0,10284	0,14986	0,14659
3000,69434	0,14731	0,15132	0,10284	0,14982	0,14653
2998,76587	0,14727	0,15124	0,10289	0,14997	0,14654
2996,8374	0,14719	0,15117	0,10289	0,14999	0,14658
2994,90894	0,14715	0,15102	0,1028	0,14997	0,14666
2992,98047	0,14712	0,15092	0,10279	0,14997	0,1467
2991,052	0,147	0,15087	0,10276	0,1499	0,14679
2989,12354	0,1469	0,15076	0,10274	0,14992	0,14689
2987,19507	0,14684	0,15063	0,10276	0,15001	0,14692
2985,2666	0,14673	0,1505	0,10275	0,14999	0,147
2983,33813	0,14672	0,15041	0,10279	0,15006	0,14712
2981,40967	0,14673	0,1504	0,10287	0,15023	0,14742
2979,4812	0,14664	0,15033	0,10288	0,15038	0,14773
2977,55273	0,14664	0,15019	0,10287	0,15058	0,1478
2975,62427	0,14662	0,15012	0,10294	0,1508	0,14815
2973,6958	0,14647	0,1501	0,10308	0,15109	0,14868
2971,76733	0,14641	0,14995	0,10331	0,15148	0,14906
2969,83887	0,14645	0,14981	0,10356	0,152	0,14969
2967,9104	0,14639	0,14978	0,10386	0,15261	0,15056
2965,98193	0,14632	0,14976	0,10427	0,15326	0,15149
2964,05347	0,14639	0,14978	0,10466	0,15401	0,15251
2962,125	0,14641	0,14975	0,10508	0,15474	0,15352
2960,19653	0,14634	0,14963	0,10548	0,15533	0,15446
2958,26807	0,14638	0,14958	0,10565	0,1558	0,15497
2956,3396	0,14635	0,14954	0,10564	0,15582	0,15493
2954,41113	0,14624	0,14947	0,10562	0,1554	0,15457
2952,48267	0,14615	0,14946	0,10545	0,1549	0,15388
2950,5542	0,14604	0,14938	0,10505	0,15433	0,15303

2948,62573	0,14604	0,14919	0,10472	0,15378	0,15235
2946,69727	0,14608	0,14911	0,10451	0,15335	0,15177
2944,7688	0,146	0,14914	0,10422	0,15292	0,15127
2942,84033	0,1459	0,14908	0,10396	0,15259	0,15085
2940,91187	0,14585	0,149	0,10379	0,15233	0,15043
2938,9834	0,14588	0,14899	0,10363	0,15207	0,15008
2937,05493	0,14597	0,14899	0,10345	0,15188	0,14983
2935,12646	0,14599	0,14895	0,10321	0,15162	0,1495
2933,198	0,14594	0,14889	0,103	0,15135	0,1492
2931,26953	0,14597	0,14887	0,10294	0,15119	0,149
2929,34106	0,14605	0,14883	0,10286	0,15099	0,14873
2927,4126	0,14598	0,14872	0,10265	0,15074	0,14845
2925,48413	0,14588	0,14867	0,10251	0,15053	0,14828
2923,55566	0,14578	0,14852	0,10244	0,1503	0,14812
2921,6272	0,14558	0,14831	0,10229	0,15017	0,14789
2919,69873	0,14544	0,14824	0,1021	0,15006	0,14769
2917,77026	0,14534	0,14808	0,10197	0,14981	0,14762
2915,8418	0,1452	0,14788	0,10191	0,14971	0,1476
2913,91333	0,14509	0,14778	0,10189	0,14975	0,14761
2911,98486	0,145	0,14768	0,10188	0,14966	0,14759
2910,0564	0,14494	0,14758	0,10184	0,14958	0,14751
2908,12793	0,14482	0,14749	0,10179	0,14961	0,14751
2906,19946	0,14463	0,14733	0,10175	0,14956	0,14741
2904,271	0,14453	0,14715	0,10171	0,1494	0,14724
2902,34253	0,14447	0,1471	0,10166	0,14926	0,14719
2900,41406	0,14432	0,14703	0,10158	0,14908	0,14704
2898,4856	0,14419	0,1469	0,10147	0,14883	0,14679
2896,55713	0,14417	0,14686	0,10138	0,14868	0,14658
2894,62866	0,14413	0,14676	0,10131	0,14851	0,14629
2892,7002	0,14403	0,14657	0,1012	0,14819	0,14596
2890,77173	0,14403	0,14648	0,10103	0,14802	0,14567
2888,84326	0,14391	0,14642	0,10091	0,14788	0,14541
2886,91479	0,14371	0,14634	0,1008	0,1476	0,14524
2884,98633	0,14367	0,14627	0,10068	0,14745	0,14511
2883,05786	0,14363	0,14616	0,10061	0,14741	0,14498
2881,12939	0,14363	0,14607	0,10056	0,14732	0,1449
2879,20093	0,14366	0,14603	0,10049	0,14729	0,14493
2877,27246	0,14355	0,14603	0,10052	0,14737	0,14503
2875,34399	0,14351	0,14601	0,10057	0,14747	0,14514
2873,41553	0,14351	0,14598	0,10059	0,14755	0,14525
2871,48706	0,1434	0,14589	0,10061	0,14761	0,14525
2869,55859	0,1433	0,14579	0,10049	0,14756	0,14511
2867,63013	0,14331	0,14573	0,10036	0,14739	0,14498
2865,70166	0,1433	0,1456	0,10034	0,1472	0,14471
2863,77319	0,14328	0,14554	0,10023	0,14698	0,14431
2861,84473	0,14324	0,14558	0,10005	0,14667	0,14396
2859,91626	0,14317	0,14553	0,09991	0,14641	0,14366
2857,98779	0,14311	0,1455	0,09973	0,14617	0,14339
2856,05933	0,1431	0,14545	0,09963	0,14589	0,14316
2854,13086	0,1431	0,14531	0,09952	0,14576	0,14299



2852,20239	0,14301	0,14521	0,09928	0,14558	0,14282
2850,27393	0,1428	0,14506	0,09913	0,14533	0,14265
2848,34546	0,14263	0,1449	0,09904	0,14517	0,14241
2846,41699	0,14251	0,14479	0,09888	0,14495	0,14209
2844,48853	0,14234	0,14465	0,09879	0,14473	0,14185
2842,56006	0,14226	0,14454	0,09873	0,14459	0,14162
2840,63159	0,14228	0,14446	0,09866	0,14445	0,14138
2838,70313	0,14221	0,14436	0,0986	0,14429	0,14123
2836,77466	0,14205	0,14422	0,09849	0,14408	0,14104
2834,84619	0,14194	0,14415	0,09841	0,14392	0,14087
2832,91772	0,14183	0,14409	0,09837	0,14382	0,14068
2830,98926	0,1417	0,14395	0,0983	0,14364	0,14044
2829,06079	0,14166	0,14388	0,09821	0,14349	0,14031
2827,13232	0,14167	0,14379	0,0981	0,14343	0,14019
2825,20386	0,14162	0,14369	0,09798	0,1434	0,14001
2823,27539	0,14153	0,14366	0,09787	0,14334	0,13994
2821,34692	0,14145	0,14357	0,09785	0,14317	0,13981
2819,41846	0,14139	0,14344	0,09785	0,14304	0,13958
2817,48999	0,14137	0,14332	0,0978	0,14298	0,13945
2815,56152	0,14133	0,14322	0,09774	0,14292	0,13945
2813,63306	0,14124	0,14317	0,09774	0,14287	0,13939
2811,70459	0,14119	0,14316	0,09772	0,1428	0,13925
2809,77612	0,14121	0,14314	0,0977	0,14275	0,13918
2807,84766	0,14115	0,14303	0,0976	0,14265	0,13913
2805,91919	0,14107	0,14296	0,0975	0,14254	0,13905
2803,99072	0,14107	0,14292	0,09747	0,14248	0,13896
2802,06226	0,141	0,14283	0,09741	0,14233	0,13889
2800,13379	0,14097	0,14275	0,09735	0,14226	0,13886
2798,20532	0,14098	0,14263	0,09737	0,1423	0,13874
2796,27686	0,14091	0,14258	0,09736	0,14221	0,13863
2794,34839	0,14086	0,14258	0,09728	0,1421	0,13857
2792,41992	0,14082	0,14246	0,09726	0,14211	0,13851
2790,49146	0,14079	0,14243	0,09731	0,1421	0,13849
2788,56299	0,14079	0,14242	0,09723	0,14205	0,13843
2786,63452	0,1407	0,14232	0,09713	0,14197	0,13833
2784,70605	0,14064	0,14227	0,09712	0,14192	0,13833
2782,77759	0,14066	0,14216	0,09707	0,14194	0,13826
2780,84912	0,14059	0,14205	0,09702	0,14189	0,13815
2778,92065	0,1405	0,14206	0,097	0,14176	0,13813
2776,99219	0,14046	0,14205	0,09701	0,1417	0,13809
2775,06372	0,14048	0,14192	0,09701	0,14169	0,138
2773,13525	0,14044	0,14181	0,09694	0,14166	0,13792
2771,20679	0,14036	0,14182	0,09692	0,14161	0,13788
2769,27832	0,14035	0,14177	0,0969	0,14151	0,13783
2767,34985	0,14034	0,1417	0,09681	0,14148	0,13774
2765,42139	0,14029	0,14174	0,09684	0,14144	0,13768
2763,49292	0,14027	0,14165	0,09685	0,14133	0,13762
2761,56445	0,14018	0,14151	0,09676	0,14131	0,13758
2759,63599	0,14008	0,1415	0,09674	0,14132	0,13755
2757,70752	0,14012	0,1414	0,09675	0,14122	0,13747

2755,77905	0,14006	0,14134	0,09672	0,14122	0,13741
2753,85059	0,13996	0,14137	0,09665	0,14124	0,13738
2751,92212	0,13997	0,14128	0,0966	0,1411	0,13738
2749,99365	0,13991	0,14119	0,09663	0,14102	0,13731
2748,06519	0,13986	0,14122	0,0966	0,141	0,13722
2746,13672	0,13984	0,14119	0,09656	0,1409	0,13718
2744,20825	0,13973	0,14107	0,09654	0,14087	0,13713
2742,27979	0,13971	0,14097	0,09648	0,14086	0,13706
2740,35132	0,13967	0,14092	0,09644	0,14073	0,13697
2738,42285	0,13958	0,14086	0,09646	0,14065	0,1369
2736,49438	0,1396	0,14078	0,09646	0,14065	0,13689
2734,56592	0,13958	0,14077	0,09641	0,14061	0,13684
2732,63745	0,13953	0,14074	0,09637	0,14064	0,13679
2730,70898	0,13951	0,14064	0,09632	0,14062	0,13673
2728,78052	0,13947	0,14061	0,09625	0,14051	0,1366
2726,85205	0,13943	0,1406	0,0962	0,14054	0,13658
2724,92358	0,13935	0,1405	0,09617	0,1405	0,13656
2722,99512	0,13928	0,14047	0,09613	0,14038	0,13644
2721,06665	0,13928	0,14042	0,09608	0,14038	0,13639
2719,13818	0,13921	0,14032	0,09605	0,14032	0,13638
2717,20972	0,1392	0,14027	0,09608	0,14022	0,13634
2715,28125	0,1392	0,14022	0,09608	0,14017	0,1363
2713,35278	0,13913	0,14015	0,09606	0,14012	0,13626
2711,42432	0,13913	0,14003	0,09608	0,14015	0,13619
2709,49585	0,13909	0,13995	0,09603	0,14007	0,13613
2707,56738	0,139	0,14001	0,09595	0,13993	0,13605
2705,63892	0,139	0,14002	0,09594	0,13992	0,13596
2703,71045	0,13909	0,14	0,0959	0,13992	0,13594
2701,78198	0,13909	0,13996	0,09587	0,13993	0,13592
2699,85352	0,13899	0,13986	0,09584	0,13989	0,13582
2697,92505	0,13895	0,13987	0,09576	0,13979	0,13573
2695,99658	0,13887	0,13988	0,09576	0,13974	0,1357
2694,06812	0,13877	0,13982	0,09579	0,13968	0,13565
2692,13965	0,13877	0,13978	0,09573	0,13966	0,13564
2690,21118	0,13872	0,13972	0,09565	0,1397	0,13566
2688,28271	0,1387	0,13969	0,09565	0,13958	0,1356
2686,35425	0,1387	0,13962	0,09566	0,13952	0,13555
2684,42578	0,13861	0,13958	0,09564	0,13957	0,13554
2682,49731	0,13856	0,13958	0,09562	0,13949	0,13546
2680,56885	0,13859	0,13953	0,09559	0,1394	0,13537
2678,64038	0,13864	0,13955	0,09561	0,13941	0,13535
2676,71191	0,13864	0,13952	0,09563	0,1394	0,13529
2674,78345	0,13859	0,13946	0,09559	0,13938	0,13523
2672,85498	0,13855	0,13955	0,09555	0,13935	0,13529
2670,92651	0,13854	0,13953	0,09551	0,13925	0,13526
2668,99805	0,13852	0,13945	0,09548	0,13918	0,13521
2667,06958	0,13848	0,13949	0,09552	0,13921	0,13524
2665,14111	0,13843	0,13946	0,09554	0,1392	0,13514
2663,21265	0,13848	0,13943	0,0955	0,13915	0,13505
2661,28418	0,1385	0,13944	0,09546	0,13916	0,13513

2659,35571	0,13845	0,13938	0,09544	0,13914	0,13511
2657,42725	0,13847	0,13929	0,09543	0,13907	0,13504
2655,49878	0,13845	0,1393	0,09545	0,13905	0,13505
2653,57031	0,13836	0,13936	0,0955	0,13906	0,13507
2651,64185	0,13836	0,13931	0,09551	0,13908	0,13498
2649,71338	0,13831	0,13925	0,09549	0,13903	0,13489
2647,78491	0,13824	0,13928	0,09548	0,13897	0,1349
2645,85645	0,1383	0,1393	0,09548	0,13896	0,13487
2643,92798	0,13836	0,13929	0,09548	0,13888	0,13481
2641,99951	0,13841	0,13923	0,09544	0,13886	0,13483
2640,07104	0,13838	0,13917	0,09541	0,13896	0,13484
2638,14258	0,13822	0,13921	0,09542	0,13893	0,13484
2636,21411	0,13816	0,13919	0,09543	0,13887	0,13479
2634,28564	0,13817	0,13913	0,09542	0,13885	0,13467
2632,35718	0,13813	0,13909	0,09543	0,1388	0,13462
2630,42871	0,13808	0,13902	0,09543	0,13877	0,13463
2628,50024	0,13806	0,13898	0,0954	0,13874	0,13463
2626,57178	0,13802	0,13896	0,09538	0,13867	0,13455
2624,64331	0,13794	0,13889	0,09536	0,13857	0,13448
2622,71484	0,13793	0,13885	0,0953	0,13848	0,13445
2620,78638	0,13788	0,13883	0,09523	0,13846	0,13434
2618,85791	0,13775	0,13874	0,09517	0,13837	0,13424
2616,92944	0,13773	0,13869	0,09513	0,13828	0,13423
2615,00098	0,13774	0,13864	0,09512	0,13829	0,13413
2613,07251	0,13761	0,1385	0,0951	0,13813	0,13401
2611,14404	0,13751	0,13838	0,09504	0,13793	0,13397
2609,21558	0,13746	0,1383	0,09492	0,13793	0,13393
2607,28711	0,1374	0,13825	0,0949	0,1379	0,13387
2605,35864	0,13735	0,13823	0,09488	0,13782	0,13382
2603,43018	0,13727	0,13814	0,09479	0,13781	0,13374
2601,50171	0,1372	0,13802	0,09474	0,13769	0,13365
2599,57324	0,13711	0,13798	0,0947	0,1375	0,13355
2597,64478	0,13698	0,13794	0,09469	0,13746	0,1335
2595,71631	0,13694	0,13783	0,09461	0,13747	0,13346
2593,78784	0,13689	0,13771	0,09445	0,13733	0,13333
2591,85938	0,13678	0,13766	0,09443	0,13719	0,13325
2589,93091	0,1367	0,13764	0,09439	0,1371	0,1332
2588,00244	0,13657	0,13754	0,09431	0,13691	0,1331
2586,07397	0,13652	0,13739	0,09429	0,1368	0,13304
2584,14551	0,13653	0,1373	0,09419	0,13677	0,13292
2582,21704	0,13641	0,13722	0,09413	0,1367	0,13277
2580,28857	0,13627	0,13712	0,09414	0,13657	0,13272
2578,36011	0,13615	0,13703	0,09411	0,13644	0,13264
2576,43164	0,13604	0,13693	0,09399	0,13637	0,13253
2574,50317	0,13597	0,13687	0,0939	0,13633	0,13246
2572,57471	0,13589	0,13683	0,09385	0,13624	0,13237
2570,64624	0,13582	0,13674	0,09381	0,1361	0,13224
2568,71777	0,13575	0,13667	0,09377	0,13604	0,13215
2566,78931	0,13568	0,13654	0,09373	0,13599	0,13204
2564,86084	0,13567	0,13639	0,0937	0,13583	0,13193

2562,93237	0,13562	0,13632	0,09366	0,13574	0,13189
2561,00391	0,13552	0,13625	0,09356	0,13573	0,13184
2559,07544	0,13543	0,13615	0,09349	0,13565	0,13176
2557,14697	0,13533	0,13604	0,09342	0,13557	0,13165
2555,21851	0,1353	0,13594	0,09336	0,13547	0,13159
2553,29004	0,13529	0,13591	0,09333	0,13539	0,13154
2551,36157	0,13517	0,13584	0,09325	0,13533	0,13139
2549,43311	0,13503	0,13571	0,09316	0,13526	0,13128
2547,50464	0,13504	0,1356	0,09309	0,13523	0,13122
2545,57617	0,13503	0,13555	0,09306	0,1351	0,13118
2543,64771	0,13494	0,1355	0,09309	0,13493	0,13115
2541,71924	0,13492	0,13545	0,09309	0,13491	0,13107
2539,79077	0,13487	0,13546	0,09305	0,13483	0,13097
2537,8623	0,13477	0,13543	0,09301	0,13476	0,13088
2535,93384	0,1347	0,13535	0,09299	0,13476	0,13088
2534,00537	0,13456	0,13531	0,09295	0,13467	0,13084
2532,0769	0,13451	0,13529	0,09294	0,13464	0,13076
2530,14844	0,13459	0,13524	0,09292	0,13453	0,13079
2528,21997	0,13455	0,13515	0,09285	0,13433	0,13072
2526,2915	0,13448	0,13508	0,09276	0,13436	0,13063
2524,36304	0,13448	0,1351	0,09273	0,13438	0,13066
2522,43457	0,13445	0,13506	0,0927	0,13426	0,13058
2520,5061	0,13442	0,13496	0,09261	0,13424	0,1304
2518,57764	0,13438	0,13492	0,0926	0,13419	0,13035
2516,64917	0,1343	0,13491	0,09265	0,13405	0,13034
2514,7207	0,13429	0,13486	0,09262	0,13406	0,13029
2512,79224	0,13431	0,13475	0,09257	0,13409	0,13024
2510,86377	0,13423	0,13466	0,09256	0,13398	0,13019
2508,9353	0,13416	0,13459	0,09252	0,13389	0,13017
2507,00684	0,13415	0,13447	0,09248	0,13383	0,13012
2505,07837	0,13412	0,13439	0,09246	0,13375	0,13001
2503,1499	0,13405	0,13442	0,09246	0,13362	0,13002
2501,22144	0,13399	0,1344	0,09246	0,1336	0,13
2499,29297	0,13399	0,13431	0,09245	0,13364	0,12986
2497,3645	0,134	0,13434	0,09238	0,13355	0,12982
2495,43604	0,13392	0,13439	0,09232	0,13344	0,12987
2493,50757	0,13383	0,13434	0,09234	0,13337	0,12988
2491,5791	0,13386	0,13433	0,09235	0,13331	0,12981
2489,65063	0,13383	0,1343	0,09237	0,13332	0,12971
2487,72217	0,13372	0,13426	0,09241	0,13327	0,12963
2485,7937	0,13368	0,13424	0,09237	0,13313	0,12961
2483,86523	0,13366	0,13416	0,09233	0,13306	0,1296
2481,93677	0,13362	0,13417	0,09234	0,13302	0,12954
2480,0083	0,13358	0,13418	0,09228	0,13292	0,12953
2478,07983	0,13352	0,13408	0,09228	0,13289	0,12948
2476,15137	0,13346	0,13411	0,09231	0,13287	0,12939
2474,2229	0,13341	0,13414	0,09227	0,13273	0,12935
2472,29443	0,13338	0,13405	0,09224	0,13269	0,12927
2470,36597	0,13335	0,13399	0,09223	0,13265	0,12921
2468,4375	0,13334	0,13395	0,09221	0,13256	0,12921

2466,50903	0,13335	0,13394	0,09224	0,13261	0,12916
2464,58057	0,13326	0,13392	0,09229	0,13257	0,12907
2462,6521	0,13321	0,13382	0,09227	0,13247	0,12899
2460,72363	0,13323	0,1338	0,09224	0,13249	0,12896
2458,79517	0,13312	0,13381	0,09225	0,13244	0,12892
2456,8667	0,13308	0,13376	0,0922	0,13234	0,12885
2454,93823	0,13311	0,13372	0,09216	0,1323	0,12878
2453,00977	0,13304	0,13368	0,09213	0,13225	0,12877
2451,0813	0,13299	0,1336	0,09209	0,13221	0,12874
2449,15283	0,13295	0,13355	0,0921	0,13222	0,12866
2447,22437	0,13286	0,13353	0,09205	0,13217	0,12862
2445,2959	0,13276	0,13347	0,09201	0,13206	0,12862
2443,36743	0,13276	0,1334	0,09204	0,13201	0,12859
2441,43896	0,13278	0,1333	0,09199	0,13196	0,12852
2439,5105	0,13269	0,13324	0,092	0,13191	0,12846
2437,58203	0,13265	0,13327	0,09201	0,13189	0,12847
2435,65356	0,1327	0,13328	0,09191	0,13181	0,1285
2433,7251	0,13262	0,13323	0,09185	0,13171	0,12841
2431,79663	0,13248	0,13321	0,09185	0,13166	0,12834
2429,86816	0,13249	0,13314	0,09185	0,13164	0,12832
2427,9397	0,13247	0,13307	0,09179	0,13156	0,1282
2426,01123	0,13236	0,13305	0,09175	0,13147	0,12811
2424,08276	0,13238	0,13303	0,09176	0,13147	0,12812
2422,1543	0,13242	0,13305	0,09176	0,13145	0,12808
2420,22583	0,13237	0,13306	0,09179	0,1314	0,12808
2418,29736	0,13234	0,13303	0,09176	0,13134	0,12807
2416,3689	0,13229	0,13304	0,09175	0,13127	0,128
2414,44043	0,13222	0,13305	0,09184	0,1312	0,12798
2412,51196	0,13222	0,13303	0,0918	0,13119	0,12789
2410,5835	0,13224	0,13301	0,09174	0,13116	0,12779
2408,65503	0,13222	0,133	0,09176	0,13113	0,12783
2406,72656	0,13217	0,13299	0,09175	0,13113	0,12785
2404,7981	0,13213	0,13293	0,09178	0,1311	0,12777
2402,86963	0,1321	0,13293	0,09183	0,131	0,12773
2400,94116	0,13203	0,13294	0,09181	0,13091	0,12774
2399,0127	0,132	0,13285	0,09171	0,13089	0,12771
2397,08423	0,13198	0,13286	0,0917	0,13085	0,12766
2395,15576	0,13195	0,13293	0,09168	0,13081	0,1276
2393,22729	0,13193	0,13286	0,09166	0,13077	0,12757
2391,29883	0,1319	0,13287	0,09164	0,13074	0,12756
2389,37036	0,13187	0,13291	0,09163	0,1307	0,12753
2387,44189	0,13185	0,13282	0,09161	0,13066	0,1275
2385,51343	0,13182	0,13279	0,09159	0,13063	0,12747
2383,58496	0,1318	0,13277	0,09157	0,13059	0,12744
2381,65649	0,13177	0,13274	0,09156	0,13055	0,1274
2379,72803	0,13175	0,13272	0,09154	0,13052	0,12737
2377,79956	0,13172	0,13269	0,09152	0,13048	0,12734
2375,87109	0,1317	0,13266	0,0915	0,13045	0,12731
2373,94263	0,13167	0,13264	0,09149	0,13041	0,12727
2372,01416	0,13165	0,13261	0,09147	0,13037	0,12724

2370,08569	0,13162	0,13259	0,09145	0,13034	0,12721
2368,15723	0,1316	0,13256	0,09143	0,1303	0,12718
2366,22876	0,13157	0,13254	0,09142	0,13026	0,12715
2364,30029	0,13155	0,13251	0,0914	0,13023	0,12711
2362,37183	0,13152	0,13248	0,09138	0,13019	0,12708
2360,44336	0,13149	0,13246	0,09136	0,13015	0,12705
2358,51489	0,13147	0,13243	0,09135	0,13012	0,12702
2356,58643	0,13144	0,13241	0,09133	0,13008	0,12698
2354,65796	0,13142	0,13238	0,09131	0,13005	0,12695
2352,72949	0,13139	0,13235	0,09129	0,13001	0,12692
2350,80103	0,13137	0,13233	0,09128	0,12997	0,12689
2348,87256	0,13134	0,1323	0,09126	0,12994	0,12685
2346,94409	0,13132	0,13228	0,09124	0,1299	0,12682
2345,01563	0,13129	0,13225	0,09122	0,12986	0,12679
2343,08716	0,13127	0,13222	0,09121	0,12983	0,12676
2341,15869	0,13124	0,1322	0,09119	0,12979	0,12673
2339,23022	0,13122	0,13217	0,09117	0,12976	0,12669
2337,30176	0,13119	0,13215	0,09115	0,12972	0,12666
2335,37329	0,13117	0,13212	0,09114	0,12968	0,12663
2333,44482	0,13114	0,13209	0,09112	0,12965	0,1266
2331,51636	0,13111	0,13207	0,0911	0,12961	0,12656
2329,58789	0,13109	0,13204	0,09108	0,12957	0,12653
2327,65942	0,13106	0,13202	0,09107	0,12954	0,1265
2325,73096	0,13104	0,13199	0,09105	0,1295	0,12647
2323,80249	0,13101	0,13196	0,09103	0,12946	0,12644
2321,87402	0,13099	0,13194	0,09101	0,12943	0,1264
2319,94556	0,13096	0,13191	0,091	0,12939	0,12637
2318,01709	0,13094	0,13189	0,09098	0,12936	0,12634
2316,08862	0,13091	0,13186	0,09096	0,12932	0,12631
2314,16016	0,13089	0,13184	0,09094	0,12928	0,12627
2312,23169	0,13086	0,13181	0,09093	0,12925	0,12624
2310,30322	0,13084	0,13178	0,09091	0,12921	0,12621
2308,37476	0,13081	0,13176	0,09089	0,12917	0,12618
2306,44629	0,13079	0,13173	0,09088	0,12914	0,12615
2304,51782	0,13076	0,13171	0,09086	0,1291	0,12611
2302,58936	0,13073	0,13168	0,09084	0,12906	0,12608
2300,66089	0,13071	0,13165	0,09082	0,12903	0,12605
2298,73242	0,13068	0,13153	0,09081	0,12899	0,12602
2296,80396	0,13066	0,13148	0,09079	0,12896	0,12598
2294,87549	0,13063	0,13138	0,09077	0,12892	0,12595
2292,94702	0,13061	0,13128	0,09075	0,12888	0,12592
2291,01855	0,13058	0,13128	0,09074	0,12885	0,12589
2289,09009	0,13056	0,13125	0,09072	0,12881	0,12586
2287,16162	0,13053	0,13128	0,0907	0,12877	0,12582
2285,23315	0,13051	0,13132	0,09068	0,12874	0,12579
2283,30469	0,13048	0,13114	0,09067	0,1287	0,12576
2281,37622	0,13046	0,13093	0,09065	0,12866	0,12573
2279,44775	0,13043	0,13106	0,09063	0,12863	0,12569
2277,51929	0,13041	0,13123	0,09061	0,12859	0,12566
2275,59082	0,13038	0,13118	0,0906	0,12856	0,12563

2273,66235	0,13035	0,13108	0,09058	0,12852	0,1256
2271,73389	0,13033	0,13108	0,09056	0,12841	0,12557
2269,80542	0,1303	0,13109	0,09054	0,12841	0,12553
2267,87695	0,13028	0,13109	0,09053	0,1285	0,1255
2265,94849	0,13025	0,13102	0,09051	0,12851	0,12533
2264,02002	0,13023	0,13096	0,09055	0,12841	0,12524
2262,09155	0,1302	0,13098	0,09057	0,12835	0,12523
2260,16309	0,13018	0,13103	0,0906	0,12836	0,12517
2258,23462	0,13013	0,13103	0,0906	0,12834	0,1251
2256,30615	0,13007	0,13092	0,09053	0,12831	0,12504
2254,37769	0,13001	0,13086	0,09054	0,12829	0,12501
2252,44922	0,13005	0,1309	0,09059	0,12831	0,12494
2250,52075	0,13003	0,13083	0,09056	0,12825	0,12485
2248,59229	0,13001	0,13074	0,09055	0,12823	0,12486
2246,66382	0,13001	0,13074	0,09061	0,12824	0,12478
2244,73535	0,12991	0,13065	0,09058	0,12814	0,12467
2242,80688	0,12992	0,13058	0,09051	0,12811	0,12465
2240,87842	0,12991	0,13064	0,09054	0,12813	0,12462
2238,94995	0,12982	0,13064	0,09056	0,12805	0,12461
2237,02148	0,12982	0,13059	0,09056	0,128	0,12455
2235,09302	0,12978	0,13055	0,09055	0,12795	0,12446
2233,16455	0,12976	0,13048	0,09051	0,12781	0,12447
2231,23608	0,12978	0,13041	0,0905	0,12774	0,12442
2229,30762	0,1297	0,13037	0,09052	0,12776	0,12435
2227,37915	0,12964	0,13032	0,09046	0,12769	0,12434
2225,45068	0,12965	0,13031	0,09041	0,12761	0,12428
2223,52222	0,12967	0,13031	0,09042	0,12754	0,12419
2221,59375	0,12967	0,13025	0,09035	0,12747	0,12414
2219,66528	0,12963	0,13016	0,09032	0,12749	0,12414
2217,73682	0,1296	0,13014	0,09036	0,12742	0,12413
2215,80835	0,1296	0,13023	0,09038	0,12738	0,12414
2213,87988	0,12958	0,13022	0,09037	0,12741	0,12412
2211,95142	0,1295	0,13006	0,09033	0,12723	0,12406
2210,02295	0,12947	0,13003	0,09034	0,12705	0,12403
2208,09448	0,1294	0,13008	0,09037	0,12698	0,12402
2206,16602	0,1293	0,13001	0,09036	0,12692	0,12394
2204,23755	0,12927	0,12986	0,09029	0,12693	0,12392
2202,30908	0,12928	0,12977	0,09022	0,12691	0,12394
2200,38062	0,12926	0,1298	0,09024	0,12677	0,12386
2198,45215	0,1292	0,12975	0,09022	0,12667	0,1238
2196,52368	0,12911	0,12964	0,09011	0,12661	0,12377
2194,59521	0,12899	0,12961	0,09009	0,12656	0,12367
2192,66675	0,12894	0,12951	0,09008	0,12654	0,12363
2190,73828	0,12899	0,12941	0,09007	0,12653	0,12361
2188,80981	0,12899	0,1294	0,09008	0,12646	0,12354
2186,88135	0,12893	0,12935	0,09004	0,12639	0,12349
2184,95288	0,12882	0,1293	0,09001	0,12638	0,12343
2183,02441	0,12879	0,12934	0,09002	0,12633	0,12342
2181,09595	0,12879	0,12934	0,08992	0,12623	0,12338
2179,16748	0,12869	0,12924	0,08986	0,1262	0,12329

2177,23901	0,12865	0,12921	0,08983	0,12616	0,12329
2175,31055	0,12866	0,12922	0,08976	0,12607	0,12331
2173,38208	0,12862	0,12918	0,08986	0,12606	0,12333
2171,45361	0,12853	0,12912	0,08982	0,12602	0,12325
2169,52515	0,1284	0,12897	0,08958	0,1259	0,12308
2167,59668	0,12836	0,12894	0,0896	0,12594	0,12308
2165,66821	0,12839	0,12904	0,08962	0,12596	0,12312
2163,73975	0,12835	0,12894	0,08954	0,12583	0,12307
2161,81128	0,12832	0,12882	0,08951	0,12577	0,12302
2159,88281	0,12833	0,12882	0,08943	0,12576	0,1229
2157,95435	0,12829	0,12874	0,08937	0,1257	0,1228
2156,02588	0,12828	0,12868	0,08937	0,12569	0,12281
2154,09741	0,12829	0,12867	0,08934	0,12568	0,12281
2152,16895	0,12822	0,1286	0,08932	0,12557	0,12276
2150,24048	0,1282	0,12851	0,08926	0,1255	0,12274
2148,31201	0,12818	0,12841	0,08921	0,12553	0,12275
2146,38354	0,12806	0,12833	0,08916	0,12548	0,12275
2144,45508	0,12801	0,12835	0,08905	0,12545	0,12275
2142,52661	0,12803	0,1284	0,089	0,12549	0,12271
2140,59814	0,12807	0,12838	0,08901	0,12546	0,12264
2138,66968	0,12806	0,12835	0,08897	0,12545	0,1227
2136,74121	0,128	0,12837	0,08891	0,12546	0,12275
2134,81274	0,12795	0,12828	0,08884	0,12539	0,12257
2132,88428	0,1279	0,12815	0,08879	0,12533	0,12238
2130,95581	0,12784	0,12818	0,08876	0,12529	0,12237
2129,02734	0,12779	0,12818	0,08873	0,12518	0,1224
2127,09888	0,1278	0,12808	0,08868	0,12509	0,12239
2125,17041	0,12774	0,12798	0,08863	0,12498	0,12228
2123,24194	0,12765	0,1279	0,08863	0,12488	0,12221
2121,31348	0,12761	0,12784	0,0886	0,12481	0,12224
2119,38501	0,12749	0,12773	0,08855	0,12474	0,12217
2117,45654	0,12743	0,1277	0,0886	0,12474	0,12214
2115,52808	0,12751	0,12773	0,08858	0,12471	0,12224
2113,59961	0,12751	0,12768	0,08853	0,12457	0,12214
2111,67114	0,12753	0,12768	0,08848	0,12453	0,12197
2109,74268	0,12753	0,12767	0,08836	0,12453	0,12199
2107,81421	0,1274	0,12759	0,08827	0,12441	0,12196
2105,88574	0,12737	0,12749	0,08819	0,12439	0,12186
2103,95728	0,12731	0,1274	0,08807	0,12441	0,1218
2102,02881	0,12715	0,12727	0,08799	0,12424	0,12171
2100,10034	0,12709	0,12714	0,08789	0,12412	0,12167
2098,17188	0,12701	0,12712	0,08772	0,12413	0,12176
2096,24341	0,12695	0,1271	0,08763	0,12417	0,12183
2094,31494	0,127	0,12695	0,08758	0,12412	0,12179
2092,38647	0,12697	0,12681	0,08744	0,1241	0,12184
2090,45801	0,12693	0,12671	0,08735	0,12411	0,12199
2088,52954	0,12679	0,12656	0,08732	0,12391	0,12195
2086,60107	0,12669	0,12642	0,08719	0,12377	0,12181
2084,67261	0,12678	0,12632	0,08709	0,12381	0,12173
2082,74414	0,12675	0,12624	0,08712	0,12379	0,12169



2080,81567	0,1267	0,12618	0,08709	0,12377	0,1217
2078,88721	0,12672	0,12615	0,08691	0,12374	0,12159
2076,95874	0,1267	0,12616	0,08686	0,12369	0,12153
2075,03027	0,12668	0,12612	0,08689	0,12371	0,12152
2073,10181	0,12666	0,12608	0,08687	0,12371	0,12146
2071,17334	0,12664	0,12609	0,08686	0,12376	0,1215
2069,24487	0,12653	0,12607	0,08682	0,12373	0,12129
2067,31641	0,12655	0,12602	0,0868	0,12377	0,12134
2065,38794	0,12674	0,126	0,08684	0,12396	0,1217
2063,45947	0,12658	0,12601	0,08687	0,12379	0,1213
2061,53101	0,12643	0,12604	0,0869	0,1237	0,121
2059,60254	0,12657	0,12605	0,08692	0,12387	0,12115
2057,67407	0,12651	0,126	0,08695	0,12381	0,12101
2055,74561	0,12646	0,12597	0,087	0,12375	0,12092
2053,81714	0,12649	0,12594	0,08702	0,12384	0,12088
2051,88867	0,12644	0,12598	0,08701	0,12391	0,1208
2049,96021	0,12655	0,12607	0,08706	0,12399	0,12079
2048,03174	0,12673	0,12602	0,08715	0,12412	0,12084
2046,10327	0,1267	0,12604	0,08714	0,12431	0,12077
2044,1748	0,12669	0,12619	0,08716	0,12445	0,12071
2042,24634	0,12692	0,12616	0,08718	0,12466	0,12094
2040,31787	0,127	0,12621	0,08712	0,12485	0,12082
2038,3894	0,12699	0,12632	0,08718	0,1249	0,12049
2036,46094	0,12705	0,12622	0,08718	0,12506	0,12049
2034,53247	0,12709	0,1262	0,08711	0,12528	0,12049
2032,604	0,12713	0,12623	0,08704	0,12541	0,12048
2030,67554	0,12712	0,12618	0,08689	0,12551	0,12043
2028,74707	0,12716	0,12611	0,0868	0,12564	0,12041
2026,8186	0,12721	0,126	0,08677	0,12568	0,12041
2024,89014	0,12721	0,1259	0,08671	0,12567	0,12038
2022,96167	0,12722	0,12586	0,08664	0,12572	0,1204
2021,0332	0,12709	0,12586	0,08663	0,12566	0,12021
2019,10474	0,12718	0,12587	0,08672	0,12584	0,12065
2017,17627	0,12749	0,12582	0,08674	0,12625	0,12111
2015,2478	0,12736	0,12585	0,08673	0,12618	0,1203
2013,31934	0,12729	0,126	0,08679	0,12615	0,11993
2011,39087	0,12745	0,12604	0,0868	0,12642	0,12011
2009,4624	0,12747	0,126	0,08679	0,12659	0,11996
2007,53394	0,12759	0,12597	0,08674	0,12676	0,11991
2005,60547	0,12764	0,12595	0,08673	0,12678	0,1198
2003,677	0,12763	0,12596	0,08684	0,12678	0,11981
2001,74854	0,12753	0,12605	0,0868	0,12679	0,11972
1999,82007	0,1275	0,12606	0,08674	0,12684	0,11978
1997,8916	0,12757	0,12596	0,08669	0,12685	0,11989
1995,96313	0,12733	0,12594	0,08665	0,12661	0,11938
1994,03467	0,12754	0,12592	0,08683	0,12692	0,12019
1992,1062	0,12793	0,12587	0,08675	0,12721	0,1211
1990,17773	0,12753	0,12588	0,08657	0,12674	0,12006
1988,24927	0,12737	0,12582	0,08672	0,12658	0,11982
1986,3208	0,12738	0,12579	0,08675	0,12649	0,11976

1984,39233	0,12726	0,12584	0,08672	0,12632	0,11931
1982,46387	0,12728	0,12581	0,08672	0,12638	0,11945
1980,5354	0,12716	0,12574	0,08669	0,12631	0,11934
1978,60693	0,12723	0,12576	0,08669	0,12633	0,11931
1976,67847	0,1273	0,1258	0,08663	0,12627	0,11927
1974,75	0,12725	0,12575	0,08666	0,12619	0,11917
1972,82153	0,1273	0,12572	0,08664	0,12621	0,11927
1970,89307	0,1271	0,12569	0,08655	0,12604	0,11892
1968,9646	0,12714	0,12558	0,08668	0,12629	0,11959
1967,03613	0,12734	0,12547	0,08662	0,12651	0,12051
1965,10767	0,12686	0,12547	0,08645	0,12578	0,11925
1963,1792	0,12662	0,12553	0,08657	0,12548	0,11876
1961,25073	0,12673	0,12549	0,08653	0,12557	0,11923
1959,32227	0,12659	0,12542	0,08635	0,12528	0,11876
1957,3938	0,12657	0,12537	0,08634	0,12526	0,11874
1955,46533	0,12665	0,12522	0,08635	0,12535	0,11905
1953,53687	0,12666	0,12516	0,08634	0,12526	0,11891
1951,6084	0,12653	0,12516	0,08622	0,12506	0,1186
1949,67993	0,1265	0,12504	0,08609	0,12505	0,11871
1947,75146	0,12649	0,12496	0,08601	0,12509	0,11897
1945,823	0,12633	0,12486	0,08598	0,12488	0,11893
1943,89453	0,12689	0,12461	0,0861	0,12545	0,12028
1941,96606	0,12702	0,12451	0,08583	0,12558	0,12051
1940,0376	0,12619	0,12464	0,08559	0,12468	0,11844
1938,10913	0,12619	0,12468	0,08572	0,12459	0,11835
1936,18066	0,12631	0,12466	0,08573	0,12456	0,11862
1934,2522	0,12617	0,12461	0,08575	0,12446	0,11854
1932,32373	0,12607	0,12451	0,08571	0,12443	0,1185
1930,39526	0,12603	0,12449	0,08573	0,12435	0,11846
1928,4668	0,12605	0,12451	0,08566	0,12431	0,11846
1926,53833	0,12575	0,12449	0,08553	0,12407	0,11793
1924,60986	0,12628	0,12438	0,08572	0,12475	0,11929
1922,6814	0,12663	0,12417	0,08535	0,1249	0,12031
1920,75293	0,12599	0,1241	0,08523	0,12415	0,11885
1918,82446	0,12635	0,12407	0,08564	0,12476	0,11903
1916,896	0,12636	0,12391	0,08502	0,12474	0,11873
1914,96753	0,12579	0,12385	0,08474	0,12416	0,11787
1913,03906	0,12612	0,12387	0,08514	0,12476	0,11829
1911,1106	0,12656	0,12377	0,08493	0,1252	0,11891
1909,18213	0,1267	0,1236	0,08463	0,12529	0,11935
1907,25366	0,1265	0,12351	0,08461	0,12532	0,1186
1905,3252	0,12636	0,12351	0,08462	0,1254	0,1181
1903,39673	0,12645	0,12351	0,08462	0,1257	0,11824
1901,46826	0,12658	0,12341	0,08463	0,12603	0,11827
1899,53979	0,12657	0,12333	0,08441	0,12601	0,11791
1897,61133	0,12672	0,1232	0,08428	0,1262	0,11815
1895,68286	0,12732	0,12298	0,08431	0,12693	0,11945
1893,75439	0,12681	0,12304	0,08403	0,12645	0,11827
1891,82593	0,12671	0,12306	0,08414	0,12652	0,1182
1889,89746	0,12774	0,1228	0,08415	0,12761	0,12023

1887,96899	0,12701	0,12274	0,08363	0,12684	0,11842
1886,04053	0,12667	0,12292	0,08383	0,12657	0,11781
1884,11206	0,12719	0,12297	0,08407	0,12701	0,11862
1882,18359	0,12689	0,12287	0,08394	0,12667	0,11783
1880,25513	0,12695	0,12282	0,08403	0,12683	0,1179
1878,32666	0,12704	0,12284	0,08403	0,12691	0,11804
1876,39819	0,12692	0,12283	0,08407	0,12678	0,11782
1874,46973	0,12699	0,1228	0,08405	0,12678	0,11767
1872,54126	0,12688	0,12277	0,08403	0,12671	0,11756
1870,61279	0,12748	0,12269	0,08448	0,12754	0,11894
1868,68433	0,12848	0,12242	0,08416	0,12847	0,12119
1866,75586	0,12741	0,1224	0,08344	0,12717	0,11904
1864,82739	0,12672	0,12272	0,08393	0,12649	0,11748
1862,89893	0,1268	0,12295	0,08428	0,12651	0,11732
1860,97046	0,12672	0,123	0,08424	0,12637	0,11748
1859,04199	0,12652	0,12296	0,08428	0,12608	0,11741
1857,11353	0,12628	0,12288	0,08422	0,12569	0,11719
1855,18506	0,12608	0,12296	0,0843	0,12549	0,11693
1853,25659	0,12594	0,12294	0,08418	0,12516	0,11706
1851,32813	0,12589	0,12292	0,08433	0,12479	0,11688
1849,39966	0,12604	0,12278	0,0842	0,1246	0,11713
1847,47119	0,12626	0,12236	0,08403	0,12463	0,11889
1845,54272	0,12623	0,12246	0,08481	0,12477	0,11849
1843,61426	0,12575	0,12245	0,08406	0,1239	0,11649
1841,68579	0,12507	0,12222	0,08335	0,12282	0,11618
1839,75732	0,12524	0,12237	0,08412	0,12309	0,11712
1837,82886	0,12522	0,12239	0,08424	0,12308	0,11722
1835,90039	0,12531	0,12227	0,08392	0,12308	0,11751
1833,97192	0,12474	0,12243	0,08389	0,12243	0,11612
1832,04346	0,12542	0,12229	0,08448	0,12321	0,11748
1830,11499	0,12661	0,12184	0,08432	0,12439	0,11994
1828,18652	0,12509	0,12188	0,08345	0,12281	0,11705
1826,25806	0,12524	0,12201	0,0841	0,12327	0,11758
1824,32959	0,12577	0,12189	0,08398	0,12374	0,11822
1822,40112	0,12459	0,12204	0,08353	0,12237	0,11607
1820,47266	0,12465	0,12219	0,08409	0,12264	0,11605
1818,54419	0,12517	0,12202	0,08399	0,12317	0,11665
1816,61572	0,12494	0,12201	0,08374	0,1229	0,11633
1814,68726	0,12467	0,12208	0,08377	0,12282	0,11573
1812,75879	0,1252	0,1219	0,08378	0,12351	0,1171
1810,83032	0,12577	0,12168	0,08365	0,12403	0,11817
1808,90186	0,12526	0,12161	0,08336	0,12354	0,11676
1806,97339	0,1249	0,1216	0,08331	0,12339	0,11643
1805,04492	0,12483	0,12152	0,0833	0,12341	0,11633
1803,11646	0,12521	0,12121	0,08321	0,12393	0,11725
1801,18799	0,12583	0,12061	0,08273	0,12474	0,11903
1799,25952	0,12502	0,12054	0,0823	0,12391	0,117
1797,33105	0,12482	0,12061	0,08219	0,12366	0,11677
1795,40259	0,12518	0,12038	0,08236	0,12406	0,11803
1793,47412	0,1249	0,12048	0,08301	0,12405	0,11665

1791,54565	0,12557	0,12032	0,08233	0,12452	0,11741
1789,61719	0,12462	0,12041	0,08181	0,12317	0,11565
1787,68872	0,12436	0,12083	0,08281	0,1231	0,1156
1785,76025	0,12484	0,12087	0,08296	0,12361	0,11606
1783,83179	0,12432	0,12074	0,08256	0,12287	0,11484
1781,90332	0,12482	0,12049	0,0827	0,12339	0,11656
1779,97485	0,12522	0,12028	0,08261	0,12368	0,11757
1778,04639	0,12424	0,1204	0,08235	0,12246	0,11486
1776,11792	0,12488	0,1201	0,08237	0,12306	0,11702
1774,18945	0,12462	0,12031	0,08323	0,1232	0,11721
1772,26099	0,12416	0,12021	0,08261	0,1223	0,11496
1770,33252	0,12413	0,11952	0,08143	0,12174	0,11521
1768,40405	0,12439	0,11978	0,08214	0,12225	0,11627
1766,47559	0,12313	0,11997	0,08149	0,12067	0,11325
1764,54712	0,1236	0,11968	0,08175	0,12117	0,11595
1762,61865	0,12413	0,11985	0,08261	0,12205	0,11666
1760,69019	0,12319	0,11962	0,08099	0,12067	0,11395
1758,76172	0,12343	0,1195	0,08145	0,12115	0,11628
1756,83325	0,12371	0,11961	0,08192	0,12165	0,11643
1754,90479	0,12291	0,11945	0,08091	0,12049	0,11462
1752,97632	0,12277	0,11968	0,08189	0,12071	0,11542
1751,04785	0,12378	0,11963	0,08219	0,12172	0,11633
1749,11938	0,12457	0,11882	0,08073	0,12191	0,11835
1747,19092	0,1245	0,11889	0,08117	0,12217	0,11902
1745,26245	0,12363	0,11937	0,08138	0,12153	0,11692
1743,33398	0,12402	0,11902	0,08101	0,1218	0,11834
1741,40552	0,12366	0,11926	0,08206	0,12192	0,11731
1739,47705	0,1227	0,11955	0,08143	0,12097	0,11375
1737,54858	0,12334	0,11895	0,08079	0,12141	0,11674
1735,62012	0,12264	0,11961	0,08319	0,1216	0,11532
1733,69165	0,12215	0,11986	0,0821	0,121	0,11217
1731,76318	0,12175	0,11884	0,07993	0,11996	0,11353
1729,83472	0,12449	0,11876	0,08151	0,12303	0,11981
1727,90625	0,12218	0,11945	0,08116	0,12078	0,1134
1725,97778	0,12268	0,11925	0,08124	0,12137	0,1151
1724,04932	0,12314	0,11938	0,08167	0,12217	0,11591
1722,12085	0,12245	0,11926	0,08083	0,12135	0,11444
1720,19238	0,1236	0,11902	0,08188	0,12285	0,117
1718,26392	0,12342	0,11932	0,08264	0,12326	0,11724
1716,33545	0,12173	0,11922	0,0807	0,12105	0,11375
1714,40698	0,12332	0,11886	0,08047	0,12234	0,11638
1712,47852	0,12342	0,11941	0,08124	0,12256	0,11606
1710,55005	0,12265	0,11967	0,08112	0,12155	0,11404
1708,62158	0,12396	0,11916	0,08146	0,12301	0,11744
1706,69312	0,12435	0,1193	0,08225	0,12381	0,11713
1704,76465	0,12459	0,11884	0,08035	0,12334	0,11705
1702,83618	0,12427	0,11905	0,08159	0,12354	0,118
1700,90771	0,12445	0,12006	0,08384	0,12481	0,11353
1698,97925	0,122	0,11864	0,07936	0,12123	0,10941
1697,05078	0,12243	0,11862	0,08096	0,12207	0,11595

1695,12231	0,12179	0,12	0,08158	0,12171	0,11084
1693,19385	0,12245	0,11937	0,0798	0,12168	0,11189
1691,26538	0,12427	0,11953	0,0819	0,12405	0,11776
1689,33691	0,1244	0,11977	0,08118	0,1241	0,1161
1687,40845	0,12493	0,1192	0,08088	0,12448	0,11846
1685,47998	0,12262	0,1204	0,08355	0,12317	0,11408
1683,55151	0,12427	0,11965	0,08052	0,12429	0,11508
1681,62305	0,12476	0,11911	0,07983	0,12458	0,11642
1679,69458	0,12436	0,11971	0,08077	0,12412	0,11689
1677,76611	0,12386	0,12001	0,08097	0,12355	0,11491
1675,83765	0,12413	0,12032	0,08174	0,12419	0,1137
1673,90918	0,12318	0,12018	0,08037	0,12256	0,11183
1671,98071	0,1242	0,11983	0,08069	0,12351	0,11623
1670,05225	0,12551	0,12017	0,08228	0,12545	0,11897
1668,12378	0,12363	0,12045	0,08031	0,12281	0,11334
1666,19531	0,12355	0,1206	0,08053	0,12264	0,11507
1664,26685	0,12354	0,1212	0,08221	0,12314	0,11458
1662,33838	0,12423	0,12092	0,08108	0,12328	0,11501
1660,40991	0,12354	0,12115	0,08083	0,12254	0,11453
1658,48145	0,12259	0,12174	0,08123	0,12174	0,1126
1656,55298	0,12528	0,12088	0,08105	0,12432	0,11835
1654,62451	0,12431	0,12137	0,08346	0,12449	0,1171
1652,69604	0,12326	0,1224	0,08219	0,1229	0,11536
1650,76758	0,12018	0,12147	0,0789	0,11896	0,10693
1648,83911	0,12691	0,12044	0,08136	0,12636	0,1226
1646,91064	0,12615	0,12108	0,08216	0,12606	0,12167
1644,98218	0,12191	0,12146	0,07963	0,12094	0,10981
1643,05371	0,12423	0,12144	0,0807	0,12331	0,11567
1641,12524	0,12372	0,12201	0,08102	0,12292	0,11345
1639,19678	0,12473	0,12147	0,08061	0,12384	0,11625
1637,26831	0,12513	0,12135	0,08182	0,12474	0,11788
1635,33984	0,12492	0,12146	0,08113	0,1245	0,11514
1633,41138	0,12283	0,12129	0,07914	0,12185	0,11025
1631,48291	0,12398	0,12115	0,0801	0,12315	0,11465
1629,55444	0,124	0,12118	0,08077	0,1236	0,1136
1627,62598	0,1244	0,12077	0,07958	0,12383	0,11408
1625,69751	0,12392	0,12077	0,07968	0,12359	0,11351
1623,76904	0,12429	0,12065	0,08015	0,12436	0,11375
1621,84058	0,12353	0,1203	0,07857	0,12317	0,11195
1619,91211	0,1239	0,12007	0,07897	0,12364	0,11372
1617,98364	0,12254	0,12052	0,08063	0,12304	0,11116
1616,05518	0,12141	0,12053	0,0793	0,12163	0,10775
1614,12671	0,12312	0,1202	0,07888	0,12307	0,11104
1612,19824	0,12424	0,12048	0,08017	0,12451	0,11349
1610,26978	0,12391	0,12057	0,08019	0,12426	0,11254
1608,34131	0,12474	0,12015	0,07994	0,12496	0,11415
1606,41284	0,12422	0,12024	0,08022	0,12447	0,1127
1604,48438	0,12408	0,12029	0,08028	0,1244	0,11238
1602,55591	0,1245	0,12012	0,08037	0,12477	0,11341
1600,62744	0,12412	0,11998	0,08038	0,1242	0,11252

1598,69897	0,12389	0,12001	0,08063	0,12402	0,11207
1596,77051	0,12415	0,11994	0,08089	0,12431	0,11271
1594,84204	0,12434	0,11967	0,08078	0,12431	0,1134
1592,91357	0,12387	0,11961	0,08076	0,12378	0,11258
1590,98511	0,12373	0,11944	0,08067	0,12357	0,11234
1589,05664	0,12384	0,11938	0,08055	0,12362	0,11281
1587,12817	0,12317	0,11962	0,08051	0,12295	0,11163
1585,19971	0,12338	0,11947	0,0804	0,12305	0,11227
1583,27124	0,12326	0,11946	0,08069	0,12294	0,11227
1581,34277	0,12288	0,11937	0,08035	0,12222	0,11094
1579,41431	0,12418	0,11891	0,08023	0,12329	0,11414
1577,48584	0,12258	0,11942	0,08167	0,12236	0,11243
1575,55737	0,12107	0,11931	0,08015	0,12043	0,10855
1573,62891	0,12228	0,11876	0,07889	0,1209	0,11094
1571,70044	0,12385	0,11908	0,08108	0,12305	0,11517
1569,77197	0,12409	0,11882	0,08063	0,12344	0,11491
1567,84351	0,12307	0,11847	0,07911	0,1218	0,11303
1565,91504	0,12319	0,11902	0,08067	0,1221	0,11408
1563,98657	0,12335	0,11881	0,07985	0,12192	0,11373
1562,05811	0,12317	0,11881	0,08056	0,12203	0,11509
1560,12964	0,12391	0,11979	0,08392	0,1241	0,11594
1558,20117	0,12401	0,11866	0,0791	0,12265	0,11553
1556,27271	0,12222	0,11859	0,07904	0,12079	0,11179
1554,34424	0,12238	0,11935	0,0805	0,1215	0,11302
1552,41577	0,12178	0,11942	0,08004	0,12073	0,11075
1550,4873	0,1246	0,11881	0,08045	0,12333	0,11762
1548,55884	0,12347	0,11922	0,08021	0,12234	0,11487
1546,63037	0,12263	0,1196	0,08065	0,12188	0,11302
1544,7019	0,12508	0,11926	0,08101	0,12435	0,1188
1542,77344	0,1245	0,11921	0,08059	0,12381	0,11721
1540,84497	0,12325	0,11972	0,08212	0,12344	0,11446
1538,9165	0,12195	0,11946	0,07929	0,12144	0,11351
1536,98804	0,1221	0,11955	0,07888	0,12135	0,11254
1535,05957	0,12456	0,11986	0,08127	0,1246	0,11726
1533,1311	0,12571	0,1195	0,08071	0,12594	0,11917
1531,20264	0,12353	0,11969	0,07942	0,12337	0,11414
1529,27417	0,12442	0,12002	0,08089	0,12467	0,11674
1527,3457	0,12528	0,11973	0,08101	0,12591	0,11829
1525,41724	0,12426	0,11952	0,07983	0,12461	0,11552
1523,48877	0,12483	0,11975	0,08101	0,12542	0,11706
1521,5603	0,12414	0,11976	0,08058	0,12488	0,11639
1519,63184	0,12233	0,11956	0,07916	0,12267	0,11133
1517,70337	0,12568	0,11914	0,08026	0,12603	0,11901
1515,7749	0,12531	0,11885	0,07965	0,1255	0,11867
1513,84644	0,12345	0,11917	0,07969	0,12362	0,11437
1511,91797	0,12337	0,11949	0,08009	0,12377	0,11401
1509,9895	0,12536	0,11869	0,07946	0,1257	0,11974
1508,06104	0,12587	0,11867	0,08108	0,12676	0,12268
1506,13257	0,12373	0,11878	0,07951	0,12452	0,1181
1504,2041	0,12022	0,11904	0,07781	0,12054	0,10828

1502,27563	0,12322	0,11927	0,07967	0,12363	0,11599
1500,34717	0,12291	0,11946	0,08008	0,12344	0,11414
1498,4187	0,1233	0,11902	0,08003	0,12404	0,1146
1496,49023	0,1217	0,11929	0,07982	0,12275	0,11192
1494,56177	0,12054	0,11945	0,07892	0,12127	0,10939
1492,6333	0,12275	0,11932	0,07996	0,12367	0,11421
1490,70483	0,12404	0,11895	0,08029	0,12534	0,11711
1488,77637	0,12437	0,11831	0,07913	0,12536	0,11792
1486,8479	0,12283	0,11857	0,07922	0,12408	0,11468
1484,91943	0,12142	0,11898	0,07973	0,1229	0,11203
1482,99097	0,12216	0,11887	0,08025	0,12358	0,11329
1481,0625	0,12243	0,11856	0,08039	0,12433	0,11454
1479,13403	0,12167	0,11868	0,08063	0,1241	0,1134
1477,20557	0,1228	0,11842	0,08082	0,1253	0,1154
1475,2771	0,12312	0,11801	0,08075	0,12566	0,11673
1473,34863	0,12196	0,1181	0,081	0,12467	0,11408
1471,42017	0,12175	0,1177	0,07983	0,12439	0,11344
1469,4917	0,12125	0,11793	0,0797	0,12392	0,11353
1467,56323	0,12111	0,11842	0,08084	0,12408	0,11351
1465,63477	0,12239	0,1179	0,08069	0,12517	0,11474
1463,7063	0,12109	0,11791	0,07969	0,12313	0,11124
1461,77783	0,12059	0,11814	0,07963	0,12239	0,11135
1459,84937	0,12284	0,11761	0,08054	0,12495	0,11688
1457,9209	0,1229	0,11756	0,08111	0,12528	0,1171
1455,99243	0,1189	0,11782	0,0785	0,1205	0,10577
1454,06396	0,12102	0,11738	0,07869	0,12225	0,11246
1452,1355	0,12126	0,11771	0,07962	0,12216	0,11244
1450,20703	0,12023	0,11783	0,0796	0,12086	0,10969
1448,27856	0,12138	0,11721	0,07952	0,12203	0,11221
1446,3501	0,12033	0,11715	0,07887	0,12045	0,10956
1444,42163	0,1199	0,11734	0,07904	0,11991	0,10925
1442,49316	0,11977	0,11741	0,07918	0,12004	0,10891
1440,5647	0,11967	0,11724	0,07857	0,11976	0,10942
1438,63623	0,11964	0,11733	0,07934	0,12006	0,1093
1436,70776	0,12027	0,11693	0,07927	0,1207	0,10833
1434,7793	0,11923	0,11656	0,07782	0,11901	0,10696
1432,85083	0,11998	0,11666	0,07857	0,11992	0,11013
1430,92236	0,12029	0,11676	0,07897	0,12045	0,11003
1428,9939	0,11992	0,11663	0,07804	0,11973	0,10921
1427,06543	0,11907	0,11682	0,07833	0,11903	0,1081
1425,13696	0,11965	0,1166	0,07839	0,11986	0,10931
1423,2085	0,12013	0,11618	0,07756	0,12005	0,11077
1421,28003	0,11865	0,11661	0,07839	0,11879	0,10749
1419,35156	0,11935	0,11636	0,07842	0,11938	0,10756
1417,4231	0,11996	0,11572	0,07678	0,11914	0,10922
1415,49463	0,11936	0,11611	0,07751	0,11888	0,1088
1413,56616	0,1183	0,11644	0,07797	0,1184	0,10688
1411,6377	0,11863	0,1162	0,07765	0,11878	0,10847
1409,70923	0,11822	0,11632	0,07772	0,11839	0,10792
1407,78076	0,11785	0,1164	0,07779	0,118	0,10715

1405,85229	0,11898	0,11611	0,07793	0,11887	0,10967
1403,92383	0,1188	0,11614	0,07758	0,11837	0,10873
1401,99536	0,11814	0,11639	0,07777	0,11798	0,10779
1400,06689	0,1188	0,11631	0,07811	0,11905	0,10953
1398,13843	0,1191	0,11604	0,0777	0,11954	0,11082
1396,20996	0,11903	0,11592	0,07814	0,11993	0,1114
1394,28149	0,11911	0,11595	0,07827	0,12032	0,11058
1392,35303	0,11811	0,11628	0,07774	0,11897	0,10805
1390,42456	0,11819	0,11633	0,07823	0,11892	0,10928
1388,49609	0,11849	0,11631	0,07843	0,11934	0,1093
1386,56763	0,11803	0,11602	0,07735	0,11884	0,10868
1384,63916	0,11728	0,11565	0,07681	0,11808	0,10817
1382,71069	0,11734	0,11609	0,07742	0,11842	0,108
1380,78223	0,11811	0,11676	0,0782	0,11944	0,10952
1378,85376	0,11827	0,11699	0,07827	0,11946	0,10992
1376,92529	0,11841	0,11713	0,07833	0,11942	0,10989
1374,99683	0,11965	0,11678	0,07835	0,12039	0,11253
1373,06836	0,11937	0,1167	0,07774	0,11974	0,111
1371,13989	0,11844	0,11722	0,07791	0,11896	0,10872
1369,21143	0,11905	0,1171	0,07851	0,12023	0,11118
1367,28296	0,11869	0,11701	0,07874	0,1209	0,11126
1365,35449	0,11846	0,11709	0,07929	0,12126	0,11086
1363,42603	0,11991	0,11646	0,0792	0,1222	0,1135
1361,49756	0,11952	0,11627	0,07817	0,12083	0,11169
1359,56909	0,11832	0,11676	0,07796	0,11909	0,10852
1357,64063	0,11847	0,11675	0,07785	0,11885	0,1086
1355,71216	0,11843	0,11662	0,07753	0,1187	0,10879
1353,78369	0,11798	0,11665	0,07748	0,11823	0,10801
1351,85522	0,11784	0,11647	0,07754	0,11798	0,10751
1349,92676	0,11797	0,11635	0,0775	0,11802	0,10763
1347,99829	0,11807	0,11644	0,07738	0,11799	0,1074
1346,06982	0,11819	0,11641	0,07733	0,11802	0,10731
1344,14136	0,11806	0,11638	0,0773	0,11778	0,10666
1342,21289	0,11826	0,11625	0,07738	0,11792	0,10694
1340,28442	0,11913	0,11579	0,07729	0,1188	0,10967
1338,35596	0,11895	0,11576	0,07701	0,11854	0,10941
1336,42749	0,1182	0,11605	0,07722	0,11763	0,10675
1334,49902	0,11818	0,11603	0,07746	0,11744	0,10594
1332,57056	0,11823	0,11597	0,0774	0,1174	0,10573
1330,64209	0,11823	0,11599	0,07746	0,11739	0,10585
1328,71362	0,11831	0,11588	0,0776	0,11737	0,10583
1326,78516	0,11823	0,11583	0,07767	0,11725	0,10561
1324,85669	0,11812	0,1158	0,07777	0,1172	0,10565
1322,92822	0,11803	0,11565	0,07802	0,11719	0,10536
1320,99976	0,11825	0,1155	0,07817	0,11745	0,10575
1319,07129	0,1188	0,11528	0,07805	0,11781	0,10655
1317,14282	0,11861	0,11515	0,07807	0,11763	0,10582
1315,21436	0,11833	0,11528	0,07823	0,11766	0,10555
1313,28589	0,11863	0,11542	0,07818	0,11792	0,10628
1311,35742	0,11856	0,11555	0,07816	0,11768	0,10577



1309,42896	0,11854	0,11567	0,0783	0,11767	0,10533
1307,50049	0,11893	0,11578	0,07842	0,11791	0,10561
1305,57202	0,11927	0,11586	0,07861	0,11813	0,10543
1303,64355	0,11945	0,11599	0,07887	0,11849	0,10549
1301,71509	0,11946	0,11617	0,07908	0,11843	0,10566
1299,78662	0,1196	0,11632	0,07925	0,1186	0,1056
1297,85815	0,11976	0,11653	0,07948	0,11934	0,10581
1295,92969	0,11982	0,11662	0,07974	0,11959	0,10598
1294,00122	0,11991	0,11668	0,07992	0,11966	0,10608
1292,07275	0,11988	0,1168	0,07998	0,12009	0,10625
1290,14429	0,11985	0,11664	0,08009	0,12043	0,10644
1288,21582	0,11994	0,11675	0,08026	0,12065	0,10681
1286,28735	0,12001	0,11708	0,08039	0,12084	0,10689
1284,35889	0,12006	0,11711	0,08066	0,12107	0,10667
1282,43042	0,12019	0,1175	0,0811	0,12166	0,10694
1280,50195	0,12058	0,11828	0,08154	0,12247	0,10743
1278,57349	0,12105	0,11895	0,08191	0,12339	0,10781
1276,64502	0,1215	0,11966	0,08225	0,12427	0,10827
1274,71655	0,12214	0,12029	0,0828	0,12503	0,10887
1272,78809	0,12274	0,12093	0,08339	0,12594	0,10983
1270,85962	0,12297	0,12173	0,08368	0,12646	0,11059
1268,93115	0,12302	0,12233	0,08393	0,1264	0,11086
1267,00269	0,12327	0,12282	0,08419	0,12651	0,1113
1265,07422	0,12357	0,12344	0,0843	0,12654	0,11154
1263,14575	0,12367	0,12402	0,08453	0,12624	0,11151
1261,21729	0,12394	0,12441	0,08462	0,12608	0,1118
1259,28882	0,12436	0,12467	0,08441	0,1257	0,11185
1257,36035	0,12439	0,12499	0,08449	0,12525	0,11168
1255,43188	0,12429	0,12531	0,08468	0,12536	0,11194
1253,50342	0,12452	0,12569	0,08462	0,12557	0,11233
1251,57495	0,12492	0,12621	0,08475	0,12566	0,11271
1249,64648	0,12528	0,12678	0,08512	0,12591	0,113
1247,71802	0,12569	0,12728	0,08533	0,12615	0,11318
1245,78955	0,12614	0,12747	0,08546	0,12635	0,1136
1243,86108	0,12646	0,12767	0,08568	0,12644	0,11409
1241,93262	0,12667	0,128	0,08592	0,12633	0,11439
1240,00415	0,12695	0,12809	0,08626	0,12635	0,11471
1238,07568	0,12738	0,12836	0,08659	0,12655	0,11489
1236,14722	0,12773	0,12865	0,08689	0,12675	0,11487
1234,21875	0,12794	0,12871	0,08721	0,1268	0,11508
1232,29028	0,12818	0,12908	0,08753	0,12677	0,11544
1230,36182	0,12837	0,12938	0,08795	0,12699	0,11563
1228,43335	0,12855	0,12932	0,08836	0,12721	0,11577
1226,50488	0,12886	0,12946	0,08875	0,12731	0,11595
1224,57642	0,1291	0,12975	0,08923	0,12755	0,1161
1222,64795	0,12927	0,1299	0,08977	0,12785	0,11614
1220,71948	0,12973	0,13016	0,09026	0,12827	0,1164
1218,79102	0,13036	0,13056	0,0907	0,12872	0,1169
1216,86255	0,13078	0,13074	0,09118	0,1291	0,1173
1214,93408	0,13122	0,13087	0,09179	0,12983	0,11763

1213,00562	0,13189	0,13128	0,09239	0,13088	0,118
1211,07715	0,13248	0,13179	0,09293	0,13162	0,11843
1209,14868	0,13292	0,13232	0,09363	0,13206	0,11878
1207,22021	0,13341	0,13287	0,09452	0,13269	0,11903
1205,29175	0,13405	0,1334	0,09541	0,13348	0,11951
1203,36328	0,13476	0,13402	0,09627	0,1342	0,12001
1201,43481	0,13539	0,13462	0,09698	0,13494	0,12033
1199,50635	0,1362	0,13499	0,09765	0,13562	0,1208
1197,57788	0,13688	0,13545	0,09838	0,13625	0,1212
1195,64941	0,13698	0,13622	0,09904	0,13694	0,12147
1193,72095	0,13744	0,13684	0,09968	0,13751	0,12192
1191,79248	0,13825	0,13729	0,10031	0,13808	0,12226
1189,86401	0,13863	0,13792	0,10086	0,13879	0,12276
1187,93555	0,13911	0,13859	0,10135	0,13943	0,12356
1186,00708	0,13995	0,13925	0,10195	0,14033	0,12404
1184,07861	0,14065	0,14008	0,10267	0,14129	0,12441
1182,15015	0,14124	0,14098	0,10335	0,14188	0,12512
1180,22168	0,14191	0,14195	0,10398	0,14266	0,12584
1178,29321	0,14247	0,14301	0,10452	0,14358	0,12644
1176,36475	0,14302	0,1439	0,10516	0,14443	0,12708
1174,43628	0,14379	0,14463	0,10576	0,14539	0,12771
1172,50781	0,14453	0,14541	0,10594	0,14607	0,1281
1170,57935	0,14507	0,14598	0,10613	0,14659	0,12826
1168,65088	0,14558	0,1465	0,10636	0,14723	0,12858
1166,72241	0,14619	0,14739	0,10635	0,14784	0,1291
1164,79395	0,14673	0,14826	0,10644	0,14869	0,12939
1162,86548	0,14726	0,14888	0,10664	0,14983	0,12948
1160,93701	0,14814	0,14943	0,10684	0,15076	0,12966
1159,00854	0,14885	0,14987	0,10706	0,15117	0,12998
1157,08008	0,14884	0,15028	0,10718	0,15107	0,13032
1155,15161	0,14901	0,15078	0,10737	0,15075	0,13066
1153,22314	0,14956	0,15125	0,10754	0,15073	0,13096
1151,29468	0,14977	0,15165	0,10762	0,15094	0,13109
1149,36621	0,15006	0,15218	0,10794	0,15099	0,1313
1147,43774	0,15068	0,15273	0,10834	0,15128	0,13177
1145,50928	0,15121	0,15316	0,10853	0,15197	0,13226
1143,58081	0,15169	0,15373	0,10881	0,15261	0,13267
1141,65234	0,15208	0,1542	0,10932	0,15316	0,13297
1139,72388	0,15254	0,15455	0,10967	0,15353	0,13321
1137,79541	0,15317	0,15512	0,10975	0,15372	0,13354
1135,86694	0,15344	0,1555	0,10994	0,15388	0,13381
1133,93848	0,15366	0,15583	0,11039	0,15411	0,13403
1132,01001	0,1542	0,15632	0,11076	0,15436	0,13432
1130,08154	0,15447	0,15629	0,11079	0,15446	0,13453
1128,15308	0,15453	0,15597	0,11081	0,15466	0,13468
1126,22461	0,15469	0,15608	0,111	0,1549	0,1349
1124,29614	0,155	0,15652	0,11119	0,155	0,13528
1122,36768	0,15509	0,15682	0,11145	0,1552	0,13578
1120,43921	0,15468	0,1569	0,11172	0,15552	0,13606
1118,51074	0,15478	0,15708	0,112	0,15591	0,13625

1116,58228	0,15533	0,15729	0,11231	0,15605	0,13647
1114,65381	0,15543	0,15742	0,11234	0,15603	0,13672
1112,72534	0,15547	0,15763	0,11245	0,15639	0,13713
1110,79688	0,15545	0,15774	0,11284	0,15684	0,13748
1108,86841	0,1554	0,15766	0,11304	0,15711	0,13759
1106,93994	0,15541	0,15772	0,1132	0,15724	0,13763
1105,01147	0,15535	0,15789	0,11338	0,15731	0,13784
1103,08301	0,15571	0,15803	0,11342	0,15748	0,13832
1101,15454	0,15599	0,15804	0,11343	0,15754	0,13866
1099,22607	0,15587	0,15803	0,11349	0,15747	0,13869
1097,29761	0,15609	0,15826	0,1137	0,15733	0,1388
1095,36914	0,15623	0,15838	0,11392	0,15713	0,139
1093,44067	0,156	0,15847	0,11387	0,15695	0,13914
1091,51221	0,1558	0,15866	0,11361	0,15688	0,13927
1089,58374	0,15553	0,15866	0,11335	0,1569	0,13918
1087,65527	0,15552	0,1586	0,11322	0,15672	0,13908
1085,72681	0,15576	0,15834	0,11317	0,15646	0,13911
1083,79834	0,15548	0,15812	0,11311	0,15637	0,13901
1081,86987	0,15517	0,15819	0,11303	0,1562	0,13893
1079,94141	0,15518	0,15807	0,11289	0,15602	0,13884
1078,01294	0,1549	0,15792	0,11278	0,15576	0,13872
1076,08447	0,15461	0,15795	0,1127	0,15552	0,13868
1074,15601	0,1543	0,15784	0,11255	0,15554	0,13852
1072,22754	0,15397	0,15785	0,11247	0,15563	0,13832
1070,29907	0,15407	0,15804	0,11239	0,15593	0,13832
1068,37061	0,15405	0,15808	0,11226	0,15634	0,13823
1066,44214	0,15384	0,15812	0,1121	0,15676	0,13794
1064,51367	0,15364	0,15816	0,11168	0,15727	0,13787
1062,58521	0,15336	0,15802	0,11126	0,15779	0,13796
1060,65674	0,15349	0,15777	0,11109	0,15846	0,13793
1058,72827	0,1535	0,1577	0,11098	0,15875	0,13768
1056,7998	0,15301	0,15772	0,11098	0,1588	0,13748
1054,87134	0,15288	0,15763	0,11094	0,1594	0,13764
1052,94287	0,15292	0,15736	0,11073	0,15983	0,13763
1051,0144	0,15273	0,15681	0,11054	0,16026	0,13724
1049,08594	0,15274	0,15639	0,11047	0,16099	0,13728
1047,15747	0,15271	0,15633	0,11059	0,16113	0,13762
1045,229	0,15234	0,15635	0,11063	0,16133	0,1377
1043,30054	0,15226	0,15639	0,11052	0,16198	0,13811
1041,37207	0,15236	0,15627	0,11037	0,16226	0,13852
1039,4436	0,15216	0,15608	0,11021	0,16262	0,13832
1037,51514	0,15197	0,15596	0,11024	0,16314	0,13846
1035,58667	0,15215	0,15574	0,11032	0,16334	0,13889
1033,6582	0,15224	0,15581	0,11022	0,16361	0,13902
1031,72974	0,15201	0,15628	0,11014	0,16386	0,13955
1029,80127	0,15192	0,15669	0,10989	0,16384	0,14024
1027,8728	0,15174	0,15723	0,10933	0,16395	0,14055
1025,94434	0,15182	0,15801	0,10896	0,16438	0,14098
1024,01587	0,15218	0,15876	0,10862	0,16468	0,14122
1022,0874	0,15192	0,15957	0,10794	0,16451	0,141

1020,15894	0,15176	0,16015	0,10738	0,16413	0,14081
1018,23047	0,15188	0,16001	0,10692	0,16371	0,14067
1016,302	0,15158	0,15952	0,10629	0,16313	0,14025
1014,37354	0,15126	0,15874	0,1056	0,16243	0,13955
1012,44507	0,15095	0,15735	0,1049	0,16185	0,13878
1010,5166	0,15067	0,156	0,1042	0,16126	0,13804
1008,58813	0,15072	0,15518	0,10342	0,16052	0,13735
1006,65967	0,15082	0,15454	0,10297	0,16002	0,13673
1004,7312	0,15059	0,15394	0,10279	0,15963	0,13628
1002,80273	0,14983	0,15339	0,10234	0,15897	0,13589
1000,87427	0,14908	0,15294	0,10196	0,15812	0,13532
998,9458	0,14889	0,15278	0,10149	0,15752	0,135
997,01733	0,14869	0,15262	0,10103	0,15717	0,13486
995,08887	0,14843	0,1524	0,10102	0,1567	0,13455
993,1604	0,14851	0,15238	0,10068	0,15627	0,13427
991,23193	0,14847	0,15217	0,10026	0,15602	0,13384
989,30347	0,14843	0,15183	0,10017	0,1557	0,13352
987,375	0,14833	0,15171	0,09992	0,15532	0,13351
985,44653	0,14799	0,15156	0,09975	0,15493	0,13337
983,51807	0,14812	0,15151	0,09961	0,15462	0,13333
981,5896	0,14842	0,15154	0,09936	0,1543	0,13316
979,66113	0,14837	0,15127	0,09915	0,15394	0,13254
977,73267	0,14835	0,15107	0,09899	0,15371	0,1322
975,8042	0,14821	0,15105	0,09894	0,1536	0,13207
973,87573	0,14801	0,15098	0,09883	0,15367	0,13179
971,94727	0,14775	0,15086	0,09869	0,15371	0,13153
970,0188	0,14741	0,15088	0,09869	0,15343	0,13127
968,09033	0,1476	0,15103	0,09869	0,15298	0,13116
966,16187	0,14775	0,15084	0,09851	0,15246	0,13115
964,2334	0,14757	0,15083	0,09822	0,15197	0,13104
962,30493	0,14776	0,15106	0,09788	0,15163	0,13087
960,37646	0,1477	0,15068	0,09748	0,15155	0,13081
958,448	0,14754	0,15043	0,09737	0,15172	0,13104
956,51953	0,14776	0,15081	0,09735	0,15174	0,13131
954,59106	0,14763	0,15086	0,09699	0,1515	0,13128
952,6626	0,14753	0,15059	0,09671	0,15128	0,13111
950,73413	0,14765	0,1504	0,09661	0,15113	0,13118
948,80566	0,14735	0,15007	0,09647	0,15092	0,13117
946,8772	0,14699	0,14993	0,09628	0,15056	0,13091
944,94873	0,14711	0,15017	0,09612	0,15036	0,13091
943,02026	0,14727	0,15005	0,09609	0,15031	0,1309
941,0918	0,1469	0,1497	0,096	0,1502	0,13069
939,16333	0,14648	0,14994	0,09569	0,15038	0,13079
937,23486	0,1466	0,15028	0,09553	0,1505	0,13092
935,3064	0,14669	0,15005	0,09575	0,15035	0,13098
933,37793	0,14646	0,14988	0,09586	0,15034	0,13131
931,44946	0,14643	0,14999	0,09573	0,15016	0,13146
929,521	0,14643	0,15	0,09568	0,15004	0,13131
927,59253	0,14627	0,1502	0,09582	0,15025	0,13148
925,66406	0,14629	0,15047	0,09605	0,15022	0,13179

923,7356	0,14639	0,15052	0,09625	0,15046	0,13181
921,80713	0,14654	0,1506	0,09632	0,15087	0,13168
919,87866	0,14679	0,15063	0,09615	0,15054	0,13167
917,9502	0,14679	0,1507	0,09598	0,15012	0,1319
916,02173	0,14668	0,15098	0,09618	0,1501	0,13226
914,09326	0,14684	0,15105	0,09629	0,15031	0,13235
912,16479	0,1471	0,15073	0,09614	0,15052	0,13203
910,23633	0,14699	0,15037	0,09611	0,15052	0,13195
908,30786	0,1469	0,15038	0,09612	0,15028	0,13214
906,37939	0,14709	0,15057	0,0961	0,14985	0,13203
904,45093	0,14699	0,15037	0,09613	0,14992	0,13185
902,52246	0,14688	0,15022	0,09614	0,15013	0,13172
900,59399	0,14685	0,15021	0,09599	0,14965	0,13184
898,66553	0,14664	0,14993	0,0957	0,14944	0,13223
896,73706	0,14686	0,15024	0,09558	0,14928	0,13226
894,80859	0,14695	0,15058	0,09566	0,14882	0,1321
892,88013	0,1466	0,15052	0,09567	0,14905	0,13223
890,95166	0,14723	0,15094	0,09572	0,14926	0,13233
889,02319	0,14781	0,15095	0,09577	0,14913	0,13222
887,09473	0,14738	0,15076	0,09573	0,14949	0,13226
885,16626	0,14771	0,15136	0,09609	0,14963	0,13249
883,23779	0,14819	0,15197	0,0967	0,14933	0,13271
881,30933	0,14829	0,15221	0,09696	0,1495	0,13308
879,38086	0,14907	0,15216	0,09715	0,15005	0,13354
877,45239	0,1497	0,15251	0,09747	0,15077	0,134
875,52393	0,15078	0,15396	0,09807	0,15205	0,1349
873,59546	0,15311	0,15587	0,0991	0,15396	0,13615
871,66699	0,1554	0,15824	0,10043	0,15644	0,13773
869,73853	0,15768	0,16123	0,10225	0,15942	0,13988
867,81006	0,15999	0,16391	0,10393	0,16222	0,14168
865,88159	0,16165	0,16569	0,10483	0,16442	0,14268
863,95313	0,16252	0,16676	0,10555	0,16561	0,14327
862,02466	0,16318	0,16753	0,10613	0,16586	0,14378
860,09619	0,16356	0,16732	0,10592	0,16571	0,14388
858,16772	0,16253	0,16607	0,10514	0,16502	0,14308
856,23926	0,16057	0,16503	0,1045	0,16379	0,14228
854,31079	0,15888	0,16375	0,10374	0,16218	0,14156
852,38232	0,15813	0,16284	0,10314	0,16152	0,14082
850,45386	0,15883	0,16383	0,10351	0,16251	0,1412
848,52539	0,16172	0,16664	0,10496	0,16508	0,14307
846,59692	0,16714	0,17204	0,10823	0,17039	0,14684
844,66846	0,17203	0,17759	0,11183	0,176	0,15096
842,73999	0,17664	0,18209	0,11486	0,18133	0,15448
840,81152	0,18604	0,19151	0,12094	0,19133	0,16106
838,88306	0,19774	0,20462	0,12862	0,20393	0,16993
836,95459	0,20808	0,21609	0,13507	0,21531	0,1778
835,02612	0,21795	0,22657	0,14149	0,2255	0,18518
833,09766	0,22251	0,23157	0,14436	0,22958	0,18896
831,16919	0,222	0,23064	0,14388	0,22879	0,18855
829,24072	0,22165	0,22967	0,14372	0,22857	0,18783

827,31226	0,22095	0,22868	0,14297	0,22805	0,18711
825,38379	0,22551	0,23309	0,14598	0,23293	0,19041
823,45532	0,23455	0,24272	0,15235	0,24283	0,19725
821,52686	0,23719	0,24619	0,15398	0,24589	0,19961
819,59839	0,2368	0,24587	0,15381	0,24525	0,19944
817,66992	0,23877	0,24801	0,15566	0,24762	0,20072
815,74146	0,24153	0,25132	0,15769	0,25078	0,20259
813,81299	0,2455	0,25541	0,1605	0,25459	0,20534
811,88452	0,2478	0,25745	0,16219	0,2569	0,2068
809,95605	0,24704	0,25636	0,16145	0,25593	0,2062
808,02759	0,24717	0,25606	0,16148	0,25585	0,20633
806,09912	0,24979	0,25806	0,16337	0,25863	0,20796
804,17065	0,25269	0,26046	0,16528	0,26149	0,20994
802,24219	0,2541	0,2619	0,16637	0,26318	0,21122
800,31372	0,25651	0,26431	0,16823	0,26621	0,21331
798,38525	0,2607	0,26802	0,17095	0,2705	0,21657
796,45679	0,26376	0,27035	0,1727	0,27347	0,2184
794,52832	0,26487	0,27128	0,17335	0,27485	0,21878
792,59985	0,26357	0,27064	0,17268	0,27353	0,21801
790,67139	0,25995	0,26755	0,17058	0,26922	0,21543
788,74292	0,25686	0,26452	0,16873	0,26563	0,21282
786,81445	0,25519	0,26294	0,16747	0,26399	0,21152
784,88599	0,25204	0,25949	0,16505	0,26077	0,20929
782,95752	0,24766	0,25451	0,16194	0,2559	0,20571
781,02905	0,24595	0,25248	0,16056	0,25332	0,20396
779,10059	0,24651	0,25292	0,16071	0,25352	0,20398
777,17212	0,24845	0,25499	0,1618	0,25602	0,20495
775,24365	0,25309	0,25978	0,16454	0,2613	0,20808
773,31519	0,25823	0,26489	0,16785	0,26673	0,21176
771,38672	0,26142	0,26796	0,16999	0,26985	0,21424
769,45825	0,26299	0,26952	0,1708	0,27139	0,21575
767,52979	0,26421	0,27123	0,17145	0,27249	0,21697
765,60132	0,26558	0,27327	0,17245	0,27366	0,21844
763,67285	0,26635	0,27398	0,17296	0,27472	0,21887
761,74438	0,26544	0,27243	0,17225	0,27351	0,21745
759,81592	0,26309	0,26988	0,17099	0,27044	0,21555
757,88745	0,26166	0,26854	0,17025	0,2692	0,2149
755,95898	0,26126	0,26809	0,16984	0,26905	0,21517
754,03052	0,2603	0,26721	0,16928	0,26793	0,21467
752,10205	0,25897	0,26578	0,1685	0,26638	0,21336
750,17358	0,25854	0,26542	0,16839	0,26574	0,21301
748,24512	0,25987	0,2675	0,16964	0,26739	0,2142
746,31665	0,261	0,2693	0,17074	0,26923	0,21498
744,38818	0,26157	0,26998	0,17126	0,27006	0,21492
742,45972	0,26325	0,27112	0,17186	0,27115	0,21534
740,53125	0,26444	0,27211	0,17236	0,27208	0,21647
738,60278	0,26483	0,27356	0,17298	0,2731	0,21789
736,67432	0,26635	0,27563	0,17391	0,27472	0,21925
734,74585	0,26753	0,2767	0,17474	0,27568	0,22018
732,81738	0,26655	0,27638	0,17472	0,27492	0,22002

730,88892	0,26613	0,27593	0,17449	0,27438	0,21981
728,96045	0,26748	0,27689	0,17522	0,27548	0,22045
727,03198	0,26902	0,27858	0,17633	0,27714	0,22167
725,10352	0,27135	0,28075	0,17832	0,28002	0,22403
723,17505	0,27337	0,28332	0,18037	0,28268	0,22609
721,24658	0,27372	0,28453	0,18062	0,28313	0,22669
719,31812	0,27491	0,28589	0,18136	0,28455	0,22751
717,38965	0,27769	0,28879	0,18316	0,28806	0,22883
715,46118	0,27998	0,2911	0,18418	0,29093	0,23002
713,53271	0,28058	0,29179	0,18435	0,29186	0,23076
711,60425	0,27961	0,29099	0,18365	0,29124	0,23026
709,67578	0,27895	0,29037	0,1833	0,29082	0,22951
707,74731	0,27967	0,29113	0,18375	0,29137	0,22977
705,81885	0,2797	0,29118	0,18348	0,29116	0,22981
703,89038	0,27836	0,2897	0,18254	0,28966	0,2289
701,96191	0,27717	0,28859	0,18177	0,28863	0,22798
700,03345	0,27673	0,28887	0,18133	0,28883	0,22791
698,10498	0,27677	0,28952	0,18101	0,28909	0,22815
696,17651	0,27659	0,28968	0,18081	0,28894	0,22806
694,24805	0,27695	0,28996	0,18123	0,28922	0,22815
692,31958	0,27838	0,29087	0,18255	0,29043	0,22863
690,39111	0,27991	0,29212	0,18382	0,29265	0,22994
688,46265	0,28182	0,29395	0,18467	0,29523	0,23187
686,53418	0,28375	0,2962	0,18547	0,29697	0,23355
684,60571	0,28449	0,297	0,18592	0,29765	0,23393
682,67725	0,28574	0,29823	0,18675	0,29889	0,2344
680,74878	0,2879	0,30115	0,18834	0,30108	0,23646
678,82031	0,28924	0,30297	0,18975	0,30263	0,23726
676,89185	0,2907	0,30441	0,19072	0,30411	0,2388
674,96338	0,29265	0,3069	0,19295	0,30628	0,2407
673,03491	0,29402	0,30836	0,19431	0,30727	0,24099
671,10645	0,29498	0,30815	0,19444	0,3075	0,24127
669,17798	0,29587	0,30906	0,19458	0,30835	0,24156
667,24951	0,29613	0,3103	0,19471	0,30867	0,24185
665,32104	0,29639	0,31032	0,19484	0,309	0,24213
663,39258	0,29666	0,31033	0,19497	0,30933	0,24242
661,46411	0,29697	0,31035	0,19511	0,30966	0,24271
659,53564	0,29728	0,31037	0,19524	0,30999	0,243
657,60718	0,29727	0,31038	0,19537	0,31024	0,24328
655,67871	0,29699	0,3104	0,19423	0,30997	0,24267
653,75024	0,29641	0,31042	0,19382	0,30876	0,24002
651,82178	0,29602	0,31044	0,19571	0,30809	0,24091
649,89331	0,29673	0,31045	0,19583	0,30891	0,24237
647,96484	0,29856	0,31103	0,19671	0,31025	0,24289
646,03638	0,30041	0,31255	0,19855	0,3119	0,24389
644,10791	0,30021	0,31288	0,19913	0,31224	0,24421
642,17944	0,30002	0,31279	0,19879	0,31169	0,24474
640,25098	0,30102	0,3125	0,19852	0,31208	0,24538
638,32251	0,30099	0,31253	0,19894	0,31263	0,24549
636,39404	0,30124	0,31349	0,19965	0,31303	0,24597

634,46558	0,30139	0,31347	0,19956	0,31206	0,24511
632,53711	0,30011	0,31277	0,19853	0,31001	0,24379
630,60864	0,29864	0,31204	0,19755	0,30836	0,24227
628,68018	0,2978	0,31101	0,19715	0,30736	0,24071
626,75171	0,29772	0,30999	0,19722	0,30736	0,24124
624,82324	0,29728	0,30993	0,19703	0,3069	0,2417
622,89478	0,29693	0,31065	0,19688	0,30628	0,24102
620,96631	0,29732	0,31078	0,19714	0,30658	0,24151
619,03784	0,29809	0,31076	0,1971	0,30718	0,24257
617,10938	0,29959	0,31101	0,19775	0,30856	0,24369
615,18091	0,30056	0,31108	0,19901	0,30947	0,24427
613,25244	0,301	0,31128	0,19947	0,30922	0,24352
611,32397	0,30197	0,31111	0,19949	0,3098	0,24325
609,39551	0,30238	0,31065	0,19951	0,31038	0,24374
607,46704	0,30251	0,3111	0,19985	0,31	0,24432
605,53857	0,30243	0,31116	0,20018	0,30923	0,24427
603,61011	0,30123	0,31006	0,20011	0,30781	0,24338
601,68164	0,30074	0,30911	0,19986	0,30684	0,24314
599,75317	0,30072	0,30825	0,19893	0,30619	0,24263
597,82471	0,2994	0,30743	0,19759	0,30487	0,24165
595,89624	0,29855	0,3069	0,19661	0,30389	0,24074
593,96777	0,29908	0,30609	0,19679	0,30416	0,24086
592,03931	0,2992	0,30572	0,19773	0,30491	0,24249
590,11084	0,29812	0,30659	0,19681	0,3039	0,24163
588,18237	0,29813	0,30653	0,195	0,30283	0,24003
586,25391	0,29881	0,30553	0,19462	0,30327	0,24004
584,32544	0,29806	0,3059	0,19436	0,30312	0,23937
582,39697	0,29831	0,30627	0,19394	0,30336	0,2401
580,46851	0,29838	0,3063	0,19373	0,30346	0,24017
578,54004	0,29696	0,30601	0,19368	0,30243	0,23829
576,61157	0,29729	0,30426	0,19355	0,30272	0,239
574,68311	0,29736	0,30412	0,19243	0,30321	0,23875
572,75464	0,29675	0,30641	0,19265	0,30363	0,23793
570,82617	0,29835	0,30784	0,19477	0,30588	0,24044
568,89771	0,30032	0,30913	0,19609	0,30838	0,24207
566,96924	0,3015	0,31163	0,19712	0,30993	0,2427
565,04077	0,30158	0,31271	0,19802	0,31021	0,24302
563,1123	0,30057	0,31242	0,19781	0,30907	0,24186
561,18384	0,30003	0,31293	0,19774	0,30835	0,24159
559,25537	0,2999	0,31306	0,19829	0,30866	0,24145
557,3269	0,30043	0,313	0,1986	0,30942	0,24164
555,39844	0,30116	0,31345	0,19873	0,31	0,24194
553,46997	0,30025	0,31314	0,19848	0,30913	0,24101
551,5415	0,29839	0,31225	0,1975	0,30777	0,24082
549,61304	0,2973	0,31085	0,19719	0,30714	0,24011
547,68457	0,29552	0,30871	0,19785	0,30483	0,23725
545,7561	0,29333	0,30656	0,19721	0,30175	0,23626
543,82764	0,29323	0,30527	0,19558	0,30096	0,23795
541,89917	0,29281	0,30512	0,19591	0,30009	0,23798
539,9707	0,29133	0,30512	0,19737	0,29854	0,23718



538,04224	0,29066	0,30407	0,19781	0,29801	0,23662
536,11377	0,29002	0,30354	0,19876	0,29745	0,23505
534,1853	0,28975	0,3031	0,19953	0,29585	0,23539
532,25684	0,28763	0,30111	0,19972	0,29246	0,23344
530,32837	0,28579	0,29955	0,19949	0,29104	0,23307
528,3999	0,28211	0,29591	0,19931	0,28685	0,23156
526,47144	0,27411	0,28979	0,20135	0,27747	0,22055
524,54297	0,27224	0,28671	0,20028	0,27419	0,21895
522,6145	0,27166	0,28425	0,19696	0,27155	0,22392
520,68604	0,26412	0,27887	0,19902	0,26366	0,21794
518,75757	0,25713	0,27398	0,20186	0,25689	0,21096
516,8291	0,25443	0,27076	0,19988	0,251	0,21008
514,90063	0,25297	0,26698	0,19796	0,24735	0,21127
512,97217	0,24873	0,26349	0,19933	0,2438	0,21011
511,0437	0,24364	0,25934	0,19863	0,23659	0,20676
509,11523	0,23941	0,2537	0,19628	0,22968	0,20203
507,18677	0,2341	0,24961	0,19625	0,22403	0,19834
505,2583	0,23098	0,24605	0,19631	0,21924	0,19774
503,32983	0,22764	0,24157	0,19681	0,21498	0,19312
501,40137	0,22432	0,23884	0,19633	0,21164	0,19131
499,4729	0,22402	0,2374	0,19528	0,20894	0,19483

Figure 3.7 B					
n°spectre	Vd338	Vd287	VD46	VD362	Vd393
cm-1	cd.	cd.(Cu)	X.	X.(Cu)	X.(Cu-w)
4001,5686	0,05761	0,05761	0,04522	0,05522	0,11532
3999,64014	0,05755	0,05755	0,04515	0,05512	0,11521
3997,71167	0,0575	0,0575	0,04518	0,05523	0,11513
3995,7832	0,05751	0,05751	0,04532	0,05522	0,11517
3993,85474	0,05744	0,05744	0,04526	0,0551	0,1151
3991,92627	0,05758	0,05758	0,04522	0,05521	0,11494
3989,9978	0,05765	0,05765	0,04532	0,05519	0,11489
3988,06934	0,05738	0,05738	0,04505	0,05501	0,11477
3986,14087	0,05742	0,05742	0,04494	0,05505	0,11469
3984,2124	0,05748	0,05748	0,04501	0,05502	0,11474
3982,28394	0,05731	0,05731	0,04496	0,05498	0,11462
3980,35547	0,05729	0,05729	0,045	0,05505	0,1145
3978,427	0,05724	0,05724	0,0449	0,05501	0,11445
3976,49854	0,05731	0,05731	0,04506	0,0551	0,11434
3974,57007	0,05738	0,05738	0,04529	0,05508	0,11427
3972,6416	0,05715	0,05715	0,04516	0,05487	0,11415
3970,71313	0,05712	0,05712	0,04509	0,05489	0,114
3968,78467	0,05727	0,05727	0,04509	0,05508	0,11399
3966,8562	0,05706	0,05706	0,04484	0,05498	0,11385
3964,92773	0,05707	0,05707	0,04476	0,05484	0,11376
3962,99927	0,0575	0,0575	0,04536	0,05515	0,11388
3961,0708	0,05722	0,05722	0,04541	0,05514	0,1137
3959,14233	0,05705	0,05705	0,04505	0,05492	0,11343
3957,21387	0,05725	0,05725	0,04517	0,055	0,11342
3955,2854	0,05708	0,05708	0,04522	0,05504	0,11338
3953,35693	0,05714	0,05714	0,0452	0,05502	0,11328
3951,42847	0,05713	0,05713	0,04547	0,05501	0,1131
3949,5	0,0572	0,0572	0,04643	0,05553	0,11309
3947,57153	0,05687	0,05687	0,04567	0,05518	0,11302
3945,64307	0,05674	0,05674	0,04473	0,0546	0,11279
3943,7146	0,05766	0,05766	0,04647	0,05568	0,11294
3941,78613	0,05711	0,05711	0,04609	0,0554	0,11272
3939,85767	0,05648	0,05648	0,04461	0,05436	0,11239
3937,9292	0,05709	0,05709	0,0452	0,0549	0,11257
3936,00073	0,05688	0,05688	0,04513	0,05501	0,11246
3934,07227	0,05717	0,05717	0,04556	0,05521	0,11244
3932,1438	0,05763	0,05763	0,04664	0,0559	0,11255
3930,21533	0,05647	0,05647	0,04577	0,05505	0,11199
3928,28687	0,05622	0,05622	0,04475	0,05442	0,11184
3926,3584	0,05735	0,05735	0,04574	0,05539	0,11229
3924,42993	0,05727	0,05727	0,04657	0,05576	0,11216
3922,50146	0,05634	0,05634	0,04518	0,05478	0,11172
3920,573	0,05684	0,05684	0,04521	0,05487	0,11185
3918,64453	0,0573	0,0573	0,04588	0,05542	0,11202
3916,71606	0,05657	0,05657	0,04522	0,05507	0,1118
3914,7876	0,05573	0,05573	0,04424	0,0542	0,11144

3912,85913	0,05623	0,05623	0,04466	0,05429	0,11135
3910,93066	0,05684	0,05684	0,04499	0,05474	0,11155
3909,0022	0,05633	0,05633	0,04455	0,05444	0,11136
3907,07373	0,0572	0,0572	0,04611	0,05519	0,11142
3905,14526	0,05825	0,05825	0,04747	0,05656	0,112
3903,2168	0,05624	0,05624	0,04511	0,0556	0,11153
3901,28833	0,05535	0,05535	0,04401	0,05458	0,11088
3899,35986	0,05593	0,05593	0,04526	0,05488	0,111
3897,4314	0,05504	0,05504	0,04375	0,05402	0,11063
3895,50293	0,05541	0,05541	0,04412	0,05374	0,11013
3893,57446	0,05777	0,05777	0,04678	0,05545	0,11099
3891,646	0,05786	0,05786	0,04672	0,05661	0,11183
3889,71753	0,05372	0,05372	0,04209	0,05312	0,10985
3887,78906	0,05647	0,05647	0,04508	0,05436	0,11024
3885,8606	0,05852	0,05852	0,04636	0,057	0,11197
3883,93213	0,0535	0,0535	0,04142	0,05306	0,10965
3882,00366	0,05688	0,05688	0,04634	0,05486	0,11005
3880,0752	0,05793	0,05793	0,04892	0,05713	0,11103
3878,14673	0,05343	0,05343	0,04221	0,05259	0,10905
3876,21826	0,05713	0,05713	0,04515	0,05454	0,11028
3874,28979	0,05723	0,05723	0,04772	0,05621	0,11043
3872,36133	0,05548	0,05548	0,04552	0,05445	0,10928
3870,43286	0,05774	0,05774	0,04495	0,05604	0,11099
3868,50439	0,05371	0,05371	0,04222	0,0538	0,10935
3866,57593	0,0549	0,0549	0,0438	0,05339	0,10887
3864,64746	0,05774	0,05774	0,04613	0,05604	0,11048
3862,71899	0,05475	0,05475	0,04533	0,05472	0,10888
3860,79053	0,05508	0,05508	0,04398	0,05368	0,10882
3858,86206	0,05589	0,05589	0,04446	0,05421	0,1092
3856,93359	0,05703	0,05703	0,04866	0,05554	0,10866
3855,00513	0,05918	0,05918	0,04352	0,05707	0,11143
3853,07666	0,05447	0,05447	0,0372	0,05583	0,11167
3851,14819	0,0503	0,0503	0,03802	0,05119	0,10706
3849,21973	0,05468	0,05468	0,0448	0,0534	0,10772
3847,29126	0,05592	0,05592	0,0444	0,0541	0,10859
3845,36279	0,05685	0,05685	0,04649	0,0551	0,10858
3843,43433	0,05687	0,05687	0,04634	0,05549	0,1088
3841,50586	0,05591	0,05591	0,04682	0,05517	0,10821
3839,57739	0,057	0,057	0,04741	0,05606	0,10865
3837,64893	0,05561	0,05561	0,04233	0,05517	0,10908
3835,72046	0,05265	0,05265	0,04047	0,05261	0,1073
3833,79199	0,05538	0,05538	0,04547	0,05418	0,10745
3831,86353	0,05589	0,05589	0,04482	0,05476	0,1082
3829,93506	0,05406	0,05406	0,04355	0,05333	0,10711
3828,00659	0,05665	0,05665	0,04635	0,05492	0,10774
3826,07813	0,05593	0,05593	0,04604	0,05496	0,10771
3824,14966	0,05542	0,05542	0,04598	0,05419	0,10686
3822,22119	0,05899	0,05899	0,04725	0,05711	0,10911
3820,29272	0,05386	0,05386	0,04527	0,05524	0,10732
3818,36426	0,05372	0,05372	0,044	0,05306	0,10607

3816,43579	0,05717	0,05717	0,04371	0,05532	0,10858
3814,50732	0,0527	0,0527	0,03982	0,05279	0,10687
3812,57886	0,054	0,054	0,04361	0,05281	0,10602
3810,65039	0,05598	0,05598	0,04578	0,05413	0,1068
3808,72192	0,05711	0,05711	0,04587	0,05522	0,10749
3806,79346	0,05579	0,05579	0,04321	0,05495	0,10777
3804,86499	0,05301	0,05301	0,04217	0,05248	0,1056
3802,93652	0,05752	0,05752	0,04724	0,05566	0,10698
3801,00806	0,05586	0,05586	0,04397	0,05611	0,1079
3799,07959	0,05176	0,05176	0,04055	0,05174	0,10512
3797,15112	0,05654	0,05654	0,04766	0,05495	0,10623
3795,22266	0,0549	0,0549	0,04453	0,05416	0,10637
3793,29419	0,05395	0,05395	0,04335	0,05266	0,10544
3791,36572	0,05624	0,05624	0,04556	0,05438	0,10625
3789,43726	0,05513	0,05513	0,04435	0,05386	0,1059
3787,50879	0,05544	0,05544	0,04474	0,05379	0,10572
3785,58032	0,05647	0,05647	0,04665	0,05499	0,10609
3783,65186	0,05483	0,05483	0,04517	0,05377	0,10541
3781,72339	0,05548	0,05548	0,04484	0,05382	0,10556
3779,79492	0,05639	0,05639	0,04699	0,05523	0,1059
3777,86646	0,05433	0,05433	0,04471	0,0536	0,10507
3775,93799	0,05448	0,05448	0,04389	0,05305	0,10505
3774,00952	0,05516	0,05516	0,0448	0,05364	0,10515
3772,08105	0,05605	0,05605	0,04563	0,05435	0,10532
3770,15259	0,05601	0,05601	0,04604	0,05496	0,1057
3768,22412	0,05365	0,05365	0,0434	0,05322	0,10472
3766,29565	0,05512	0,05512	0,04528	0,05389	0,10475
3764,36719	0,05478	0,05478	0,04511	0,05393	0,10481
3762,43872	0,05411	0,05411	0,04397	0,05301	0,10419
3760,51025	0,05633	0,05633	0,04656	0,05484	0,10503
3758,58179	0,05494	0,05494	0,04641	0,05482	0,10469
3756,65332	0,05382	0,05382	0,04484	0,05326	0,10377
3754,72485	0,05513	0,05513	0,04544	0,05395	0,10435
3752,79639	0,05613	0,05613	0,04521	0,05521	0,10521
3750,86792	0,05572	0,05572	0,04318	0,0559	0,10592
3748,93945	0,0497	0,0497	0,03678	0,05104	0,10329
3747,01099	0,05361	0,05361	0,044	0,05296	0,10314
3745,08252	0,05727	0,05727	0,04297	0,05566	0,10609
3743,15405	0,0498	0,0498	0,03395	0,05085	0,10384
3741,22559	0,05222	0,05222	0,04309	0,05176	0,10204
3739,29712	0,05659	0,05659	0,04661	0,05454	0,10374
3737,36865	0,05681	0,05681	0,04309	0,05499	0,10468
3735,44019	0,05591	0,05591	0,04505	0,05515	0,10362
3733,51172	0,05484	0,05484	0,0438	0,05432	0,10324
3731,58325	0,05316	0,05316	0,03869	0,052	0,10293
3729,65479	0,05439	0,05439	0,0396	0,05198	0,10264
3727,72632	0,05698	0,05698	0,04248	0,05384	0,10334
3725,79785	0,05671	0,05671	0,04237	0,05411	0,1034
3723,86938	0,05553	0,05553	0,04258	0,05333	0,10276
3721,94092	0,05561	0,05561	0,04317	0,05345	0,10281

3720,01245	0,05464	0,05464	0,04253	0,05294	0,10247
3718,08398	0,05415	0,05415	0,04261	0,05263	0,10239
3716,15552	0,05371	0,05371	0,04328	0,05244	0,1021
3714,22705	0,05473	0,05473	0,04434	0,0531	0,10242
3712,29858	0,05546	0,05546	0,04366	0,05434	0,10326
3710,37012	0,05256	0,05256	0,04129	0,05278	0,10185
3708,44165	0,05228	0,05228	0,04072	0,05113	0,10144
3706,51318	0,0527	0,0527	0,03911	0,05053	0,10132
3704,58472	0,05392	0,05392	0,04064	0,05164	0,10126
3702,65625	0,05523	0,05523	0,04295	0,05323	0,10197
3700,72778	0,05273	0,05273	0,04084	0,05181	0,10105
3698,79932	0,05227	0,05227	0,03956	0,05077	0,10046
3696,87085	0,05336	0,05336	0,04152	0,05151	0,10071
3694,94238	0,05242	0,05242	0,04093	0,05123	0,10031
3693,01392	0,05211	0,05211	0,04092	0,05114	0,09999
3691,08545	0,05278	0,05278	0,04379	0,05241	0,10003
3689,15698	0,04992	0,04992	0,03986	0,05123	0,09958
3687,22852	0,04637	0,04637	0,03368	0,0479	0,09842
3685,30005	0,04803	0,04803	0,0393	0,04877	0,09797
3683,37158	0,04993	0,04993	0,04155	0,04991	0,09869
3681,44312	0,05039	0,05039	0,04035	0,05043	0,09958
3679,51465	0,05018	0,05018	0,04336	0,05095	0,09916
3677,58618	0,05212	0,05212	0,0434	0,05203	0,10021
3675,65771	0,05262	0,05262	0,04359	0,05407	0,1016
3673,72925	0,046	0,046	0,03781	0,04862	0,09855
3671,80078	0,05009	0,05009	0,04044	0,05014	0,09961
3669,87231	0,052	0,052	0,04166	0,05281	0,10128
3667,94385	0,04719	0,04719	0,03893	0,04926	0,09866
3666,01538	0,0495	0,0495	0,0414	0,04974	0,09898
3664,08691	0,05096	0,05096	0,0418	0,05077	0,09989
3662,15845	0,05048	0,05048	0,04202	0,05071	0,09958
3660,22998	0,05023	0,05023	0,04199	0,05048	0,09933
3658,30151	0,05144	0,05144	0,04309	0,05139	0,09979
3656,37305	0,05096	0,05096	0,04174	0,05162	0,10011
3654,44458	0,04815	0,04815	0,03871	0,04913	0,09867
3652,51611	0,05082	0,05082	0,04381	0,05092	0,09906
3650,58765	0,05275	0,05275	0,04573	0,0538	0,10058
3648,65918	0,04864	0,04864	0,04173	0,05187	0,09929
3646,73071	0,04724	0,04724	0,04112	0,04956	0,09793
3644,80225	0,04816	0,04816	0,04097	0,04927	0,09807
3642,87378	0,0492	0,0492	0,04095	0,04967	0,09854
3640,94531	0,04974	0,04974	0,04183	0,05026	0,09869
3639,01685	0,04891	0,04891	0,04059	0,04964	0,09841
3637,08838	0,04922	0,04922	0,04073	0,0497	0,09838
3635,15991	0,04977	0,04977	0,0405	0,05012	0,09876
3633,23145	0,04869	0,04869	0,04013	0,04937	0,09812
3631,30298	0,04975	0,04975	0,0404	0,04981	0,09839
3629,37451	0,05091	0,05091	0,03943	0,05151	0,09991
3627,44604	0,04538	0,04538	0,03455	0,04771	0,0975
3625,51758	0,04678	0,04678	0,03732	0,04732	0,09689

3623,58911	0,04858	0,04858	0,03866	0,04848	0,09789
3621,66064	0,0482	0,0482	0,0387	0,04858	0,09804
3619,73218	0,04836	0,04836	0,04043	0,0495	0,09848
3617,80371	0,04532	0,04532	0,03812	0,04782	0,09753
3615,87524	0,04539	0,04539	0,03838	0,04718	0,09736
3613,94678	0,04674	0,04674	0,04122	0,04862	0,09837
3612,01831	0,04454	0,04454	0,03877	0,04712	0,09754
3610,08984	0,04452	0,04452	0,03603	0,04623	0,09745
3608,16138	0,04532	0,04532	0,03719	0,04708	0,09778
3606,23291	0,0439	0,0439	0,0366	0,04599	0,09694
3604,30444	0,04415	0,04415	0,03557	0,04554	0,09702
3602,37598	0,04512	0,04512	0,03658	0,04631	0,09746
3600,44751	0,04476	0,04476	0,0372	0,0464	0,09743
3598,51904	0,04391	0,04391	0,03562	0,04547	0,09719
3596,59058	0,04428	0,04428	0,03609	0,04565	0,09722
3594,66211	0,04448	0,04448	0,03691	0,04624	0,09733
3592,73364	0,04324	0,04324	0,03538	0,04507	0,09694
3590,80518	0,04334	0,04334	0,03482	0,04458	0,09718
3588,87671	0,04448	0,04448	0,03643	0,04605	0,09793
3586,94824	0,04323	0,04323	0,03743	0,04621	0,09725
3585,01978	0,04157	0,04157	0,03461	0,04397	0,09657
3583,09131	0,04236	0,04236	0,03501	0,04413	0,09694
3581,16284	0,04246	0,04246	0,03557	0,04452	0,09719
3579,23438	0,0422	0,0422	0,0354	0,0442	0,09718
3577,30591	0,04214	0,04214	0,03534	0,04408	0,09698
3575,37744	0,04195	0,04195	0,03536	0,04412	0,09683
3573,44897	0,04168	0,04168	0,03511	0,04395	0,09692
3571,52051	0,04139	0,04139	0,03474	0,04362	0,09673
3569,59204	0,04208	0,04208	0,03576	0,04439	0,09698
3567,66357	0,04279	0,04279	0,03868	0,04588	0,09733
3565,73511	0,04081	0,04081	0,03702	0,0443	0,09631
3563,80664	0,04021	0,04021	0,03455	0,04305	0,09595
3561,87817	0,04094	0,04094	0,03481	0,04349	0,0965
3559,94971	0,04072	0,04072	0,03482	0,04333	0,09647
3558,02124	0,04034	0,04034	0,03422	0,04295	0,09617
3556,09277	0,04019	0,04019	0,03376	0,04275	0,09619
3554,16431	0,04049	0,04049	0,03454	0,043	0,09636
3552,23584	0,04042	0,04042	0,03525	0,04332	0,09626
3550,30737	0,03954	0,03954	0,03373	0,04255	0,09589
3548,37891	0,03998	0,03998	0,03402	0,04266	0,09599
3546,45044	0,0404	0,0404	0,03553	0,04344	0,09614
3544,52197	0,03948	0,03948	0,0345	0,04268	0,09581
3542,59351	0,03913	0,03913	0,03353	0,04202	0,09566
3540,66504	0,03896	0,03896	0,03309	0,04195	0,09564
3538,73657	0,03895	0,03895	0,03306	0,04184	0,09555
3536,80811	0,03907	0,03907	0,03373	0,04203	0,09552
3534,87964	0,03855	0,03855	0,03324	0,04186	0,09542
3532,95117	0,03821	0,03821	0,03246	0,0414	0,09525
3531,02271	0,03837	0,03837	0,03299	0,04157	0,09528
3529,09424	0,03834	0,03834	0,03369	0,04188	0,09525

3527,16577	0,0379	0,0379	0,03313	0,0415	0,09494
3525,2373	0,0378	0,0378	0,03299	0,04133	0,095
3523,30884	0,03769	0,03769	0,03328	0,04138	0,09503
3521,38037	0,03716	0,03716	0,03226	0,04074	0,09473
3519,4519	0,03705	0,03705	0,03181	0,04041	0,09471
3517,52344	0,03699	0,03699	0,03194	0,04051	0,09468
3515,59497	0,03677	0,03677	0,03158	0,04035	0,09455
3513,6665	0,03657	0,03657	0,03143	0,04028	0,09451
3511,73804	0,0364	0,0364	0,03173	0,04042	0,0945
3509,80957	0,03645	0,03645	0,03232	0,04062	0,09441
3507,8811	0,03597	0,03597	0,0315	0,0403	0,09409
3505,95264	0,03577	0,03577	0,03092	0,03997	0,09399
3504,02417	0,03615	0,03615	0,03225	0,04046	0,09411
3502,0957	0,03573	0,03573	0,03198	0,04043	0,09398
3500,16724	0,03536	0,03536	0,03077	0,03968	0,09391
3498,23877	0,03553	0,03553	0,03101	0,03962	0,09403
3496,3103	0,03541	0,03541	0,03106	0,03975	0,09404
3494,38184	0,03524	0,03524	0,03073	0,03953	0,09399
3492,45337	0,03508	0,03508	0,03052	0,03933	0,09393
3490,5249	0,035	0,035	0,03056	0,03943	0,0939
3488,59644	0,03511	0,03511	0,0309	0,0396	0,09398
3486,66797	0,03497	0,03497	0,03068	0,0394	0,09395
3484,7395	0,03486	0,03486	0,03034	0,03919	0,09385
3482,81104	0,035	0,035	0,03092	0,03943	0,09392
3480,88257	0,0348	0,0348	0,03101	0,03955	0,09388
3478,9541	0,03458	0,03458	0,03026	0,03917	0,09379
3477,02563	0,03468	0,03468	0,0303	0,03905	0,09381
3475,09717	0,03458	0,03458	0,03051	0,03919	0,09381
3473,1687	0,03447	0,03447	0,03032	0,03914	0,09382
3471,24023	0,03447	0,03447	0,03011	0,03908	0,09383
3469,31177	0,03444	0,03444	0,03022	0,03914	0,0939
3467,3833	0,0344	0,0344	0,0305	0,03907	0,0938
3465,45483	0,03427	0,03427	0,03029	0,039	0,0937
3463,52637	0,03423	0,03423	0,0303	0,03905	0,09389
3461,5979	0,03417	0,03417	0,03035	0,03892	0,09379
3459,66943	0,03405	0,03405	0,03004	0,03884	0,09374
3457,74097	0,03399	0,03399	0,03006	0,03897	0,09383
3455,8125	0,03392	0,03392	0,03001	0,03887	0,09365
3453,88403	0,03396	0,03396	0,03007	0,0388	0,09369
3451,95557	0,03381	0,03381	0,02992	0,0387	0,09371
3450,0271	0,03376	0,03376	0,02981	0,03867	0,09369
3448,09863	0,03405	0,03405	0,0307	0,03907	0,09387
3446,17017	0,03383	0,03383	0,03057	0,03892	0,09374
3444,2417	0,03371	0,03371	0,02993	0,03865	0,09359
3442,31323	0,034	0,034	0,03033	0,03892	0,09369
3440,38477	0,03383	0,03383	0,03002	0,03881	0,09375
3438,4563	0,03377	0,03377	0,02978	0,03876	0,09384
3436,52783	0,03401	0,03401	0,03004	0,03893	0,09393
3434,59937	0,03401	0,03401	0,02992	0,03879	0,09397
3432,6709	0,03401	0,03401	0,03012	0,03892	0,09395

3430,74243	0,03409	0,03409	0,03023	0,03908	0,0939
3428,81396	0,03422	0,03422	0,03014	0,03887	0,09394
3426,8855	0,0343	0,0343	0,03023	0,03885	0,09403
3424,95703	0,03427	0,03427	0,03018	0,03897	0,09409
3423,02856	0,0344	0,0344	0,0304	0,0391	0,09413
3421,1001	0,03457	0,03457	0,03078	0,0393	0,09416
3419,17163	0,03447	0,03447	0,03061	0,03913	0,09405
3417,24316	0,03447	0,03447	0,03027	0,03893	0,094
3415,3147	0,03475	0,03475	0,03047	0,03916	0,09416
3413,38623	0,03494	0,03494	0,03065	0,03928	0,09426
3411,45776	0,03497	0,03497	0,03053	0,03927	0,09423
3409,5293	0,03503	0,03503	0,03067	0,03937	0,09419
3407,60083	0,03505	0,03505	0,0308	0,03934	0,09423
3405,67236	0,03513	0,03513	0,03075	0,03927	0,09424
3403,7439	0,03531	0,03531	0,03092	0,03937	0,09423
3401,81543	0,03538	0,03538	0,03095	0,03949	0,09437
3399,88696	0,03549	0,03549	0,03093	0,03954	0,09438
3397,9585	0,03564	0,03564	0,03114	0,03961	0,09432
3396,03003	0,0356	0,0356	0,03098	0,03969	0,09437
3394,10156	0,0357	0,0357	0,031	0,03974	0,09434
3392,1731	0,03595	0,03595	0,03135	0,03976	0,09437
3390,24463	0,03591	0,03591	0,0311	0,03969	0,09443
3388,31616	0,03589	0,03589	0,031	0,03969	0,09438
3386,3877	0,03615	0,03615	0,03136	0,03984	0,09438
3384,45923	0,03625	0,03625	0,0314	0,03987	0,09438
3382,53076	0,03623	0,03623	0,03123	0,03978	0,09436
3380,60229	0,03638	0,03638	0,03127	0,03983	0,09443
3378,67383	0,03644	0,03644	0,03144	0,03994	0,09438
3376,74536	0,03654	0,03654	0,03143	0,04002	0,09426
3374,81689	0,03671	0,03671	0,03136	0,04009	0,09429
3372,88843	0,03674	0,03674	0,03141	0,04005	0,09426
3370,95996	0,03689	0,03689	0,03145	0,04008	0,09435
3369,03149	0,0372	0,0372	0,03155	0,04031	0,0945
3367,10303	0,03735	0,03735	0,03177	0,04041	0,09435
3365,17456	0,03737	0,03737	0,03182	0,0403	0,09424
3363,24609	0,03746	0,03746	0,0318	0,0404	0,09433
3361,31763	0,0376	0,0376	0,03187	0,04054	0,09431
3359,38916	0,03771	0,03771	0,03183	0,04048	0,09427
3357,46069	0,03782	0,03782	0,03187	0,04053	0,09431
3355,53223	0,03784	0,03784	0,03194	0,04061	0,09432
3353,60376	0,0379	0,0379	0,03189	0,04056	0,09422
3351,67529	0,0382	0,0382	0,03188	0,04066	0,09422
3349,74683	0,03844	0,03844	0,03196	0,0408	0,09421
3347,81836	0,03843	0,03843	0,03199	0,04068	0,0941
3345,88989	0,03855	0,03855	0,03195	0,04057	0,09424
3343,96143	0,03883	0,03883	0,03208	0,04077	0,09428
3342,03296	0,0389	0,0389	0,03219	0,0409	0,09404
3340,10449	0,03888	0,03888	0,03215	0,04076	0,09408
3338,17603	0,03906	0,03906	0,03237	0,04085	0,09415
3336,24756	0,03924	0,03924	0,0325	0,04104	0,09404



3334,31909	0,03921	0,03921	0,03227	0,04097	0,09406
3332,39063	0,03925	0,03925	0,03222	0,04097	0,09409
3330,46216	0,03935	0,03935	0,03239	0,04105	0,09401
3328,53369	0,03937	0,03937	0,03242	0,041	0,09392
3326,60522	0,03956	0,03956	0,03247	0,04104	0,09392
3324,67676	0,03976	0,03976	0,03253	0,04113	0,09399
3322,74829	0,03969	0,03969	0,03242	0,04105	0,09382
3320,81982	0,03976	0,03976	0,03242	0,04106	0,09375
3318,89136	0,03995	0,03995	0,03252	0,04114	0,09386
3316,96289	0,03988	0,03988	0,0325	0,04118	0,09376
3315,03442	0,0399	0,0399	0,03254	0,04118	0,09371
3313,10596	0,04011	0,04011	0,03259	0,04115	0,09378
3311,17749	0,04017	0,04017	0,03257	0,0413	0,09379
3309,24902	0,0402	0,0402	0,03269	0,04139	0,0938
3307,32056	0,04034	0,04034	0,03272	0,04122	0,09375
3305,39209	0,04043	0,04043	0,03267	0,04125	0,09373
3303,46362	0,04043	0,04043	0,03271	0,04133	0,09369
3301,53516	0,0404	0,0404	0,03261	0,04123	0,09356
3299,60669	0,04049	0,04049	0,03274	0,04124	0,09349
3297,67822	0,04049	0,04049	0,03291	0,04125	0,09349
3295,74976	0,04047	0,04047	0,03274	0,04123	0,09346
3293,82129	0,04064	0,04064	0,03273	0,04132	0,0934
3291,89282	0,04066	0,04066	0,0328	0,0413	0,09337
3289,96436	0,04061	0,04061	0,03269	0,04118	0,09339
3288,03589	0,04068	0,04068	0,03266	0,04123	0,09338
3286,10742	0,04074	0,04074	0,03275	0,04118	0,09339
3284,17896	0,04074	0,04074	0,03279	0,04115	0,09336
3282,25049	0,04067	0,04067	0,03275	0,04128	0,0933
3280,32202	0,04069	0,04069	0,03272	0,04123	0,09324
3278,39355	0,04069	0,04069	0,03274	0,04118	0,09315
3276,46509	0,04075	0,04075	0,03287	0,0412	0,09318
3274,53662	0,0409	0,0409	0,03293	0,04116	0,0932
3272,60815	0,04082	0,04082	0,03277	0,04122	0,09309
3270,67969	0,04082	0,04082	0,03271	0,04116	0,09305
3268,75122	0,04091	0,04091	0,03268	0,04109	0,09304
3266,82275	0,04085	0,04085	0,03265	0,04112	0,09302
3264,89429	0,04088	0,04088	0,03286	0,04106	0,09298
3262,96582	0,0409	0,0409	0,03283	0,04107	0,0929
3261,03735	0,04091	0,04091	0,03264	0,0411	0,09288
3259,10889	0,0409	0,0409	0,03266	0,04103	0,09278
3257,18042	0,04091	0,04091	0,03271	0,04103	0,0927
3255,25195	0,04099	0,04099	0,0328	0,04109	0,09281
3253,32349	0,0409	0,0409	0,03272	0,04111	0,09275
3251,39502	0,0408	0,0408	0,03262	0,04106	0,09263
3249,46655	0,04088	0,04088	0,03262	0,04101	0,09264
3247,53809	0,04104	0,04104	0,03261	0,04107	0,09259
3245,60962	0,04109	0,04109	0,03271	0,04109	0,09252
3243,68115	0,04099	0,04099	0,03266	0,04101	0,09247
3241,75269	0,04101	0,04101	0,03256	0,04096	0,09235
3239,82422	0,04108	0,04108	0,03265	0,04099	0,09236

3237,89575	0,04111	0,04111	0,03264	0,041	0,09241
3235,96729	0,04113	0,04113	0,03255	0,04097	0,09223
3234,03882	0,04111	0,04111	0,03259	0,04096	0,09217
3232,11035	0,04117	0,04117	0,03269	0,04095	0,09218
3230,18188	0,04118	0,04118	0,03262	0,04098	0,09208
3228,25342	0,04114	0,04114	0,03253	0,04101	0,0921
3226,32495	0,04118	0,04118	0,03257	0,0409	0,09201
3224,39648	0,04113	0,04113	0,03252	0,04082	0,09193
3222,46802	0,04119	0,04119	0,03246	0,04081	0,09197
3220,53955	0,04131	0,04131	0,03255	0,04082	0,09183
3218,61108	0,04116	0,04116	0,03246	0,04079	0,09176
3216,68262	0,04117	0,04117	0,03233	0,04079	0,09174
3214,75415	0,0413	0,0413	0,03251	0,04088	0,09173
3212,82568	0,04119	0,04119	0,03244	0,04082	0,09172
3210,89722	0,04126	0,04126	0,03233	0,04075	0,09158
3208,96875	0,04132	0,04132	0,03241	0,04078	0,09155
3207,04028	0,04123	0,04123	0,03226	0,04066	0,09163
3205,11182	0,04133	0,04133	0,03222	0,0406	0,09155
3203,18335	0,04138	0,04138	0,03228	0,04063	0,09144
3201,25488	0,04139	0,04139	0,03225	0,04065	0,09141
3199,32642	0,04149	0,04149	0,03237	0,0408	0,09139
3197,39795	0,04149	0,04149	0,03247	0,04081	0,09133
3195,46948	0,04142	0,04142	0,03238	0,04069	0,09129
3193,54102	0,04144	0,04144	0,03226	0,04066	0,09129
3191,61255	0,04157	0,04157	0,03228	0,04074	0,09128
3189,68408	0,0416	0,0416	0,03227	0,04078	0,09118
3187,75562	0,04159	0,04159	0,03219	0,04078	0,09112
3185,82715	0,04166	0,04166	0,03227	0,04085	0,09116
3183,89868	0,04167	0,04167	0,03229	0,04084	0,09107
3181,97021	0,04174	0,04174	0,03217	0,04076	0,09097
3180,04175	0,04184	0,04184	0,0323	0,04082	0,09104
3178,11328	0,04176	0,04176	0,03234	0,04086	0,09102
3176,18481	0,04174	0,04174	0,03217	0,04078	0,09085
3174,25635	0,04183	0,04183	0,03222	0,04078	0,0909
3172,32788	0,04188	0,04188	0,03224	0,04073	0,09092
3170,39941	0,04197	0,04197	0,03213	0,04067	0,09076
3168,47095	0,04196	0,04196	0,03215	0,04081	0,09078
3166,54248	0,04191	0,04191	0,03218	0,0408	0,09085
3164,61401	0,04206	0,04206	0,03219	0,04067	0,09079
3162,68555	0,04211	0,04211	0,03219	0,04079	0,09072
3160,75708	0,042	0,042	0,03217	0,04082	0,09067
3158,82861	0,04201	0,04201	0,0321	0,04075	0,09063
3156,90015	0,04201	0,04201	0,03208	0,04075	0,09059
3154,97168	0,04195	0,04195	0,03209	0,04074	0,0906
3153,04321	0,04201	0,04201	0,03213	0,04082	0,09058
3151,11475	0,04207	0,04207	0,03219	0,0408	0,09045
3149,18628	0,04203	0,04203	0,03208	0,04073	0,09037
3147,25781	0,04204	0,04204	0,03201	0,04078	0,09034
3145,32935	0,042	0,042	0,03206	0,04072	0,09034
3143,40088	0,04197	0,04197	0,03198	0,04064	0,09034

3141,47241	0,04206	0,04206	0,03193	0,04074	0,09028
3139,54395	0,04202	0,04202	0,032	0,04078	0,09028
3137,61548	0,04189	0,04189	0,0319	0,0407	0,09023
3135,68701	0,04196	0,04196	0,03188	0,04072	0,09014
3133,75854	0,04202	0,04202	0,03206	0,04083	0,09014
3131,83008	0,04187	0,04187	0,03192	0,04068	0,08999
3129,90161	0,04189	0,04189	0,03176	0,04061	0,08997
3127,97314	0,042	0,042	0,03186	0,04071	0,0901
3126,04468	0,04193	0,04193	0,03179	0,04064	0,08996
3124,11621	0,04196	0,04196	0,0318	0,04065	0,08988
3122,18774	0,04194	0,04194	0,03191	0,04071	0,08993
3120,25928	0,04193	0,04193	0,03177	0,04066	0,08984
3118,33081	0,04204	0,04204	0,03176	0,04072	0,08981
3116,40234	0,04198	0,04198	0,0319	0,0408	0,08987
3114,47388	0,04186	0,04186	0,03179	0,04072	0,08976
3112,54541	0,04178	0,04178	0,03166	0,04057	0,08963
3110,61694	0,04178	0,04178	0,03164	0,04061	0,08969
3108,68848	0,04184	0,04184	0,03166	0,04073	0,08972
3106,76001	0,04177	0,04177	0,03158	0,04051	0,08959
3104,83154	0,04167	0,04167	0,03139	0,04033	0,08951
3102,90308	0,04171	0,04171	0,03146	0,04059	0,08951
3100,97461	0,04176	0,04176	0,03156	0,04069	0,08952
3099,04614	0,04169	0,04169	0,0314	0,0405	0,08943
3097,11768	0,04175	0,04175	0,03146	0,0405	0,08937
3095,18921	0,04174	0,04174	0,03149	0,04052	0,08929
3093,26074	0,04155	0,04155	0,0313	0,04044	0,08924
3091,33228	0,04161	0,04161	0,0313	0,04047	0,08926
3089,40381	0,04167	0,04167	0,03137	0,04048	0,08921
3087,47534	0,04162	0,04162	0,03132	0,0405	0,08919
3085,54688	0,04167	0,04167	0,03133	0,04056	0,0892
3083,61841	0,04164	0,04164	0,03137	0,04048	0,08917
3081,68994	0,0416	0,0416	0,03139	0,04046	0,08919
3079,76147	0,04165	0,04165	0,0314	0,04053	0,08914
3077,83301	0,04161	0,04161	0,03134	0,04044	0,08902
3075,90454	0,04147	0,04147	0,03114	0,04034	0,0889
3073,97607	0,04138	0,04138	0,03108	0,04035	0,08882
3072,04761	0,04137	0,04137	0,03113	0,04024	0,08886
3070,11914	0,04136	0,04136	0,03104	0,04018	0,08888
3068,19067	0,04142	0,04142	0,03107	0,04034	0,08881
3066,26221	0,0414	0,0414	0,03118	0,04041	0,08876
3064,33374	0,04127	0,04127	0,03109	0,04031	0,08874
3062,40527	0,04117	0,04117	0,03099	0,04023	0,08872
3060,47681	0,04115	0,04115	0,03094	0,04017	0,08867
3058,54834	0,04128	0,04128	0,03095	0,04019	0,08861
3056,61987	0,04129	0,04129	0,03099	0,04028	0,08858
3054,69141	0,04118	0,04118	0,03088	0,04025	0,08855
3052,76294	0,04117	0,04117	0,03077	0,04017	0,08856
3050,83447	0,04122	0,04122	0,03088	0,04017	0,0886
3048,90601	0,04121	0,04121	0,03088	0,04013	0,08851
3046,97754	0,0411	0,0411	0,03074	0,04007	0,08842

3045,04907	0,0411	0,0411	0,03075	0,04009	0,08845
3043,12061	0,04117	0,04117	0,03079	0,04014	0,08845
3041,19214	0,04113	0,04113	0,03076	0,04018	0,08841
3039,26367	0,04113	0,04113	0,03073	0,04011	0,08836
3037,33521	0,04111	0,04111	0,03073	0,04009	0,08833
3035,40674	0,04109	0,04109	0,03074	0,04014	0,08835
3033,47827	0,04118	0,04118	0,03084	0,04015	0,08833
3031,5498	0,04113	0,04113	0,03089	0,04024	0,08822
3029,62134	0,04096	0,04096	0,0307	0,04018	0,08811
3027,69287	0,04096	0,04096	0,03066	0,04008	0,08811
3025,7644	0,041	0,041	0,03081	0,04021	0,08822
3023,83594	0,04103	0,04103	0,03076	0,04022	0,08821
3021,90747	0,04104	0,04104	0,03072	0,04017	0,08811
3019,979	0,0411	0,0411	0,03081	0,04023	0,08804
3018,05054	0,04127	0,04127	0,03083	0,04027	0,0879
3016,12207	0,04122	0,04122	0,03078	0,04031	0,08784
3014,1936	0,04107	0,04107	0,03078	0,04035	0,08792
3012,26514	0,04116	0,04116	0,03083	0,04031	0,08797
3010,33667	0,04111	0,04111	0,03078	0,04018	0,08794
3008,4082	0,04096	0,04096	0,03062	0,04011	0,08786
3006,47974	0,04099	0,04099	0,0306	0,04019	0,08786
3004,55127	0,041	0,041	0,03071	0,04021	0,08787
3002,6228	0,04089	0,04089	0,03059	0,04014	0,08789
3000,69434	0,04085	0,04085	0,03046	0,04013	0,08792
2998,76587	0,04092	0,04092	0,03051	0,0402	0,0878
2996,8374	0,04094	0,04094	0,03056	0,04021	0,0878
2994,90894	0,04089	0,04089	0,03058	0,04017	0,08791
2992,98047	0,04082	0,04082	0,03059	0,04016	0,08788
2991,052	0,04078	0,04078	0,03055	0,04009	0,08788
2989,12354	0,04077	0,04077	0,03053	0,04008	0,08796
2987,19507	0,04071	0,04071	0,03054	0,04013	0,088
2985,2666	0,04066	0,04066	0,03054	0,04012	0,08804
2983,33813	0,04061	0,04061	0,03062	0,04009	0,08811
2981,40967	0,04061	0,04061	0,03075	0,04021	0,08823
2979,4812	0,04063	0,04063	0,03084	0,04036	0,08837
2977,55273	0,04049	0,04049	0,03091	0,04038	0,08853
2975,62427	0,04042	0,04042	0,03118	0,04051	0,08885
2973,6958	0,04037	0,04037	0,03164	0,04082	0,08939
2971,76733	0,04015	0,04015	0,03213	0,04121	0,08997
2969,83887	0,04013	0,04013	0,03265	0,04169	0,09063
2967,9104	0,04018	0,04018	0,03314	0,04209	0,09137
2965,98193	0,04005	0,04005	0,03352	0,04242	0,09189
2964,05347	0,04006	0,04006	0,03386	0,04287	0,09232
2962,125	0,04011	0,04011	0,03408	0,04328	0,09269
2960,19653	0,04008	0,04008	0,03414	0,04353	0,09278
2958,26807	0,04011	0,04011	0,03399	0,0436	0,09267
2956,3396	0,04014	0,04014	0,03374	0,04358	0,09247
2954,41113	0,04012	0,04012	0,03348	0,0436	0,09211
2952,48267	0,04011	0,04011	0,03314	0,04348	0,09168
2950,5542	0,04015	0,04015	0,03281	0,04326	0,09132

2948,62573	0,04022	0,04022	0,03263	0,04317	0,09104
2946,69727	0,04015	0,04015	0,03255	0,04304	0,09088
2944,7688	0,04011	0,04011	0,03256	0,04297	0,09086
2942,84033	0,04016	0,04016	0,03271	0,0431	0,09093
2940,91187	0,04007	0,04007	0,03292	0,04319	0,0911
2938,9834	0,04002	0,04002	0,03308	0,0433	0,09133
2937,05493	0,04006	0,04006	0,03331	0,04345	0,09148
2935,12646	0,04004	0,04004	0,03348	0,0434	0,0916
2933,198	0,04002	0,04002	0,03345	0,04325	0,09168
2931,26953	0,04004	0,04004	0,03342	0,04315	0,09163
2929,34106	0,04004	0,04004	0,03334	0,04303	0,09147
2927,4126	0,03997	0,03997	0,03321	0,04282	0,09118
2925,48413	0,0399	0,0399	0,03308	0,04266	0,09085
2923,55566	0,03983	0,03983	0,03282	0,04254	0,09056
2921,6272	0,03971	0,03971	0,03257	0,0423	0,09029
2919,69873	0,03965	0,03965	0,03245	0,04204	0,09007
2917,77026	0,0396	0,0396	0,03225	0,04186	0,08984
2915,8418	0,03957	0,03957	0,03196	0,04172	0,08957
2913,91333	0,03971	0,03971	0,0317	0,04172	0,08934
2911,98486	0,03987	0,03987	0,03141	0,04164	0,08906
2910,0564	0,03989	0,03989	0,03116	0,04144	0,08873
2908,12793	0,03992	0,03992	0,03101	0,04133	0,08856
2906,19946	0,03996	0,03996	0,03082	0,04121	0,08841
2904,271	0,03994	0,03994	0,03065	0,04111	0,08823
2902,34253	0,03995	0,03995	0,03055	0,041	0,08812
2900,41406	0,03994	0,03994	0,03042	0,04084	0,08792
2898,4856	0,03994	0,03994	0,03034	0,04077	0,08783
2896,55713	0,04003	0,04003	0,03028	0,04073	0,08785
2894,62866	0,04004	0,04004	0,03021	0,04064	0,08774
2892,7002	0,03998	0,03998	0,03016	0,04056	0,08766
2890,77173	0,03993	0,03993	0,03011	0,04051	0,08762
2888,84326	0,03989	0,03989	0,03007	0,04049	0,08755
2886,91479	0,03988	0,03988	0,03006	0,04047	0,08756
2884,98633	0,03985	0,03985	0,03009	0,0405	0,0876
2883,05786	0,03983	0,03983	0,0302	0,04052	0,08768
2881,12939	0,03978	0,03978	0,03034	0,04063	0,08781
2879,20093	0,03974	0,03974	0,03042	0,04078	0,08795
2877,27246	0,03975	0,03975	0,03044	0,04079	0,08807
2875,34399	0,03973	0,03973	0,03051	0,04095	0,08826
2873,41553	0,03976	0,03976	0,03065	0,04113	0,08844
2871,48706	0,03984	0,03984	0,03071	0,04111	0,08855
2869,55859	0,03979	0,03979	0,03067	0,04111	0,08861
2867,63013	0,03971	0,03971	0,03072	0,04106	0,08848
2865,70166	0,03972	0,03972	0,03073	0,04093	0,08838
2863,77319	0,0397	0,0397	0,03067	0,04092	0,08843
2861,84473	0,03968	0,03968	0,03069	0,04096	0,08838
2859,91626	0,03971	0,03971	0,03073	0,04104	0,08833
2857,98779	0,03964	0,03964	0,03067	0,04111	0,08825
2856,05933	0,0396	0,0396	0,03054	0,04109	0,08795
2854,13086	0,0397	0,0397	0,03035	0,04101	0,08767

2852,20239	0,03973	0,03973	0,03013	0,04084	0,08742
2850,27393	0,03976	0,03976	0,0299	0,04053	0,0871
2848,34546	0,03977	0,03977	0,02966	0,04025	0,08684
2846,41699	0,03967	0,03967	0,02945	0,04005	0,08661
2844,48853	0,03965	0,03965	0,02925	0,03985	0,08637
2842,56006	0,03967	0,03967	0,02904	0,03965	0,08619
2840,63159	0,03963	0,03963	0,02897	0,03959	0,08608
2838,70313	0,03964	0,03964	0,02894	0,03961	0,08598
2836,77466	0,03964	0,03964	0,02885	0,03948	0,08581
2834,84619	0,03962	0,03962	0,02877	0,03933	0,08566
2832,91772	0,03967	0,03967	0,02867	0,03933	0,08559
2830,98926	0,03971	0,03971	0,02857	0,03934	0,08555
2829,06079	0,03966	0,03966	0,02851	0,03926	0,08552
2827,13232	0,03964	0,03964	0,0285	0,03924	0,08548
2825,20386	0,03965	0,03965	0,0285	0,03922	0,0854
2823,27539	0,03968	0,03968	0,02847	0,03916	0,08537
2821,34692	0,03973	0,03973	0,02842	0,03915	0,08541
2819,41846	0,03973	0,03973	0,0284	0,03914	0,08539
2817,48999	0,03971	0,03971	0,02841	0,03915	0,08532
2815,56152	0,03972	0,03972	0,0284	0,03912	0,08533
2813,63306	0,03974	0,03974	0,02832	0,03908	0,08532
2811,70459	0,03979	0,03979	0,02828	0,03913	0,08531
2809,77612	0,03982	0,03982	0,02833	0,03915	0,08528
2807,84766	0,03978	0,03978	0,02833	0,03909	0,08519
2805,91919	0,03975	0,03975	0,02833	0,03909	0,08521
2803,99072	0,03977	0,03977	0,02834	0,03914	0,08524
2802,06226	0,03974	0,03974	0,0283	0,03915	0,08511
2800,13379	0,03969	0,03969	0,02828	0,03915	0,08512
2798,20532	0,03976	0,03976	0,02826	0,03918	0,08519
2796,27686	0,03981	0,03981	0,02831	0,03915	0,08506
2794,34839	0,03973	0,03973	0,02836	0,03911	0,08505
2792,41992	0,0397	0,0397	0,02829	0,03915	0,08513
2790,49146	0,03978	0,03978	0,02834	0,03916	0,08506
2788,56299	0,0398	0,0398	0,02838	0,03912	0,08502
2786,63452	0,03977	0,03977	0,02831	0,03917	0,08497
2784,70605	0,03979	0,03979	0,02831	0,0392	0,08492
2782,77759	0,03978	0,03978	0,02833	0,03915	0,085
2780,84912	0,03979	0,03979	0,02831	0,03912	0,08499
2778,92065	0,03986	0,03986	0,02833	0,03911	0,08495
2776,99219	0,03985	0,03985	0,02835	0,03915	0,08499
2775,06372	0,03988	0,03988	0,02834	0,03923	0,08499
2773,13525	0,03989	0,03989	0,02834	0,03922	0,08498
2771,20679	0,03981	0,03981	0,02836	0,03922	0,08498
2769,27832	0,03987	0,03987	0,02836	0,03924	0,08495
2767,34985	0,03992	0,03992	0,02831	0,03924	0,08497
2765,42139	0,03988	0,03988	0,02828	0,03928	0,08496
2763,49292	0,03992	0,03992	0,02831	0,03933	0,0849
2761,56445	0,03992	0,03992	0,02832	0,0393	0,08484
2759,63599	0,03986	0,03986	0,02829	0,03928	0,08484
2757,70752	0,03986	0,03986	0,02833	0,03929	0,0849

2755,77905	0,03983	0,03983	0,02833	0,03932	0,08497
2753,85059	0,0398	0,0398	0,02829	0,03934	0,085
2751,92212	0,03979	0,03979	0,02831	0,03935	0,08493
2749,99365	0,03981	0,03981	0,02827	0,03933	0,08489
2748,06519	0,03985	0,03985	0,02824	0,03937	0,08492
2746,13672	0,03986	0,03986	0,0283	0,03939	0,08491
2744,20825	0,03983	0,03983	0,02827	0,03932	0,08488
2742,27979	0,03977	0,03977	0,02823	0,03928	0,08488
2740,35132	0,03973	0,03973	0,02824	0,0393	0,08487
2738,42285	0,03979	0,03979	0,02821	0,03933	0,08488
2736,49438	0,03984	0,03984	0,02821	0,03935	0,08491
2734,56592	0,03984	0,03984	0,02825	0,03937	0,08487
2732,63745	0,03979	0,03979	0,02825	0,03942	0,08483
2730,70898	0,03973	0,03973	0,02821	0,03941	0,08485
2728,78052	0,03977	0,03977	0,02821	0,0394	0,08486
2726,85205	0,03982	0,03982	0,02819	0,0394	0,08486
2724,92358	0,0398	0,0398	0,02813	0,03942	0,08484
2722,99512	0,03981	0,03981	0,02815	0,03945	0,0848
2721,06665	0,03984	0,03984	0,02819	0,03943	0,08477
2719,13818	0,03987	0,03987	0,0282	0,03941	0,08474
2717,20972	0,03991	0,03991	0,02817	0,0394	0,08471
2715,28125	0,03986	0,03986	0,02813	0,03942	0,08472
2713,35278	0,03984	0,03984	0,02811	0,03947	0,08476
2711,42432	0,03983	0,03983	0,02813	0,03945	0,08477
2709,49585	0,03977	0,03977	0,02816	0,03941	0,08472
2707,56738	0,03981	0,03981	0,02815	0,03941	0,08469
2705,63892	0,03987	0,03987	0,0281	0,03941	0,0847
2703,71045	0,03985	0,03985	0,02807	0,03943	0,08474
2701,78198	0,03984	0,03984	0,02807	0,03941	0,0848
2699,85352	0,03987	0,03987	0,02809	0,03943	0,0848
2697,92505	0,03989	0,03989	0,02806	0,0395	0,08475
2695,99658	0,0399	0,0399	0,028	0,03949	0,08473
2694,06812	0,03992	0,03992	0,02797	0,03945	0,08476
2692,13965	0,03993	0,03993	0,02796	0,03948	0,08482
2690,21118	0,0399	0,0399	0,02797	0,03952	0,08483
2688,28271	0,0399	0,0399	0,02797	0,03954	0,08484
2686,35425	0,03995	0,03995	0,02803	0,03951	0,08488
2684,42578	0,03998	0,03998	0,0281	0,03953	0,08484
2682,49731	0,03997	0,03997	0,02807	0,03959	0,08486
2680,56885	0,03997	0,03997	0,02801	0,03952	0,08492
2678,64038	0,03997	0,03997	0,02797	0,03954	0,08487
2676,71191	0,03998	0,03998	0,02802	0,03967	0,08491
2674,78345	0,04002	0,04002	0,02807	0,03968	0,08498
2672,85498	0,04003	0,04003	0,02803	0,03968	0,08499
2670,92651	0,04002	0,04002	0,02805	0,03967	0,08503
2668,99805	0,04004	0,04004	0,02808	0,03963	0,08502
2667,06958	0,04006	0,04006	0,02807	0,03967	0,08499
2665,14111	0,04007	0,04007	0,02812	0,0397	0,08504
2663,21265	0,04006	0,04006	0,02814	0,03971	0,0851
2661,28418	0,04006	0,04006	0,0281	0,03974	0,08511

2659,35571	0,04009	0,04009	0,02812	0,03977	0,08511
2657,42725	0,04013	0,04013	0,02815	0,03982	0,08516
2655,49878	0,04014	0,04014	0,02811	0,0399	0,08517
2653,57031	0,04016	0,04016	0,02815	0,03994	0,08521
2651,64185	0,04022	0,04022	0,02818	0,03994	0,0853
2649,71338	0,04023	0,04023	0,02812	0,03999	0,08533
2647,78491	0,04024	0,04024	0,02818	0,04	0,08538
2645,85645	0,04025	0,04025	0,02827	0,04	0,08545
2643,92798	0,04024	0,04024	0,02821	0,04005	0,08547
2641,99951	0,04025	0,04025	0,02815	0,04009	0,0855
2640,07104	0,04028	0,04028	0,02816	0,04012	0,08554
2638,14258	0,04031	0,04031	0,02816	0,04013	0,08555
2636,21411	0,04036	0,04036	0,02815	0,04014	0,08556
2634,28564	0,04039	0,04039	0,02815	0,04019	0,08558
2632,35718	0,0404	0,0404	0,02817	0,04017	0,0856
2630,42871	0,04042	0,04042	0,02819	0,04014	0,08558
2628,50024	0,04045	0,04045	0,02823	0,04013	0,08556
2626,57178	0,04045	0,04045	0,02824	0,04013	0,08556
2624,64331	0,04042	0,04042	0,02821	0,04016	0,08561
2622,71484	0,04038	0,04038	0,02816	0,04015	0,08558
2620,78638	0,04038	0,04038	0,02811	0,04011	0,08544
2618,85791	0,04039	0,04039	0,02818	0,04013	0,08539
2616,92944	0,04038	0,04038	0,0282	0,0401	0,08538
2615,00098	0,0404	0,0404	0,02815	0,04006	0,08532
2613,07251	0,04035	0,04035	0,02816	0,04003	0,08532
2611,14404	0,04029	0,04029	0,02815	0,03997	0,08526
2609,21558	0,04031	0,04031	0,02813	0,03996	0,08515
2607,28711	0,04028	0,04028	0,02811	0,03996	0,0851
2605,35864	0,04025	0,04025	0,02808	0,03991	0,08504
2603,43018	0,04023	0,04023	0,02808	0,03984	0,08499
2601,50171	0,04016	0,04016	0,02805	0,03978	0,0849
2599,57324	0,04017	0,04017	0,02802	0,03973	0,08481
2597,64478	0,04015	0,04015	0,02798	0,03969	0,08479
2595,71631	0,04009	0,04009	0,02791	0,0397	0,08472
2593,78784	0,0401	0,0401	0,02787	0,03965	0,08463
2591,85938	0,04007	0,04007	0,02788	0,03958	0,08452
2589,93091	0,04003	0,04003	0,02791	0,03958	0,0844
2588,00244	0,04002	0,04002	0,02786	0,03954	0,08432
2586,07397	0,03995	0,03995	0,02783	0,03951	0,08423
2584,14551	0,03989	0,03989	0,02786	0,03952	0,0842
2582,21704	0,0399	0,0399	0,02782	0,03948	0,08413
2580,28857	0,03989	0,03989	0,02775	0,03944	0,084
2578,36011	0,03987	0,03987	0,0277	0,03939	0,084
2576,43164	0,03985	0,03985	0,02771	0,03934	0,08399
2574,50317	0,0398	0,0398	0,02774	0,03934	0,08388
2572,57471	0,03977	0,03977	0,02769	0,03931	0,08377
2570,64624	0,03979	0,03979	0,02767	0,03926	0,08366
2568,71777	0,03977	0,03977	0,02766	0,03923	0,08357
2566,78931	0,03969	0,03969	0,02755	0,03917	0,08352
2564,86084	0,0397	0,0397	0,02749	0,03909	0,08343



2562,93237	0,03967	0,03967	0,02749	0,03906	0,08333
2561,00391	0,03958	0,03958	0,02743	0,03904	0,08329
2559,07544	0,03958	0,03958	0,02742	0,03896	0,08325
2557,14697	0,03954	0,03954	0,02741	0,03895	0,08315
2555,21851	0,03946	0,03946	0,02737	0,03896	0,08307
2553,29004	0,03948	0,03948	0,02739	0,03887	0,08303
2551,36157	0,03947	0,03947	0,02736	0,03884	0,08298
2549,43311	0,03943	0,03943	0,02725	0,03879	0,08295
2547,50464	0,03943	0,03943	0,02723	0,03875	0,08289
2545,57617	0,03945	0,03945	0,02724	0,03881	0,08281
2543,64771	0,03947	0,03947	0,0272	0,03877	0,08273
2541,71924	0,03943	0,03943	0,02718	0,03873	0,0827
2539,79077	0,03939	0,03939	0,02719	0,03873	0,08267
2537,8623	0,03944	0,03944	0,02725	0,0387	0,08267
2535,93384	0,03942	0,03942	0,02725	0,03875	0,08266
2534,00537	0,03938	0,03938	0,0272	0,03877	0,08259
2532,0769	0,03942	0,03942	0,02718	0,0387	0,08259
2530,14844	0,03941	0,03941	0,02714	0,03868	0,08256
2528,21997	0,03937	0,03937	0,02709	0,03865	0,08247
2526,2915	0,03936	0,03936	0,0271	0,03863	0,08247
2524,36304	0,03935	0,03935	0,02711	0,03864	0,08243
2522,43457	0,0393	0,0393	0,0271	0,03855	0,08236
2520,5061	0,03925	0,03925	0,02711	0,03848	0,08238
2518,57764	0,03928	0,03928	0,02712	0,03852	0,08238
2516,64917	0,03925	0,03925	0,02711	0,0385	0,08234
2514,7207	0,03917	0,03917	0,02709	0,03844	0,08231
2512,79224	0,03915	0,03915	0,0271	0,03844	0,08228
2510,86377	0,03919	0,03919	0,02712	0,03841	0,08222
2508,9353	0,03928	0,03928	0,02709	0,03839	0,08218
2507,00684	0,03932	0,03932	0,02708	0,03844	0,08218
2505,07837	0,0393	0,0393	0,02709	0,03844	0,08213
2503,1499	0,03929	0,03929	0,02709	0,03841	0,08206
2501,22144	0,03929	0,03929	0,02712	0,03844	0,08205
2499,29297	0,0393	0,0393	0,02709	0,03847	0,08205
2497,3645	0,03928	0,03928	0,02706	0,03847	0,08198
2495,43604	0,03927	0,03927	0,0271	0,03846	0,08195
2493,50757	0,03931	0,03931	0,02709	0,03843	0,08194
2491,5791	0,03931	0,03931	0,02709	0,03839	0,0819
2489,65063	0,03929	0,03929	0,02715	0,03841	0,08188
2487,72217	0,03933	0,03933	0,02719	0,03846	0,0819
2485,7937	0,03937	0,03937	0,02724	0,03846	0,0819
2483,86523	0,03937	0,03937	0,02727	0,03848	0,08188
2481,93677	0,03937	0,03937	0,02729	0,0385	0,08185
2480,0083	0,03936	0,03936	0,02735	0,03844	0,08181
2478,07983	0,03929	0,03929	0,02736	0,03841	0,08178
2476,15137	0,03929	0,03929	0,02731	0,03844	0,08174
2474,2229	0,03938	0,03938	0,02734	0,03845	0,08167
2472,29443	0,0394	0,0394	0,02736	0,03844	0,08157
2470,36597	0,03936	0,03936	0,02733	0,03844	0,08161
2468,4375	0,03939	0,03939	0,02733	0,03848	0,08166

2466,50903	0,0394	0,0394	0,0274	0,03848	0,08158
2464,58057	0,03939	0,03939	0,02748	0,03844	0,08153
2462,6521	0,03944	0,03944	0,02747	0,03839	0,08151
2460,72363	0,03946	0,03946	0,02747	0,03834	0,08145
2458,79517	0,03946	0,03946	0,02747	0,03835	0,08143
2456,8667	0,03949	0,03949	0,02746	0,03836	0,0815
2454,93823	0,03944	0,03944	0,02752	0,03836	0,0815
2453,00977	0,03943	0,03943	0,02753	0,03834	0,08146
2451,0813	0,03952	0,03952	0,02749	0,03826	0,08144
2449,15283	0,03954	0,03954	0,02747	0,03822	0,0814
2447,22437	0,03947	0,03947	0,02747	0,03827	0,08137
2445,2959	0,03942	0,03942	0,02745	0,03833	0,08135
2443,36743	0,0394	0,0394	0,02739	0,03831	0,08132
2441,43896	0,03939	0,03939	0,02737	0,03826	0,08129
2439,5105	0,03942	0,03942	0,02736	0,03822	0,08129
2437,58203	0,03942	0,03942	0,02736	0,03819	0,08132
2435,65356	0,0394	0,0394	0,02737	0,03819	0,08135
2433,7251	0,03945	0,03945	0,02733	0,03818	0,08134
2431,79663	0,03942	0,03942	0,02731	0,03818	0,08128
2429,86816	0,03936	0,03936	0,0273	0,03817	0,08121
2427,9397	0,03936	0,03936	0,0273	0,03815	0,08116
2426,01123	0,03939	0,03939	0,02735	0,03818	0,08111
2424,08276	0,03946	0,03946	0,0274	0,03816	0,0811
2422,1543	0,03951	0,03951	0,02745	0,03813	0,08108
2420,22583	0,03947	0,03947	0,02755	0,03819	0,08109
2418,29736	0,03948	0,03948	0,02763	0,03825	0,08112
2416,3689	0,03955	0,03955	0,02764	0,03828	0,08105
2414,44043	0,0396	0,0396	0,02766	0,03828	0,08102
2412,51196	0,03962	0,03962	0,02769	0,03829	0,08104
2410,5835	0,03959	0,03959	0,02765	0,03831	0,08103
2408,65503	0,03955	0,03955	0,02765	0,03827	0,081
2406,72656	0,03957	0,03957	0,02772	0,03823	0,08094
2404,7981	0,03963	0,03963	0,02776	0,03827	0,08095
2402,86963	0,03966	0,03966	0,02778	0,03828	0,08102
2400,94116	0,03966	0,03966	0,02782	0,03826	0,08101
2399,0127	0,03966	0,03966	0,02781	0,03831	0,08098
2397,08423	0,03968	0,03968	0,02783	0,03831	0,08099
2395,15576	0,03968	0,03968	0,02789	0,0383	0,08094
2393,22729	0,03969	0,03969	0,02788	0,0383	0,08089
2391,29883	0,03971	0,03971	0,02789	0,0383	0,08091
2389,37036	0,03972	0,03972	0,02792	0,03829	0,08093
2387,44189	0,03974	0,03974	0,02792	0,03829	0,08092
2385,51343	0,03975	0,03975	0,02793	0,03829	0,08093
2383,58496	0,03976	0,03976	0,02795	0,03829	0,08092
2381,65649	0,03978	0,03978	0,02796	0,03828	0,08092
2379,72803	0,03979	0,03979	0,02797	0,03828	0,08091
2377,79956	0,03981	0,03981	0,02799	0,03828	0,08091
2375,87109	0,03982	0,03982	0,028	0,03827	0,08091
2373,94263	0,03983	0,03983	0,02801	0,03827	0,0809
2372,01416	0,03985	0,03985	0,02802	0,03827	0,0809

2370,08569	0,03986	0,03986	0,02804	0,03826	0,0809
2368,15723	0,03988	0,03988	0,02805	0,03826	0,08089
2366,22876	0,03989	0,03989	0,02806	0,03826	0,08089
2364,30029	0,0399	0,0399	0,02808	0,03826	0,08088
2362,37183	0,03992	0,03992	0,02809	0,03825	0,08088
2360,44336	0,03993	0,03993	0,0281	0,03825	0,08088
2358,51489	0,03994	0,03994	0,02812	0,03825	0,08087
2356,58643	0,03996	0,03996	0,02813	0,03824	0,08087
2354,65796	0,03997	0,03997	0,02814	0,03824	0,08087
2352,72949	0,03999	0,03999	0,02815	0,03824	0,08086
2350,80103	0,04	0,04	0,02817	0,03823	0,08086
2348,87256	0,04001	0,04001	0,02818	0,03823	0,08085
2346,94409	0,04003	0,04003	0,02819	0,03823	0,08085
2345,01563	0,04004	0,04004	0,02821	0,03823	0,08085
2343,08716	0,04006	0,04006	0,02822	0,03822	0,08084
2341,15869	0,04007	0,04007	0,02823	0,03822	0,08084
2339,23022	0,04008	0,04008	0,02825	0,03822	0,08084
2337,30176	0,0401	0,0401	0,02826	0,03821	0,08083
2335,37329	0,04011	0,04011	0,02827	0,03821	0,08083
2333,44482	0,04013	0,04013	0,02828	0,03821	0,08082
2331,51636	0,04014	0,04014	0,0283	0,0382	0,08082
2329,58789	0,04015	0,04015	0,02831	0,0382	0,08082
2327,65942	0,04017	0,04017	0,02832	0,0382	0,08081
2325,73096	0,04018	0,04018	0,02834	0,0382	0,08081
2323,80249	0,0402	0,0402	0,02835	0,03819	0,08081
2321,87402	0,04021	0,04021	0,02836	0,03819	0,0808
2319,94556	0,04022	0,04022	0,02838	0,03819	0,0808
2318,01709	0,04024	0,04024	0,02839	0,03818	0,08079
2316,08862	0,04025	0,04025	0,0284	0,03818	0,08079
2314,16016	0,04027	0,04027	0,02841	0,03818	0,08079
2312,23169	0,04028	0,04028	0,02843	0,03817	0,08078
2310,30322	0,04029	0,04029	0,02844	0,03817	0,08078
2308,37476	0,04031	0,04031	0,02845	0,03817	0,08078
2306,44629	0,04032	0,04032	0,02847	0,03817	0,08077
2304,51782	0,04034	0,04034	0,02848	0,03816	0,08077
2302,58936	0,04035	0,04035	0,02849	0,03816	0,08076
2300,66089	0,04036	0,04036	0,02851	0,03816	0,08076
2298,73242	0,04038	0,04038	0,02852	0,03815	0,08069
2296,80396	0,04039	0,04039	0,02853	0,03815	0,08067
2294,87549	0,0404	0,0404	0,02855	0,03815	0,08064
2292,94702	0,04042	0,04042	0,02856	0,03814	0,08056
2291,01855	0,04043	0,04043	0,02857	0,03814	0,0805
2289,09009	0,04045	0,04045	0,02858	0,03814	0,08049
2287,16162	0,04046	0,04046	0,0286	0,03814	0,0804
2285,23315	0,04047	0,04047	0,02861	0,03813	0,08036
2283,30469	0,04049	0,04049	0,02862	0,03813	0,08036
2281,37622	0,0405	0,0405	0,02864	0,03813	0,08025
2279,44775	0,04052	0,04052	0,02865	0,03812	0,08025
2277,51929	0,04053	0,04053	0,02866	0,03812	0,08024
2275,59082	0,04054	0,04054	0,02868	0,03812	0,0801

2273,66235	0,04056	0,04056	0,02869	0,03811	0,08009
2271,73389	0,04057	0,04057	0,0287	0,03811	0,0801
2269,80542	0,04059	0,04059	0,02871	0,03808	0,08004
2267,87695	0,0406	0,0406	0,02873	0,03808	0,07999
2265,94849	0,0406	0,0406	0,02874	0,0381	0,07992
2264,02002	0,04063	0,04063	0,02879	0,03812	0,07989
2262,09155	0,04063	0,04063	0,02884	0,03811	0,07989
2260,16309	0,04061	0,04061	0,02887	0,03811	0,07987
2258,23462	0,04062	0,04062	0,02891	0,0381	0,07987
2256,30615	0,04057	0,04057	0,02889	0,0381	0,07976
2254,37769	0,04049	0,04049	0,0289	0,03812	0,07965
2252,44922	0,04052	0,04052	0,02895	0,03808	0,07966
2250,52075	0,04051	0,04051	0,02895	0,03804	0,07958
2248,59229	0,04045	0,04045	0,02894	0,03803	0,07951
2246,66382	0,04048	0,04048	0,02896	0,03798	0,07952
2244,73535	0,04049	0,04049	0,02899	0,038	0,07953
2242,80688	0,04042	0,04042	0,02901	0,03804	0,07956
2240,87842	0,04044	0,04044	0,02907	0,03795	0,0795
2238,94995	0,04043	0,04043	0,0291	0,03793	0,07942
2237,02148	0,04039	0,04039	0,02912	0,03796	0,07939
2235,09302	0,04043	0,04043	0,02911	0,03796	0,07937
2233,16455	0,0404	0,0404	0,02909	0,03796	0,07939
2231,23608	0,04037	0,04037	0,02908	0,03793	0,07936
2229,30762	0,04042	0,04042	0,02907	0,0379	0,07926
2227,37915	0,04039	0,04039	0,02907	0,03789	0,07925
2225,45068	0,04038	0,04038	0,02902	0,03785	0,07927
2223,52222	0,04042	0,04042	0,02897	0,03787	0,07925
2221,59375	0,04039	0,04039	0,02896	0,03789	0,07925
2219,66528	0,04037	0,04037	0,02898	0,03788	0,07921
2217,73682	0,04045	0,04045	0,02907	0,03789	0,07919
2215,80835	0,04048	0,04048	0,02914	0,03784	0,07923
2213,87988	0,04048	0,04048	0,02914	0,0378	0,0792
2211,95142	0,04053	0,04053	0,02917	0,03787	0,07912
2210,02295	0,04047	0,04047	0,0292	0,03791	0,07912
2208,09448	0,04042	0,04042	0,02912	0,03789	0,07915
2206,16602	0,04042	0,04042	0,02911	0,0379	0,0791
2204,23755	0,04037	0,04037	0,02916	0,03787	0,07898
2202,30908	0,04042	0,04042	0,02918	0,03781	0,0789
2200,38062	0,04047	0,04047	0,02914	0,03778	0,0789
2198,45215	0,04044	0,04044	0,02908	0,03775	0,07895
2196,52368	0,04044	0,04044	0,02905	0,03772	0,07893
2194,59521	0,04037	0,04037	0,02899	0,03774	0,07883
2192,66675	0,0403	0,0403	0,02899	0,03768	0,07881
2190,73828	0,04038	0,04038	0,02905	0,03764	0,07882
2188,80981	0,04039	0,04039	0,02904	0,0377	0,07882
2186,88135	0,04033	0,04033	0,02902	0,03771	0,07883
2184,95288	0,04034	0,04034	0,02901	0,03771	0,07875
2183,02441	0,04036	0,04036	0,02904	0,03772	0,07874
2181,09595	0,0403	0,0403	0,02909	0,03763	0,07878
2179,16748	0,04029	0,04029	0,02911	0,03761	0,07876

2177,23901	0,04032	0,04032	0,02908	0,03763	0,07873
2175,31055	0,0403	0,0403	0,02903	0,0376	0,07865
2173,38208	0,0403	0,0403	0,02913	0,03764	0,07866
2171,45361	0,04015	0,04015	0,02914	0,03748	0,07858
2169,52515	0,03991	0,03991	0,02906	0,03726	0,0784
2167,59668	0,04001	0,04001	0,02911	0,03743	0,07855
2165,66821	0,04016	0,04016	0,02908	0,03753	0,0787
2163,73975	0,04017	0,04017	0,02905	0,03748	0,07862
2161,81128	0,04016	0,04016	0,02909	0,03751	0,07865
2159,88281	0,04008	0,04008	0,02903	0,03744	0,07866
2157,95435	0,04004	0,04004	0,02899	0,03738	0,07858
2156,02588	0,04002	0,04002	0,02897	0,0374	0,07861
2154,09741	0,03997	0,03997	0,02891	0,03737	0,07863
2152,16895	0,03998	0,03998	0,0289	0,03733	0,07862
2150,24048	0,03994	0,03994	0,02892	0,03726	0,07861
2148,31201	0,03988	0,03988	0,02888	0,03721	0,07858
2146,38354	0,03987	0,03987	0,02881	0,0372	0,07853
2144,45508	0,03986	0,03986	0,02876	0,03716	0,07848
2142,52661	0,03985	0,03985	0,02873	0,03716	0,07843
2140,59814	0,03978	0,03978	0,02872	0,03715	0,07843
2138,66968	0,03971	0,03971	0,02876	0,03707	0,07846
2136,74121	0,03972	0,03972	0,02877	0,03705	0,07846
2134,81274	0,03971	0,03971	0,02868	0,03703	0,07839
2132,88428	0,03967	0,03967	0,02861	0,03697	0,07835
2130,95581	0,03964	0,03964	0,02863	0,0369	0,07836
2129,02734	0,03963	0,03963	0,02859	0,03682	0,0783
2127,09888	0,03964	0,03964	0,02849	0,03681	0,07826
2125,17041	0,0396	0,0396	0,02854	0,03679	0,07826
2123,24194	0,03952	0,03952	0,02853	0,03675	0,07818
2121,31348	0,03945	0,03945	0,02838	0,03675	0,07817
2119,38501	0,03942	0,03942	0,02827	0,03673	0,07826
2117,45654	0,03943	0,03943	0,02823	0,03667	0,07825
2115,52808	0,03948	0,03948	0,02826	0,03668	0,0782
2113,59961	0,03945	0,03945	0,0282	0,03668	0,07817
2111,67114	0,0394	0,0394	0,0281	0,03663	0,07814
2109,74268	0,03941	0,03941	0,0281	0,03662	0,0782
2107,81421	0,03933	0,03933	0,02802	0,03659	0,07817
2105,88574	0,03924	0,03924	0,02791	0,03649	0,07806
2103,95728	0,03916	0,03916	0,02782	0,03642	0,07807
2102,02881	0,03906	0,03906	0,0277	0,03635	0,07809
2100,10034	0,039	0,039	0,0276	0,0363	0,07806
2098,17188	0,0389	0,0389	0,0275	0,03626	0,07806
2096,24341	0,03882	0,03882	0,02734	0,03614	0,07805
2094,31494	0,03872	0,03872	0,02719	0,03602	0,078
2092,38647	0,0386	0,0386	0,02716	0,03599	0,07796
2090,45801	0,03858	0,03858	0,02714	0,03601	0,07798
2088,52954	0,03852	0,03852	0,027	0,03596	0,078
2086,60107	0,03846	0,03846	0,02692	0,03584	0,07794
2084,67261	0,03846	0,03846	0,02687	0,03575	0,07792
2082,74414	0,03839	0,03839	0,02673	0,03564	0,07795

2080,81567	0,03831	0,03831	0,02667	0,03557	0,07794
2078,88721	0,03828	0,03828	0,02658	0,03555	0,07798
2076,95874	0,03828	0,03828	0,02653	0,03549	0,07796
2075,03027	0,03823	0,03823	0,02661	0,03543	0,07785
2073,10181	0,03828	0,03828	0,02662	0,03548	0,07789
2071,17334	0,03833	0,03833	0,02666	0,03549	0,07794
2069,24487	0,03822	0,03822	0,02662	0,03544	0,07784
2067,31641	0,03833	0,03833	0,02676	0,03553	0,07785
2065,38794	0,03846	0,03846	0,02708	0,0356	0,07783
2063,45947	0,03833	0,03833	0,02692	0,0355	0,07772
2061,53101	0,03836	0,03836	0,02683	0,03548	0,07774
2059,60254	0,03841	0,03841	0,02704	0,03556	0,07777
2057,67407	0,03837	0,03837	0,02704	0,03557	0,07773
2055,74561	0,03844	0,03844	0,02704	0,03561	0,07773
2053,81714	0,03848	0,03848	0,02712	0,03569	0,07772
2051,88867	0,0385	0,0385	0,02721	0,03571	0,07767
2049,96021	0,03856	0,03856	0,02726	0,03571	0,07758
2048,03174	0,03866	0,03866	0,02731	0,03582	0,0775
2046,10327	0,03876	0,03876	0,0274	0,03589	0,07748
2044,1748	0,03883	0,03883	0,02751	0,03588	0,07748
2042,24634	0,03892	0,03892	0,02771	0,03593	0,07749
2040,31787	0,03884	0,03884	0,02763	0,03579	0,07751
2038,3894	0,03876	0,03876	0,02738	0,03568	0,07753
2036,46094	0,03878	0,03878	0,02737	0,03577	0,07754
2034,53247	0,03866	0,03866	0,02732	0,03569	0,0775
2032,604	0,03858	0,03858	0,02724	0,03555	0,07746
2030,67554	0,0386	0,0386	0,0272	0,03554	0,07748
2028,74707	0,03858	0,03858	0,02717	0,03552	0,07747
2026,8186	0,03857	0,03857	0,02712	0,03548	0,07746
2024,89014	0,03856	0,03856	0,02705	0,03545	0,07752
2022,96167	0,03851	0,03851	0,02706	0,03546	0,07748
2021,0332	0,03847	0,03847	0,02693	0,03543	0,07737
2019,10474	0,03863	0,03863	0,02719	0,03552	0,07741
2017,17627	0,03873	0,03873	0,02758	0,03572	0,07742
2015,2478	0,03854	0,03854	0,02716	0,0356	0,0774
2013,31934	0,03853	0,03853	0,02701	0,03549	0,07745
2011,39087	0,03863	0,03863	0,02728	0,03554	0,07741
2009,4624	0,03862	0,03862	0,02732	0,0356	0,07738
2007,53394	0,03863	0,03863	0,02733	0,03566	0,07739
2005,60547	0,03863	0,03863	0,02731	0,03562	0,07731
2003,677	0,03863	0,03863	0,02741	0,03562	0,07729
2001,74854	0,03859	0,03859	0,02739	0,03561	0,07726
1999,82007	0,03868	0,03868	0,02745	0,03561	0,07727
1997,8916	0,03871	0,03871	0,02753	0,03553	0,07729
1995,96313	0,03856	0,03856	0,02722	0,03534	0,07719
1994,03467	0,03887	0,03887	0,02785	0,03572	0,07721
1992,1062	0,03901	0,03901	0,02847	0,03604	0,07721
1990,17773	0,03867	0,03867	0,0278	0,03571	0,07707
1988,24927	0,03879	0,03879	0,02779	0,03568	0,07706
1986,3208	0,03874	0,03874	0,02784	0,03568	0,07704

1984,39233	0,03858	0,03858	0,02754	0,03559	0,077
1982,46387	0,0388	0,0388	0,02768	0,03567	0,07701
1980,5354	0,03881	0,03881	0,02763	0,03558	0,07698
1978,60693	0,03877	0,03877	0,02765	0,03552	0,07703
1976,67847	0,03883	0,03883	0,02766	0,03555	0,07705
1974,75	0,03888	0,03888	0,02764	0,03563	0,07695
1972,82153	0,03887	0,03887	0,02776	0,03565	0,07687
1970,89307	0,03882	0,03882	0,02751	0,03553	0,07693
1968,9646	0,03911	0,03911	0,02798	0,03581	0,07701
1967,03613	0,03924	0,03924	0,02869	0,03603	0,07687
1965,10767	0,03888	0,03888	0,02792	0,03566	0,07674
1963,1792	0,03892	0,03892	0,02764	0,03563	0,07685
1961,25073	0,03903	0,03903	0,02799	0,03574	0,07687
1959,32227	0,03893	0,03893	0,02769	0,03563	0,07679
1957,3938	0,03897	0,03897	0,02768	0,03569	0,07677
1955,46533	0,039	0,039	0,02788	0,03563	0,07676
1953,53687	0,03891	0,03891	0,02771	0,03548	0,07679
1951,6084	0,03878	0,03878	0,02743	0,0354	0,07674
1949,67993	0,03886	0,03886	0,02748	0,03539	0,07671
1947,75146	0,03885	0,03885	0,02764	0,03541	0,07675
1945,823	0,03877	0,03877	0,02753	0,03539	0,07672
1943,89453	0,03916	0,03916	0,0284	0,0358	0,07681
1941,96606	0,03898	0,03898	0,02864	0,03577	0,07671
1940,0376	0,03858	0,03858	0,02725	0,03519	0,07654
1938,10913	0,03886	0,03886	0,02725	0,03537	0,07663
1936,18066	0,03888	0,03888	0,02739	0,03545	0,07661
1934,2522	0,0389	0,0389	0,02726	0,03536	0,07661
1932,32373	0,03883	0,03883	0,02728	0,03532	0,07664
1930,39526	0,03877	0,03877	0,02718	0,03527	0,07666
1928,4668	0,03872	0,03872	0,02719	0,03527	0,07667
1926,53833	0,03853	0,03853	0,02685	0,03509	0,07661
1924,60986	0,03903	0,03903	0,02765	0,03545	0,07679
1922,6814	0,03903	0,03903	0,02829	0,03559	0,07661
1920,75293	0,03875	0,03875	0,0272	0,03512	0,07653
1918,82446	0,03905	0,03905	0,02712	0,0353	0,07692
1916,896	0,03842	0,03842	0,02683	0,03505	0,07662
1914,96753	0,03826	0,03826	0,02636	0,03461	0,07638
1913,03906	0,03869	0,03869	0,02661	0,03481	0,07663
1911,1106	0,03871	0,03871	0,02692	0,03499	0,07658
1909,18213	0,0387	0,0387	0,02723	0,03499	0,07649
1907,25366	0,03842	0,03842	0,02663	0,03469	0,0765
1905,3252	0,03827	0,03827	0,02617	0,03452	0,07646
1903,39673	0,03825	0,03825	0,0261	0,03459	0,0765
1901,46826	0,03814	0,03814	0,02609	0,03464	0,0765
1899,53979	0,03798	0,03798	0,0258	0,03448	0,07633
1897,61133	0,0381	0,0381	0,02567	0,03451	0,07636
1895,68286	0,03835	0,03835	0,02645	0,03482	0,07649
1893,75439	0,03786	0,03786	0,02558	0,03431	0,07628
1891,82593	0,03806	0,03806	0,02536	0,03433	0,07642
1889,89746	0,03841	0,03841	0,02673	0,03486	0,07664

1887,96899	0,03764	0,03764	0,02547	0,0342	0,07634
1886,04053	0,03782	0,03782	0,02508	0,03413	0,07637
1884,11206	0,03803	0,03803	0,02567	0,03435	0,07645
1882,18359	0,03785	0,03785	0,02513	0,03414	0,07641
1880,25513	0,03809	0,03809	0,02523	0,03424	0,07647
1878,32666	0,038	0,038	0,02536	0,03426	0,0764
1876,39819	0,03804	0,03804	0,02524	0,03435	0,07648
1874,46973	0,03808	0,03808	0,02538	0,03438	0,07646
1872,54126	0,03819	0,03819	0,02552	0,03438	0,07635
1870,61279	0,03892	0,03892	0,02629	0,03493	0,07673
1868,68433	0,03904	0,03904	0,02799	0,0354	0,07661
1866,75586	0,03817	0,03817	0,02684	0,03465	0,07608
1864,82739	0,0384	0,0384	0,02585	0,0345	0,07622
1862,89893	0,03869	0,03869	0,02588	0,03471	0,07628
1860,97046	0,03881	0,03881	0,02621	0,03487	0,07624
1859,04199	0,03887	0,03887	0,02634	0,03491	0,07626
1857,11353	0,03881	0,03881	0,02638	0,03492	0,07611
1855,18506	0,0388	0,0388	0,02624	0,0349	0,07615
1853,25659	0,03878	0,03878	0,02653	0,03481	0,07608
1851,32813	0,03897	0,03897	0,02645	0,03486	0,07616
1849,39966	0,03894	0,03894	0,02671	0,035	0,0761
1847,47119	0,03933	0,03933	0,02809	0,03538	0,07597
1845,54272	0,03976	0,03976	0,02746	0,03558	0,07659
1843,61426	0,03845	0,03845	0,0261	0,03492	0,07618
1841,68579	0,03823	0,03823	0,02623	0,0346	0,07551
1839,75732	0,03922	0,03922	0,02714	0,03514	0,07583
1837,82886	0,03937	0,03937	0,02713	0,0353	0,07597
1835,90039	0,03916	0,03916	0,02747	0,03533	0,07583
1833,97192	0,0388	0,0388	0,02669	0,03504	0,07569
1832,04346	0,03957	0,03957	0,02742	0,03559	0,07603
1830,11499	0,03975	0,03975	0,02933	0,03624	0,07602
1828,18652	0,03848	0,03848	0,02735	0,03519	0,07541
1826,25806	0,03931	0,03931	0,02757	0,03551	0,07581
1824,32959	0,0392	0,0392	0,02803	0,03569	0,07581
1822,40112	0,03848	0,03848	0,02664	0,03495	0,07544
1820,47266	0,03908	0,03908	0,02675	0,03512	0,07572
1818,54419	0,03916	0,03916	0,02702	0,03536	0,07567
1816,61572	0,03884	0,03884	0,02677	0,0352	0,07549
1814,68726	0,03878	0,03878	0,02638	0,03505	0,07554
1812,75879	0,03926	0,03926	0,0273	0,03545	0,07566
1810,83032	0,03926	0,03926	0,02807	0,03569	0,07563
1808,90186	0,03861	0,03861	0,02691	0,03522	0,07544
1806,97339	0,03863	0,03863	0,02649	0,03497	0,07546
1805,04492	0,03856	0,03856	0,02616	0,03477	0,0755
1803,11646	0,03865	0,03865	0,02626	0,03496	0,07562
1801,18799	0,03855	0,03855	0,02701	0,0351	0,07564
1799,25952	0,0376	0,0376	0,02552	0,03425	0,07541
1797,33105	0,03766	0,03766	0,02552	0,03421	0,0752
1795,40259	0,03838	0,03838	0,02647	0,03468	0,07531
1793,47412	0,0386	0,0386	0,02511	0,0346	0,07593



1791,54565	0,0379	0,0379	0,02589	0,03458	0,07554
1789,61719	0,03742	0,03742	0,02553	0,0341	0,07489
1787,68872	0,03845	0,03845	0,0258	0,0346	0,07533
1785,76025	0,0386	0,0386	0,02598	0,03479	0,07557
1783,83179	0,03803	0,03803	0,0252	0,03434	0,07533
1781,90332	0,03856	0,03856	0,02665	0,03486	0,07533
1779,97485	0,03868	0,03868	0,0272	0,03507	0,07534
1778,04639	0,03788	0,03788	0,02524	0,03433	0,07519
1776,11792	0,03843	0,03843	0,02702	0,03486	0,07514
1774,18945	0,03926	0,03926	0,02631	0,03528	0,076
1772,26099	0,03775	0,03775	0,02471	0,0345	0,07586
1770,33252	0,03696	0,03696	0,02514	0,03387	0,07496
1768,40405	0,03815	0,03815	0,02547	0,03435	0,07554
1766,47559	0,03696	0,03696	0,02345	0,03333	0,07519
1764,54712	0,03787	0,03787	0,0255	0,03407	0,07509
1762,61865	0,03868	0,03868	0,02544	0,0347	0,07592
1760,69019	0,03659	0,03659	0,02355	0,03339	0,075
1758,76172	0,03773	0,03773	0,02531	0,03411	0,07511
1756,83325	0,03795	0,03795	0,0253	0,03432	0,07557
1754,90479	0,03669	0,03669	0,02429	0,03345	0,07492
1752,97632	0,03797	0,03797	0,02457	0,03416	0,07562
1751,04785	0,03823	0,03823	0,02463	0,03458	0,07619
1749,11938	0,03714	0,03714	0,02676	0,03449	0,07515
1747,19092	0,03776	0,03776	0,02747	0,03494	0,07531
1745,26245	0,03759	0,03759	0,02574	0,03456	0,07558
1743,33398	0,03749	0,03749	0,02709	0,03467	0,07515
1741,40552	0,0379	0,0379	0,02595	0,03484	0,07585
1739,47705	0,03645	0,03645	0,02347	0,03378	0,07563
1737,54858	0,03687	0,03687	0,02595	0,03412	0,07478
1735,62012	0,0385	0,0385	0,02377	0,03472	0,07653
1733,69165	0,03615	0,03615	0,02147	0,03364	0,07627
1731,76318	0,03545	0,03545	0,02305	0,0329	0,0745
1729,83472	0,03803	0,03803	0,02801	0,03495	0,07523
1727,90625	0,03639	0,03639	0,02325	0,03341	0,07507
1725,97778	0,03691	0,03691	0,02473	0,03378	0,07489
1724,04932	0,03724	0,03724	0,02521	0,03419	0,07531
1722,12085	0,03633	0,03633	0,02423	0,03353	0,07465
1720,19238	0,03759	0,03759	0,02597	0,03432	0,07514
1718,26392	0,03785	0,03785	0,02549	0,03483	0,07602
1716,33545	0,03546	0,03546	0,02281	0,03337	0,07498
1714,40698	0,03603	0,03603	0,02544	0,03366	0,07444
1712,47852	0,03667	0,03667	0,02535	0,03387	0,07481
1710,55005	0,03623	0,03623	0,02403	0,03343	0,07466
1708,62158	0,03721	0,03721	0,02648	0,03429	0,07469
1706,69312	0,03751	0,03751	0,02579	0,03462	0,07556
1704,76465	0,03583	0,03583	0,02629	0,03401	0,07426
1702,83618	0,03734	0,03734	0,02645	0,03458	0,07483
1700,90771	0,03707	0,03707	0,02269	0,03398	0,07673
1698,97925	0,03268	0,03268	0,02021	0,0311	0,07382
1697,05078	0,03648	0,03648	0,02458	0,03364	0,07474

1695,12231	0,03506	0,03506	0,0212	0,03276	0,07557
1693,19385	0,03427	0,03427	0,02251	0,03212	0,07398
1691,26538	0,03734	0,03734	0,02655	0,0343	0,07515
1689,33691	0,03603	0,03603	0,02504	0,03373	0,07501
1687,40845	0,03657	0,03657	0,02658	0,03403	0,07458
1685,47998	0,03771	0,03771	0,02238	0,03423	0,07688
1683,55151	0,03405	0,03405	0,02382	0,03331	0,07489
1681,62305	0,03477	0,03477	0,0248	0,03298	0,07405
1679,69458	0,03594	0,03594	0,02513	0,03364	0,07456
1677,76611	0,03557	0,03557	0,02337	0,03325	0,07473
1675,83765	0,03545	0,03545	0,02217	0,03304	0,07541
1673,90918	0,03369	0,03369	0,02113	0,03212	0,07455
1671,98071	0,03515	0,03515	0,02433	0,03322	0,07441
1670,05225	0,03643	0,03643	0,02579	0,03426	0,07541
1668,12378	0,03325	0,03325	0,022	0,032	0,07415
1666,19531	0,03451	0,03451	0,02356	0,0325	0,07404
1664,26685	0,03549	0,03549	0,02253	0,03286	0,07521
1662,33838	0,03414	0,03414	0,02292	0,03255	0,07472
1660,40991	0,03415	0,03415	0,02265	0,03233	0,07469
1658,48145	0,03412	0,03412	0,02128	0,03209	0,07504
1656,55298	0,03497	0,03497	0,02545	0,03331	0,07476
1654,62451	0,03633	0,03633	0,02293	0,03386	0,07681
1652,69604	0,03248	0,03248	0,02364	0,03359	0,07593
1650,76758	0,03016	0,03016	0,01656	0,02972	0,07377
1648,83911	0,03528	0,03528	0,02813	0,03414	0,07487
1646,91064	0,03494	0,03494	0,02727	0,03472	0,07579
1644,98218	0,03087	0,03087	0,0185	0,0305	0,07403
1643,05371	0,03327	0,03327	0,02319	0,03222	0,07436
1641,12524	0,03292	0,03292	0,02138	0,03189	0,0747
1639,19678	0,03325	0,03325	0,02358	0,0324	0,07429
1637,26831	0,03435	0,03435	0,02418	0,0333	0,07526
1635,33984	0,03243	0,03243	0,0224	0,03237	0,07493
1633,41138	0,03072	0,03072	0,01917	0,0301	0,0735
1631,48291	0,03271	0,03271	0,02262	0,03138	0,07372
1629,55444	0,03277	0,03277	0,02158	0,03136	0,07425
1627,62598	0,03184	0,03184	0,02227	0,03122	0,07347
1625,69751	0,0319	0,0319	0,02171	0,03119	0,07333
1623,76904	0,032	0,032	0,0216	0,03146	0,07365
1621,84058	0,03048	0,03048	0,02071	0,03035	0,07249
1619,91211	0,03168	0,03168	0,02228	0,03088	0,07245
1617,98364	0,03248	0,03248	0,01977	0,03127	0,07394
1616,05518	0,03069	0,03069	0,01757	0,03043	0,0735
1614,12671	0,03173	0,03173	0,0205	0,03078	0,07294
1612,19824	0,03354	0,03354	0,02236	0,03187	0,07373
1610,26978	0,03368	0,03368	0,02161	0,03197	0,07402
1608,34131	0,03407	0,03407	0,02305	0,03236	0,0738
1606,41284	0,03421	0,03421	0,02214	0,03215	0,07392
1604,48438	0,03446	0,03446	0,0221	0,03218	0,07405
1602,55591	0,03499	0,03499	0,02298	0,03262	0,07423
1600,62744	0,03494	0,03494	0,0224	0,03252	0,07415

1598,69897	0,03505	0,03505	0,02224	0,03246	0,07411
1596,77051	0,03547	0,03547	0,02285	0,03284	0,07425
1594,84204	0,03575	0,03575	0,02331	0,03308	0,0742
1592,91357	0,03581	0,03581	0,02269	0,03281	0,07427
1590,98511	0,03585	0,03585	0,02262	0,03278	0,07438
1589,05664	0,03609	0,03609	0,02289	0,03294	0,07437
1587,12817	0,036	0,036	0,022	0,03271	0,07434
1585,19971	0,03615	0,03615	0,0227	0,03293	0,07425
1583,27124	0,03649	0,03649	0,02264	0,03314	0,07456
1581,34277	0,03607	0,03607	0,02182	0,03282	0,07443
1579,41431	0,03685	0,03685	0,02429	0,03357	0,07413
1577,48584	0,03787	0,03787	0,02211	0,03397	0,07536
1575,55737	0,03548	0,03548	0,0195	0,03276	0,07489
1573,62891	0,03544	0,03544	0,02183	0,03248	0,0735
1571,70044	0,03814	0,03814	0,02463	0,03428	0,07457
1569,77197	0,03733	0,03733	0,02435	0,03435	0,07469
1567,84351	0,0361	0,0361	0,02303	0,03312	0,07355
1565,91504	0,0378	0,0378	0,0237	0,03397	0,07431
1563,98657	0,03685	0,03685	0,0237	0,03366	0,07383
1562,05811	0,03787	0,03787	0,02431	0,03438	0,07414
1560,12964	0,04026	0,04026	0,02419	0,03638	0,07673
1558,20117	0,03418	0,03418	0,0258	0,03422	0,07344
1556,27271	0,03559	0,03559	0,02177	0,03288	0,07346
1554,34424	0,03727	0,03727	0,02291	0,03382	0,07418
1552,41577	0,03638	0,03638	0,02131	0,0331	0,07384
1550,4873	0,03816	0,03816	0,02664	0,03505	0,07396
1548,55884	0,03742	0,03742	0,02468	0,03427	0,07387
1546,63037	0,03757	0,03757	0,02292	0,03413	0,07415
1544,7019	0,03903	0,03903	0,02697	0,03594	0,07444
1542,77344	0,03813	0,03813	0,02554	0,03509	0,07414
1540,84497	0,03842	0,03842	0,02327	0,03525	0,07532
1538,9165	0,03529	0,03529	0,02344	0,03402	0,07369
1536,98804	0,03592	0,03592	0,02262	0,03307	0,07304
1535,05957	0,03875	0,03875	0,02594	0,03522	0,07424
1533,1311	0,03809	0,03809	0,0272	0,03548	0,07403
1531,20264	0,03654	0,03654	0,02376	0,03347	0,07315
1529,27417	0,03849	0,03849	0,02579	0,03483	0,07391
1527,3457	0,03865	0,03865	0,02661	0,03548	0,07423
1525,41724	0,03724	0,03724	0,0246	0,03429	0,07353
1523,48877	0,03852	0,03852	0,02573	0,03525	0,07427
1521,5603	0,03782	0,03782	0,02508	0,03528	0,07426
1519,63184	0,03598	0,03598	0,02116	0,03311	0,07338
1517,70337	0,03827	0,03827	0,02746	0,03535	0,07366
1515,7749	0,03766	0,03766	0,02702	0,03512	0,07326
1513,84644	0,03718	0,03718	0,02362	0,03399	0,07332
1511,91797	0,03764	0,03764	0,02339	0,03418	0,07373
1509,9895	0,03857	0,03857	0,02746	0,0354	0,07347
1508,06104	0,0403	0,0403	0,029	0,03695	0,07468
1506,13257	0,03707	0,03707	0,02708	0,03576	0,07365
1504,2041	0,03468	0,03468	0,01931	0,03212	0,07262

1502,27563	0,03781	0,03781	0,02524	0,03461	0,07327
1500,34717	0,03771	0,03771	0,02387	0,03443	0,07356
1498,4187	0,03772	0,03772	0,02413	0,03465	0,07353
1496,49023	0,03686	0,03686	0,02189	0,03401	0,0736
1494,56177	0,03586	0,03586	0,02051	0,03282	0,07289
1492,6333	0,03773	0,03773	0,02445	0,03439	0,07321
1490,70483	0,03848	0,03848	0,02629	0,03552	0,07374
1488,77637	0,03754	0,03754	0,02679	0,03518	0,07312
1486,8479	0,03703	0,03703	0,02469	0,03424	0,07296
1484,91943	0,03692	0,03692	0,02277	0,03384	0,07314
1482,99097	0,03731	0,03731	0,02358	0,03424	0,07328
1481,0625	0,03722	0,03722	0,02424	0,03432	0,07316
1479,13403	0,03699	0,03699	0,02301	0,034	0,0733
1477,20557	0,03746	0,03746	0,02452	0,03452	0,07347
1475,2771	0,03766	0,03766	0,02552	0,03488	0,07345
1473,34863	0,03732	0,03732	0,02338	0,03465	0,07411
1471,42017	0,03603	0,03603	0,02356	0,03421	0,07406
1469,4917	0,03625	0,03625	0,02447	0,03429	0,07419
1467,56323	0,03745	0,03745	0,02487	0,03522	0,07537
1465,63477	0,03758	0,03758	0,026	0,036	0,07593
1463,7063	0,03602	0,03602	0,02379	0,03475	0,07529
1461,77783	0,03642	0,03642	0,02445	0,03495	0,07503
1459,84937	0,03834	0,03834	0,02848	0,03692	0,07554
1457,9209	0,03841	0,03841	0,0283	0,03765	0,07621
1455,99243	0,03413	0,03413	0,01993	0,03346	0,07473
1454,06396	0,03629	0,03629	0,02559	0,03503	0,07431
1452,1355	0,03692	0,03692	0,02583	0,03524	0,07453
1450,20703	0,03652	0,03652	0,02374	0,03447	0,07428
1448,27856	0,03712	0,03712	0,02561	0,03487	0,07405
1446,3501	0,03624	0,03624	0,024	0,0339	0,07341
1444,42163	0,03658	0,03658	0,02385	0,03384	0,07319
1442,49316	0,03669	0,03669	0,02339	0,03377	0,07314
1440,5647	0,03643	0,03643	0,024	0,03374	0,07271
1438,63623	0,03715	0,03715	0,02359	0,03402	0,07331
1436,70776	0,03638	0,03638	0,02272	0,0337	0,07327
1434,7793	0,03498	0,03498	0,02224	0,03285	0,07216
1432,85083	0,03666	0,03666	0,02491	0,03409	0,07245
1430,92236	0,03701	0,03701	0,02461	0,03456	0,07289
1428,9939	0,03598	0,03598	0,02427	0,03392	0,07204
1427,06543	0,03625	0,03625	0,02343	0,0336	0,07194
1425,13696	0,03673	0,03673	0,0241	0,03389	0,07213
1423,2085	0,03644	0,03644	0,02539	0,03381	0,07145
1421,28003	0,03653	0,03653	0,02266	0,03338	0,07177
1419,35156	0,03645	0,03645	0,02242	0,03345	0,07201
1417,4231	0,03552	0,03552	0,02394	0,03313	0,07102
1415,49463	0,03614	0,03614	0,02415	0,03332	0,07119
1413,56616	0,03612	0,03612	0,02266	0,03306	0,07144
1411,6377	0,03614	0,03614	0,02356	0,03329	0,07113
1409,70923	0,03592	0,03592	0,02328	0,03313	0,07104
1407,78076	0,03588	0,03588	0,02262	0,03286	0,07117

1405,85229	0,03645	0,03645	0,02436	0,03348	0,07131
1403,92383	0,03566	0,03566	0,02381	0,03307	0,071
1401,99536	0,03582	0,03582	0,02311	0,0328	0,07122
1400,06689	0,03645	0,03645	0,02428	0,03341	0,07177
1398,13843	0,03595	0,03595	0,02496	0,03361	0,07167
1396,20996	0,03636	0,03636	0,02506	0,03372	0,07211
1394,28149	0,03613	0,03613	0,02454	0,03363	0,07257
1392,35303	0,0353	0,0353	0,0233	0,03307	0,07249
1390,42456	0,0362	0,0362	0,0246	0,03361	0,07302
1388,49609	0,03645	0,03645	0,02451	0,03397	0,0735
1386,56763	0,03549	0,03549	0,02393	0,03359	0,07286
1384,63916	0,03501	0,03501	0,02369	0,0331	0,07254
1382,71069	0,03526	0,03526	0,02373	0,03337	0,07294
1380,78223	0,03588	0,03588	0,02468	0,03416	0,07333
1378,85376	0,03615	0,03615	0,02482	0,03422	0,07321
1376,92529	0,0365	0,0365	0,02462	0,03415	0,07287
1374,99683	0,03705	0,03705	0,02626	0,03469	0,07245
1373,06836	0,03635	0,03635	0,0251	0,03395	0,07189
1371,13989	0,03616	0,03616	0,02342	0,0334	0,07185
1369,21143	0,03682	0,03682	0,02476	0,03409	0,07187
1367,28296	0,03639	0,03639	0,02402	0,03377	0,07156
1365,35449	0,03634	0,03634	0,02344	0,03363	0,07166
1363,42603	0,03702	0,03702	0,0256	0,03444	0,07167
1361,49756	0,03646	0,03646	0,02496	0,03388	0,07135
1359,56909	0,03596	0,03596	0,02323	0,03327	0,07145
1357,64063	0,03627	0,03627	0,02348	0,03346	0,07146
1355,71216	0,03646	0,03646	0,02369	0,03337	0,07124
1353,78369	0,03628	0,03628	0,02337	0,0333	0,07116
1351,85522	0,03618	0,03618	0,0232	0,03335	0,07118
1349,92676	0,03631	0,03631	0,02329	0,03335	0,07121
1347,99829	0,03641	0,03641	0,02323	0,03334	0,07124
1346,06982	0,03659	0,03659	0,02342	0,03339	0,0713
1344,14136	0,03661	0,03661	0,0231	0,03338	0,07129
1342,21289	0,03696	0,03696	0,02331	0,03365	0,07129
1340,28442	0,0376	0,0376	0,02516	0,03424	0,07112
1338,35596	0,03712	0,03712	0,02489	0,03392	0,07082
1336,42749	0,03665	0,03665	0,02338	0,03336	0,07088
1334,49902	0,03683	0,03683	0,02325	0,03338	0,07112
1332,57056	0,03682	0,03682	0,02319	0,03337	0,07135
1330,64209	0,03688	0,03688	0,02329	0,0335	0,07163
1328,71362	0,03697	0,03697	0,02341	0,03367	0,07188
1326,78516	0,03699	0,03699	0,02341	0,0337	0,07204
1324,85669	0,03698	0,03698	0,02358	0,03385	0,07205
1322,92822	0,03691	0,03691	0,02362	0,03412	0,07207
1320,99976	0,03714	0,03714	0,02412	0,03448	0,07225
1319,07129	0,03741	0,03741	0,02478	0,03473	0,07247
1317,14282	0,03729	0,03729	0,02442	0,03455	0,07262
1315,21436	0,0372	0,0372	0,02434	0,03446	0,07263
1313,28589	0,03719	0,03719	0,02466	0,03457	0,07247
1311,35742	0,03702	0,03702	0,02424	0,03455	0,07241

1309,42896	0,03708	0,03708	0,02425	0,03458	0,07261
1307,50049	0,03722	0,03722	0,02468	0,03475	0,07289
1305,57202	0,03722	0,03722	0,02465	0,03496	0,07329
1303,64355	0,0374	0,0374	0,02483	0,0352	0,07391
1301,71509	0,03742	0,03742	0,02508	0,03531	0,07451
1299,78662	0,03739	0,03739	0,0253	0,03531	0,07498
1297,85815	0,03767	0,03767	0,02571	0,0355	0,0755
1295,92969	0,03786	0,03786	0,02601	0,03582	0,07607
1294,00122	0,03804	0,03804	0,02632	0,03608	0,07664
1292,07275	0,03822	0,03822	0,02667	0,03643	0,07734
1290,14429	0,03832	0,03832	0,02727	0,03682	0,07818
1288,21582	0,03846	0,03846	0,02813	0,03708	0,0791
1286,28735	0,03849	0,03849	0,02877	0,03735	0,08015
1284,35889	0,03846	0,03846	0,02938	0,03775	0,08126
1282,43042	0,03848	0,03848	0,03011	0,03827	0,08239
1280,50195	0,0385	0,0385	0,03081	0,03875	0,08352
1278,57349	0,03852	0,03852	0,03154	0,03909	0,08464
1276,64502	0,03862	0,03862	0,03214	0,0394	0,08578
1274,71655	0,03887	0,03887	0,03272	0,03973	0,08686
1272,78809	0,0391	0,0391	0,0335	0,04014	0,08786
1270,85962	0,03929	0,03929	0,03416	0,04056	0,0888
1268,93115	0,03946	0,03946	0,03462	0,0409	0,08984
1267,00269	0,03947	0,03947	0,0351	0,04122	0,09085
1265,07422	0,03942	0,03942	0,03542	0,04138	0,09145
1263,14575	0,03946	0,03946	0,03554	0,04148	0,09158
1261,21729	0,03956	0,03956	0,03558	0,0416	0,09135
1259,28882	0,03972	0,03972	0,03526	0,04139	0,09102
1257,36035	0,03984	0,03984	0,03473	0,04095	0,09068
1255,43188	0,03986	0,03986	0,03418	0,04061	0,08999
1253,50342	0,03989	0,03989	0,0334	0,04034	0,08893
1251,57495	0,03989	0,03989	0,03261	0,04005	0,08781
1249,64648	0,03994	0,03994	0,03206	0,03978	0,08686
1247,71802	0,04007	0,04007	0,0316	0,03968	0,08634
1245,78955	0,04018	0,04018	0,03128	0,03971	0,08606
1243,86108	0,04034	0,04034	0,03108	0,03962	0,08564
1241,93262	0,04055	0,04055	0,03079	0,03948	0,08524
1240,00415	0,04061	0,04061	0,03066	0,03952	0,08506
1238,07568	0,04067	0,04067	0,03078	0,0397	0,08504
1236,14722	0,04097	0,04097	0,03078	0,03991	0,0851
1234,21875	0,04131	0,04131	0,03074	0,04009	0,08517
1232,29028	0,04152	0,04152	0,03092	0,04018	0,08542
1230,36182	0,04155	0,04155	0,03108	0,04018	0,08583
1228,43335	0,04145	0,04145	0,03121	0,04014	0,08602
1226,50488	0,04155	0,04155	0,0314	0,04027	0,08603
1224,57642	0,04178	0,04178	0,03138	0,04052	0,08605
1222,64795	0,04192	0,04192	0,0312	0,04055	0,08591
1220,71948	0,04229	0,04229	0,03119	0,04058	0,08575
1218,79102	0,04277	0,04277	0,03127	0,04087	0,08572
1216,86255	0,04284	0,04284	0,03131	0,04134	0,08576
1214,93408	0,04283	0,04283	0,03151	0,04193	0,08603

1213,00562	0,04301	0,04301	0,03184	0,04246	0,08655
1211,07715	0,04316	0,04316	0,03201	0,04288	0,08716
1209,14868	0,04346	0,04346	0,03222	0,04329	0,08797
1207,22021	0,04384	0,04384	0,03257	0,04382	0,08857
1205,29175	0,04406	0,04406	0,03272	0,04463	0,08879
1203,36328	0,04423	0,04423	0,03277	0,04565	0,08903
1201,43481	0,04445	0,04445	0,03284	0,0466	0,08916
1199,50635	0,04475	0,04475	0,03278	0,04744	0,0892
1197,57788	0,04498	0,04498	0,03273	0,048	0,08941
1195,64941	0,04513	0,04513	0,03271	0,04807	0,08967
1193,72095	0,04537	0,04537	0,03278	0,04802	0,0899
1191,79248	0,04561	0,04561	0,03307	0,04814	0,09019
1189,86401	0,04588	0,04588	0,03326	0,04827	0,09046
1187,93555	0,04608	0,04608	0,03332	0,04841	0,09063
1186,00708	0,04623	0,04623	0,0334	0,04846	0,09091
1184,07861	0,04659	0,04659	0,03352	0,04819	0,09137
1182,15015	0,04691	0,04691	0,03366	0,04781	0,09181
1180,22168	0,04707	0,04707	0,03378	0,04747	0,09231
1178,29321	0,04729	0,04729	0,03406	0,04689	0,09285
1176,36475	0,04769	0,04769	0,03435	0,04626	0,09332
1174,43628	0,04813	0,04813	0,03439	0,04604	0,09382
1172,50781	0,04831	0,04831	0,03448	0,0458	0,09431
1170,57935	0,04843	0,04843	0,03492	0,04543	0,09456
1168,65088	0,04867	0,04867	0,03516	0,04533	0,0948
1166,72241	0,04883	0,04883	0,03504	0,04527	0,0952
1164,79395	0,04901	0,04901	0,03513	0,04521	0,09549
1162,86548	0,0492	0,0492	0,03526	0,04531	0,09567
1160,93701	0,04935	0,04935	0,03522	0,04529	0,09588
1159,00854	0,04948	0,04948	0,03521	0,0451	0,09608
1157,08008	0,04946	0,04946	0,0352	0,04497	0,09634
1155,15161	0,04952	0,04952	0,03522	0,04501	0,09673
1153,22314	0,04975	0,04975	0,03541	0,04507	0,09713
1151,29468	0,04991	0,04991	0,0359	0,0451	0,09741
1149,36621	0,0501	0,0501	0,03625	0,04518	0,09768
1147,43774	0,05033	0,05033	0,03625	0,04553	0,09805
1145,50928	0,05045	0,05045	0,03653	0,04605	0,09849
1143,58081	0,05065	0,05065	0,03677	0,04621	0,09892
1141,65234	0,05091	0,05091	0,03679	0,0462	0,09926
1139,72388	0,05109	0,05109	0,03698	0,0463	0,09961
1137,79541	0,05135	0,05135	0,03707	0,04634	0,0998
1135,86694	0,05155	0,05155	0,03725	0,0464	0,09976
1133,93848	0,05154	0,05154	0,03774	0,04645	0,10005
1132,01001	0,05171	0,05171	0,03798	0,04643	0,10054
1130,08154	0,05193	0,05193	0,03799	0,04644	0,10075
1128,15308	0,05196	0,05196	0,03825	0,04649	0,10116
1126,22461	0,0521	0,0521	0,03862	0,04675	0,10182
1124,29614	0,05233	0,05233	0,03889	0,04715	0,10223
1122,36768	0,05248	0,05248	0,03905	0,04733	0,10245
1120,43921	0,05266	0,05266	0,03915	0,04746	0,10268
1118,51074	0,05281	0,05281	0,03938	0,04762	0,10278

1116,58228	0,05296	0,05296	0,0397	0,04759	0,10279
1114,65381	0,0533	0,0533	0,03992	0,04755	0,10299
1112,72534	0,05363	0,05363	0,04012	0,04761	0,10325
1110,79688	0,05381	0,05381	0,04032	0,04769	0,10348
1108,86841	0,05396	0,05396	0,04046	0,04778	0,10383
1106,93994	0,05412	0,05412	0,04055	0,04795	0,10398
1105,01147	0,05438	0,05438	0,04059	0,04825	0,104
1103,08301	0,05463	0,05463	0,04064	0,04837	0,10431
1101,15454	0,05475	0,05475	0,04063	0,04825	0,1046
1099,22607	0,05476	0,05476	0,04058	0,04826	0,10464
1097,29761	0,05484	0,05484	0,04064	0,04847	0,10476
1095,36914	0,05498	0,05498	0,04074	0,04858	0,105
1093,44067	0,05497	0,05497	0,04082	0,04858	0,10526
1091,51221	0,05489	0,05489	0,04111	0,04864	0,10544
1089,58374	0,05492	0,05492	0,04126	0,04872	0,10543
1087,65527	0,05503	0,05503	0,04103	0,04885	0,10539
1085,72681	0,05495	0,05495	0,04079	0,0489	0,1054
1083,79834	0,05462	0,05462	0,04054	0,0487	0,10527
1081,86987	0,05446	0,05446	0,04022	0,04856	0,10502
1079,94141	0,05437	0,05437	0,04	0,04847	0,10474
1078,01294	0,05405	0,05405	0,03976	0,04825	0,10434
1076,08447	0,05373	0,05373	0,0395	0,04802	0,10396
1074,15601	0,05329	0,05329	0,03932	0,04789	0,10369
1072,22754	0,05285	0,05285	0,03914	0,04769	0,10337
1070,29907	0,05264	0,05264	0,03902	0,04738	0,1031
1068,37061	0,05237	0,05237	0,03878	0,04727	0,10282
1066,44214	0,052	0,052	0,03838	0,04717	0,10243
1064,51367	0,0515	0,0515	0,03808	0,04689	0,10219
1062,58521	0,05103	0,05103	0,03792	0,04669	0,10203
1060,65674	0,05094	0,05094	0,03782	0,0466	0,10169
1058,72827	0,05071	0,05071	0,03769	0,04669	0,10123
1056,7998	0,05013	0,05013	0,03765	0,04693	0,10103
1054,87134	0,04984	0,04984	0,0378	0,04719	0,10122
1052,94287	0,04967	0,04967	0,03806	0,04759	0,10146
1051,0144	0,04933	0,04933	0,03847	0,04817	0,10199
1049,08594	0,04918	0,04918	0,03896	0,04895	0,10289
1047,15747	0,04915	0,04915	0,03936	0,05009	0,10341
1045,229	0,04895	0,04895	0,03965	0,05149	0,1035
1043,30054	0,04874	0,04874	0,03983	0,05269	0,10334
1041,37207	0,04871	0,04871	0,03981	0,05362	0,10291
1039,4436	0,0487	0,0487	0,0398	0,05419	0,10254
1037,51514	0,04858	0,04858	0,03986	0,05416	0,10241
1035,58667	0,04853	0,04853	0,03994	0,05417	0,10267
1033,6582	0,04857	0,04857	0,04059	0,05453	0,10315
1031,72974	0,04856	0,04856	0,04179	0,05458	0,1037
1029,80127	0,04866	0,04866	0,04269	0,05409	0,10479
1027,8728	0,04871	0,04871	0,04345	0,05339	0,10598
1025,94434	0,04851	0,04851	0,04394	0,05231	0,10647
1024,01587	0,04844	0,04844	0,04371	0,05082	0,10634
1022,0874	0,04854	0,04854	0,0432	0,04964	0,10571



1020,15894	0,04835	0,04835	0,04238	0,04873	0,10476
1018,23047	0,04803	0,04803	0,04112	0,04768	0,10353
1016,302	0,04793	0,04793	0,03972	0,04672	0,10175
1014,37354	0,0478	0,0478	0,03849	0,04597	0,09999
1012,44507	0,04759	0,04759	0,03755	0,04542	0,09871
1010,5166	0,04745	0,04745	0,03665	0,0448	0,09741
1008,58813	0,04731	0,04731	0,03595	0,04413	0,09627
1006,65967	0,04723	0,04723	0,03553	0,04372	0,09568
1004,7312	0,04727	0,04727	0,03512	0,04335	0,09515
1002,80273	0,04726	0,04726	0,03473	0,04304	0,09454
1000,87427	0,04713	0,04713	0,03426	0,04288	0,09417
998,9458	0,04694	0,04694	0,03385	0,04265	0,09374
997,01733	0,04682	0,04682	0,03349	0,04225	0,09302
995,08887	0,04692	0,04692	0,03315	0,04193	0,09242
993,1604	0,04698	0,04698	0,03305	0,04182	0,09204
991,23193	0,04678	0,04678	0,03283	0,04163	0,09171
989,30347	0,04666	0,04666	0,03228	0,04136	0,09142
987,375	0,04667	0,04667	0,03197	0,04106	0,09106
985,44653	0,04661	0,04661	0,03192	0,04074	0,09078
983,51807	0,04663	0,04663	0,03184	0,04058	0,09051
981,5896	0,04673	0,04673	0,03178	0,04045	0,09024
979,66113	0,0467	0,0467	0,03171	0,04024	0,09031
977,73267	0,04644	0,04644	0,03158	0,04006	0,09027
975,8042	0,0462	0,0462	0,03147	0,03981	0,09011
973,87573	0,04628	0,04628	0,03155	0,03953	0,09024
971,94727	0,0463	0,0463	0,03171	0,0394	0,09014
970,0188	0,0462	0,0462	0,03152	0,0394	0,08989
968,09033	0,04625	0,04625	0,03129	0,03934	0,08991
966,16187	0,04636	0,04636	0,03122	0,0394	0,08997
964,2334	0,04641	0,04641	0,03113	0,0396	0,08988
962,30493	0,04635	0,04635	0,03124	0,03969	0,08978
960,37646	0,04637	0,04637	0,03134	0,03971	0,08984
958,448	0,04643	0,04643	0,03129	0,03979	0,08987
956,51953	0,04631	0,04631	0,03143	0,0401	0,08986
954,59106	0,04635	0,04635	0,03156	0,04031	0,09007
952,6626	0,04657	0,04657	0,03151	0,04008	0,09042
950,73413	0,04646	0,04646	0,03143	0,03976	0,0906
948,80566	0,04623	0,04623	0,03147	0,03951	0,09039
946,8772	0,04619	0,04619	0,0315	0,03926	0,09012
944,94873	0,04631	0,04631	0,03139	0,03927	0,09002
943,02026	0,04633	0,04633	0,03122	0,03926	0,08981
941,0918	0,04632	0,04632	0,0308	0,03897	0,08956
939,16333	0,0464	0,0464	0,03054	0,03886	0,08939
937,23486	0,04634	0,04634	0,03061	0,03894	0,08931
935,3064	0,04614	0,04614	0,03063	0,0389	0,08928
933,37793	0,04584	0,04584	0,03073	0,03888	0,08913
931,44946	0,04584	0,04584	0,03093	0,03875	0,08893
929,521	0,0462	0,0462	0,03105	0,03855	0,08892
927,59253	0,04634	0,04634	0,03103	0,03882	0,0891
925,66406	0,04621	0,04621	0,03101	0,03913	0,0891

923,7356	0,04608	0,04608	0,03111	0,03889	0,08889
921,80713	0,04615	0,04615	0,03111	0,03861	0,08883
919,87866	0,04624	0,04624	0,03113	0,03863	0,08874
917,9502	0,04626	0,04626	0,03116	0,03853	0,08862
916,02173	0,04654	0,04654	0,03102	0,03836	0,08888
914,09326	0,04657	0,04657	0,03081	0,03831	0,08896
912,16479	0,04636	0,04636	0,03057	0,03817	0,08864
910,23633	0,04649	0,04649	0,03044	0,03805	0,0886
908,30786	0,04653	0,04653	0,03061	0,038	0,08876
906,37939	0,04652	0,04652	0,03071	0,03793	0,08877
904,45093	0,04675	0,04675	0,03065	0,03809	0,08858
902,52246	0,04667	0,04667	0,03087	0,0383	0,08821
900,59399	0,04637	0,04637	0,03093	0,03803	0,08804
898,66553	0,04634	0,04634	0,03087	0,03774	0,0882
896,73706	0,04639	0,04639	0,03118	0,03805	0,08833
894,80859	0,04635	0,04635	0,03127	0,03825	0,08832
892,88013	0,04634	0,04634	0,03112	0,03805	0,08841
890,95166	0,04646	0,04646	0,03097	0,03793	0,08858
889,02319	0,04661	0,04661	0,03083	0,03793	0,08851
887,09473	0,0466	0,0466	0,03106	0,03808	0,08853
885,16626	0,04668	0,04668	0,03123	0,03834	0,08887
883,23779	0,04689	0,04689	0,0312	0,03841	0,08889
881,30933	0,04707	0,04707	0,0313	0,03847	0,08903
879,38086	0,04731	0,04731	0,03141	0,0388	0,08969
877,45239	0,04766	0,04766	0,03166	0,03907	0,09026
875,52393	0,04827	0,04827	0,03201	0,03932	0,09126
873,59546	0,04876	0,04876	0,03236	0,03987	0,09249
871,66699	0,04912	0,04912	0,0328	0,04022	0,09364
869,73853	0,04966	0,04966	0,03309	0,0405	0,09531
867,81006	0,04998	0,04998	0,03322	0,0412	0,09655
865,88159	0,05023	0,05023	0,03348	0,04176	0,09724
863,95313	0,05064	0,05064	0,03368	0,04199	0,09809
862,02466	0,05092	0,05092	0,03357	0,04212	0,09846
860,09619	0,05088	0,05088	0,03346	0,04191	0,09838
858,16772	0,05058	0,05058	0,03352	0,04153	0,09819
856,23926	0,0504	0,0504	0,03338	0,04138	0,09773
854,31079	0,05028	0,05028	0,03309	0,04142	0,09681
852,38232	0,05011	0,05011	0,03303	0,04142	0,09591
850,45386	0,0502	0,0502	0,03306	0,04142	0,09584
848,52539	0,05103	0,05103	0,03328	0,04167	0,09725
846,59692	0,05245	0,05245	0,03425	0,04251	0,10019
844,66846	0,05327	0,05327	0,03525	0,04347	0,10244
842,73999	0,05373	0,05373	0,03568	0,04406	0,10409
840,81152	0,0552	0,0552	0,03685	0,04528	0,1081
838,88306	0,05707	0,05707	0,03866	0,04713	0,11322
836,95459	0,0587	0,0587	0,04012	0,04868	0,11752
835,02612	0,06028	0,06028	0,04159	0,05009	0,12115
833,09766	0,06091	0,06091	0,04214	0,05066	0,12273
831,16919	0,06067	0,06067	0,04167	0,05053	0,1227
829,24072	0,06062	0,06062	0,04164	0,05052	0,1225

827,31226	0,06062	0,06062	0,04171	0,05014	0,1222
825,38379	0,06133	0,06133	0,04241	0,05065	0,12375
823,45532	0,06297	0,06297	0,04379	0,05213	0,12654
821,52686	0,0638	0,0638	0,04412	0,05249	0,1273
819,59839	0,06382	0,06382	0,04415	0,05236	0,1272
817,66992	0,06414	0,06414	0,04485	0,05285	0,12789
815,74146	0,06486	0,06486	0,04552	0,05348	0,1288
813,81299	0,06563	0,06563	0,04606	0,05413	0,13012
811,88452	0,0662	0,0662	0,04651	0,05488	0,13094
809,95605	0,06666	0,06666	0,04653	0,05521	0,13079
808,02759	0,06695	0,06695	0,04675	0,05504	0,13131
806,09912	0,06737	0,06737	0,04775	0,05531	0,13267
804,17065	0,06804	0,06804	0,04836	0,05588	0,13376
802,24219	0,06868	0,06868	0,04849	0,05616	0,13484
800,31372	0,0695	0,0695	0,04923	0,05654	0,13627
798,38525	0,07015	0,07015	0,05002	0,05712	0,13733
796,45679	0,07045	0,07045	0,05057	0,05761	0,13797
794,52832	0,07072	0,07072	0,05097	0,05752	0,13833
792,59985	0,07039	0,07039	0,05043	0,05713	0,13752
790,67139	0,06952	0,06952	0,04932	0,05708	0,13586
788,74292	0,06899	0,06899	0,04897	0,0568	0,13464
786,81445	0,06893	0,06893	0,04914	0,05622	0,13401
784,88599	0,06852	0,06852	0,04847	0,0557	0,13322
782,95752	0,06773	0,06773	0,04746	0,05494	0,13188
781,02905	0,06742	0,06742	0,04714	0,05435	0,13086
779,10059	0,06719	0,06719	0,04705	0,05447	0,13064
777,17212	0,06702	0,06702	0,04755	0,055	0,13094
775,24365	0,06767	0,06767	0,04857	0,05566	0,13214
773,31519	0,06819	0,06819	0,04924	0,05614	0,13348
771,38672	0,06826	0,06826	0,04987	0,05632	0,13393
769,45825	0,06851	0,06851	0,05023	0,05644	0,1341
767,52979	0,06862	0,06862	0,05038	0,05648	0,13426
765,60132	0,06879	0,06879	0,05076	0,05647	0,13442
763,67285	0,06919	0,06919	0,05073	0,05657	0,1345
761,74438	0,06908	0,06908	0,0505	0,05642	0,13421
759,81592	0,06847	0,06847	0,05027	0,05586	0,13366
757,88745	0,06792	0,06792	0,05009	0,05537	0,13296
755,95898	0,06767	0,06767	0,05016	0,05531	0,1326
754,03052	0,06738	0,06738	0,04979	0,05547	0,13249
752,10205	0,06688	0,06688	0,04924	0,05522	0,13197
750,17358	0,06701	0,06701	0,04926	0,0549	0,13187
748,24512	0,06745	0,06745	0,04982	0,05525	0,13252
746,31665	0,0675	0,0675	0,05052	0,05568	0,1331
744,38818	0,06811	0,06811	0,0506	0,05595	0,13337
742,45972	0,06872	0,06872	0,05062	0,05642	0,13323
740,53125	0,06838	0,06838	0,05115	0,05675	0,1334
738,60278	0,06832	0,06832	0,05137	0,05708	0,13397
736,67432	0,06899	0,06899	0,05162	0,0577	0,13414
734,74585	0,06929	0,06929	0,05209	0,05797	0,13415
732,81738	0,06911	0,06911	0,05187	0,05801	0,13402

730,88892	0,06919	0,06919	0,05158	0,05829	0,13416
728,96045	0,06914	0,06914	0,05169	0,05846	0,13493
727,03198	0,06936	0,06936	0,05196	0,05865	0,13564
725,10352	0,07012	0,07012	0,05268	0,05885	0,13671
723,17505	0,07089	0,07089	0,05321	0,05904	0,13768
721,24658	0,07203	0,07203	0,05327	0,05928	0,13777
719,31812	0,07228	0,07228	0,05363	0,05921	0,13791
717,38965	0,07178	0,07178	0,05423	0,05962	0,13883
715,46118	0,07226	0,07226	0,05504	0,06031	0,13982
713,53271	0,0725	0,0725	0,05574	0,06041	0,14011
711,60425	0,07228	0,07228	0,05554	0,0604	0,13946
709,67578	0,07237	0,07237	0,05518	0,06043	0,1392
707,74731	0,07219	0,07219	0,05535	0,06043	0,13942
705,81885	0,07213	0,07213	0,05572	0,06043	0,13912
703,89038	0,0727	0,0727	0,05538	0,06067	0,13886
701,96191	0,07298	0,07298	0,05466	0,06095	0,13894
700,03345	0,07313	0,07313	0,05509	0,06082	0,13883
698,10498	0,07374	0,07374	0,05571	0,06095	0,13862
696,17651	0,07397	0,07397	0,05538	0,06105	0,13863
694,24805	0,07383	0,07383	0,0551	0,06084	0,13912
692,31958	0,07414	0,07414	0,05514	0,0611	0,13983
690,39111	0,07486	0,07486	0,05548	0,06148	0,14003
688,46265	0,07549	0,07549	0,05589	0,06149	0,14034
686,53418	0,07623	0,07623	0,05601	0,06154	0,14125
684,60571	0,07631	0,07631	0,05595	0,06199	0,1414
682,67725	0,0764	0,0764	0,05591	0,06276	0,14161
680,74878	0,07784	0,07784	0,05644	0,06324	0,14271
678,82031	0,07803	0,07803	0,05731	0,06343	0,14325
676,89185	0,07864	0,07864	0,05763	0,06417	0,14398
674,96338	0,07874	0,07874	0,05844	0,06427	0,14522
673,03491	0,07878	0,07878	0,05953	0,06434	0,14498
671,10645	0,07883	0,07883	0,05916	0,0644	0,14477
669,17798	0,07888	0,07888	0,05949	0,06446	0,14646
667,24951	0,07892	0,07892	0,06047	0,06453	0,14657
665,32104	0,07897	0,07897	0,05991	0,06459	0,1455
663,39258	0,07902	0,07902	0,05996	0,06465	0,14581
661,46411	0,07906	0,07906	0,06004	0,06472	0,14513
659,53564	0,07911	0,07911	0,06012	0,06478	0,14514
657,60718	0,07915	0,07915	0,0602	0,06484	0,14594
655,67871	0,0792	0,0792	0,06029	0,06491	0,1453
653,75024	0,07925	0,07925	0,06037	0,06497	0,14462
651,82178	0,07929	0,07929	0,06045	0,06503	0,14471
649,89331	0,07934	0,07934	0,06053	0,0651	0,14517
647,96484	0,07939	0,07939	0,06061	0,06501	0,14613
646,03638	0,07943	0,07943	0,0607	0,06564	0,14636
644,10791	0,07934	0,07934	0,06078	0,06602	0,1459
642,17944	0,07929	0,07929	0,06047	0,06612	0,14587
640,25098	0,07894	0,07894	0,06081	0,06582	0,14602
638,32251	0,07897	0,07897	0,06072	0,06597	0,14593
636,39404	0,07863	0,07863	0,06125	0,06645	0,14557

634,46558	0,07828	0,07828	0,06129	0,06582	0,14493
632,53711	0,07835	0,07835	0,05977	0,06538	0,14441
630,60864	0,07794	0,07794	0,05903	0,06545	0,14391
628,68018	0,07764	0,07764	0,05906	0,06506	0,1435
626,75171	0,07746	0,07746	0,05957	0,06524	0,14349
624,82324	0,07767	0,07767	0,05934	0,06572	0,14339
622,89478	0,07755	0,07755	0,05816	0,06536	0,14303
620,96631	0,07711	0,07711	0,05836	0,06547	0,14295
619,03784	0,0783	0,0783	0,05893	0,06609	0,14335
617,10938	0,07896	0,07896	0,05979	0,06575	0,14373
615,18091	0,07868	0,07868	0,0604	0,06547	0,1437
613,25244	0,07925	0,07925	0,05906	0,06592	0,14366
611,32397	0,07922	0,07922	0,05848	0,06622	0,14377
609,39551	0,07871	0,07871	0,05904	0,06624	0,14404
607,46704	0,07857	0,07857	0,05936	0,0662	0,14429
605,53857	0,07857	0,07857	0,05986	0,06635	0,14391
603,61011	0,0783	0,0783	0,05977	0,06662	0,14331
601,68164	0,07764	0,07764	0,05966	0,06671	0,14286
599,75317	0,07755	0,07755	0,05963	0,06683	0,14219
597,82471	0,0778	0,0778	0,05895	0,06673	0,14192
595,89624	0,07786	0,07786	0,05849	0,06631	0,14186
593,96777	0,07763	0,07763	0,05963	0,06652	0,1414
592,03931	0,07724	0,07724	0,06148	0,06697	0,14149
590,11084	0,07784	0,07784	0,06007	0,0667	0,14173
588,18237	0,07824	0,07824	0,05843	0,06671	0,14146
586,25391	0,07765	0,07765	0,05944	0,06706	0,14137
584,32544	0,07816	0,07816	0,05905	0,06652	0,14125
582,39697	0,0788	0,0788	0,05955	0,06579	0,14131
580,46851	0,07862	0,07862	0,06018	0,06582	0,14181
578,54004	0,07867	0,07867	0,0589	0,06599	0,14156
576,61157	0,07829	0,07829	0,06022	0,06632	0,14085
574,68311	0,07801	0,07801	0,05938	0,06678	0,14114
572,75464	0,07855	0,07855	0,05649	0,06674	0,14198
570,82617	0,07866	0,07866	0,05818	0,06716	0,14259
568,89771	0,07853	0,07853	0,05995	0,06791	0,14374
566,96924	0,0788	0,0788	0,05933	0,06803	0,14503
565,04077	0,07934	0,07934	0,0588	0,06824	0,14566
563,1123	0,07977	0,07977	0,05879	0,06807	0,14621
561,18384	0,07988	0,07988	0,05963	0,06752	0,14676
559,25537	0,08013	0,08013	0,06003	0,06795	0,14709
557,3269	0,08061	0,08061	0,05969	0,06871	0,14701
555,39844	0,08107	0,08107	0,05943	0,06915	0,14682
553,46997	0,08168	0,08168	0,05947	0,06933	0,14684
551,5415	0,0815	0,0815	0,06013	0,06934	0,14675
549,61304	0,0803	0,0803	0,0603	0,0697	0,14722
547,68457	0,07955	0,07955	0,05899	0,06939	0,14758
545,7561	0,07983	0,07983	0,0585	0,06883	0,14758
543,82764	0,08055	0,08055	0,05866	0,06922	0,1485
541,89917	0,08071	0,08071	0,05764	0,06939	0,14946
539,9707	0,08063	0,08063	0,05705	0,06968	0,15056

538,04224	0,08036	0,08036	0,05722	0,07001	0,15208
536,11377	0,07935	0,07935	0,05663	0,07005	0,15314
534,1853	0,07905	0,07905	0,05611	0,07034	0,15406
532,25684	0,07888	0,07888	0,0552	0,06959	0,15557
530,32837	0,07913	0,07913	0,055	0,07021	0,15694
528,3999	0,07695	0,07695	0,05443	0,0705	0,15659
526,47144	0,07231	0,07231	0,05154	0,06762	0,1566
524,54297	0,07392	0,07392	0,05039	0,06784	0,15832
522,6145	0,07584	0,07584	0,05009	0,06973	0,15959
520,68604	0,07173	0,07173	0,04759	0,06871	0,1607
518,75757	0,06779	0,06779	0,04551	0,06756	0,16227
516,8291	0,06614	0,06614	0,04433	0,06698	0,16474
514,90063	0,06652	0,06652	0,04451	0,06715	0,16579
512,97217	0,06555	0,06555	0,04531	0,06788	0,16557
511,0437	0,06266	0,06266	0,04333	0,06639	0,16839
509,11523	0,0604	0,0604	0,04025	0,06382	0,17017
507,18677	0,05769	0,05769	0,03917	0,06406	0,16931
505,2583	0,0572	0,0572	0,03835	0,06444	0,16998
503,32983	0,05651	0,05651	0,03646	0,06245	0,17079
501,40137	0,05447	0,05447	0,03631	0,06201	0,17236
499,4729	0,0547	0,0547	0,03655	0,06291	0,17309

	<b>Figure 5.4</b>			
n°spectre	VD449	VD450	VD459	VD435
	a	b	c	d
<b>cm-1</b>	AspyF1 27/01	AspyF1 27/01	AspyF1 27/01	Aspy pH=4,5
4001,5686	0,27814	0,25281	0,71539	0,15126
3999,64014	0,27803	0,25259	0,71511	0,15117
3997,71167	0,2782	0,2526	0,71484	0,15124
3995,7832	0,27813	0,25275	0,71494	0,15133
3993,85474	0,2779	0,25254	0,71499	0,15114
3991,92627	0,27789	0,25244	0,71511	0,15109
3989,9978	0,27774	0,25255	0,71494	0,15109
3988,06934	0,27762	0,25235	0,71439	0,15107
3986,14087	0,27778	0,25223	0,71433	0,1511
3984,2124	0,27772	0,25241	0,71453	0,15098
3982,28394	0,27745	0,25236	0,71434	0,15092
3980,35547	0,27728	0,25208	0,714	0,15093
3978,427	0,27723	0,25205	0,71415	0,15098
3976,49854	0,27736	0,25235	0,71425	0,15112
3974,57007	0,27733	0,25234	0,71377	0,15102
3972,6416	0,27704	0,25195	0,71354	0,15084
3970,71313	0,27704	0,25196	0,71361	0,15083
3968,78467	0,27719	0,25219	0,71338	0,15095
3966,8562	0,27683	0,25196	0,71329	0,15081
3964,92773	0,27678	0,25175	0,7133	0,15088
3962,99927	0,27713	0,25207	0,71299	0,1512
3961,0708	0,27657	0,25223	0,71313	0,15072
3959,14233	0,27644	0,25182	0,7125	0,1507
3957,21387	0,27662	0,25168	0,71213	0,15095
3955,2854	0,27635	0,25193	0,71292	0,15078
3953,35693	0,27662	0,25157	0,71095	0,15086
3951,42847	0,27598	0,25189	0,71346	0,15079
3949,5	0,27518	0,25331	0,71896	0,15082
3947,57153	0,27529	0,25231	0,71305	0,14996
3945,64307	0,27588	0,25105	0,70993	0,15025
3943,7146	0,27671	0,25219	0,71368	0,15187
3941,78613	0,27553	0,25203	0,71103	0,15038
3939,85767	0,27497	0,25102	0,71001	0,14979
3937,9292	0,27588	0,25132	0,7115	0,15099
3936,00073	0,27556	0,25133	0,71027	0,15049
3934,07227	0,27607	0,25145	0,7114	0,1512
3932,1438	0,27627	0,25208	0,71233	0,15163
3930,21533	0,27445	0,25156	0,70986	0,14952
3928,28687	0,27475	0,25082	0,70952	0,14976
3926,3584	0,27629	0,25141	0,71139	0,1516
3924,42993	0,27549	0,25189	0,71087	0,15082
3922,50146	0,27443	0,25106	0,70937	0,14964

3920,573	0,27546	0,25101	0,71049	0,15095
3918,64453	0,27584	0,25153	0,71147	0,15148
3916,71606	0,27475	0,25125	0,71015	0,1501
3914,7876	0,27392	0,25052	0,70817	0,14908
3912,85913	0,27459	0,25058	0,70893	0,15014
3910,93066	0,27541	0,25083	0,71007	0,15121
3909,0022	0,27453	0,2506	0,70872	0,14998
3907,07373	0,27555	0,25101	0,71016	0,15127
3905,14526	0,27723	0,25186	0,71265	0,15347
3903,2168	0,27491	0,25114	0,71045	0,15056
3901,28833	0,27394	0,25028	0,7094	0,14931
3899,35986	0,27423	0,2508	0,70971	0,15007
3897,4314	0,2727	0,25006	0,70748	0,1484
3895,50293	0,27271	0,24995	0,70682	0,14852
3893,57446	0,2761	0,25119	0,71062	0,15265
3891,646	0,27697	0,25169	0,71207	0,15332
3889,71753	0,27078	0,24921	0,70419	0,14612
3887,78906	0,27472	0,25003	0,70862	0,15121
3885,8606	0,27865	0,25159	0,71364	0,15509
3883,93213	0,26997	0,24907	0,70332	0,14518
3882,00366	0,27456	0,2503	0,7092	0,15153
3880,0752	0,27629	0,25227	0,71215	0,15313
3878,14673	0,26958	0,24887	0,70291	0,14519
3876,21826	0,27567	0,24985	0,70947	0,15249
3874,28979	0,27493	0,25152	0,70953	0,15154
3872,36133	0,27228	0,25009	0,70666	0,14895
3870,43286	0,27788	0,25048	0,71266	0,15478
3868,50439	0,27078	0,24932	0,70437	0,14635
3866,57593	0,27183	0,24884	0,70524	0,14846
3864,64746	0,27666	0,25038	0,71093	0,15378
3862,71899	0,27058	0,24995	0,70486	0,14712
3860,79053	0,27201	0,24909	0,7054	0,14899
3858,86206	0,27298	0,24965	0,70573	0,14996
3856,93359	0,27261	0,25081	0,7068	0,15032
3855,00513	0,28087	0,25014	0,71562	0,15855
3853,07666	0,27665	0,25037	0,71119	0,1518
3851,14819	0,26566	0,24672	0,69876	0,1411
3849,21973	0,27053	0,24862	0,70377	0,14782
3847,29126	0,27261	0,2492	0,70463	0,14998
3845,36279	0,27318	0,25004	0,70599	0,15097
3843,43433	0,27378	0,25018	0,70677	0,15154
3841,50586	0,27198	0,25019	0,7047	0,14957
3839,57739	0,27405	0,25035	0,70755	0,15198
3837,64893	0,27415	0,24905	0,70718	0,15127
3835,72046	0,26892	0,24741	0,70103	0,14559
3833,79199	0,27148	0,24889	0,70466	0,14944
3831,86353	0,27292	0,24927	0,70558	0,15076



3829,93506	0,26964	0,24841	0,70122	0,14695
3828,00659	0,2733	0,24953	0,70598	0,1515
3826,07813	0,27164	0,24986	0,70415	0,14955
3824,14966	0,27021	0,2491	0,70232	0,14841
3822,22119	0,27824	0,25012	0,71131	0,15716
3820,29272	0,26947	0,24976	0,70218	0,14653
3818,36426	0,2686	0,24784	0,70065	0,14629
3816,43579	0,2763	0,2488	0,70804	0,15461
3814,50732	0,26867	0,24746	0,69922	0,14566
3812,57886	0,26902	0,2478	0,70016	0,14694
3810,65039	0,27192	0,24895	0,70302	0,15042
3808,72192	0,2742	0,24929	0,70572	0,15298
3806,79346	0,27359	0,24866	0,70447	0,15128
3804,86499	0,26765	0,24721	0,69842	0,14517
3802,93652	0,2747	0,24909	0,70753	0,15411
3801,00806	0,27362	0,24971	0,70535	0,15163
3799,07959	0,26592	0,24666	0,69649	0,14342
3797,15112	0,27247	0,249	0,70475	0,15172
3795,22266	0,27061	0,24861	0,70153	0,14876
3793,29419	0,26843	0,24752	0,69912	0,14692
3791,36572	0,27207	0,24857	0,70338	0,1512
3789,43726	0,27056	0,24833	0,70123	0,14897
3787,50879	0,27081	0,24808	0,70136	0,14982
3785,58032	0,27192	0,249	0,70278	0,15136
3783,65186	0,26928	0,24834	0,69996	0,14823
3781,72339	0,27088	0,24792	0,70146	0,15013
3779,79492	0,27214	0,24893	0,70281	0,15139
3777,86646	0,26895	0,24797	0,6994	0,14765
3775,93799	0,26952	0,24736	0,6999	0,1486
3774,00952	0,27015	0,24772	0,70045	0,14956
3772,08105	0,27142	0,2482	0,70199	0,15101
3770,15259	0,27188	0,24863	0,70257	0,15121
3768,22412	0,26832	0,24722	0,6986	0,14728
3766,29565	0,2702	0,24762	0,70095	0,14988
3764,36719	0,26954	0,24776	0,69975	0,14885
3762,43872	0,26849	0,24714	0,6986	0,1478
3760,51025	0,27235	0,24827	0,70328	0,15242
3758,58179	0,26948	0,24838	0,7	0,14904
3756,65332	0,26762	0,24717	0,69776	0,14712
3754,72485	0,27013	0,24758	0,70046	0,1501
3752,79639	0,27234	0,24792	0,70317	0,15248
3750,86792	0,27348	0,24791	0,70524	0,1531
3748,93945	0,2644	0,24456	0,69399	0,14234
3747,01099	0,26789	0,24636	0,69842	0,14786
3745,08252	0,27663	0,24731	0,70763	0,1573
3743,15405	0,26539	0,24416	0,69459	0,14328
3741,22559	0,26413	0,24572	0,69431	0,14361
3739,29712	0,27108	0,24747	0,70146	0,15164

3737,36865	0,2726	0,24726	0,7024	0,15257
3735,44019	0,26905	0,24781	0,70009	0,14932
3733,51172	0,26844	0,2466	0,69947	0,14872
3731,58325	0,2676	0,24455	0,69628	0,14666
3729,65479	0,26772	0,24488	0,69542	0,14702
3727,72632	0,27058	0,24614	0,69932	0,15096
3725,79785	0,27011	0,24655	0,69901	0,1503
3723,86938	0,26842	0,24626	0,69704	0,14844
3721,94092	0,26903	0,24625	0,69789	0,1495
3720,01245	0,26799	0,24595	0,69677	0,14831
3718,08398	0,26804	0,24567	0,69643	0,14831
3716,15552	0,26761	0,24577	0,69595	0,14807
3714,22705	0,26949	0,24617	0,69878	0,15054
3712,29858	0,2716	0,24628	0,70047	0,15249
3710,37012	0,26634	0,24501	0,69594	0,14626
3708,44165	0,26602	0,24433	0,69687	0,14626
3706,51318	0,26689	0,24389	0,69423	0,14723
3704,58472	0,26808	0,24424	0,69474	0,14868
3702,65625	0,26994	0,2452	0,69843	0,1509
3700,72778	0,26643	0,24419	0,69409	0,14684
3698,79932	0,26595	0,24315	0,69333	0,14648
3696,87085	0,26757	0,24383	0,69539	0,14856
3694,94238	0,26678	0,24347	0,69382	0,14758
3693,01392	0,26687	0,24276	0,69399	0,14786
3691,08545	0,26802	0,24306	0,69637	0,1498
3689,15698	0,26602	0,24145	0,69395	0,14725
3687,22852	0,2621	0,23861	0,68836	0,14236
3685,30005	0,26207	0,2402	0,68907	0,14333
3683,37158	0,26494	0,24146	0,69211	0,14682
3681,44312	0,26651	0,24167	0,69329	0,14824
3679,51465	0,26406	0,24278	0,69169	0,1458
3677,58618	0,26834	0,24288	0,69675	0,15064
3675,65771	0,27018	0,24409	0,6993	0,15224
3673,72925	0,25896	0,24066	0,6863	0,13923
3671,80078	0,26599	0,2414	0,69394	0,1477
3669,87231	0,26952	0,24324	0,69747	0,15136
3667,94385	0,2603	0,2415	0,68721	0,14126
3666,01538	0,2638	0,2419	0,69104	0,14572
3664,08691	0,2663	0,24253	0,69346	0,14849
3662,15845	0,26509	0,24276	0,6922	0,14734
3660,22998	0,26467	0,24263	0,69141	0,14701
3658,30151	0,26684	0,24299	0,69415	0,14968
3656,37305	0,26696	0,24283	0,69428	0,14938
3654,44458	0,26209	0,24111	0,68832	0,14375
3652,51611	0,26577	0,24237	0,69316	0,14888
3650,58765	0,26994	0,24383	0,69847	0,15364
3648,65918	0,26304	0,24256	0,69168	0,14554
3646,73071	0,26063	0,24106	0,68817	0,14307

3644,80225	0,26248	0,24098	0,689	0,14518
3642,87378	0,26421	0,24107	0,69039	0,14728
3640,94531	0,26499	0,24137	0,69127	0,1483
3639,01685	0,26395	0,24072	0,68964	0,14695
3637,08838	0,26438	0,24055	0,68988	0,14774
3635,15991	0,26561	0,24065	0,69132	0,14914
3633,23145	0,26331	0,24027	0,68876	0,1464
3631,30298	0,26559	0,23991	0,69154	0,14941
3629,37451	0,26909	0,24014	0,69586	0,15324
3627,44604	0,25939	0,23786	0,68408	0,14159
3625,51758	0,26087	0,23777	0,68559	0,14405
3623,58911	0,26443	0,23833	0,68911	0,14822
3621,66064	0,26427	0,23827	0,68879	0,14805
3619,73218	0,26531	0,23865	0,69104	0,14958
3617,80371	0,26084	0,23752	0,68616	0,14429
3615,87524	0,2613	0,23685	0,68634	0,14496
3613,94678	0,26409	0,2377	0,68972	0,1483
3612,01831	0,26131	0,23679	0,68632	0,14476
3610,08984	0,26268	0,23539	0,6873	0,14623
3608,16138	0,2633	0,23569	0,68822	0,14693
3606,23291	0,26055	0,23528	0,68497	0,14358
3604,30444	0,26216	0,23474	0,68599	0,14543
3602,37598	0,26368	0,23501	0,68802	0,14721
3600,44751	0,26287	0,23521	0,68763	0,14613
3598,51904	0,26238	0,23446	0,68579	0,14537
3596,59058	0,26302	0,23433	0,68643	0,14624
3594,66211	0,26298	0,23467	0,68723	0,14617
3592,73364	0,26141	0,234	0,68488	0,14413
3590,80518	0,26255	0,23342	0,68568	0,14541
3588,87671	0,26471	0,23394	0,68874	0,14789
3586,94824	0,2614	0,23449	0,68582	0,14442
3585,01978	0,25969	0,23287	0,68287	0,1423
3583,09131	0,26183	0,23264	0,6849	0,14461
3581,16284	0,26207	0,23289	0,6851	0,145
3579,23438	0,26168	0,23274	0,68426	0,14451
3577,30591	0,26153	0,23244	0,68415	0,14422
3575,37744	0,26127	0,23234	0,68402	0,14415
3573,44897	0,26114	0,23212	0,68366	0,14397
3571,52051	0,26074	0,23186	0,6831	0,14333
3569,59204	0,26214	0,23212	0,685	0,1451
3567,66357	0,26212	0,23321	0,68628	0,14545
3565,73511	0,25836	0,23242	0,68193	0,14114
3563,80664	0,25887	0,23101	0,68133	0,14152
3561,87817	0,26055	0,2309	0,68269	0,14335
3559,94971	0,26005	0,23091	0,68173	0,1428
3558,02124	0,25976	0,23044	0,68136	0,14256
3556,09277	0,2598	0,23009	0,68118	0,14265
3554,16431	0,26021	0,23037	0,68161	0,14301

3552,23584	0,25986	0,23035	0,68144	0,14261
3550,30737	0,25879	0,22951	0,67972	0,14158
3548,37891	0,25966	0,22957	0,68076	0,14266
3546,45044	0,2596	0,2301	0,68133	0,14282
3544,52197	0,25823	0,22958	0,67981	0,14138
3542,59351	0,25843	0,22901	0,67966	0,14146
3540,66504	0,25855	0,22859	0,67917	0,14164
3538,73657	0,25863	0,22841	0,67911	0,14184
3536,80811	0,25873	0,22852	0,67928	0,14191
3534,87964	0,25811	0,22809	0,67833	0,1413
3532,95117	0,25781	0,2276	0,67775	0,14124
3531,02271	0,25816	0,22756	0,67797	0,14164
3529,09424	0,25813	0,22758	0,67793	0,14154
3527,16577	0,25728	0,22717	0,67693	0,14086
3525,2373	0,25718	0,22691	0,67701	0,14088
3523,30884	0,25726	0,2269	0,67716	0,14093
3521,38037	0,25663	0,22634	0,67595	0,14034
3519,4519	0,25674	0,22584	0,67571	0,1405
3517,52344	0,25696	0,22559	0,67538	0,14076
3515,59497	0,25653	0,22525	0,67473	0,14042
3513,6665	0,25633	0,22499	0,67465	0,14023
3511,73804	0,25643	0,22489	0,67454	0,1404
3509,80957	0,25618	0,225	0,67438	0,14022
3507,8811	0,25553	0,2245	0,67339	0,13945
3505,95264	0,2557	0,22401	0,67345	0,13986
3504,02417	0,25603	0,22445	0,67433	0,14051
3502,0957	0,25519	0,22429	0,67335	0,13956
3500,16724	0,25496	0,22359	0,6727	0,13928
3498,23877	0,25552	0,2236	0,67287	0,13991
3496,3103	0,25519	0,2236	0,67248	0,13979
3494,38184	0,25473	0,22336	0,67208	0,13949
3492,45337	0,25487	0,22309	0,67173	0,13951
3490,5249	0,25504	0,22287	0,67191	0,13962
3488,59644	0,25495	0,22299	0,67196	0,13964
3486,66797	0,25466	0,22287	0,6715	0,1394
3484,7395	0,25471	0,22252	0,67164	0,13948
3482,81104	0,25482	0,22263	0,67156	0,13974
3480,88257	0,25438	0,22259	0,67111	0,1393
3478,9541	0,25431	0,22218	0,67109	0,13911
3477,02563	0,25459	0,22205	0,67072	0,1396
3475,09717	0,25439	0,22207	0,67049	0,13954
3473,1687	0,25412	0,22193	0,6706	0,13922
3471,24023	0,25408	0,22182	0,67035	0,13931
3469,31177	0,25421	0,22191	0,6706	0,13953
3467,3833	0,25433	0,22186	0,67048	0,13947
3465,45483	0,25421	0,22154	0,66964	0,13937
3463,52637	0,25402	0,22145	0,66973	0,13954
3461,5979	0,2539	0,22146	0,66986	0,13934

3459,66943	0,25389	0,22129	0,66941	0,13922
3457,74097	0,25373	0,22115	0,66889	0,13934
3455,8125	0,25367	0,22091	0,66867	0,13931
3453,88403	0,25376	0,22084	0,66881	0,13938
3451,95557	0,25348	0,22073	0,6684	0,13906
3450,0271	0,25356	0,2205	0,66842	0,1392
3448,09863	0,2537	0,22077	0,66884	0,13966
3446,17017	0,25319	0,22071	0,66835	0,13904
3444,2417	0,25325	0,22044	0,66831	0,13886
3442,31323	0,25347	0,2207	0,66834	0,13921
3440,38477	0,25323	0,2205	0,66783	0,1391
3438,4563	0,25339	0,22032	0,6682	0,13933
3436,52783	0,25356	0,22061	0,66854	0,13952
3434,59937	0,25344	0,22067	0,66832	0,13941
3432,6709	0,25334	0,2206	0,66848	0,13955
3430,74243	0,25332	0,22057	0,66852	0,13951
3428,81396	0,25363	0,22069	0,6683	0,13948
3426,8855	0,25366	0,22069	0,66836	0,1396
3424,95703	0,25344	0,22064	0,66856	0,13956
3423,02856	0,25368	0,22097	0,66869	0,13982
3421,1001	0,25378	0,22121	0,66892	0,13995
3419,17163	0,25366	0,2211	0,66884	0,13968
3417,24316	0,25378	0,22111	0,66847	0,13981
3415,3147	0,2539	0,22124	0,66885	0,14005
3413,38623	0,25405	0,22136	0,66932	0,13999
3411,45776	0,25415	0,2215	0,66923	0,14007
3409,5293	0,25421	0,22157	0,66957	0,14027
3407,60083	0,25431	0,22161	0,66978	0,14036
3405,67236	0,2543	0,22172	0,66957	0,14038
3403,7439	0,25441	0,22191	0,66987	0,14048
3401,81543	0,2546	0,22214	0,67026	0,14071
3399,88696	0,2547	0,2223	0,67059	0,14091
3397,9585	0,25481	0,22241	0,67074	0,14086
3396,03003	0,25482	0,22243	0,67054	0,14082
3394,10156	0,2548	0,22254	0,67067	0,14093
3392,1731	0,25493	0,22279	0,67108	0,14093
3390,24463	0,25511	0,22289	0,67133	0,14096
3388,31616	0,25519	0,22297	0,67123	0,14107
3386,3877	0,25518	0,22314	0,67127	0,14109
3384,45923	0,25523	0,22337	0,67174	0,14109
3382,53076	0,25536	0,22357	0,6719	0,14113
3380,60229	0,25551	0,22362	0,67209	0,14124
3378,67383	0,25565	0,22377	0,67249	0,14134
3376,74536	0,25589	0,22411	0,67288	0,14152
3374,81689	0,25605	0,2243	0,67327	0,14167
3372,88843	0,25605	0,22434	0,67342	0,14159
3370,95996	0,25631	0,22468	0,67389	0,14169
3369,03149	0,25656	0,22515	0,67454	0,14202

3367,10303	0,25657	0,22537	0,67484	0,14215
3365,17456	0,25657	0,22545	0,67467	0,142
3363,24609	0,25658	0,22554	0,67462	0,14201
3361,31763	0,2568	0,22575	0,67536	0,1422
3359,38916	0,25705	0,22606	0,67556	0,14225
3357,46069	0,25716	0,22628	0,67565	0,14237
3355,53223	0,25728	0,22631	0,67628	0,14239
3353,60376	0,2574	0,22644	0,67625	0,14239
3351,67529	0,25763	0,22681	0,67651	0,1427
3349,74683	0,25783	0,22702	0,67708	0,14286
3347,81836	0,25785	0,22703	0,67691	0,14285
3345,88989	0,25791	0,22721	0,67696	0,14282
3343,96143	0,2581	0,22749	0,67753	0,14294
3342,03296	0,25819	0,22765	0,67785	0,14314
3340,10449	0,25826	0,22782	0,67794	0,14321
3338,17603	0,25843	0,22811	0,67828	0,14337
3336,24756	0,25835	0,22823	0,67857	0,14335
3334,31909	0,25836	0,22826	0,6785	0,1433
3332,39063	0,25871	0,22839	0,67863	0,14349
3330,46216	0,25882	0,22852	0,67905	0,1435
3328,53369	0,25885	0,22858	0,6792	0,14344
3326,60522	0,25903	0,22878	0,67916	0,14364
3324,67676	0,25902	0,22908	0,67943	0,14379
3322,74829	0,25907	0,22907	0,67981	0,14375
3320,81982	0,25921	0,22906	0,67997	0,14372
3318,89136	0,25918	0,22926	0,67976	0,1437
3316,96289	0,25931	0,22931	0,67973	0,14379
3315,03442	0,25946	0,2294	0,68027	0,14389
3313,10596	0,25942	0,22954	0,68033	0,14383
3311,17749	0,25957	0,22965	0,68018	0,14399
3309,24902	0,25969	0,22982	0,68041	0,14417
3307,32056	0,25964	0,22989	0,68052	0,14412
3305,39209	0,25976	0,22996	0,68086	0,14427
3303,46362	0,25979	0,22998	0,68106	0,14438
3301,53516	0,25967	0,22995	0,68078	0,14426
3299,60669	0,25962	0,23001	0,6809	0,14427
3297,67822	0,25961	0,23004	0,68125	0,14431
3295,74976	0,25974	0,23005	0,68127	0,14433
3293,82129	0,25992	0,2301	0,68134	0,14442
3291,89282	0,25985	0,23013	0,68147	0,14445
3289,96436	0,25981	0,23003	0,68122	0,1444
3288,03589	0,25981	0,22996	0,68089	0,14436
3286,10742	0,25972	0,23004	0,68086	0,14441
3284,17896	0,25969	0,23004	0,68106	0,14444
3282,25049	0,25963	0,22996	0,68125	0,14441
3280,32202	0,25962	0,22996	0,68126	0,14445
3278,39355	0,25963	0,22999	0,68127	0,14443
3276,46509	0,25954	0,23011	0,68114	0,14443

3274,53662	0,25955	0,23016	0,68096	0,14451
3272,60815	0,25963	0,23009	0,68128	0,14449
3270,67969	0,25962	0,23012	0,68157	0,14453
3268,75122	0,25945	0,23007	0,68144	0,14449
3266,82275	0,25937	0,22988	0,68139	0,14442
3264,89429	0,25942	0,22979	0,68135	0,14449
3262,96582	0,25946	0,22983	0,68134	0,14451
3261,03735	0,25946	0,22986	0,68123	0,14452
3259,10889	0,25935	0,2297	0,68104	0,1445
3257,18042	0,25938	0,22969	0,68142	0,14452
3255,25195	0,25943	0,22989	0,68171	0,14465
3253,32349	0,25931	0,22977	0,68147	0,14462
3251,39502	0,25924	0,2297	0,68145	0,14453
3249,46655	0,25918	0,22984	0,68155	0,14452
3247,53809	0,25931	0,22989	0,68181	0,14472
3245,60962	0,25938	0,22995	0,68185	0,14481
3243,68115	0,25906	0,22988	0,68142	0,14453
3241,75269	0,25906	0,22982	0,68144	0,14451
3239,82422	0,25922	0,22988	0,68172	0,14464
3237,89575	0,25917	0,22977	0,68161	0,14468
3235,96729	0,25917	0,22982	0,68155	0,14478
3234,03882	0,25917	0,23001	0,68198	0,14481
3232,11035	0,25914	0,22989	0,68224	0,14484
3230,18188	0,25904	0,22974	0,6818	0,14478
3228,25342	0,25894	0,22972	0,6817	0,1447
3226,32495	0,25905	0,22978	0,682	0,14487
3224,39648	0,25919	0,22984	0,68184	0,14492
3222,46802	0,25915	0,22978	0,68172	0,14484
3220,53955	0,25907	0,22978	0,68184	0,14485
3218,61108	0,25906	0,22981	0,68172	0,14478
3216,68262	0,25906	0,22974	0,6818	0,14482
3214,75415	0,25899	0,22977	0,68199	0,1449
3212,82568	0,25895	0,22976	0,6818	0,14484
3210,89722	0,25901	0,22969	0,68181	0,14492
3208,96875	0,25899	0,22972	0,68203	0,14487
3207,04028	0,25893	0,22972	0,68198	0,14481
3205,11182	0,25897	0,22965	0,68198	0,14497
3203,18335	0,25902	0,22966	0,68211	0,14496
3201,25488	0,25902	0,22974	0,68203	0,14501
3199,32642	0,25886	0,22977	0,68193	0,14514
3197,39795	0,2587	0,22987	0,68204	0,14504
3195,46948	0,25878	0,22989	0,68209	0,14502
3193,54102	0,2589	0,22983	0,68217	0,14515
3191,61255	0,25898	0,22993	0,68228	0,14523
3189,68408	0,25903	0,22997	0,68224	0,14525
3187,75562	0,25909	0,22985	0,68249	0,14535
3185,82715	0,25913	0,22984	0,68276	0,14548
3183,89868	0,259	0,22991	0,68253	0,14538

3181,97021	0,259	0,22985	0,6823	0,1454
3180,04175	0,25913	0,22984	0,68236	0,14559
3178,11328	0,25905	0,2299	0,68245	0,14551
3176,18481	0,25898	0,22985	0,68253	0,14546
3174,25635	0,25903	0,2298	0,68263	0,14558
3172,32788	0,25906	0,2298	0,68265	0,14559
3170,39941	0,25909	0,22987	0,68282	0,14559
3168,47095	0,25907	0,22996	0,6828	0,14566
3166,54248	0,25904	0,22986	0,68249	0,14568
3164,61401	0,25907	0,22984	0,68257	0,14568
3162,68555	0,25909	0,22992	0,68285	0,14574
3160,75708	0,2591	0,22983	0,68273	0,14585
3158,82861	0,25906	0,22986	0,68249	0,14586
3156,90015	0,25902	0,22996	0,6826	0,14582
3154,97168	0,25909	0,22999	0,68285	0,14586
3153,04321	0,25911	0,23	0,68302	0,14598
3151,11475	0,25902	0,22991	0,683	0,146
3149,18628	0,25889	0,22985	0,68261	0,14589
3147,25781	0,25884	0,22981	0,68254	0,14599
3145,32935	0,259	0,22979	0,68292	0,14614
3143,40088	0,25893	0,22979	0,6827	0,1461
3141,47241	0,25878	0,22979	0,68238	0,14618
3139,54395	0,25903	0,22993	0,68274	0,14629
3137,61548	0,25899	0,22985	0,68283	0,14623
3135,68701	0,25885	0,2297	0,68268	0,14626
3133,75854	0,25892	0,22976	0,68268	0,14626
3131,83008	0,25873	0,22972	0,68228	0,14616
3129,90161	0,2588	0,22978	0,68227	0,14635
3127,97314	0,25887	0,22984	0,68259	0,1464
3126,04468	0,25871	0,22967	0,6825	0,14628
3124,11621	0,25883	0,22964	0,68238	0,14646
3122,18774	0,2588	0,22971	0,68224	0,14653
3120,25928	0,25874	0,22972	0,68237	0,14651
3118,33081	0,25881	0,22981	0,68266	0,14666
3116,40234	0,2588	0,22988	0,68254	0,14673
3114,47388	0,25881	0,2297	0,68247	0,14669
3112,54541	0,25865	0,22944	0,68236	0,14656
3110,61694	0,25858	0,22946	0,68212	0,14657
3108,68848	0,25872	0,22955	0,68226	0,14672
3106,76001	0,25865	0,22946	0,68222	0,14668
3104,83154	0,25859	0,22933	0,68192	0,1466
3102,90308	0,25869	0,22937	0,68211	0,14668
3100,97461	0,25863	0,22939	0,68228	0,14666
3099,04614	0,25853	0,2293	0,68201	0,14657
3097,11768	0,2586	0,22931	0,68183	0,14667
3095,18921	0,25847	0,22931	0,68173	0,14664
3093,26074	0,25839	0,22922	0,68164	0,14654
3091,33228	0,25861	0,22928	0,68173	0,14677



3089,40381	0,25862	0,22931	0,68185	0,14683
3087,47534	0,25856	0,22911	0,68182	0,14679
3085,54688	0,25855	0,22906	0,68181	0,14688
3083,61841	0,2585	0,22915	0,68195	0,1469
3081,68994	0,25862	0,22911	0,68199	0,14697
3079,76147	0,25869	0,22911	0,68191	0,14696
3077,83301	0,25853	0,22913	0,6818	0,14689
3075,90454	0,25842	0,22896	0,68164	0,1469
3073,97607	0,2584	0,22883	0,68163	0,1469
3072,04761	0,25834	0,22881	0,68165	0,14683
3070,11914	0,25844	0,2288	0,68155	0,14686
3068,19067	0,25852	0,22895	0,68163	0,14706
3066,26221	0,25831	0,22902	0,68165	0,14704
3064,33374	0,25824	0,22883	0,68144	0,14692
3062,40527	0,2583	0,2287	0,68141	0,14704
3060,47681	0,25818	0,22861	0,68129	0,14702
3058,54834	0,25821	0,22862	0,68118	0,14698
3056,61987	0,25822	0,22868	0,68128	0,14709
3054,69141	0,25811	0,22852	0,68098	0,14704
3052,76294	0,25818	0,22852	0,68097	0,14702
3050,83447	0,25819	0,22861	0,6813	0,14717
3048,90601	0,25804	0,22842	0,68107	0,14717
3046,97754	0,25809	0,22827	0,681	0,14708
3045,04907	0,25816	0,22836	0,68115	0,14715
3043,12061	0,2581	0,22844	0,68109	0,14726
3041,19214	0,25815	0,22841	0,68109	0,14731
3039,26367	0,25816	0,22829	0,68093	0,14731
3037,33521	0,25809	0,22818	0,68084	0,14727
3035,40674	0,25815	0,22824	0,68088	0,14738
3033,47827	0,25809	0,22832	0,68081	0,14738
3031,5498	0,25789	0,2282	0,68076	0,14718
3029,62134	0,25792	0,22805	0,68052	0,14721
3027,69287	0,258	0,22807	0,68037	0,14738
3025,7644	0,25797	0,22813	0,68058	0,14739
3023,83594	0,25791	0,22807	0,6805	0,14736
3021,90747	0,25787	0,22805	0,68025	0,14735
3019,979	0,25785	0,22803	0,68041	0,14744
3018,05054	0,25785	0,22795	0,6805	0,14755
3016,12207	0,25787	0,228	0,68038	0,14755
3014,1936	0,2579	0,22805	0,68044	0,14762
3012,26514	0,25792	0,22807	0,68029	0,14772
3010,33667	0,25792	0,22801	0,68019	0,1476
3008,4082	0,25786	0,22777	0,68015	0,14752
3006,47974	0,2578	0,22764	0,67978	0,14752
3004,55127	0,25782	0,22766	0,6798	0,14755
3002,6228	0,25781	0,22763	0,68003	0,14761
3000,69434	0,25775	0,22752	0,67994	0,14757
2998,76587	0,25777	0,2275	0,68004	0,14757

2996,8374	0,25782	0,2275	0,68008	0,14769
2994,90894	0,25775	0,22748	0,67991	0,14774
2992,98047	0,25772	0,22755	0,68003	0,14771
2991,052	0,25779	0,22746	0,67995	0,14767
2989,12354	0,25781	0,2273	0,67952	0,14768
2987,19507	0,25777	0,2273	0,6795	0,14768
2985,2666	0,25776	0,22718	0,67956	0,14761
2983,33813	0,25787	0,2271	0,67937	0,14764
2981,40967	0,25794	0,22724	0,67948	0,14779
2979,4812	0,25789	0,22718	0,67958	0,14778
2977,55273	0,25783	0,22689	0,67942	0,14768
2975,62427	0,25781	0,22681	0,67941	0,14768
2973,6958	0,25778	0,22679	0,67931	0,14774
2971,76733	0,25775	0,22658	0,67904	0,14767
2969,83887	0,25773	0,22647	0,67901	0,14754
2967,9104	0,25772	0,22651	0,67901	0,14753
2965,98193	0,25771	0,2264	0,67888	0,1475
2964,05347	0,25774	0,22638	0,67892	0,14742
2962,125	0,25784	0,22649	0,67889	0,14748
2960,19653	0,25782	0,22644	0,6788	0,14755
2958,26807	0,25775	0,22635	0,67893	0,14753
2956,3396	0,25783	0,22638	0,67892	0,14754
2954,41113	0,25786	0,2265	0,67878	0,14764
2952,48267	0,2579	0,2267	0,67879	0,14767
2950,5542	0,25791	0,22664	0,67877	0,1477
2948,62573	0,25784	0,2265	0,67862	0,14771
2946,69727	0,25788	0,22664	0,67844	0,14766
2944,7688	0,25786	0,22667	0,67863	0,14768
2942,84033	0,2578	0,22647	0,67866	0,14771
2940,91187	0,2578	0,22632	0,67819	0,14763
2938,9834	0,25777	0,22619	0,67814	0,14756
2937,05493	0,25774	0,2262	0,67836	0,14752
2935,12646	0,25771	0,22622	0,67836	0,14747
2933,198	0,25772	0,22607	0,67831	0,14746
2931,26953	0,25786	0,22611	0,6783	0,1475
2929,34106	0,25791	0,22619	0,67843	0,14753
2927,4126	0,25771	0,22597	0,67831	0,14741
2925,48413	0,25761	0,22585	0,67819	0,14731
2923,55566	0,25768	0,22585	0,67849	0,1474
2921,6272	0,25764	0,22582	0,67839	0,14746
2919,69873	0,25764	0,22592	0,67816	0,14754
2917,77026	0,25766	0,22597	0,67817	0,14766
2915,8418	0,25764	0,22594	0,67815	0,14774
2913,91333	0,25766	0,22609	0,67836	0,14787
2911,98486	0,25763	0,22615	0,67825	0,14792
2910,0564	0,25755	0,22605	0,67803	0,14791
2908,12793	0,25748	0,22607	0,6783	0,14789
2906,19946	0,25756	0,22605	0,67821	0,1479

2904,271	0,2576	0,22603	0,67797	0,14801
2902,34253	0,25743	0,22612	0,67814	0,14802
2900,41406	0,25734	0,22608	0,67801	0,14798
2898,4856	0,2574	0,22603	0,67777	0,14809
2896,55713	0,25739	0,22604	0,67791	0,1482
2894,62866	0,25729	0,22602	0,67799	0,14816
2892,7002	0,25721	0,22605	0,67789	0,14808
2890,77173	0,25718	0,22594	0,67783	0,14807
2888,84326	0,25723	0,22585	0,67787	0,14817
2886,91479	0,25729	0,22582	0,67784	0,14821
2884,98633	0,25722	0,22576	0,67766	0,14813
2883,05786	0,25712	0,22573	0,67752	0,14814
2881,12939	0,25715	0,22571	0,67739	0,14821
2879,20093	0,25718	0,22567	0,67736	0,1482
2877,27246	0,25716	0,22563	0,67748	0,14816
2875,34399	0,25723	0,22577	0,67753	0,14828
2873,41553	0,25724	0,22596	0,67755	0,14838
2871,48706	0,25718	0,22583	0,67747	0,14828
2869,55859	0,25717	0,22571	0,67736	0,14825
2867,63013	0,2571	0,22571	0,67734	0,14827
2865,70166	0,25707	0,22556	0,67727	0,1483
2863,77319	0,25709	0,22546	0,67728	0,14832
2861,84473	0,25703	0,22543	0,67732	0,14825
2859,91626	0,25702	0,22539	0,67733	0,14825
2857,98779	0,25701	0,22534	0,67735	0,14825
2856,05933	0,25698	0,22521	0,67732	0,14822
2854,13086	0,25698	0,22522	0,67736	0,14826
2852,20239	0,25693	0,22534	0,67731	0,14829
2850,27393	0,25694	0,22531	0,67739	0,1484
2848,34546	0,25699	0,22528	0,67763	0,14855
2846,41699	0,25693	0,2253	0,67736	0,14857
2844,48853	0,25683	0,22528	0,67712	0,14858
2842,56006	0,25672	0,22522	0,67718	0,14861
2840,63159	0,25663	0,22528	0,67716	0,14868
2838,70313	0,25669	0,22539	0,67744	0,14874
2836,77466	0,25664	0,22529	0,67747	0,14874
2834,84619	0,25653	0,22519	0,67698	0,14877
2832,91772	0,25659	0,22523	0,67697	0,14878
2830,98926	0,25652	0,22513	0,67717	0,14875
2829,06079	0,25639	0,22506	0,67695	0,14881
2827,13232	0,25643	0,22513	0,67688	0,14886
2825,20386	0,25644	0,22511	0,67712	0,14883
2823,27539	0,25636	0,2251	0,67712	0,14885
2821,34692	0,25635	0,22513	0,67696	0,14891
2819,41846	0,25635	0,225	0,67694	0,14892
2817,48999	0,25629	0,22492	0,677	0,14893
2815,56152	0,25627	0,22497	0,67699	0,14894
2813,63306	0,25632	0,22496	0,67689	0,14895

2811,70459	0,2564	0,22501	0,67684	0,14909
2809,77612	0,25643	0,22505	0,67681	0,14919
2807,84766	0,25635	0,22494	0,6768	0,14909
2805,91919	0,25631	0,2249	0,67683	0,14906
2803,99072	0,25629	0,2249	0,6767	0,1491
2802,06226	0,25626	0,22483	0,67674	0,14912
2800,13379	0,25636	0,22484	0,67693	0,14921
2798,20532	0,25633	0,22495	0,67688	0,14924
2796,27686	0,25619	0,22496	0,67698	0,14923
2794,34839	0,25621	0,22484	0,67706	0,14929
2792,41992	0,25619	0,2248	0,67689	0,14926
2790,49146	0,25616	0,22489	0,67702	0,14918
2788,56299	0,25619	0,2249	0,677	0,14924
2786,63452	0,25609	0,22478	0,67665	0,1493
2784,70605	0,25602	0,2247	0,6767	0,14929
2782,77759	0,25609	0,22472	0,67686	0,14939
2780,84912	0,2561	0,22469	0,67676	0,14941
2778,92065	0,25606	0,22466	0,67663	0,14938
2776,99219	0,25606	0,22475	0,6766	0,14948
2775,06372	0,2561	0,22478	0,6767	0,14955
2773,13525	0,25611	0,22469	0,67659	0,1495
2771,20679	0,25602	0,22464	0,67637	0,1495
2769,27832	0,25597	0,22464	0,67642	0,14954
2767,34985	0,25599	0,22462	0,67642	0,14949
2765,42139	0,25599	0,2246	0,67641	0,14951
2763,49292	0,25593	0,22448	0,67659	0,14957
2761,56445	0,25589	0,22438	0,67667	0,14956
2759,63599	0,25594	0,22444	0,67657	0,1496
2757,70752	0,25589	0,22446	0,67646	0,14968
2755,77905	0,25582	0,22448	0,6764	0,14968
2753,85059	0,25589	0,22451	0,67633	0,1497
2751,92212	0,25591	0,22454	0,67626	0,14973
2749,99365	0,25596	0,2246	0,67626	0,14976
2748,06519	0,25605	0,22457	0,67627	0,14979
2746,13672	0,25598	0,22449	0,67619	0,14987
2744,20825	0,25596	0,22442	0,67617	0,14992
2742,27979	0,25597	0,22434	0,67616	0,14991
2740,35132	0,25589	0,22426	0,67598	0,14987
2738,42285	0,25586	0,22425	0,67598	0,14987
2736,49438	0,25586	0,22424	0,67614	0,14989
2734,56592	0,25584	0,22416	0,67614	0,14984
2732,63745	0,25588	0,22417	0,67609	0,14991
2730,70898	0,25592	0,22423	0,67602	0,15003
2728,78052	0,25589	0,22418	0,67599	0,15004
2726,85205	0,25586	0,22417	0,67604	0,1501
2724,92358	0,25591	0,22415	0,67605	0,1501
2722,99512	0,25586	0,22411	0,67589	0,15004
2721,06665	0,25575	0,22411	0,67571	0,15006

2719,13818	0,25581	0,22414	0,67571	0,15011
2717,20972	0,25584	0,22413	0,67562	0,15014
2715,28125	0,25578	0,22407	0,67547	0,15012
2713,35278	0,25574	0,22407	0,67544	0,15016
2711,42432	0,25572	0,22406	0,67541	0,15023
2709,49585	0,2557	0,22395	0,67539	0,15024
2707,56738	0,25564	0,22393	0,67538	0,15024
2705,63892	0,25563	0,22391	0,67541	0,15024
2703,71045	0,25564	0,22381	0,67536	0,15029
2701,78198	0,25561	0,22378	0,67517	0,15032
2699,85352	0,25559	0,22373	0,67511	0,1503
2697,92505	0,25554	0,22371	0,67519	0,15035
2695,99658	0,25554	0,22374	0,67523	0,15036
2694,06812	0,25556	0,22367	0,67515	0,15033
2692,13965	0,25547	0,22365	0,67505	0,15033
2690,21118	0,25543	0,22368	0,67504	0,15032
2688,28271	0,25541	0,22366	0,67515	0,15037
2686,35425	0,25538	0,22368	0,67523	0,1504
2684,42578	0,25537	0,22366	0,67511	0,15037
2682,49731	0,25541	0,22359	0,67509	0,15043
2680,56885	0,25545	0,22365	0,67512	0,15051
2678,64038	0,25538	0,22365	0,67503	0,15052
2676,71191	0,25531	0,22352	0,67503	0,15051
2674,78345	0,25529	0,22353	0,67499	0,15051
2672,85498	0,25529	0,22352	0,67485	0,15059
2670,92651	0,25529	0,22341	0,67482	0,15058
2668,99805	0,25522	0,22343	0,67493	0,15049
2667,06958	0,25518	0,22349	0,67505	0,15052
2665,14111	0,25517	0,22349	0,67492	0,15056
2663,21265	0,25514	0,22348	0,67474	0,15056
2661,28418	0,25516	0,22343	0,67478	0,15058
2659,35571	0,25519	0,22341	0,67487	0,15059
2657,42725	0,25516	0,22346	0,67492	0,15063
2655,49878	0,25503	0,22343	0,67482	0,15062
2653,57031	0,25495	0,22335	0,67472	0,15063
2651,64185	0,25498	0,22335	0,67478	0,15073
2649,71338	0,25499	0,22336	0,67472	0,15079
2647,78491	0,25494	0,22336	0,67461	0,15082
2645,85645	0,25491	0,22335	0,67452	0,15089
2643,92798	0,25493	0,22331	0,67447	0,15091
2641,99951	0,25491	0,22335	0,67456	0,15087
2640,07104	0,25492	0,22332	0,67462	0,1509
2638,14258	0,25493	0,22319	0,6746	0,15092
2636,21411	0,25486	0,22315	0,67453	0,1509
2634,28564	0,25485	0,2232	0,67444	0,15096
2632,35718	0,25481	0,22319	0,67438	0,15101
2630,42871	0,25472	0,22315	0,67437	0,15102
2628,50024	0,25475	0,22315	0,67445	0,15102

2626,57178	0,25476	0,22315	0,67447	0,15106
2624,64331	0,25471	0,22315	0,67438	0,15111
2622,71484	0,25476	0,22309	0,67438	0,15108
2620,78638	0,25475	0,22303	0,67434	0,15106
2618,85791	0,25464	0,22301	0,67436	0,15103
2616,92944	0,25472	0,22301	0,67446	0,15105
2615,00098	0,25475	0,22302	0,67435	0,15111
2613,07251	0,25463	0,22299	0,67429	0,15107
2611,14404	0,2546	0,22293	0,67428	0,15103
2609,21558	0,25466	0,22294	0,67419	0,15108
2607,28711	0,25469	0,22293	0,67429	0,15111
2605,35864	0,25463	0,22282	0,67427	0,15116
2603,43018	0,25462	0,22279	0,67413	0,15122
2601,50171	0,25464	0,22287	0,67414	0,15124
2599,57324	0,25456	0,22287	0,6741	0,15124
2597,64478	0,25453	0,22279	0,67414	0,15126
2595,71631	0,25458	0,22279	0,67419	0,15129
2593,78784	0,2546	0,22282	0,67412	0,15127
2591,85938	0,25459	0,22277	0,67424	0,15132
2589,93091	0,25459	0,2227	0,67431	0,15145
2588,00244	0,25458	0,2227	0,67423	0,15148
2586,07397	0,25454	0,22269	0,67432	0,15148
2584,14551	0,25449	0,22258	0,67425	0,15149
2582,21704	0,25449	0,22253	0,67403	0,15151
2580,28857	0,25452	0,22259	0,67414	0,15157
2578,36011	0,25448	0,22256	0,67427	0,15159
2576,43164	0,2545	0,22249	0,6742	0,15154
2574,50317	0,25452	0,22248	0,67422	0,15155
2572,57471	0,25446	0,22247	0,67429	0,15161
2570,64624	0,25449	0,22243	0,67423	0,15159
2568,71777	0,25451	0,22238	0,67415	0,15156
2566,78931	0,25445	0,22235	0,67417	0,15165
2564,86084	0,25445	0,22239	0,6742	0,15168
2562,93237	0,25442	0,22237	0,67424	0,15159
2561,00391	0,25443	0,2223	0,67424	0,15164
2559,07544	0,25446	0,2223	0,6742	0,15169
2557,14697	0,25445	0,22226	0,67424	0,15167
2555,21851	0,2545	0,22218	0,67425	0,15174
2553,29004	0,25453	0,22211	0,67435	0,15172
2551,36157	0,25456	0,22211	0,6744	0,15171
2549,43311	0,25453	0,22214	0,67423	0,15179
2547,50464	0,25445	0,22212	0,67426	0,15176
2545,57617	0,25448	0,2221	0,67441	0,15174
2543,64771	0,25447	0,22205	0,67438	0,1518
2541,71924	0,25446	0,22199	0,67432	0,15185
2539,79077	0,25448	0,22193	0,6743	0,15194
2537,8623	0,25439	0,22187	0,67429	0,15195
2535,93384	0,2544	0,2219	0,67426	0,15186

2534,00537	0,25441	0,22189	0,67424	0,15187
2532,0769	0,25435	0,22188	0,67422	0,15193
2530,14844	0,25442	0,22195	0,67418	0,15198
2528,21997	0,25443	0,22197	0,67436	0,152
2526,2915	0,25436	0,22201	0,6745	0,152
2524,36304	0,25435	0,22195	0,67425	0,15202
2522,43457	0,25432	0,22186	0,67426	0,15209
2520,5061	0,25426	0,2219	0,67439	0,15209
2518,57764	0,25429	0,22179	0,67424	0,15204
2516,64917	0,25428	0,22178	0,67433	0,15209
2514,7207	0,25419	0,22192	0,67432	0,15213
2512,79224	0,25415	0,22186	0,6741	0,15212
2510,86377	0,25412	0,22179	0,67409	0,15223
2508,9353	0,25411	0,22176	0,67405	0,15226
2507,00684	0,2541	0,22169	0,67407	0,15217
2505,07837	0,25401	0,22167	0,67406	0,1522
2503,1499	0,25396	0,22166	0,67392	0,15222
2501,22144	0,25396	0,22166	0,67395	0,15219
2499,29297	0,25397	0,22168	0,67384	0,15222
2497,3645	0,25398	0,22166	0,67372	0,15222
2495,43604	0,2539	0,22162	0,67373	0,1522
2493,50757	0,25381	0,22161	0,67368	0,15225
2491,5791	0,25386	0,22163	0,67366	0,15233
2489,65063	0,25387	0,22158	0,67358	0,15237
2487,72217	0,25375	0,22159	0,67348	0,15236
2485,7937	0,2537	0,22161	0,67349	0,15237
2483,86523	0,25375	0,22156	0,67354	0,1524
2481,93677	0,25376	0,22162	0,67357	0,15241
2480,0083	0,25378	0,22166	0,67348	0,15243
2478,07983	0,25379	0,22161	0,67347	0,15248
2476,15137	0,25377	0,22159	0,67357	0,15255
2474,2229	0,25372	0,2216	0,67355	0,15256
2472,29443	0,2537	0,2216	0,67354	0,15256
2470,36597	0,25372	0,22155	0,6736	0,15256
2468,4375	0,25364	0,22147	0,67353	0,15254
2466,50903	0,25353	0,22147	0,67344	0,15259
2464,58057	0,25348	0,22147	0,67345	0,15263
2462,6521	0,25343	0,22143	0,67347	0,15265
2460,72363	0,25343	0,22142	0,67351	0,15267
2458,79517	0,25341	0,22138	0,6736	0,15269
2456,8667	0,2534	0,22134	0,67364	0,1528
2454,93823	0,25351	0,22138	0,67353	0,15288
2453,00977	0,2535	0,22141	0,67348	0,15289
2451,0813	0,25342	0,22137	0,67343	0,15288
2449,15283	0,25347	0,2213	0,6734	0,1529
2447,22437	0,25344	0,22124	0,67353	0,15297
2445,2959	0,2534	0,22128	0,67354	0,15302
2443,36743	0,25344	0,22138	0,67351	0,15303

2441,43896	0,25343	0,22132	0,67356	0,15307
2439,5105	0,25342	0,22127	0,67358	0,15309
2437,58203	0,25344	0,22133	0,6737	0,15313
2435,65356	0,25341	0,22127	0,67356	0,15314
2433,7251	0,25344	0,22116	0,67342	0,15312
2431,79663	0,25347	0,22118	0,67364	0,15317
2429,86816	0,25344	0,22115	0,67362	0,15321
2427,9397	0,2534	0,22112	0,67361	0,15323
2426,01123	0,25334	0,22115	0,67356	0,15323
2424,08276	0,25333	0,22115	0,67329	0,15324
2422,1543	0,25336	0,22118	0,67338	0,15328
2420,22583	0,25329	0,22122	0,67339	0,15327
2418,29736	0,25325	0,22124	0,67326	0,15329
2416,3689	0,25321	0,22128	0,6733	0,15338
2414,44043	0,25305	0,2213	0,67316	0,15341
2412,51196	0,25301	0,22128	0,6731	0,15343
2410,5835	0,25303	0,22121	0,67316	0,15346
2408,65503	0,25298	0,22114	0,67314	0,15339
2406,72656	0,25292	0,22113	0,67305	0,15334
2404,7981	0,25286	0,22113	0,67297	0,15338
2402,86963	0,2528	0,22111	0,67301	0,1534
2400,94116	0,25274	0,22109	0,67295	0,15341
2399,0127	0,25272	0,22107	0,67288	0,15346
2397,08423	0,25272	0,22105	0,673	0,15354
2395,15576	0,25277	0,22103	0,67296	0,15359
2393,22729	0,25277	0,22101	0,67288	0,15357
2391,29883	0,25265	0,22099	0,67301	0,15358
2389,37036	0,25263	0,22097	0,67312	0,15361
2387,44189	0,25262	0,22096	0,67311	0,15363
2385,51343	0,2526	0,22094	0,6731	0,15366
2383,58496	0,25259	0,22092	0,67309	0,15368
2381,65649	0,25257	0,2209	0,67308	0,15371
2379,72803	0,25255	0,22088	0,67307	0,15373
2377,79956	0,25254	0,22086	0,67306	0,15376
2375,87109	0,25252	0,22084	0,67305	0,15378
2373,94263	0,25251	0,22082	0,67304	0,15381
2372,01416	0,25249	0,2208	0,67303	0,15383
2370,08569	0,25247	0,22078	0,67302	0,15386
2368,15723	0,25246	0,22076	0,67301	0,15388
2366,22876	0,25244	0,22074	0,673	0,15391
2364,30029	0,25242	0,22072	0,67298	0,15393
2362,37183	0,25241	0,2207	0,67297	0,15396
2360,44336	0,25239	0,22068	0,67296	0,15398
2358,51489	0,25238	0,22066	0,67295	0,15401
2356,58643	0,25236	0,22064	0,67294	0,15404
2354,65796	0,25234	0,22063	0,67293	0,15406
2352,72949	0,25233	0,22061	0,67292	0,15409
2350,80103	0,25231	0,22059	0,67291	0,15411



2348,87256	0,2523	0,22057	0,6729	0,15414
2346,94409	0,25228	0,22055	0,67289	0,15416
2345,01563	0,25226	0,22053	0,67288	0,15419
2343,08716	0,25225	0,22051	0,67287	0,15421
2341,15869	0,25223	0,22049	0,67286	0,15424
2339,23022	0,25222	0,22047	0,67285	0,15426
2337,30176	0,2522	0,22045	0,67284	0,15429
2335,37329	0,25218	0,22043	0,67283	0,15431
2333,44482	0,25217	0,22041	0,67282	0,15434
2331,51636	0,25215	0,22039	0,67281	0,15436
2329,58789	0,25213	0,22037	0,6728	0,15439
2327,65942	0,25212	0,22035	0,67279	0,15441
2325,73096	0,2521	0,22033	0,67278	0,15444
2323,80249	0,25209	0,22031	0,67277	0,15446
2321,87402	0,25207	0,2203	0,67276	0,15449
2319,94556	0,25205	0,22028	0,67275	0,15451
2318,01709	0,25204	0,22026	0,67274	0,15454
2316,08862	0,25202	0,22024	0,67273	0,15456
2314,16016	0,25201	0,22022	0,67271	0,15459
2312,23169	0,25199	0,2202	0,6727	0,15461
2310,30322	0,25197	0,22018	0,67269	0,15464
2308,37476	0,25196	0,22016	0,67268	0,15466
2306,44629	0,25194	0,22014	0,67267	0,15469
2304,51782	0,25193	0,22012	0,67266	0,15471
2302,58936	0,25191	0,2201	0,67265	0,15474
2300,66089	0,25189	0,22008	0,67264	0,15476
2298,73242	0,25188	0,22006	0,67263	0,15479
2296,80396	0,25186	0,22004	0,67262	0,15481
2294,87549	0,25184	0,22002	0,67261	0,15484
2292,94702	0,25183	0,22	0,6726	0,15486
2291,01855	0,25181	0,21998	0,67259	0,15489
2289,09009	0,2518	0,21997	0,67258	0,15491
2287,16162	0,25178	0,21995	0,67257	0,15494
2285,23315	0,25176	0,21993	0,67256	0,15496
2283,30469	0,25175	0,21991	0,67255	0,15499
2281,37622	0,25173	0,21989	0,67254	0,15501
2279,44775	0,25172	0,21987	0,67253	0,15511
2277,51929	0,2517	0,21985	0,67252	0,15518
2275,59082	0,25168	0,21983	0,67251	0,15512
2273,66235	0,25168	0,21981	0,6725	0,1551
2271,73389	0,25171	0,21986	0,67247	0,15515
2269,80542	0,25161	0,21987	0,67239	0,15519
2267,87695	0,25152	0,2198	0,67248	0,15518
2265,94849	0,25154	0,2198	0,6724	0,15513
2264,02002	0,25149	0,21982	0,67241	0,15517
2262,09155	0,25137	0,21976	0,67238	0,15523
2260,16309	0,25132	0,21976	0,67217	0,15521
2258,23462	0,25133	0,21976	0,67212	0,1552

2256,30615	0,25135	0,21974	0,67216	0,15523
2254,37769	0,25129	0,21975	0,67211	0,15528
2252,44922	0,25126	0,21977	0,67202	0,1553
2250,52075	0,25134	0,21974	0,67202	0,15524
2248,59229	0,25133	0,21969	0,6721	0,15526
2246,66382	0,25127	0,21969	0,67215	0,15535
2244,73535	0,25126	0,21971	0,67217	0,15536
2242,80688	0,2513	0,21969	0,67219	0,1554
2240,87842	0,25128	0,21963	0,67214	0,15543
2238,94995	0,25116	0,21959	0,67211	0,15541
2237,02148	0,25108	0,21961	0,6721	0,15543
2235,09302	0,25109	0,2196	0,67205	0,15542
2233,16455	0,25114	0,21958	0,67212	0,15543
2231,23608	0,25113	0,21956	0,67208	0,15552
2229,30762	0,25108	0,21957	0,67194	0,15553
2227,37915	0,25109	0,21958	0,67211	0,15549
2225,45068	0,25109	0,21955	0,67217	0,15554
2223,52222	0,25103	0,21956	0,67199	0,15562
2221,59375	0,25102	0,21961	0,67201	0,15569
2219,66528	0,25097	0,21955	0,67201	0,15574
2217,73682	0,25091	0,21949	0,67195	0,15577
2215,80835	0,25093	0,21949	0,67205	0,15576
2213,87988	0,2509	0,21944	0,67198	0,15573
2211,95142	0,25086	0,21938	0,67182	0,15574
2210,02295	0,25086	0,21938	0,67179	0,15577
2208,09448	0,25088	0,21938	0,67182	0,1558
2206,16602	0,25091	0,2194	0,67192	0,15583
2204,23755	0,25091	0,2194	0,67191	0,15583
2202,30908	0,25088	0,21938	0,67178	0,15588
2200,38062	0,25086	0,21935	0,67183	0,15594
2198,45215	0,25085	0,21932	0,67194	0,15601
2196,52368	0,25086	0,21935	0,67181	0,15605
2194,59521	0,25087	0,21934	0,67167	0,15609
2192,66675	0,25087	0,21933	0,67174	0,15614
2190,73828	0,25087	0,21932	0,67174	0,15612
2188,80981	0,25089	0,21926	0,67165	0,15612
2186,88135	0,25086	0,21924	0,6716	0,15612
2184,95288	0,25077	0,21927	0,67158	0,15612
2183,02441	0,25078	0,2193	0,67166	0,15623
2181,09595	0,25082	0,21927	0,67169	0,15629
2179,16748	0,25086	0,21923	0,67162	0,15629
2177,23901	0,25083	0,21923	0,67168	0,15629
2175,31055	0,2508	0,21913	0,67177	0,15626
2173,38208	0,25089	0,21914	0,67173	0,15631
2171,45361	0,25077	0,21895	0,6716	0,15623
2169,52515	0,25053	0,21863	0,67154	0,15603
2167,59668	0,25065	0,21882	0,67168	0,15625
2165,66821	0,25085	0,21899	0,67185	0,15652

2163,73975	0,25086	0,21889	0,67197	0,15651
2161,81128	0,25083	0,21888	0,67207	0,15656
2159,88281	0,25086	0,21882	0,6721	0,15659
2157,95435	0,25089	0,21878	0,67216	0,15657
2156,02588	0,25089	0,21878	0,67224	0,15657
2154,09741	0,25096	0,21872	0,67223	0,15653
2152,16895	0,25098	0,21868	0,67222	0,15654
2150,24048	0,25096	0,21867	0,67226	0,15663
2148,31201	0,25102	0,21863	0,67226	0,15667
2146,38354	0,25106	0,21854	0,67224	0,1567
2144,45508	0,25097	0,21845	0,6724	0,15676
2142,52661	0,25094	0,21846	0,67244	0,1568
2140,59814	0,25103	0,21847	0,67227	0,15685
2138,66968	0,25104	0,21842	0,67234	0,15687
2136,74121	0,251	0,21839	0,67244	0,15685
2134,81274	0,25099	0,21834	0,6723	0,15684
2132,88428	0,25098	0,21823	0,6723	0,15682
2130,95581	0,25104	0,21826	0,67246	0,15687
2129,02734	0,2511	0,21827	0,67251	0,15692
2127,09888	0,25108	0,21815	0,67257	0,1569
2125,17041	0,25107	0,21811	0,67252	0,15691
2123,24194	0,2511	0,2181	0,67252	0,15697
2121,31348	0,25109	0,21806	0,67264	0,15698
2119,38501	0,25104	0,21805	0,6725	0,15696
2117,45654	0,25109	0,21805	0,67245	0,15703
2115,52808	0,25111	0,21799	0,67259	0,15709
2113,59961	0,25107	0,21786	0,67251	0,15706
2111,67114	0,25114	0,21778	0,67248	0,15708
2109,74268	0,2512	0,21776	0,67261	0,15718
2107,81421	0,25118	0,21769	0,67267	0,15722
2105,88574	0,25121	0,2176	0,67281	0,15725
2103,95728	0,25131	0,21753	0,67296	0,15737
2102,02881	0,25136	0,21744	0,67293	0,15745
2100,10034	0,2514	0,21741	0,67302	0,15747
2098,17188	0,25152	0,21739	0,6733	0,15751
2096,24341	0,25161	0,21733	0,67342	0,15746
2094,31494	0,25161	0,21724	0,67343	0,15739
2092,38647	0,25165	0,21716	0,67356	0,15745
2090,45801	0,25167	0,21713	0,67369	0,15746
2088,52954	0,25159	0,21707	0,67373	0,15736
2086,60107	0,25153	0,21701	0,67374	0,1574
2084,67261	0,2516	0,21703	0,67384	0,15753
2082,74414	0,25173	0,21695	0,67408	0,15757
2080,81567	0,25166	0,21687	0,67423	0,15764
2078,88721	0,25162	0,21681	0,67423	0,15772
2076,95874	0,25176	0,21671	0,67427	0,15773
2075,03027	0,25171	0,21673	0,67425	0,15768
2073,10181	0,25161	0,2168	0,67411	0,15763

2071,17334	0,25166	0,21675	0,67403	0,15765
2069,24487	0,25166	0,21667	0,67403	0,15767
2067,31641	0,2517	0,21674	0,67408	0,15776
2065,38794	0,25163	0,2169	0,67407	0,15769
2063,45947	0,25143	0,21679	0,67382	0,15751
2061,53101	0,25145	0,21664	0,67362	0,15767
2059,60254	0,25143	0,21669	0,67364	0,1578
2057,67407	0,25128	0,21674	0,67348	0,15779
2055,74561	0,25127	0,21676	0,67337	0,15787
2053,81714	0,25129	0,21674	0,67361	0,15787
2051,88867	0,25115	0,21673	0,67356	0,15789
2049,96021	0,25103	0,21676	0,6734	0,15791
2048,03174	0,25105	0,21673	0,67358	0,15789
2046,10327	0,25098	0,21667	0,67344	0,15791
2044,1748	0,25098	0,21668	0,67326	0,15803
2042,24634	0,25101	0,21681	0,67345	0,15815
2040,31787	0,2509	0,21682	0,67346	0,15809
2038,3894	0,25095	0,21663	0,67342	0,15817
2036,46094	0,25101	0,21658	0,67352	0,15829
2034,53247	0,25101	0,21668	0,67362	0,15824
2032,604	0,25112	0,2167	0,67367	0,15828
2030,67554	0,25116	0,21664	0,67368	0,15836
2028,74707	0,25116	0,21663	0,67377	0,15838
2026,8186	0,25116	0,21662	0,67389	0,15836
2024,89014	0,25118	0,21656	0,67407	0,15833
2022,96167	0,25112	0,21653	0,67402	0,15828
2021,0332	0,25114	0,21643	0,6738	0,15826
2019,10474	0,25132	0,21653	0,67402	0,15841
2017,17627	0,2511	0,21664	0,67407	0,15838
2015,2478	0,25088	0,21641	0,67371	0,15821
2013,31934	0,25099	0,21639	0,67371	0,15836
2011,39087	0,25096	0,2165	0,67371	0,15849
2009,4624	0,25097	0,21648	0,67366	0,15853
2007,53394	0,25101	0,21655	0,67367	0,15861
2005,60547	0,25091	0,21653	0,67352	0,15869
2003,677	0,25088	0,21649	0,67358	0,15877
2001,74854	0,2508	0,21651	0,67369	0,15872
1999,82007	0,25083	0,21661	0,67357	0,15877
1997,8916	0,25077	0,21667	0,6734	0,15869
1995,96313	0,25067	0,21656	0,67342	0,15865
1994,03467	0,251	0,21677	0,67381	0,15914
1992,1062	0,25088	0,21692	0,67372	0,15897
1990,17773	0,25053	0,21656	0,67337	0,15857
1988,24927	0,25075	0,21656	0,67354	0,15891
1986,3208	0,25072	0,2166	0,67354	0,15898
1984,39233	0,25068	0,21647	0,67351	0,15902
1982,46387	0,25081	0,21646	0,67348	0,15918
1980,5354	0,25074	0,21645	0,67337	0,1591

1978,60693	0,25078	0,2165	0,67348	0,15915
1976,67847	0,25072	0,21646	0,67335	0,15913
1974,75	0,25066	0,21643	0,67342	0,1592
1972,82153	0,25063	0,21641	0,67354	0,15922
1970,89307	0,25052	0,21624	0,67326	0,15916
1968,9646	0,2508	0,21648	0,6735	0,15957
1967,03613	0,25075	0,21676	0,67354	0,15954
1965,10767	0,25041	0,2164	0,67302	0,15919
1963,1792	0,2507	0,21625	0,67326	0,15951
1961,25073	0,25082	0,21632	0,67338	0,15953
1959,32227	0,25066	0,21621	0,67314	0,15937
1957,3938	0,25071	0,21628	0,6734	0,15956
1955,46533	0,25073	0,2164	0,67346	0,15956
1953,53687	0,25074	0,2163	0,67339	0,15946
1951,6084	0,25076	0,21611	0,67348	0,15939
1949,67993	0,25085	0,21617	0,67352	0,15952
1947,75146	0,25073	0,21623	0,67342	0,15945
1945,823	0,25081	0,21614	0,67355	0,15953
1943,89453	0,25126	0,21653	0,67414	0,16014
1941,96606	0,25075	0,21654	0,6736	0,15962
1940,0376	0,25053	0,2159	0,67293	0,15932
1938,10913	0,25109	0,21599	0,67347	0,15999
1936,18066	0,25111	0,21609	0,67355	0,16
1934,2522	0,25112	0,21604	0,67336	0,15997
1932,32373	0,25109	0,21601	0,67353	0,15991
1930,39526	0,25115	0,21598	0,67394	0,15997
1928,4668	0,2511	0,21604	0,67378	0,15988
1926,53833	0,25118	0,21584	0,67378	0,15998
1924,60986	0,25175	0,21623	0,6748	0,16076
1922,6814	0,25095	0,21657	0,6742	0,16001
1920,75293	0,25106	0,21606	0,67396	0,16013
1918,82446	0,25207	0,21613	0,67494	0,16113
1916,896	0,25093	0,21602	0,6739	0,15977
1914,96753	0,2509	0,21569	0,6739	0,15983
1913,03906	0,25181	0,2159	0,6748	0,16089
1911,1106	0,25169	0,21604	0,67472	0,1607
1909,18213	0,25163	0,21608	0,67487	0,1606
1907,25366	0,25163	0,21587	0,67473	0,16051
1905,3252	0,25179	0,21567	0,67482	0,16057
1903,39673	0,25197	0,21565	0,67526	0,1608
1901,46826	0,25194	0,21565	0,67536	0,16086
1899,53979	0,25198	0,21559	0,67535	0,16071
1897,61133	0,25238	0,21571	0,67578	0,16104
1895,68286	0,25252	0,21607	0,67619	0,16121
1893,75439	0,25201	0,21563	0,67574	0,16052
1891,82593	0,25268	0,21562	0,67652	0,16127
1889,89746	0,25279	0,21622	0,67697	0,1614
1887,96899	0,2518	0,21556	0,67578	0,16017

1886,04053	0,25242	0,21533	0,67635	0,16093
1884,11206	0,25262	0,21557	0,6767	0,16118
1882,18359	0,2523	0,21536	0,67629	0,16083
1880,25513	0,25253	0,21547	0,67653	0,1612
1878,32666	0,25226	0,2156	0,67631	0,161
1876,39819	0,25234	0,21556	0,67624	0,1612
1874,46973	0,25223	0,21559	0,67596	0,16119
1872,54126	0,25208	0,21565	0,67601	0,1612
1870,61279	0,25294	0,21608	0,67713	0,16228
1868,68433	0,25218	0,21673	0,67646	0,16143
1866,75586	0,25091	0,21596	0,67492	0,15999
1864,82739	0,25169	0,2156	0,67546	0,1611
1862,89893	0,25192	0,21571	0,67543	0,16157
1860,97046	0,25172	0,21578	0,67523	0,16147
1859,04199	0,25173	0,21587	0,67517	0,16153
1857,11353	0,25157	0,21592	0,67487	0,16146
1855,18506	0,25174	0,21581	0,67488	0,16166
1853,25659	0,25152	0,21585	0,67452	0,16145
1851,32813	0,25177	0,21592	0,67472	0,16183
1849,39966	0,25143	0,21593	0,67457	0,16161
1847,47119	0,25131	0,21624	0,67484	0,16176
1845,54272	0,25276	0,21625	0,6761	0,16308
1843,61426	0,25093	0,21567	0,67412	0,16082
1841,68579	0,24987	0,21538	0,67323	0,16017
1839,75732	0,25126	0,21587	0,67476	0,16202
1837,82886	0,25144	0,21598	0,67481	0,16216
1835,90039	0,25096	0,216	0,67436	0,16157
1833,97192	0,25077	0,21564	0,67421	0,16138
1832,04346	0,25201	0,21607	0,67562	0,16281
1830,11499	0,25171	0,2168	0,67534	0,16229
1828,18652	0,25025	0,21575	0,67357	0,16064
1826,25806	0,25173	0,21595	0,67522	0,16243
1824,32959	0,25131	0,21619	0,6747	0,16176
1822,40112	0,25047	0,21547	0,67378	0,16094
1820,47266	0,25157	0,2157	0,675	0,16232
1818,54419	0,25139	0,216	0,67481	0,16217
1816,61572	0,25102	0,21584	0,67456	0,16174
1814,68726	0,25134	0,21574	0,67487	0,1619
1812,75879	0,25171	0,21618	0,67534	0,16238
1810,83032	0,25151	0,21644	0,67531	0,16219
1808,90186	0,25113	0,2159	0,67471	0,16166
1806,97339	0,25145	0,21569	0,67497	0,16204
1805,04492	0,25172	0,21555	0,67544	0,16226
1803,11646	0,25224	0,21569	0,67629	0,1627
1801,18799	0,25237	0,21603	0,67696	0,16256
1799,25952	0,2519	0,21528	0,67637	0,16156
1797,33105	0,25167	0,21522	0,67603	0,16145
1795,40259	0,25232	0,2156	0,67679	0,1624

1793,47412	0,2537	0,21528	0,67762	0,16343
1791,54565	0,25163	0,21543	0,67562	0,16115
1789,61719	0,25028	0,21484	0,67421	0,16025
1787,68872	0,25202	0,21525	0,67578	0,16254
1785,76025	0,2521	0,21559	0,67576	0,16256
1783,83179	0,25134	0,21509	0,6749	0,16162
1781,90332	0,25171	0,2156	0,67566	0,16232
1779,97485	0,25165	0,21587	0,67582	0,16225
1778,04639	0,25124	0,2151	0,67489	0,16148
1776,11792	0,25163	0,21576	0,67577	0,16221
1774,18945	0,25372	0,21587	0,67761	0,16414
1772,26099	0,2524	0,21509	0,67585	0,16188
1770,33252	0,25079	0,21471	0,67486	0,16049
1768,40405	0,25262	0,21524	0,67669	0,1627
1766,47559	0,25148	0,21445	0,67497	0,16103
1764,54712	0,25249	0,21516	0,67656	0,16251
1762,61865	0,2543	0,21561	0,67805	0,16406
1760,69019	0,25132	0,21455	0,67505	0,16051
1758,76172	0,25273	0,21515	0,67704	0,16254
1756,83325	0,25329	0,21545	0,6773	0,16275
1754,90479	0,25137	0,21477	0,67533	0,16075
1752,97632	0,25362	0,21515	0,67764	0,16348
1751,04785	0,25381	0,21561	0,67776	0,16329
1749,11938	0,25096	0,21578	0,6756	0,16041
1747,19092	0,25209	0,21589	0,67679	0,1619
1745,26245	0,25242	0,21539	0,67648	0,16191
1743,33398	0,25188	0,21564	0,67614	0,1615
1741,40552	0,25391	0,21545	0,67764	0,16343
1739,47705	0,25236	0,21453	0,6753	0,16097
1737,54858	0,25134	0,21503	0,67526	0,16062
1735,62012	0,2559	0,2148	0,67906	0,16519
1733,69165	0,25269	0,21408	0,67546	0,16061
1731,76318	0,24976	0,21368	0,67336	0,15843
1729,83472	0,25265	0,21567	0,67692	0,16238
1727,90625	0,25146	0,21375	0,67465	0,16052
1725,97778	0,25188	0,21409	0,67569	0,16152
1724,04932	0,25248	0,21444	0,67602	0,16214
1722,12085	0,25087	0,21379	0,67437	0,16039
1720,19238	0,25307	0,21434	0,677	0,16294
1718,26392	0,25409	0,21449	0,67743	0,16342
1716,33545	0,25012	0,2132	0,67322	0,15883
1714,40698	0,25011	0,21369	0,67408	0,15965
1712,47852	0,25137	0,21371	0,67497	0,16115
1710,55005	0,25089	0,21321	0,67394	0,16044
1708,62158	0,25182	0,2141	0,67555	0,16175
1706,69312	0,25325	0,21416	0,67655	0,16277
1704,76465	0,24952	0,21396	0,67326	0,15891
1702,83618	0,25245	0,21412	0,67635	0,16246

1700,90771	0,25543	0,21314	0,67788	0,16453
1698,97925	0,24722	0,21108	0,67005	0,15558
1697,05078	0,2518	0,21321	0,67545	0,16135
1695,12231	0,25123	0,21275	0,67357	0,15958
1693,19385	0,24846	0,21269	0,67186	0,1575
1691,26538	0,25276	0,21466	0,67686	0,16266
1689,33691	0,25097	0,21448	0,67445	0,15997
1687,40845	0,25127	0,21485	0,6755	0,16078
1685,47998	0,25638	0,21414	0,679	0,16503
1683,55151	0,24919	0,21424	0,67259	0,15696
1681,62305	0,24919	0,21394	0,67325	0,15789
1679,69458	0,25095	0,21451	0,67474	0,15989
1677,76611	0,25163	0,2139	0,67465	0,16048
1675,83765	0,25281	0,21353	0,67531	0,16142
1673,90918	0,24966	0,21295	0,67191	0,15772
1671,98071	0,25087	0,21396	0,67383	0,1597
1670,05225	0,25305	0,21478	0,67594	0,16189
1668,12378	0,24842	0,21302	0,67062	0,15659
1666,19531	0,24987	0,2134	0,67249	0,15902
1664,26685	0,25276	0,21335	0,67438	0,1617
1662,33838	0,25011	0,21326	0,67156	0,15868
1660,40991	0,25004	0,21282	0,67177	0,15905
1658,48145	0,25059	0,2123	0,6716	0,15969
1656,55298	0,25067	0,21342	0,67239	0,1605
1654,62451	0,25572	0,21282	0,67652	0,16508
1652,69604	0,24926	0,21383	0,67026	0,15698
1650,76758	0,24635	0,20915	0,66568	0,15457
1648,83911	0,25158	0,21321	0,67333	0,16199
1646,91064	0,25181	0,21361	0,6726	0,16134
1644,98218	0,24719	0,20974	0,66645	0,15592
1643,05371	0,24969	0,21125	0,67	0,15972
1641,12524	0,24992	0,21063	0,66947	0,15978
1639,19678	0,24922	0,21103	0,66951	0,15967
1637,26831	0,25171	0,21126	0,67205	0,16211
1635,33984	0,24933	0,21045	0,66902	0,15875
1633,41138	0,24635	0,20838	0,6655	0,1562
1631,48291	0,24851	0,20957	0,66861	0,15969
1629,55444	0,24962	0,20919	0,66929	0,16078
1627,62598	0,2475	0,20912	0,66737	0,15877
1625,69751	0,2482	0,20863	0,66814	0,15974
1623,76904	0,24917	0,20852	0,66885	0,16035
1621,84058	0,24616	0,20795	0,66592	0,15703
1619,91211	0,24741	0,20841	0,66797	0,15916
1617,98364	0,25069	0,20796	0,67011	0,16176
1616,05518	0,24762	0,20774	0,66688	0,15759
1614,12671	0,24718	0,20902	0,66829	0,1583
1612,19824	0,24959	0,2105	0,67131	0,16104
1610,26978	0,24985	0,21101	0,67144	0,16068



1608,34131	0,24958	0,21185	0,67184	0,1605
1606,41284	0,25004	0,21191	0,67239	0,16082
1604,48438	0,25026	0,21211	0,67277	0,16099
1602,55591	0,25054	0,21271	0,67332	0,16137
1600,62744	0,25056	0,21283	0,67336	0,16132
1598,69897	0,25084	0,21305	0,67372	0,1617
1596,77051	0,2512	0,21351	0,67412	0,16216
1594,84204	0,25108	0,21383	0,67432	0,1621
1592,91357	0,25114	0,21382	0,67459	0,16218
1590,98511	0,25135	0,214	0,67475	0,16245
1589,05664	0,25152	0,21425	0,67519	0,1627
1587,12817	0,25148	0,21407	0,67525	0,16252
1585,19971	0,25143	0,21443	0,67539	0,16258
1583,27124	0,25194	0,21452	0,67585	0,16322
1581,34277	0,25146	0,21412	0,67499	0,16247
1579,41431	0,25184	0,21504	0,67595	0,16316
1577,48584	0,25463	0,21491	0,67785	0,16561
1575,55737	0,25128	0,21376	0,67363	0,16135
1573,62891	0,24987	0,214	0,67346	0,16078
1571,70044	0,25395	0,21565	0,67778	0,16532
1569,77197	0,2528	0,21578	0,67588	0,16341
1567,84351	0,25051	0,21475	0,67395	0,16146
1565,91504	0,25321	0,21542	0,67664	0,16441
1563,98657	0,2515	0,21529	0,67512	0,16252
1562,05811	0,25328	0,2157	0,67719	0,16485
1560,12964	0,25874	0,21672	0,68153	0,16984
1558,20117	0,24729	0,21638	0,67166	0,1575
1556,27271	0,25048	0,21465	0,67382	0,16121
1554,34424	0,25299	0,21553	0,67612	0,1639
1552,41577	0,25219	0,21477	0,67497	0,163
1550,4873	0,25283	0,21678	0,67686	0,16441
1548,55884	0,25231	0,21598	0,67596	0,16336
1546,63037	0,25345	0,21559	0,67672	0,16443
1544,7019	0,25375	0,21726	0,6778	0,16515
1542,77344	0,25297	0,21642	0,67676	0,16417
1540,84497	0,25578	0,21611	0,6782	0,16657
1538,9165	0,24971	0,21559	0,67235	0,15977
1536,98804	0,25059	0,21491	0,67379	0,16155
1535,05957	0,25457	0,21681	0,67808	0,16628
1533,1311	0,25241	0,21718	0,67612	0,16374
1531,20264	0,25083	0,21541	0,67437	0,16207
1529,27417	0,25366	0,21662	0,67724	0,16551
1527,3457	0,25333	0,21704	0,67668	0,165
1525,41724	0,25175	0,21586	0,67493	0,1632
1523,48877	0,25431	0,21654	0,67726	0,16598
1521,5603	0,2528	0,21647	0,67559	0,16417
1519,63184	0,25106	0,21456	0,67346	0,1623
1517,70337	0,25299	0,21716	0,67623	0,16516

1515,7749	0,25154	0,21705	0,67461	0,16346
1513,84644	0,2522	0,21571	0,67465	0,16393
1511,91797	0,25314	0,21581	0,67507	0,16495
1509,9895	0,25253	0,21735	0,6754	0,16484
1508,06104	0,25531	0,21849	0,67804	0,16769
1506,13257	0,25064	0,2172	0,6726	0,16208
1504,2041	0,24987	0,21359	0,67053	0,16067
1502,27563	0,25292	0,21646	0,67476	0,16503
1500,34717	0,25306	0,21607	0,67435	0,16519
1498,4187	0,25321	0,21611	0,67435	0,1652
1496,49023	0,25261	0,21537	0,67292	0,16401
1494,56177	0,25101	0,21433	0,6717	0,16264
1492,6333	0,25299	0,21592	0,67456	0,16535
1490,70483	0,25335	0,21684	0,67496	0,16562
1488,77637	0,25126	0,21663	0,67324	0,16334
1486,8479	0,25158	0,21573	0,67304	0,16336
1484,91943	0,25207	0,21526	0,67309	0,16374
1482,99097	0,25246	0,21566	0,67349	0,16435
1481,0625	0,25212	0,21579	0,67307	0,16401
1479,13403	0,25231	0,21534	0,67302	0,16403
1477,20557	0,25259	0,21581	0,67348	0,16443
1475,2771	0,25242	0,21598	0,67339	0,16437
1473,34863	0,25289	0,21514	0,67308	0,16438
1471,42017	0,25065	0,21453	0,67075	0,16182
1469,4917	0,25064	0,21461	0,67114	0,1624
1467,56323	0,25281	0,21515	0,673	0,16482
1465,63477	0,25282	0,21551	0,67256	0,16456
1463,7063	0,25092	0,21432	0,67026	0,16247
1461,77783	0,25109	0,21468	0,67105	0,16307
1459,84937	0,25318	0,21632	0,67387	0,16551
1457,9209	0,25347	0,21632	0,67338	0,16541
1455,99243	0,24895	0,2126	0,66774	0,1596
1454,06396	0,25039	0,21483	0,67067	0,16197
1452,1355	0,25191	0,21519	0,67166	0,16348
1450,20703	0,252	0,21447	0,67124	0,16344
1448,27856	0,25183	0,21511	0,67159	0,1637
1446,3501	0,25073	0,21444	0,67005	0,16243
1444,42163	0,25149	0,21448	0,67082	0,16337
1442,49316	0,25183	0,21455	0,67079	0,16363
1440,5647	0,25112	0,21483	0,67024	0,16294
1438,63623	0,25282	0,21471	0,67185	0,16466
1436,70776	0,25189	0,21422	0,67042	0,16322
1434,7793	0,24932	0,21384	0,66813	0,16076
1432,85083	0,25115	0,21502	0,67082	0,16353
1430,92236	0,25192	0,21498	0,67109	0,16412
1428,9939	0,25024	0,21452	0,66918	0,16214
1427,06543	0,25122	0,21415	0,67011	0,16325
1425,13696	0,2517	0,21441	0,67041	0,1636

1423,2085	0,25036	0,2148	0,66939	0,16228
1421,28003	0,25196	0,21386	0,67037	0,16376
1419,35156	0,25175	0,21358	0,66965	0,1634
1417,4231	0,24888	0,21386	0,66735	0,16083
1415,49463	0,25024	0,21397	0,66881	0,16256
1413,56616	0,25093	0,21335	0,66901	0,16321
1411,6377	0,25054	0,21361	0,66881	0,16303
1409,70923	0,25054	0,21334	0,66856	0,16287
1407,78076	0,25086	0,21284	0,66866	0,16297
1405,85229	0,25112	0,21337	0,66927	0,16344
1403,92383	0,24997	0,21286	0,66816	0,16224
1401,99536	0,25067	0,21245	0,66857	0,16289
1400,06689	0,2513	0,21285	0,669	0,16361
1398,13843	0,25004	0,21283	0,66804	0,16259
1396,20996	0,25081	0,21269	0,66866	0,16356
1394,28149	0,25053	0,21231	0,66797	0,16322
1392,35303	0,24969	0,2114	0,66695	0,16235
1390,42456	0,25099	0,21172	0,66807	0,16397
1388,49609	0,25133	0,21188	0,66772	0,1642
1386,56763	0,24983	0,21203	0,6653	0,16249
1384,63916	0,24956	0,21219	0,6639	0,16232
1382,71069	0,25031	0,21235	0,66477	0,16304
1380,78223	0,2507	0,21251	0,66663	0,16332
1378,85376	0,2505	0,21266	0,66716	0,1632
1376,92529	0,25088	0,21282	0,66775	0,16386
1374,99683	0,25097	0,21298	0,66837	0,16415
1373,06836	0,25017	0,21267	0,66719	0,16313
1371,13989	0,25079	0,21238	0,66743	0,16368
1369,21143	0,25118	0,21301	0,66807	0,16418
1367,28296	0,25054	0,21263	0,66731	0,16355
1365,35449	0,25114	0,21254	0,66788	0,16433
1363,42603	0,25126	0,21347	0,6684	0,16461
1361,49756	0,25037	0,21315	0,6675	0,16357
1359,56909	0,25077	0,21252	0,66762	0,16408
1357,64063	0,25126	0,21279	0,66817	0,16479
1355,71216	0,25127	0,21304	0,66848	0,16456
1353,78369	0,25118	0,21305	0,66866	0,16435
1351,85522	0,2511	0,21328	0,66879	0,1646
1349,92676	0,25099	0,21359	0,66884	0,16462
1347,99829	0,25096	0,21373	0,6688	0,16458
1346,06982	0,25113	0,21402	0,66875	0,16479
1344,14136	0,25132	0,21404	0,6687	0,16479
1342,21289	0,25169	0,21422	0,66921	0,16518
1340,28442	0,25157	0,21508	0,66936	0,16535
1338,35596	0,25095	0,21493	0,66865	0,16478
1336,42749	0,25116	0,21436	0,66868	0,165
1334,49902	0,25143	0,21441	0,66906	0,16549
1332,57056	0,2513	0,21439	0,66932	0,16549

1330,64209	0,25143	0,21445	0,66958	0,16556
1328,71362	0,25163	0,21454	0,66956	0,1657
1326,78516	0,2518	0,2146	0,66972	0,16581
1324,85669	0,25195	0,21484	0,66981	0,1658
1322,92822	0,25194	0,2149	0,66959	0,16575
1320,99976	0,25195	0,21504	0,66975	0,16588
1319,07129	0,25171	0,21524	0,66983	0,1659
1317,14282	0,25152	0,21499	0,66959	0,16583
1315,21436	0,25176	0,21494	0,66966	0,16591
1313,28589	0,25172	0,21509	0,66961	0,16584
1311,35742	0,25176	0,21493	0,66951	0,16582
1309,42896	0,252	0,2148	0,66974	0,16598
1307,50049	0,2518	0,21463	0,66985	0,16601
1305,57202	0,25172	0,21445	0,66987	0,16604
1303,64355	0,25179	0,21448	0,66976	0,16615
1301,71509	0,25169	0,21447	0,66959	0,16619
1299,78662	0,25179	0,21451	0,66968	0,1663
1297,85815	0,25184	0,21444	0,6698	0,16644
1295,92969	0,25173	0,21423	0,66981	0,16647
1294,00122	0,25177	0,21423	0,66979	0,16651
1292,07275	0,2518	0,21433	0,66988	0,16665
1290,14429	0,25166	0,21433	0,67001	0,16678
1288,21582	0,25152	0,21429	0,67003	0,16679
1286,28735	0,25157	0,21423	0,6701	0,1668
1284,35889	0,25162	0,21407	0,67017	0,16681
1282,43042	0,25164	0,21393	0,67009	0,16679
1280,50195	0,25171	0,21399	0,66993	0,16687
1278,57349	0,25155	0,21415	0,66975	0,1668
1276,64502	0,25131	0,21409	0,66952	0,16653
1274,71655	0,25126	0,21392	0,66943	0,16653
1272,78809	0,25117	0,21389	0,66932	0,16653
1270,85962	0,25107	0,21372	0,66901	0,16643
1268,93115	0,25119	0,21347	0,66901	0,16654
1267,00269	0,25129	0,21331	0,66909	0,16664
1265,07422	0,25124	0,21319	0,66893	0,16671
1263,14575	0,25131	0,21327	0,66889	0,16693
1261,21729	0,25143	0,21342	0,6687	0,16701
1259,28882	0,25152	0,21335	0,66847	0,16685
1257,36035	0,2516	0,21332	0,66853	0,16677
1255,43188	0,25169	0,21346	0,66854	0,16683
1253,50342	0,25183	0,2135	0,66844	0,16687
1251,57495	0,25183	0,21336	0,66838	0,1669
1249,64648	0,25181	0,21323	0,66835	0,16689
1247,71802	0,25191	0,21313	0,6684	0,16685
1245,78955	0,25195	0,21307	0,66861	0,16692
1243,86108	0,252	0,21302	0,66879	0,16708
1241,93262	0,25203	0,21288	0,66884	0,16718
1240,00415	0,25193	0,21284	0,66877	0,1671

1238,07568	0,25179	0,21289	0,66864	0,16698
1236,14722	0,25168	0,21288	0,6686	0,16684
1234,21875	0,25163	0,21297	0,66867	0,16667
1232,29028	0,25159	0,21312	0,66867	0,16673
1230,36182	0,2515	0,21312	0,66853	0,16688
1228,43335	0,25138	0,21305	0,66838	0,16699
1226,50488	0,25151	0,21293	0,66818	0,16709
1224,57642	0,25176	0,2127	0,66793	0,16706
1222,64795	0,25182	0,21269	0,66778	0,16706
1220,71948	0,25194	0,21289	0,66765	0,16709
1218,79102	0,2521	0,21299	0,66753	0,16704
1216,86255	0,25213	0,21297	0,6675	0,16701
1214,93408	0,25215	0,21283	0,66749	0,16696
1213,00562	0,25221	0,2127	0,66748	0,16702
1211,07715	0,25239	0,21273	0,6674	0,16721
1209,14868	0,25249	0,21281	0,66732	0,16706
1207,22021	0,2524	0,2129	0,6674	0,16677
1205,29175	0,25247	0,21304	0,66742	0,16683
1203,36328	0,25276	0,21305	0,66738	0,16689
1201,43481	0,25286	0,21295	0,66758	0,16677
1199,50635	0,25271	0,21303	0,6678	0,16674
1197,57788	0,25268	0,2132	0,66783	0,16678
1195,64941	0,25273	0,21309	0,66795	0,16689
1193,72095	0,25276	0,21292	0,66808	0,16699
1191,79248	0,25276	0,21297	0,66793	0,16689
1189,86401	0,25272	0,21306	0,66785	0,16672
1187,93555	0,25272	0,21308	0,66786	0,16664
1186,00708	0,2525	0,21311	0,66756	0,16653
1184,07861	0,2522	0,21313	0,66744	0,16633
1182,15015	0,25221	0,21315	0,66757	0,16619
1180,22168	0,25223	0,21319	0,66738	0,16616
1178,29321	0,25218	0,21318	0,66712	0,1662
1176,36475	0,25221	0,21319	0,66701	0,16632
1174,43628	0,25232	0,21329	0,66694	0,16649
1172,50781	0,25244	0,21345	0,6671	0,1666
1170,57935	0,25242	0,21368	0,66727	0,16664
1168,65088	0,25247	0,2138	0,66726	0,16676
1166,72241	0,25262	0,21377	0,66742	0,16688
1164,79395	0,25254	0,21382	0,66765	0,16688
1162,86548	0,25254	0,21392	0,66757	0,16689
1160,93701	0,25268	0,2139	0,66748	0,16698
1159,00854	0,25271	0,21396	0,66752	0,16717
1157,08008	0,25298	0,21412	0,66738	0,16738
1155,15161	0,25331	0,21422	0,66726	0,16757
1153,22314	0,2533	0,21417	0,66724	0,16767
1151,29468	0,25318	0,21404	0,6671	0,1676
1149,36621	0,25321	0,21407	0,6672	0,1676
1147,43774	0,25347	0,21419	0,6674	0,16784

1145,50928	0,25376	0,21424	0,66736	0,16803
1143,58081	0,25391	0,21439	0,66756	0,16816
1141,65234	0,25388	0,21448	0,6676	0,16825
1139,72388	0,25378	0,21447	0,66746	0,16833
1137,79541	0,25385	0,2147	0,66773	0,16845
1135,86694	0,25396	0,21507	0,66768	0,16846
1133,93848	0,25407	0,21533	0,66745	0,16844
1132,01001	0,25422	0,2153	0,66753	0,16842
1130,08154	0,25437	0,21518	0,66736	0,16856
1128,15308	0,25456	0,21527	0,66739	0,16893
1126,22461	0,25469	0,21525	0,66787	0,16914
1124,29614	0,25492	0,21507	0,66811	0,16924
1122,36768	0,25523	0,21504	0,66807	0,16934
1120,43921	0,25532	0,21514	0,66812	0,16936
1118,51074	0,25519	0,21539	0,66832	0,16938
1116,58228	0,25504	0,21549	0,66857	0,1695
1114,65381	0,25505	0,21533	0,66845	0,16962
1112,72534	0,25519	0,21543	0,66815	0,16967
1110,79688	0,25521	0,21579	0,66844	0,16995
1108,86841	0,25524	0,21595	0,66852	0,17022
1106,93994	0,25534	0,21593	0,66827	0,17013
1105,01147	0,25542	0,21594	0,66853	0,17018
1103,08301	0,25555	0,21602	0,66858	0,17037
1101,15454	0,25552	0,21601	0,66858	0,17054
1099,22607	0,25543	0,21591	0,66893	0,17081
1097,29761	0,25564	0,21597	0,66906	0,17107
1095,36914	0,2559	0,21613	0,66916	0,17138
1093,44067	0,25595	0,21622	0,66923	0,17161
1091,51221	0,25601	0,21628	0,66916	0,17159
1089,58374	0,25623	0,21625	0,66931	0,17154
1087,65527	0,25629	0,21626	0,66927	0,17165
1085,72681	0,2561	0,21628	0,66913	0,17192
1083,79834	0,25606	0,21622	0,66938	0,17206
1081,86987	0,2561	0,21644	0,66927	0,17215
1079,94141	0,25603	0,21653	0,66893	0,17243
1078,01294	0,25598	0,21621	0,66912	0,17262
1076,08447	0,25588	0,21602	0,66926	0,17261
1074,15601	0,2557	0,21594	0,66936	0,17257
1072,22754	0,25567	0,21596	0,66958	0,17256
1070,29907	0,2557	0,21607	0,66961	0,17243
1068,37061	0,25559	0,21598	0,66963	0,17229
1066,44214	0,2555	0,21597	0,66933	0,17233
1064,51367	0,25536	0,21599	0,66886	0,17232
1062,58521	0,2551	0,21601	0,66873	0,17225
1060,65674	0,25492	0,2163	0,66856	0,17238
1058,72827	0,25487	0,21648	0,66826	0,17236
1056,7998	0,25502	0,21633	0,66807	0,1722
1054,87134	0,25515	0,21612	0,66807	0,1723

1052,94287	0,25525	0,21595	0,66825	0,1725
1051,0144	0,25544	0,21586	0,66848	0,17256
1049,08594	0,2555	0,21586	0,66866	0,17262
1047,15747	0,25571	0,21599	0,66867	0,17287
1045,229	0,25608	0,21597	0,66856	0,17319
1043,30054	0,25635	0,21584	0,66864	0,1735
1041,37207	0,25661	0,21602	0,66884	0,17378
1039,4436	0,2568	0,2163	0,66886	0,17379
1037,51514	0,25709	0,21642	0,66904	0,17372
1035,58667	0,25749	0,21646	0,66927	0,174
1033,6582	0,25762	0,21651	0,66937	0,17423
1031,72974	0,25749	0,21675	0,6698	0,17428
1029,80127	0,25732	0,2169	0,67035	0,17454
1027,8728	0,25721	0,21669	0,67079	0,17485
1025,94434	0,25714	0,21654	0,67108	0,17493
1024,01587	0,25696	0,21668	0,67114	0,17504
1022,0874	0,25682	0,21678	0,6714	0,17535
1020,15894	0,25694	0,21671	0,67173	0,17557
1018,23047	0,25704	0,21674	0,67183	0,17579
1016,302	0,257	0,21691	0,67178	0,17617
1014,37354	0,25713	0,21691	0,67178	0,17639
1012,44507	0,25725	0,21667	0,67174	0,17647
1010,5166	0,25727	0,21643	0,6716	0,17654
1008,58813	0,25748	0,21649	0,67171	0,17649
1006,65967	0,2577	0,21667	0,67173	0,17667
1004,7312	0,25763	0,21657	0,67154	0,17692
1002,80273	0,25759	0,21643	0,6715	0,17697
1000,87427	0,25786	0,21662	0,67131	0,17721
998,9458	0,2582	0,21682	0,67116	0,17751
997,01733	0,25841	0,21685	0,67126	0,17771
995,08887	0,25855	0,21685	0,67136	0,17805
993,1604	0,25858	0,21673	0,67145	0,1784
991,23193	0,25868	0,21667	0,67168	0,17859
989,30347	0,25889	0,21664	0,67186	0,17878
987,375	0,25883	0,21644	0,67201	0,17906
985,44653	0,25863	0,21631	0,67244	0,17931
983,51807	0,2587	0,21616	0,67254	0,17937
981,5896	0,25876	0,21599	0,6723	0,17941
979,66113	0,25882	0,21597	0,67245	0,17963
977,73267	0,25933	0,21565	0,67234	0,17999
975,8042	0,2596	0,21528	0,67196	0,18014
973,87573	0,25945	0,21542	0,67203	0,18013
971,94727	0,25969	0,21536	0,67204	0,18031
970,0188	0,25988	0,21485	0,672	0,18029
968,09033	0,25985	0,21467	0,67212	0,18006
966,16187	0,25991	0,21465	0,67216	0,18015
964,2334	0,25971	0,21444	0,67244	0,18031
962,30493	0,25979	0,21432	0,67264	0,18032

960,37646	0,26012	0,21413	0,6726	0,18038
958,448	0,2599	0,21397	0,67269	0,1803
956,51953	0,25965	0,21406	0,67269	0,18012
954,59106	0,25965	0,21407	0,67273	0,18018
952,6626	0,25974	0,21414	0,67278	0,18043
950,73413	0,25985	0,21426	0,67263	0,18054
948,80566	0,25962	0,2142	0,67265	0,1807
946,8772	0,25939	0,21414	0,67281	0,18096
944,94873	0,25933	0,21409	0,67294	0,18101
943,02026	0,25929	0,21417	0,67298	0,18124
941,0918	0,25958	0,21444	0,67311	0,18173
939,16333	0,25985	0,2145	0,67336	0,18194
937,23486	0,25979	0,21439	0,67342	0,18197
935,3064	0,2598	0,21443	0,67356	0,18201
933,37793	0,25967	0,21457	0,67378	0,18189
931,44946	0,25959	0,21454	0,67371	0,18193
929,521	0,26003	0,21429	0,67356	0,18233
927,59253	0,26034	0,21409	0,67336	0,18247
925,66406	0,26025	0,21391	0,67312	0,18229
923,7356	0,26007	0,21374	0,67308	0,18237
921,80713	0,25991	0,21378	0,67307	0,18258
919,87866	0,25998	0,21385	0,67305	0,18257
917,9502	0,26013	0,2139	0,67311	0,18247
916,02173	0,26029	0,21409	0,67316	0,18252
914,09326	0,26035	0,21433	0,67327	0,18258
912,16479	0,26041	0,21461	0,67349	0,18266
910,23633	0,2607	0,2148	0,67357	0,18297
908,30786	0,2607	0,2148	0,67351	0,18327
906,37939	0,26071	0,21475	0,67366	0,18362
904,45093	0,26116	0,21446	0,67403	0,18397
902,52246	0,26127	0,214	0,67411	0,1841
900,59399	0,26106	0,2138	0,67416	0,18431
898,66553	0,26111	0,21382	0,67456	0,18438
896,73706	0,26135	0,21391	0,67487	0,18439
894,80859	0,26141	0,21415	0,67512	0,18458
892,88013	0,2613	0,21451	0,67523	0,18448
890,95166	0,26123	0,21486	0,6751	0,18434
889,02319	0,26116	0,21492	0,67492	0,18461
887,09473	0,26116	0,21478	0,67467	0,18493
885,16626	0,26111	0,21475	0,67459	0,18499
883,23779	0,26113	0,21471	0,67452	0,18492
881,30933	0,26148	0,2147	0,67461	0,18508
879,38086	0,26178	0,2149	0,67511	0,18542
877,45239	0,26194	0,21495	0,67518	0,18554
875,52393	0,262	0,21488	0,67505	0,18569
873,59546	0,26182	0,21496	0,67532	0,18598
871,66699	0,26174	0,21497	0,67551	0,18602
869,73853	0,26198	0,21479	0,67555	0,18601



867,81006	0,26213	0,21469	0,67561	0,18591
865,88159	0,26209	0,21494	0,67571	0,18583
863,95313	0,26225	0,2154	0,67589	0,18631
862,02466	0,26225	0,21579	0,67597	0,18655
860,09619	0,26226	0,21578	0,67605	0,18653
858,16772	0,26274	0,21555	0,67622	0,18675
856,23926	0,26287	0,21572	0,67616	0,18669
854,31079	0,26304	0,21595	0,67606	0,18693
852,38232	0,26352	0,21607	0,67608	0,1872
850,45386	0,26347	0,21647	0,67588	0,18696
848,52539	0,26349	0,2167	0,67564	0,18698
846,59692	0,26375	0,21671	0,67544	0,18703
844,66846	0,26392	0,21666	0,67525	0,18714
842,73999	0,26419	0,21661	0,67505	0,18738
840,81152	0,2641	0,21684	0,67463	0,18735
838,88306	0,2638	0,21677	0,67446	0,18763
836,95459	0,26374	0,21646	0,6747	0,18816
835,02612	0,26386	0,21684	0,67466	0,18843
833,09766	0,26402	0,21727	0,67436	0,18846
831,16919	0,26404	0,21704	0,67442	0,18832
829,24072	0,26402	0,21689	0,67431	0,18848
827,31226	0,26414	0,21716	0,67372	0,1887
825,38379	0,26424	0,21726	0,67385	0,18838
823,45532	0,26403	0,21718	0,67414	0,1879
821,52686	0,26382	0,21718	0,67391	0,1876
819,59839	0,26399	0,21718	0,674	0,18754
817,66992	0,26418	0,21729	0,67381	0,18773
815,74146	0,26428	0,21739	0,6734	0,18783
813,81299	0,26449	0,21744	0,67344	0,18811
811,88452	0,26475	0,21776	0,67341	0,18869
809,95605	0,26498	0,218	0,67358	0,18891
808,02759	0,26518	0,21808	0,67404	0,18898
806,09912	0,26532	0,21821	0,67433	0,18927
804,17065	0,26543	0,21797	0,67473	0,18926
802,24219	0,26572	0,21774	0,67519	0,18913
800,31372	0,266	0,21798	0,67508	0,18932
798,38525	0,2657	0,21841	0,67482	0,18951
796,45679	0,26552	0,21879	0,6748	0,18965
794,52832	0,26594	0,21894	0,67456	0,19006
792,59985	0,26613	0,21906	0,67456	0,19041
790,67139	0,26635	0,21925	0,67462	0,19036
788,74292	0,26675	0,21907	0,67421	0,19028
786,81445	0,26649	0,21869	0,67395	0,19038
784,88599	0,26601	0,21864	0,67372	0,19072
782,95752	0,26577	0,21879	0,67358	0,19093
781,02905	0,2655	0,21881	0,67415	0,19075
779,10059	0,26512	0,21876	0,6744	0,19056
777,17212	0,2647	0,2187	0,6741	0,19033

775,24365	0,26489	0,21875	0,67413	0,19034
773,31519	0,26527	0,21868	0,67415	0,19064
771,38672	0,26519	0,21844	0,674	0,19075
769,45825	0,26511	0,21844	0,67396	0,19093
767,52979	0,26498	0,21866	0,67378	0,19119
765,60132	0,26499	0,21916	0,67341	0,19139
763,67285	0,26502	0,21953	0,67284	0,19177
761,74438	0,26447	0,21946	0,67233	0,19192
759,81592	0,26438	0,21973	0,67206	0,19181
757,88745	0,26483	0,22017	0,6719	0,19195
755,95898	0,2647	0,22029	0,67216	0,19204
754,03052	0,26471	0,22026	0,67229	0,19224
752,10205	0,26506	0,22	0,67223	0,19273
750,17358	0,26485	0,2199	0,67259	0,19263
748,24512	0,2646	0,21993	0,67257	0,19226
746,31665	0,26492	0,21982	0,67208	0,19234
744,38818	0,26529	0,21983	0,67189	0,1925
742,45972	0,26557	0,21999	0,67175	0,19261
740,53125	0,26579	0,2204	0,67147	0,19264
738,60278	0,26566	0,22085	0,67103	0,19264
736,67432	0,26575	0,22116	0,67058	0,19286
734,74585	0,26611	0,22169	0,67047	0,19319
732,81738	0,26571	0,22191	0,67035	0,19352
730,88892	0,26513	0,22187	0,67015	0,19366
728,96045	0,26508	0,22225	0,67036	0,19339
727,03198	0,26491	0,22229	0,6706	0,19336
725,10352	0,26511	0,22177	0,67043	0,19369
723,17505	0,26583	0,22192	0,66995	0,19389
721,24658	0,26596	0,22233	0,66959	0,19435
719,31812	0,26593	0,22231	0,6696	0,19488
717,38965	0,26644	0,2227	0,66971	0,19501
715,46118	0,26648	0,22336	0,66936	0,19488
713,53271	0,2662	0,2239	0,66851	0,1944
711,60425	0,26649	0,22463	0,66813	0,19435
709,67578	0,26682	0,22478	0,66788	0,19462
707,74731	0,26701	0,22467	0,66747	0,19454
705,81885	0,26737	0,22518	0,66796	0,1946
703,89038	0,26763	0,22536	0,66821	0,195
701,96191	0,2677	0,22552	0,66765	0,19524
700,03345	0,26786	0,22619	0,66743	0,19519
698,10498	0,26815	0,22673	0,66727	0,19509
696,17651	0,26845	0,22742	0,66709	0,1953
694,24805	0,269	0,22787	0,66697	0,19594
692,31958	0,2697	0,22794	0,66694	0,19661
690,39111	0,2702	0,22843	0,66679	0,19691
688,46265	0,27042	0,22866	0,66635	0,19657
686,53418	0,27043	0,22861	0,66627	0,19619
684,60571	0,27043	0,22866	0,66591	0,19653

682,67725	0,2706	0,22844	0,66555	0,19709
680,74878	0,27109	0,22865	0,6657	0,1977
678,82031	0,27108	0,22951	0,66567	0,19745
676,89185	0,27125	0,22993	0,66611	0,19725
674,96338	0,27138	0,22977	0,66563	0,19729
673,03491	0,2715	0,22965	0,66538	0,19734
671,10645	0,27163	0,23014	0,66513	0,19738
669,17798	0,27175	0,23156	0,66489	0,19743
667,24951	0,27188	0,23138	0,66464	0,19747
665,32104	0,272	0,23052	0,66439	0,19751
663,39258	0,27213	0,23143	0,66414	0,19756
661,46411	0,27225	0,23026	0,66389	0,1976
659,53564	0,27237	0,22895	0,66365	0,19765
657,60718	0,2725	0,23083	0,6634	0,19769
655,67871	0,27246	0,23124	0,66315	0,19774
653,75024	0,27297	0,23075	0,6629	0,19799
651,82178	0,2728	0,23231	0,66265	0,1985
649,89331	0,27238	0,23328	0,6624	0,19887
647,96484	0,27197	0,23269	0,66255	0,19886
646,03638	0,27139	0,23264	0,66284	0,19883
644,10791	0,2716	0,23282	0,66227	0,19896
642,17944	0,27204	0,23291	0,66294	0,19909
640,25098	0,27189	0,23253	0,66318	0,19929
638,32251	0,27193	0,23215	0,6631	0,19943
636,39404	0,27181	0,23257	0,66351	0,1993
634,46558	0,27153	0,23242	0,66355	0,19899
632,53711	0,27194	0,23237	0,66322	0,19944
630,60864	0,27167	0,23253	0,6635	0,20004
628,68018	0,27125	0,23223	0,66377	0,20001
626,75171	0,27145	0,23297	0,66347	0,20007
624,82324	0,27156	0,23351	0,66346	0,20081
622,89478	0,27183	0,23312	0,66362	0,20144
620,96631	0,27225	0,23345	0,66372	0,20148
619,03784	0,27301	0,23375	0,66447	0,20238
617,10938	0,273	0,2337	0,66572	0,20283
615,18091	0,27223	0,23359	0,66619	0,20174
613,25244	0,27251	0,2335	0,66608	0,20164
611,32397	0,27297	0,23413	0,66631	0,20238
609,39551	0,27336	0,23415	0,66672	0,20335
607,46704	0,27348	0,23317	0,66708	0,20411
605,53857	0,27286	0,23246	0,66706	0,20388
603,61011	0,27305	0,23251	0,66701	0,20426
601,68164	0,27314	0,23336	0,66708	0,20484
599,75317	0,27257	0,2337	0,66697	0,20496
597,82471	0,27307	0,23341	0,66717	0,2059
595,89624	0,27348	0,23326	0,66672	0,20665
593,96777	0,27325	0,23369	0,66609	0,20664
592,03931	0,27378	0,23493	0,66662	0,20695

590,11084	0,27444	0,23459	0,66639	0,20731
588,18237	0,27458	0,23374	0,66629	0,20723
586,25391	0,27468	0,23417	0,66763	0,20722
584,32544	0,2749	0,23394	0,66818	0,20727
582,39697	0,27496	0,234	0,66877	0,20718
580,46851	0,27515	0,23441	0,66937	0,208
578,54004	0,27571	0,23472	0,6697	0,2089
576,61157	0,27581	0,23627	0,67092	0,2085
574,68311	0,27633	0,23686	0,67022	0,20848
572,75464	0,27757	0,2365	0,6694	0,20894
570,82617	0,27757	0,2375	0,67058	0,20876
568,89771	0,2774	0,2388	0,67112	0,20902
566,96924	0,27844	0,2395	0,67183	0,20986
565,04077	0,27944	0,24009	0,6724	0,21038
563,1123	0,27992	0,24065	0,67324	0,2107
561,18384	0,28027	0,24143	0,67511	0,21144
559,25537	0,28107	0,24246	0,67553	0,21175
557,3269	0,28248	0,2436	0,67608	0,21176
555,39844	0,28464	0,24505	0,67755	0,21315
553,46997	0,28701	0,24637	0,67901	0,21445
551,5415	0,28841	0,24809	0,68094	0,21505
549,61304	0,28977	0,25066	0,68354	0,21615
547,68457	0,29166	0,25265	0,68684	0,21675
545,7561	0,29381	0,25534	0,68849	0,21796
543,82764	0,29707	0,25899	0,69039	0,22078
541,89917	0,30212	0,2615	0,69573	0,22321
539,9707	0,30772	0,26434	0,70059	0,22491
538,04224	0,31268	0,26928	0,70579	0,22731
536,11377	0,31873	0,27461	0,71386	0,23057
534,1853	0,32513	0,27916	0,72362	0,23294
532,25684	0,33004	0,28478	0,73501	0,23494
530,32837	0,33647	0,29195	0,74431	0,23932
528,3999	0,34693	0,29961	0,75792	0,24415
526,47144	0,35933	0,31006	0,78185	0,24749
524,54297	0,36817	0,31905	0,79719	0,25184
522,6145	0,37588	0,32598	0,81166	0,25731
520,68604	0,39015	0,33841	0,84202	0,26284
518,75757	0,40829	0,35215	0,87126	0,26859
516,8291	0,42354	0,36285	0,89797	0,27385
514,90063	0,43554	0,37119	0,92644	0,28032
512,97217	0,44856	0,38239	0,96391	0,28638
511,0437	0,46637	0,39711	100 949	0,28996
509,11523	0,48557	0,41065	104 841	0,29695
507,18677	0,49968	0,4284	110 067	0,30435
505,2583	0,50984	0,44012	114 513	0,30784
503,32983	0,52607	0,4502	119 350	0,31238
501,40137	0,54056	0,46395	127 613	0,3139
499,4729	0,54569	0,4701	131 963	0,31623

**Figure 5.4**

n°spectre	VD435	VD412	VD413	VD414	VD416	VD417

cm-1	a	b	c	d	e	f
4001,5686	0,15126	0,2323	0,19988	0,12234	0,27604	0,15507
3999,64014	0,15117	0,23227	0,19995	0,12216	0,27595	0,15501
3997,71167	0,15124	0,23226	0,19995	0,12229	0,27588	0,15508
3995,7832	0,15133	0,23222	0,19985	0,12241	0,27596	0,15517
3993,85474	0,15114	0,23225	0,19981	0,1222	0,27599	0,15511
3991,92627	0,15109	0,23229	0,19982	0,12224	0,27596	0,15512
3989,9978	0,15109	0,2322	0,19981	0,1224	0,27602	0,15523
3988,06934	0,15107	0,23215	0,1997	0,12233	0,27595	0,15508
3986,14087	0,1511	0,23212	0,1997	0,12236	0,27587	0,15504
3984,2124	0,15098	0,23207	0,1997	0,12224	0,27584	0,15512
3982,28394	0,15092	0,23205	0,19973	0,12216	0,27593	0,15507
3980,35547	0,15093	0,23189	0,19975	0,12229	0,27592	0,15494
3978,427	0,15098	0,23195	0,19969	0,12221	0,27577	0,15492
3976,49854	0,15112	0,2322	0,19979	0,12231	0,27589	0,15517
3974,57007	0,15102	0,23196	0,19969	0,12235	0,27583	0,15508
3972,6416	0,15084	0,23172	0,19961	0,12217	0,27565	0,15493
3970,71313	0,15083	0,23182	0,19975	0,12226	0,27563	0,15502
3968,78467	0,15095	0,23188	0,19973	0,12238	0,27557	0,15506
3966,8562	0,15081	0,2318	0,19975	0,12229	0,27551	0,15498
3964,92773	0,15088	0,2318	0,19989	0,12228	0,2755	0,15492
3962,99927	0,1512	0,23182	0,1999	0,1225	0,27569	0,15517
3961,0708	0,15072	0,23152	0,1997	0,12244	0,27549	0,15502
3959,14233	0,1507	0,23162	0,19984	0,12237	0,2754	0,15493
3957,21387	0,15095	0,23173	0,19997	0,12253	0,27553	0,1551
3955,2854	0,15078	0,2314	0,19984	0,12252	0,27526	0,15494
3953,35693	0,15086	0,23161	0,2002	0,12258	0,27546	0,15515
3951,42847	0,15079	0,23118	0,19985	0,1226	0,2751	0,15501
3949,5	0,15082	0,23051	0,19907	0,12255	0,27451	0,15484
3947,57153	0,14996	0,23092	0,19939	0,12227	0,27491	0,15463
3945,64307	0,15025	0,23133	0,19997	0,12237	0,27513	0,1547
3943,7146	0,15187	0,23166	0,20022	0,12316	0,27554	0,15578
3941,78613	0,15038	0,23131	0,19981	0,1227	0,27527	0,15512
3939,85767	0,14979	0,23093	0,19972	0,12228	0,27466	0,15435
3937,9292	0,15099	0,23136	0,20028	0,12284	0,27503	0,15505
3936,00073	0,15049	0,23123	0,20018	0,12273	0,27497	0,15491
3934,07227	0,1512	0,23134	0,20034	0,123	0,27522	0,15544
3932,1438	0,15163	0,23169	0,2003	0,12335	0,27561	0,1561
3930,21533	0,14952	0,23098	0,19924	0,12238	0,27468	0,15471
3928,28687	0,14976	0,23088	0,19957	0,12218	0,27459	0,15436
3926,3584	0,1516	0,23161	0,20048	0,12307	0,27544	0,15564
3924,42993	0,15082	0,23136	0,2	0,12308	0,27534	0,15563
3922,50146	0,14964	0,23069	0,1996	0,12244	0,27477	0,15461

3920,573	0,15095	0,23119	0,20012	0,12277	0,2751	0,15507
3918,64453	0,15148	0,2316	0,20035	0,12323	0,27553	0,15566
3916,71606	0,1501	0,23103	0,19992	0,12282	0,27513	0,15498
3914,7876	0,14908	0,23064	0,1995	0,12217	0,27439	0,15398
3912,85913	0,15014	0,23098	0,19985	0,12244	0,27474	0,1545
3910,93066	0,15121	0,2313	0,20045	0,12301	0,27521	0,15515
3909,0022	0,14998	0,23085	0,20008	0,12267	0,27453	0,15442
3907,07373	0,15127	0,23127	0,20036	0,12328	0,27509	0,15556
3905,14526	0,15347	0,23222	0,20114	0,12436	0,27628	0,15717
3903,2168	0,15056	0,23126	0,2002	0,12314	0,2752	0,15525
3901,28833	0,14931	0,23059	0,19961	0,12238	0,27459	0,15431
3899,35986	0,15007	0,23077	0,19943	0,12263	0,27493	0,15477
3897,4314	0,1484	0,23012	0,199	0,12177	0,27395	0,15347
3895,50293	0,14852	0,22996	0,19921	0,12174	0,27372	0,15359
3893,57446	0,15265	0,23147	0,20075	0,12371	0,27539	0,1562
3891,646	0,15332	0,23207	0,20137	0,12447	0,27619	0,15674
3889,71753	0,14612	0,22917	0,19858	0,12113	0,2731	0,15198
3887,78906	0,15121	0,23076	0,20016	0,12279	0,27448	0,15496
3885,8606	0,15509	0,23291	0,20248	0,12518	0,27668	0,1577
3883,93213	0,14518	0,22893	0,19828	0,1209	0,27283	0,15163
3882,00366	0,15153	0,2307	0,19968	0,12287	0,27461	0,15551
3880,0752	0,15313	0,23187	0,20063	0,12441	0,27616	0,15727
3878,14673	0,14519	0,22871	0,19791	0,12061	0,27261	0,15154
3876,21826	0,15249	0,2313	0,20086	0,12333	0,27479	0,15559
3874,28979	0,15154	0,23107	0,20025	0,12386	0,27531	0,15624
3872,36133	0,14895	0,22982	0,19883	0,12226	0,27404	0,15434
3870,43286	0,15478	0,23255	0,20225	0,1248	0,27607	0,157
3868,50439	0,14635	0,22941	0,1988	0,12164	0,27322	0,15238
3866,57593	0,14846	0,22952	0,19883	0,12172	0,27328	0,15339
3864,64746	0,15378	0,23185	0,20178	0,12463	0,27558	0,1569
3862,71899	0,14712	0,22913	0,19862	0,12214	0,27339	0,15373
3860,79053	0,14899	0,22978	0,19953	0,12233	0,27347	0,15384
3858,86206	0,14996	0,23024	0,20036	0,12313	0,27399	0,15439
3856,93359	0,15032	0,22998	0,19946	0,12335	0,27431	0,1557
3855,00513	0,15855	0,23436	0,20575	0,12693	0,27698	0,15849
3853,07666	0,1518	0,23317	0,205	0,125	0,27582	0,15433
3851,14819	0,1411	0,22674	0,1968	0,11915	0,27049	0,14865
3849,21973	0,14782	0,22883	0,1986	0,12168	0,27269	0,15332
3847,29126	0,14998	0,23	0,20063	0,12312	0,27363	0,15431
3845,36279	0,15097	0,23037	0,20085	0,12388	0,27429	0,15559
3843,43433	0,15154	0,23068	0,20129	0,1243	0,2745	0,156
3841,50586	0,14957	0,22971	0,19974	0,12339	0,27386	0,15497
3839,57739	0,15198	0,23072	0,20077	0,12428	0,27465	0,15619
3837,64893	0,15127	0,23093	0,20209	0,12424	0,27434	0,15477
3835,72046	0,14559	0,22835	0,19928	0,12152	0,27212	0,15124
3833,79199	0,14944	0,22952	0,19986	0,12278	0,27344	0,15424
3831,86353	0,15076	0,2304	0,20104	0,12383	0,27414	0,155

3829,93506	0,14695	0,22866	0,19942	0,12237	0,27273	0,15284
3828,00659	0,1515	0,2302	0,20111	0,12409	0,27424	0,15579
3826,07813	0,14955	0,22971	0,20064	0,12375	0,27379	0,15488
3824,14966	0,14841	0,22899	0,19971	0,1229	0,27307	0,15404
3822,22119	0,15716	0,23263	0,20379	0,12643	0,2763	0,15861
3820,29272	0,14653	0,22894	0,19923	0,12278	0,27312	0,1534
3818,36426	0,14629	0,22807	0,19844	0,12162	0,27189	0,1525
3816,43579	0,15461	0,23169	0,2033	0,12525	0,27496	0,15633
3814,50732	0,14566	0,22837	0,19986	0,12213	0,27207	0,15145
3812,57886	0,14694	0,22831	0,1992	0,12201	0,2722	0,15269
3810,65039	0,15042	0,2297	0,20095	0,12367	0,2736	0,1548
3808,72192	0,15298	0,23075	0,20229	0,12498	0,27462	0,15633
3806,79346	0,15128	0,23054	0,20231	0,12465	0,27436	0,15506
3804,86499	0,14517	0,22749	0,1987	0,12156	0,27169	0,15162
3802,93652	0,15411	0,23071	0,20184	0,12488	0,27477	0,15702
3801,00806	0,15163	0,23072	0,20257	0,12485	0,27459	0,1553
3799,07959	0,14342	0,22685	0,19806	0,12067	0,27082	0,15028
3797,15112	0,15172	0,22988	0,20054	0,12404	0,27417	0,15603
3795,22266	0,14876	0,22942	0,20072	0,12368	0,27346	0,15413
3793,29419	0,14692	0,22825	0,19971	0,12237	0,27218	0,15261
3791,36572	0,1512	0,22984	0,20163	0,12426	0,2738	0,15527
3789,43726	0,14897	0,22918	0,20109	0,1237	0,27307	0,15415
3787,50879	0,14982	0,2292	0,20107	0,12374	0,27321	0,15439
3785,58032	0,15136	0,22959	0,20144	0,12455	0,27404	0,15561
3783,65186	0,14823	0,22862	0,20024	0,12331	0,27276	0,15379
3781,72339	0,15013	0,22933	0,20114	0,12391	0,27319	0,15448
3779,79492	0,15139	0,22971	0,20144	0,12478	0,2741	0,15584
3777,86646	0,14765	0,22848	0,20003	0,1232	0,27262	0,15349
3775,93799	0,1486	0,22878	0,20062	0,12327	0,27256	0,15346
3774,00952	0,14956	0,22906	0,20116	0,12382	0,27307	0,15422
3772,08105	0,15101	0,22963	0,2016	0,12447	0,27361	0,15524
3770,15259	0,15121	0,22982	0,20173	0,12472	0,27381	0,15549
3768,22412	0,14728	0,22816	0,20013	0,12292	0,27224	0,15293
3766,29565	0,14988	0,2289	0,20047	0,12367	0,27303	0,15457
3764,36719	0,14885	0,22878	0,20051	0,12364	0,27303	0,15416
3762,43872	0,1478	0,22825	0,20026	0,12306	0,27244	0,15322
3760,51025	0,15242	0,22986	0,20172	0,12489	0,27398	0,15599
3758,58179	0,14904	0,22874	0,20031	0,12388	0,27322	0,15462
3756,65332	0,14712	0,22796	0,19951	0,12276	0,27222	0,15333
3754,72485	0,1501	0,22904	0,20087	0,12394	0,27304	0,15474
3752,79639	0,15248	0,22986	0,20222	0,12506	0,274	0,15583
3750,86792	0,1531	0,23065	0,20329	0,12545	0,27464	0,15585
3748,93945	0,14234	0,22648	0,19868	0,12073	0,27013	0,14887
3747,01099	0,14786	0,22755	0,19898	0,12239	0,27187	0,15307
3745,08252	0,1573	0,23202	0,20473	0,12688	0,27558	0,1576
3743,15405	0,14328	0,22716	0,1998	0,12186	0,27051	0,14907
3741,22559	0,14361	0,22554	0,19663	0,12136	0,27033	0,15149
3739,29712	0,15164	0,22872	0,2003	0,12535	0,27341	0,15661

3737,36865	0,15257	0,22921	0,20169	0,12659	0,27373	0,15678
3735,44019	0,14932	0,2273	0,19872	0,12556	0,2727	0,15641
3733,51172	0,14872	0,22715	0,19834	0,12506	0,27212	0,15552
3731,58325	0,14666	0,22647	0,19859	0,12406	0,27111	0,15296
3729,65479	0,14702	0,22587	0,19833	0,12478	0,27121	0,15395
3727,72632	0,15096	0,22734	0,19952	0,12687	0,2726	0,15694
3725,79785	0,1503	0,22744	0,19938	0,12682	0,27264	0,15656
3723,86938	0,14844	0,22648	0,19831	0,12565	0,27193	0,15543
3721,94092	0,1495	0,22689	0,19894	0,12561	0,2722	0,1557
3720,01245	0,14831	0,2269	0,19909	0,12484	0,27199	0,15468
3718,08398	0,14831	0,22709	0,19933	0,12425	0,2718	0,15414
3716,15552	0,14807	0,22718	0,19951	0,12356	0,27164	0,15352
3714,22705	0,15054	0,22856	0,20066	0,12412	0,27264	0,15473
3712,29858	0,15249	0,22901	0,2013	0,12542	0,27312	0,15573
3710,37012	0,14626	0,22636	0,19832	0,12375	0,27105	0,15332
3708,44165	0,14626	0,22684	0,19737	0,12266	0,2714	0,15334
3706,51318	0,14723	0,22629	0,19722	0,12271	0,27112	0,15258
3704,58472	0,14868	0,22614	0,19835	0,12427	0,27106	0,15373
3702,65625	0,1509	0,22744	0,19957	0,12568	0,27211	0,15594
3700,72778	0,14684	0,22579	0,19774	0,12376	0,27057	0,15319
3698,79932	0,14648	0,22545	0,1978	0,12329	0,27016	0,15247
3696,87085	0,14856	0,22631	0,19848	0,12409	0,2711	0,15393
3694,94238	0,14758	0,2259	0,19821	0,12346	0,2704	0,15298
3693,01392	0,14786	0,22586	0,198	0,12314	0,26998	0,15294
3691,08545	0,1498	0,22636	0,19755	0,12338	0,27048	0,1542
3689,15698	0,14725	0,22585	0,1974	0,12167	0,26908	0,15111
3687,22852	0,14236	0,22397	0,19627	0,11916	0,26681	0,14707
3685,30005	0,14333	0,22391	0,19524	0,11959	0,26772	0,14922
3683,37158	0,14682	0,22562	0,1971	0,12121	0,26934	0,15143
3681,44312	0,14824	0,22638	0,19852	0,12201	0,26984	0,15187
3679,51465	0,1458	0,22528	0,19662	0,12116	0,26956	0,15166
3677,58618	0,15064	0,22744	0,19899	0,12279	0,27126	0,15381
3675,65771	0,15224	0,2286	0,2001	0,12374	0,27238	0,15478
3673,72925	0,13923	0,2236	0,19482	0,11847	0,26773	0,14729
3671,80078	0,1477	0,22654	0,19828	0,12123	0,27033	0,15163
3669,87231	0,15136	0,22832	0,20063	0,12347	0,2724	0,15406
3667,94385	0,14126	0,22435	0,19609	0,11967	0,26917	0,14884
3666,01538	0,14572	0,22585	0,19797	0,12115	0,27048	0,15128
3664,08691	0,14849	0,22705	0,20006	0,12284	0,27171	0,15294
3662,15845	0,14734	0,22669	0,19951	0,12269	0,27165	0,15262
3660,22998	0,14701	0,22655	0,19945	0,12256	0,27152	0,15242
3658,30151	0,14968	0,22732	0,20032	0,12355	0,27239	0,15414
3656,37305	0,14938	0,22759	0,2006	0,12388	0,27245	0,15399
3654,44458	0,14375	0,22547	0,19864	0,12176	0,27042	0,15062
3652,51611	0,14888	0,22675	0,19948	0,12337	0,27226	0,1542
3650,58765	0,15364	0,2286	0,20129	0,12553	0,27407	0,15716
3648,65918	0,14554	0,22598	0,19822	0,12257	0,2714	0,15276
3646,73071	0,14307	0,22462	0,19644	0,12128	0,2704	0,15127



3644,80225	0,14518	0,22542	0,19769	0,12228	0,27106	0,15223
3642,87378	0,14728	0,22618	0,19917	0,12333	0,27177	0,15345
3640,94531	0,1483	0,22647	0,19954	0,12413	0,27234	0,15456
3639,01685	0,14695	0,22592	0,19891	0,12386	0,27182	0,15385
3637,08838	0,14774	0,22588	0,19885	0,12408	0,27195	0,15441
3635,15991	0,14914	0,22627	0,19937	0,12483	0,27243	0,15528
3633,23145	0,1464	0,22505	0,19766	0,12414	0,27147	0,1542
3631,30298	0,14941	0,22602	0,19842	0,12494	0,27213	0,15567
3629,37451	0,15324	0,22774	0,20024	0,12655	0,27343	0,1575
3627,44604	0,14159	0,22305	0,19505	0,12244	0,26934	0,1512
3625,51758	0,14405	0,22325	0,19517	0,12259	0,26989	0,15258
3623,58911	0,14822	0,22503	0,19725	0,12426	0,2714	0,15489
3621,66064	0,14805	0,22496	0,19702	0,12387	0,27132	0,15464
3619,73218	0,14958	0,22566	0,1972	0,12373	0,27199	0,15535
3617,80371	0,14429	0,22395	0,19496	0,1216	0,27009	0,15226
3615,87524	0,14496	0,22399	0,19478	0,12107	0,27008	0,15222
3613,94678	0,1483	0,22559	0,19594	0,12173	0,27167	0,15408
3612,01831	0,14476	0,22469	0,19459	0,1203	0,27033	0,15184
3610,08984	0,14623	0,22494	0,19502	0,12043	0,27013	0,15178
3608,16138	0,14693	0,22478	0,19447	0,1208	0,27045	0,15277
3606,23291	0,14358	0,2235	0,19265	0,11968	0,26943	0,15139
3604,30444	0,14543	0,22411	0,19326	0,11995	0,26978	0,15173
3602,37598	0,14721	0,22481	0,19362	0,12067	0,27045	0,15292
3600,44751	0,14613	0,22481	0,19266	0,1202	0,27049	0,15293
3598,51904	0,14537	0,2244	0,19184	0,11924	0,27001	0,15179
3596,59058	0,14624	0,22447	0,19193	0,1194	0,27003	0,15198
3594,66211	0,14617	0,2247	0,19186	0,11955	0,2703	0,15248
3592,73364	0,14413	0,22403	0,19104	0,11841	0,26965	0,15095
3590,80518	0,14541	0,22453	0,19157	0,11825	0,2697	0,15082
3588,87671	0,14789	0,22568	0,19216	0,11901	0,27057	0,15241
3586,94824	0,14442	0,22449	0,19016	0,11782	0,26976	0,15116
3585,01978	0,1423	0,22367	0,18957	0,11629	0,26837	0,14874
3583,09131	0,14461	0,22461	0,19053	0,11659	0,26884	0,14958
3581,16284	0,145	0,22482	0,19055	0,11664	0,26907	0,15001
3579,23438	0,14451	0,22469	0,19009	0,11615	0,26874	0,14934
3577,30591	0,14422	0,22451	0,18976	0,11577	0,26849	0,14889
3575,37744	0,14415	0,22433	0,18951	0,11551	0,26822	0,14878
3573,44897	0,14397	0,22448	0,18929	0,11504	0,26785	0,14829
3571,52051	0,14333	0,22432	0,18892	0,1145	0,26747	0,14769
3569,59204	0,1451	0,22482	0,18903	0,11492	0,26787	0,14863
3567,66357	0,14545	0,22492	0,18804	0,11489	0,26817	0,14944
3565,73511	0,14114	0,22328	0,18614	0,11291	0,26652	0,14689
3563,80664	0,14152	0,22331	0,1866	0,1124	0,266	0,14593
3561,87817	0,14335	0,22403	0,1874	0,11284	0,26643	0,14664
3559,94971	0,1428	0,22383	0,18714	0,11257	0,26613	0,14645
3558,02124	0,14256	0,22363	0,18687	0,11201	0,26583	0,1459
3556,09277	0,14265	0,22367	0,18674	0,11164	0,2656	0,14553
3554,16431	0,14301	0,22389	0,18668	0,11184	0,26562	0,14589

3552,23584	0,14261	0,22356	0,18617	0,11164	0,26552	0,14583
3550,30737	0,14158	0,22309	0,18569	0,11079	0,26487	0,14467
3548,37891	0,14266	0,22346	0,18594	0,11098	0,26503	0,14511
3546,45044	0,14282	0,22338	0,18553	0,11111	0,26519	0,14573
3544,52197	0,14138	0,22294	0,18483	0,11037	0,26461	0,1447
3542,59351	0,14146	0,22295	0,18496	0,11005	0,26438	0,14415
3540,66504	0,14164	0,22286	0,18503	0,10983	0,26412	0,14395
3538,73657	0,14184	0,22293	0,1848	0,1097	0,26408	0,14397
3536,80811	0,14191	0,22292	0,18461	0,10971	0,2643	0,14421
3534,87964	0,1413	0,2226	0,18442	0,10933	0,26396	0,14377
3532,95117	0,14124	0,22262	0,18424	0,10902	0,26362	0,14329
3531,02271	0,14164	0,22274	0,18406	0,10899	0,26364	0,14356
3529,09424	0,14154	0,22243	0,18356	0,10887	0,2635	0,14377
3527,16577	0,14086	0,22206	0,18309	0,10851	0,26305	0,14316
3525,2373	0,14088	0,22211	0,18309	0,10827	0,26292	0,14299
3523,30884	0,14093	0,22216	0,18287	0,10819	0,26298	0,1431
3521,38037	0,14034	0,22183	0,18255	0,10781	0,26255	0,1424
3519,4519	0,1405	0,22164	0,18261	0,10759	0,26217	0,1422
3517,52344	0,14076	0,22173	0,1825	0,10758	0,26222	0,14233
3515,59497	0,14042	0,22163	0,18225	0,10733	0,2621	0,14195
3513,6665	0,14023	0,22144	0,18218	0,10716	0,2618	0,14174
3511,73804	0,1404	0,22145	0,18194	0,10715	0,26176	0,14191
3509,80957	0,14022	0,2213	0,18143	0,10698	0,26161	0,14193
3507,8811	0,13945	0,22103	0,1812	0,10653	0,26116	0,14131
3505,95264	0,13986	0,22117	0,18129	0,10634	0,26121	0,14124
3504,02417	0,14051	0,22123	0,18092	0,10657	0,26149	0,14186
3502,0957	0,13956	0,22097	0,18049	0,10635	0,2611	0,14145
3500,16724	0,13928	0,22087	0,18066	0,10597	0,26075	0,14081
3498,23877	0,13991	0,22093	0,1807	0,10606	0,26087	0,14098
3496,3103	0,13979	0,22095	0,18053	0,10606	0,26084	0,14109
3494,38184	0,13949	0,22094	0,1805	0,10586	0,26077	0,14092
3492,45337	0,13951	0,22087	0,18046	0,10569	0,26069	0,14075
3490,5249	0,13962	0,22084	0,18035	0,10567	0,26053	0,14082
3488,59644	0,13964	0,22089	0,1802	0,10578	0,26063	0,14093
3486,66797	0,1394	0,22086	0,18003	0,10564	0,26061	0,14069
3484,7395	0,13948	0,2209	0,17993	0,10543	0,26045	0,14062
3482,81104	0,13974	0,2209	0,17986	0,10554	0,26045	0,14086
3480,88257	0,1393	0,22064	0,17972	0,10559	0,26034	0,14071
3478,9541	0,13911	0,22057	0,17968	0,10536	0,26031	0,1405
3477,02563	0,1396	0,22067	0,1797	0,10528	0,26034	0,1406
3475,09717	0,13954	0,22057	0,17964	0,10539	0,26022	0,14056
3473,1687	0,13922	0,22053	0,17957	0,10527	0,26012	0,14049
3471,24023	0,13931	0,22054	0,17942	0,10511	0,26004	0,14043
3469,31177	0,13953	0,22063	0,17939	0,10533	0,26009	0,14047
3467,3833	0,13947	0,2207	0,17938	0,10535	0,26016	0,14059
3465,45483	0,13937	0,22051	0,17915	0,10509	0,26005	0,1404
3463,52637	0,13954	0,22043	0,17907	0,10501	0,25998	0,1403
3461,5979	0,13934	0,22047	0,17904	0,10488	0,25987	0,1403

3459,66943	0,13922	0,22052	0,17895	0,10489	0,25979	0,14026
3457,74097	0,13934	0,22048	0,17879	0,10488	0,25971	0,14021
3455,8125	0,13931	0,22028	0,17869	0,10465	0,25956	0,14015
3453,88403	0,13938	0,22024	0,17876	0,10471	0,25964	0,14029
3451,95557	0,13906	0,22031	0,17866	0,10465	0,25963	0,14009
3450,0271	0,1392	0,22049	0,1786	0,10453	0,25955	0,14015
3448,09863	0,13966	0,22047	0,17848	0,10468	0,25971	0,14072
3446,17017	0,13904	0,22016	0,17828	0,10458	0,25962	0,14039
3444,2417	0,13886	0,22026	0,17841	0,10447	0,25952	0,14005
3442,31323	0,13921	0,22033	0,17842	0,10447	0,2596	0,14028
3440,38477	0,1391	0,22016	0,17837	0,1045	0,25956	0,14024
3438,4563	0,13933	0,22032	0,1785	0,10465	0,25964	0,14037
3436,52783	0,13952	0,2205	0,17852	0,10465	0,25978	0,14046
3434,59937	0,13941	0,22056	0,17865	0,10474	0,25983	0,14045
3432,6709	0,13955	0,22055	0,17871	0,10481	0,25991	0,14059
3430,74243	0,13951	0,22055	0,17862	0,1047	0,25999	0,14054
3428,81396	0,13948	0,22064	0,17872	0,10479	0,26015	0,14059
3426,8855	0,1396	0,22064	0,17876	0,10483	0,26015	0,14064
3424,95703	0,13956	0,22071	0,17874	0,1049	0,26017	0,14059
3423,02856	0,13982	0,22086	0,1788	0,10515	0,26041	0,14087
3421,1001	0,13995	0,22094	0,17883	0,10518	0,26052	0,14102
3419,17163	0,13968	0,22097	0,17896	0,10507	0,26049	0,14092
3417,24316	0,13981	0,22106	0,17909	0,10517	0,26062	0,14099
3415,3147	0,14005	0,22123	0,17928	0,10538	0,26091	0,14109
3413,38623	0,13999	0,22127	0,17952	0,10547	0,26103	0,14121
3411,45776	0,14007	0,22138	0,17954	0,10551	0,26108	0,14132
3409,5293	0,14027	0,22149	0,17958	0,10559	0,26133	0,14136
3407,60083	0,14036	0,22145	0,17971	0,10562	0,26145	0,14144
3405,67236	0,14038	0,22158	0,17979	0,10571	0,26142	0,14148
3403,7439	0,14048	0,22171	0,17996	0,10595	0,26164	0,1416
3401,81543	0,14071	0,22183	0,18018	0,10615	0,26198	0,14183
3399,88696	0,14091	0,222	0,1803	0,10617	0,26218	0,14199
3397,9585	0,14086	0,22185	0,18036	0,10624	0,2622	0,14205
3396,03003	0,14082	0,22176	0,18046	0,10628	0,26219	0,14205
3394,10156	0,14093	0,22201	0,18058	0,10639	0,26237	0,14227
3392,1731	0,14093	0,22218	0,18066	0,10662	0,26268	0,14247
3390,24463	0,14096	0,22228	0,18074	0,10656	0,26278	0,14228
3388,31616	0,14107	0,22241	0,18093	0,10661	0,26276	0,14228
3386,3877	0,14109	0,22243	0,1811	0,10689	0,26295	0,14253
3384,45923	0,14109	0,22238	0,18108	0,10692	0,26307	0,14251
3382,53076	0,14113	0,22252	0,18113	0,10697	0,26306	0,14246
3380,60229	0,14124	0,22284	0,18142	0,10708	0,26343	0,14262
3378,67383	0,14134	0,22292	0,18164	0,10719	0,26373	0,14278
3376,74536	0,14152	0,22281	0,18179	0,10735	0,26375	0,14289
3374,81689	0,14167	0,2229	0,182	0,10741	0,26397	0,1429
3372,88843	0,14159	0,22315	0,1822	0,10757	0,26424	0,1431
3370,95996	0,14169	0,22327	0,18253	0,10784	0,26454	0,1435
3369,03149	0,14202	0,22335	0,18273	0,10796	0,26494	0,14357

3367,10303	0,14215	0,22363	0,18275	0,10809	0,26516	0,1436
3365,17456	0,142	0,22366	0,18297	0,10827	0,26527	0,14381
3363,24609	0,14201	0,22351	0,18312	0,10837	0,26536	0,14379
3361,31763	0,1422	0,22376	0,1832	0,10852	0,26545	0,14381
3359,38916	0,14225	0,22386	0,18348	0,1087	0,26572	0,14399
3357,46069	0,14237	0,2239	0,18374	0,10879	0,26605	0,14411
3355,53223	0,14239	0,22416	0,18394	0,10896	0,26614	0,14411
3353,60376	0,14239	0,22419	0,18403	0,10913	0,26622	0,14417
3351,67529	0,1427	0,22444	0,18423	0,10932	0,26661	0,14449
3349,74683	0,14286	0,2247	0,18462	0,10958	0,26685	0,14471
3347,81836	0,14285	0,22465	0,18465	0,10965	0,26691	0,14466
3345,88989	0,14282	0,22474	0,18466	0,10967	0,26707	0,14476
3343,96143	0,14294	0,2248	0,1849	0,10984	0,26724	0,14502
3342,03296	0,14314	0,22497	0,18499	0,11	0,2675	0,14509
3340,10449	0,14321	0,22516	0,18521	0,11017	0,26777	0,14511
3338,17603	0,14337	0,22507	0,18548	0,11035	0,26786	0,14528
3336,24756	0,14335	0,22516	0,18544	0,11035	0,26794	0,14536
3334,31909	0,1433	0,22523	0,18544	0,11031	0,26808	0,1453
3332,39063	0,14349	0,22524	0,18569	0,11043	0,26819	0,14538
3330,46216	0,1435	0,22539	0,18592	0,11061	0,26842	0,14559
3328,53369	0,14344	0,22543	0,18602	0,11075	0,26868	0,14566
3326,60522	0,14364	0,22556	0,18626	0,11092	0,26876	0,1457
3324,67676	0,14379	0,22567	0,18638	0,11107	0,26892	0,14587
3322,74829	0,14375	0,22565	0,18635	0,11107	0,26911	0,14594
3320,81982	0,14372	0,22584	0,18657	0,11104	0,26912	0,14592
3318,89136	0,1437	0,22594	0,18667	0,11116	0,26915	0,14597
3316,96289	0,14379	0,22591	0,18657	0,1113	0,26932	0,14604
3315,03442	0,14389	0,226	0,18672	0,11136	0,26963	0,14613
3313,10596	0,14383	0,22611	0,18688	0,1114	0,26975	0,14619
3311,17749	0,14399	0,22625	0,18693	0,11145	0,26975	0,14628
3309,24902	0,14417	0,22624	0,18706	0,11156	0,26997	0,1464
3307,32056	0,14412	0,22618	0,18725	0,11171	0,27008	0,14645
3305,39209	0,14427	0,22631	0,18743	0,11182	0,27006	0,14657
3303,46362	0,14438	0,2263	0,18741	0,11188	0,27014	0,14666
3301,53516	0,14426	0,22622	0,18733	0,11175	0,27012	0,14661
3299,60669	0,14427	0,22633	0,18736	0,11172	0,27014	0,14663
3297,67822	0,14431	0,22637	0,18744	0,11193	0,27027	0,14668
3295,74976	0,14433	0,22637	0,18751	0,11197	0,27022	0,14659
3293,82129	0,14442	0,22646	0,18752	0,11191	0,27025	0,14665
3291,89282	0,14445	0,22649	0,18751	0,11194	0,27054	0,14685
3289,96436	0,1444	0,22655	0,1875	0,1119	0,27056	0,14677
3288,03589	0,14436	0,22653	0,18751	0,11193	0,27035	0,14669
3286,10742	0,14441	0,22645	0,18756	0,11199	0,27044	0,14682
3284,17896	0,14444	0,22655	0,18755	0,11191	0,27054	0,14682
3282,25049	0,14441	0,22663	0,18766	0,11192	0,27049	0,1468
3280,32202	0,14445	0,22657	0,18771	0,11197	0,27061	0,14684
3278,39355	0,14443	0,22649	0,18764	0,11201	0,27074	0,14684
3276,46509	0,14443	0,22659	0,18771	0,11204	0,27076	0,14696

3274,53662	0,14451	0,22666	0,18758	0,11197	0,27073	0,14694
3272,60815	0,14449	0,22661	0,1876	0,11206	0,27074	0,14686
3270,67969	0,14453	0,22683	0,18792	0,11219	0,27088	0,14696
3268,75122	0,14449	0,22686	0,18778	0,11202	0,27081	0,14686
3266,82275	0,14442	0,22668	0,18761	0,11196	0,27073	0,14678
3264,89429	0,14449	0,22666	0,18773	0,11201	0,27087	0,14683
3262,96582	0,14451	0,22662	0,18776	0,11192	0,2709	0,14677
3261,03735	0,14452	0,2267	0,18777	0,11198	0,27081	0,14686
3259,10889	0,1445	0,22664	0,18777	0,11202	0,27085	0,14694
3257,18042	0,14452	0,22654	0,18774	0,11199	0,27097	0,14691
3255,25195	0,14465	0,22679	0,18768	0,11204	0,27097	0,14698
3253,32349	0,14462	0,22677	0,18774	0,11207	0,27098	0,14691
3251,39502	0,14453	0,22657	0,1878	0,11199	0,27101	0,14675
3249,46655	0,14452	0,22667	0,18775	0,11194	0,27103	0,14681
3247,53809	0,14472	0,22682	0,18792	0,1121	0,27114	0,14699
3245,60962	0,14481	0,22674	0,18795	0,11217	0,27111	0,14703
3243,68115	0,14453	0,22663	0,1878	0,11207	0,27108	0,14693
3241,75269	0,14451	0,22667	0,18783	0,11211	0,27116	0,14689
3239,82422	0,14464	0,22676	0,18788	0,11216	0,27115	0,14701
3237,89575	0,14468	0,22674	0,1879	0,11211	0,27128	0,14704
3235,96729	0,14478	0,22674	0,1879	0,11214	0,27133	0,14697
3234,03882	0,14481	0,22682	0,18801	0,11219	0,27132	0,14707
3232,11035	0,14484	0,22676	0,18816	0,11225	0,27143	0,14715
3230,18188	0,14478	0,22678	0,18807	0,11224	0,27133	0,14702
3228,25342	0,1447	0,22688	0,188	0,11216	0,27128	0,14695
3226,32495	0,14487	0,22674	0,18807	0,11215	0,2714	0,14704
3224,39648	0,14492	0,22673	0,18808	0,11217	0,2714	0,14709
3222,46802	0,14484	0,22682	0,18822	0,11216	0,27144	0,14711
3220,53955	0,14485	0,22682	0,18835	0,11216	0,27155	0,14716
3218,61108	0,14478	0,22691	0,18824	0,11217	0,27157	0,14716
3216,68262	0,14482	0,22697	0,18824	0,11219	0,27154	0,14712
3214,75415	0,1449	0,22693	0,18832	0,1122	0,27156	0,1471
3212,82568	0,14484	0,22686	0,18825	0,11223	0,2716	0,14705
3210,89722	0,14492	0,22686	0,18832	0,11223	0,27167	0,14713
3208,96875	0,14487	0,22696	0,18849	0,11215	0,27164	0,14721
3207,04028	0,14481	0,22701	0,18856	0,11217	0,27164	0,14722
3205,11182	0,14497	0,22693	0,1886	0,11222	0,27187	0,14731
3203,18335	0,14496	0,22689	0,18858	0,11222	0,27195	0,14732
3201,25488	0,14501	0,22698	0,18859	0,1123	0,27188	0,14733
3199,32642	0,14514	0,22698	0,18865	0,11235	0,27197	0,14743
3197,39795	0,14504	0,22693	0,18863	0,11227	0,27195	0,14741
3195,46948	0,14502	0,22698	0,18871	0,11225	0,27201	0,14735
3193,54102	0,14515	0,22703	0,18888	0,11232	0,27215	0,14738
3191,61255	0,14523	0,2271	0,18895	0,11241	0,27209	0,14745
3189,68408	0,14525	0,22714	0,18894	0,11244	0,27212	0,14749
3187,75562	0,14535	0,22709	0,18897	0,11245	0,27226	0,14754
3185,82715	0,14548	0,22703	0,18904	0,11251	0,27232	0,14765
3183,89868	0,14538	0,22707	0,18908	0,11263	0,27237	0,1477

3181,97021	0,1454	0,22716	0,18912	0,11274	0,27243	0,14765
3180,04175	0,14559	0,22717	0,18922	0,1128	0,27253	0,14774
3178,11328	0,14551	0,22716	0,18921	0,11283	0,27253	0,14796
3176,18481	0,14546	0,22712	0,1892	0,11287	0,27258	0,14797
3174,25635	0,14558	0,2271	0,18936	0,11287	0,27276	0,14791
3172,32788	0,14559	0,22725	0,18938	0,1129	0,27275	0,14799
3170,39941	0,14559	0,22729	0,18937	0,11296	0,27277	0,14798
3168,47095	0,14566	0,22726	0,18946	0,11296	0,27287	0,14799
3166,54248	0,14568	0,22732	0,18948	0,11303	0,27283	0,14811
3164,61401	0,14568	0,22731	0,1896	0,11313	0,27288	0,14812
3162,68555	0,14574	0,22725	0,18957	0,11308	0,27302	0,14818
3160,75708	0,14585	0,22733	0,18951	0,11313	0,27302	0,14824
3158,82861	0,14586	0,22741	0,18966	0,11323	0,27301	0,14815
3156,90015	0,14582	0,2274	0,18967	0,11314	0,27307	0,14814
3154,97168	0,14586	0,22744	0,18979	0,11321	0,27318	0,14834
3153,04321	0,14598	0,22754	0,19005	0,11345	0,2733	0,14853
3151,11475	0,146	0,22755	0,19003	0,11342	0,2733	0,14851
3149,18628	0,14589	0,2275	0,18998	0,11329	0,27325	0,1484
3147,25781	0,14599	0,22745	0,19003	0,11336	0,27326	0,14837
3145,32935	0,14614	0,22744	0,19002	0,11342	0,27331	0,14844
3143,40088	0,1461	0,22747	0,19007	0,11337	0,27332	0,14852
3141,47241	0,14618	0,22748	0,19019	0,11345	0,27333	0,1486
3139,54395	0,14629	0,22754	0,19038	0,11366	0,27355	0,14877
3137,61548	0,14623	0,22758	0,19038	0,11368	0,27361	0,1487
3135,68701	0,14626	0,22754	0,19029	0,11358	0,27343	0,14852
3133,75854	0,14626	0,22744	0,19031	0,1136	0,27348	0,1486
3131,83008	0,14616	0,2274	0,19035	0,11368	0,27364	0,14865
3129,90161	0,14635	0,22752	0,19046	0,11378	0,27371	0,14875
3127,97314	0,1464	0,22759	0,19048	0,11381	0,27368	0,14884
3126,04468	0,14628	0,22752	0,19041	0,11373	0,27364	0,14879
3124,11621	0,14646	0,22753	0,19042	0,11371	0,27369	0,14881
3122,18774	0,14653	0,22757	0,19052	0,11385	0,27379	0,14886
3120,25928	0,14651	0,22759	0,19068	0,11407	0,27402	0,14903
3118,33081	0,14666	0,22771	0,19073	0,1141	0,27412	0,14908
3116,40234	0,14673	0,22774	0,19083	0,11408	0,27411	0,14902
3114,47388	0,14669	0,22763	0,19087	0,1141	0,27412	0,14903
3112,54541	0,14656	0,22762	0,19064	0,11393	0,2739	0,14889
3110,61694	0,14657	0,22768	0,19073	0,11392	0,27392	0,14899
3108,68848	0,14672	0,22772	0,19094	0,11406	0,27416	0,14917
3106,76001	0,14668	0,22774	0,19086	0,11403	0,27414	0,14901
3104,83154	0,1466	0,22767	0,19087	0,11402	0,2741	0,14894
3102,90308	0,14668	0,22762	0,19089	0,11407	0,27409	0,14908
3100,97461	0,14666	0,22759	0,1909	0,11409	0,27415	0,14916
3099,04614	0,14657	0,22758	0,19098	0,11406	0,27423	0,14912
3097,11768	0,14667	0,22766	0,19101	0,1141	0,27421	0,14909
3095,18921	0,14664	0,22768	0,191	0,11414	0,27416	0,14912
3093,26074	0,14654	0,22765	0,19103	0,11413	0,27421	0,14912
3091,33228	0,14677	0,22769	0,1912	0,11434	0,2743	0,14925

3089,40381	0,14683	0,2277	0,19126	0,11438	0,27427	0,1493
3087,47534	0,14679	0,22768	0,19117	0,11426	0,27429	0,14922
3085,54688	0,14688	0,22771	0,19128	0,11442	0,27444	0,1494
3083,61841	0,1469	0,22773	0,19139	0,11451	0,27456	0,14957
3081,68994	0,14697	0,22769	0,19132	0,1145	0,27456	0,14951
3079,76147	0,14696	0,22772	0,1914	0,1146	0,27458	0,14962
3077,83301	0,14689	0,2278	0,19152	0,11454	0,27467	0,14966
3075,90454	0,1469	0,22774	0,19139	0,11436	0,27451	0,14942
3073,97607	0,1469	0,22766	0,19134	0,11437	0,27442	0,14946
3072,04761	0,14683	0,22771	0,19136	0,11442	0,27455	0,14956
3070,11914	0,14686	0,22778	0,19132	0,11438	0,27456	0,14941
3068,19067	0,14706	0,22788	0,19146	0,1145	0,27477	0,1496
3066,26221	0,14704	0,2279	0,19146	0,11457	0,27487	0,14972
3064,33374	0,14692	0,22777	0,19126	0,11447	0,27468	0,14953
3062,40527	0,14704	0,22775	0,19132	0,11453	0,27467	0,14956
3060,47681	0,14702	0,22773	0,1914	0,11455	0,27468	0,1496
3058,54834	0,14698	0,22774	0,1915	0,11461	0,27483	0,14962
3056,61987	0,14709	0,2278	0,19165	0,11477	0,27496	0,14977
3054,69141	0,14704	0,22772	0,19155	0,11467	0,27486	0,14975
3052,76294	0,14702	0,22774	0,19161	0,11467	0,27498	0,14976
3050,83447	0,14717	0,22784	0,19181	0,11486	0,27503	0,14987
3048,90601	0,14717	0,22776	0,19174	0,11486	0,27495	0,14983
3046,97754	0,14708	0,22773	0,19171	0,11485	0,27508	0,14981
3045,04907	0,14715	0,22786	0,19186	0,1149	0,27511	0,14988
3043,12061	0,14726	0,22791	0,19194	0,11494	0,27513	0,14994
3041,19214	0,14731	0,22789	0,19197	0,115	0,27525	0,14998
3039,26367	0,14731	0,22788	0,19186	0,11492	0,27515	0,14991
3037,33521	0,14727	0,22788	0,19174	0,11478	0,27503	0,14986
3035,40674	0,14738	0,22785	0,19188	0,11487	0,2752	0,14999
3033,47827	0,14738	0,22784	0,19191	0,11498	0,2753	0,15009
3031,5498	0,14718	0,22782	0,19177	0,115	0,27518	0,15009
3029,62134	0,14721	0,22777	0,1918	0,11503	0,2751	0,15003
3027,69287	0,14738	0,22774	0,19189	0,11507	0,27508	0,15003
3025,7644	0,14739	0,22778	0,19198	0,11513	0,27507	0,15014
3023,83594	0,14736	0,22782	0,19211	0,11518	0,27504	0,15017
3021,90747	0,14735	0,22776	0,19214	0,11518	0,27499	0,15017
3019,979	0,14744	0,22781	0,19222	0,11526	0,27511	0,15026
3018,05054	0,14755	0,22799	0,19241	0,11536	0,27524	0,15031
3016,12207	0,14755	0,22798	0,19243	0,11537	0,27529	0,15032
3014,1936	0,14762	0,2279	0,19235	0,11537	0,27534	0,15036
3012,26514	0,14772	0,22792	0,19233	0,11537	0,27532	0,15038
3010,33667	0,1476	0,22779	0,19229	0,11532	0,2753	0,15029
3008,4082	0,14752	0,22769	0,19216	0,1152	0,27527	0,15021
3006,47974	0,14752	0,22778	0,19211	0,11509	0,27517	0,1502
3004,55127	0,14755	0,22771	0,19213	0,1151	0,27524	0,15023
3002,6228	0,14761	0,22759	0,192	0,11505	0,27523	0,15022
3000,69434	0,14757	0,22766	0,19197	0,11494	0,27513	0,15019
2998,76587	0,14757	0,22776	0,19216	0,11505	0,2753	0,15029

2996,8374	0,14769	0,22772	0,19216	0,1151	0,27533	0,15031
2994,90894	0,14774	0,22767	0,192	0,11499	0,27519	0,1503
2992,98047	0,14771	0,22775	0,19196	0,11503	0,27531	0,15039
2991,052	0,14767	0,22788	0,19194	0,11503	0,2754	0,15038
2989,12354	0,14768	0,22783	0,19194	0,11491	0,27533	0,15033
2987,19507	0,14768	0,22772	0,19185	0,11482	0,27528	0,15029
2985,2666	0,14761	0,22778	0,19172	0,1148	0,27531	0,15029
2983,33813	0,14764	0,22771	0,19179	0,11487	0,2754	0,15039
2981,40967	0,14779	0,22768	0,19188	0,11495	0,27554	0,15056
2979,4812	0,14778	0,2279	0,19178	0,1149	0,27566	0,15068
2977,55273	0,14768	0,22782	0,19158	0,11473	0,27562	0,15071
2975,62427	0,14768	0,22769	0,1915	0,11467	0,2757	0,15088
2973,6958	0,14774	0,22773	0,19151	0,11478	0,27595	0,15117
2971,76733	0,14767	0,2276	0,19144	0,11478	0,27603	0,15149
2969,83887	0,14754	0,22761	0,19135	0,11479	0,27622	0,15199
2967,9104	0,14753	0,22766	0,19131	0,11483	0,27652	0,15244
2965,98193	0,1475	0,22754	0,19127	0,11474	0,27661	0,15266
2964,05347	0,14742	0,22761	0,19125	0,11479	0,27671	0,15288
2962,125	0,14748	0,22762	0,19127	0,11486	0,27685	0,15307
2960,19653	0,14755	0,22762	0,19133	0,1148	0,27685	0,15311
2958,26807	0,14753	0,22771	0,19137	0,11477	0,27673	0,15298
2956,3396	0,14754	0,22754	0,19131	0,11469	0,27655	0,15268
2954,41113	0,14764	0,22749	0,19135	0,1147	0,27646	0,15243
2952,48267	0,14767	0,22768	0,19148	0,11481	0,27642	0,15231
2950,5542	0,1477	0,22767	0,19141	0,11476	0,27629	0,15206
2948,62573	0,14771	0,22764	0,1914	0,11472	0,27627	0,15188
2946,69727	0,14766	0,22774	0,19154	0,11478	0,27631	0,15201
2944,7688	0,14768	0,22778	0,19153	0,11475	0,27629	0,15212
2942,84033	0,14771	0,22771	0,19149	0,11476	0,27639	0,15223
2940,91187	0,14763	0,22765	0,19139	0,1148	0,27645	0,15232
2938,9834	0,14756	0,22766	0,19122	0,11476	0,27644	0,15235
2937,05493	0,14752	0,22757	0,19123	0,11473	0,27649	0,15252
2935,12646	0,14747	0,22751	0,19117	0,11466	0,2764	0,15256
2933,198	0,14746	0,22756	0,19104	0,11458	0,27636	0,15238
2931,26953	0,1475	0,22755	0,19112	0,1146	0,27645	0,15235
2929,34106	0,14753	0,22763	0,19117	0,11458	0,27638	0,15226
2927,4126	0,14741	0,22764	0,19106	0,11442	0,27611	0,15195
2925,48413	0,14731	0,2275	0,19104	0,1143	0,2759	0,15179
2923,55566	0,1474	0,22748	0,19101	0,1143	0,27592	0,15172
2921,6272	0,14746	0,22748	0,19089	0,11426	0,27587	0,15149
2919,69873	0,14754	0,22753	0,19092	0,11424	0,27585	0,15133
2917,77026	0,14766	0,22766	0,1911	0,1143	0,27593	0,15135
2915,8418	0,14774	0,2277	0,19114	0,11435	0,2759	0,15133
2913,91333	0,14787	0,22778	0,19121	0,11444	0,27597	0,15128
2911,98486	0,14792	0,22788	0,19137	0,11455	0,27603	0,15124
2910,0564	0,14791	0,22781	0,19135	0,11455	0,27589	0,15114
2908,12793	0,14789	0,22765	0,19127	0,11443	0,27577	0,15103
2906,19946	0,1479	0,22766	0,19131	0,11438	0,27577	0,15098



2904,271	0,14801	0,22777	0,19134	0,11442	0,27573	0,15094
2902,34253	0,14802	0,22777	0,19132	0,11441	0,2757	0,15086
2900,41406	0,14798	0,22775	0,19134	0,1144	0,27579	0,15084
2898,4856	0,14809	0,22776	0,19137	0,11443	0,27582	0,15085
2896,55713	0,1482	0,22778	0,19144	0,11444	0,27583	0,15086
2894,62866	0,14816	0,22787	0,19158	0,11449	0,27585	0,15083
2892,7002	0,14808	0,22789	0,19161	0,11456	0,27576	0,15082
2890,77173	0,14807	0,22787	0,19157	0,11456	0,27575	0,15087
2888,84326	0,14817	0,22789	0,19159	0,11452	0,27586	0,15089
2886,91479	0,14821	0,22779	0,1916	0,11452	0,27593	0,15092
2884,98633	0,14813	0,22784	0,19161	0,1146	0,27595	0,15104
2883,05786	0,14814	0,22794	0,19158	0,11464	0,27604	0,15113
2881,12939	0,14821	0,22779	0,19157	0,11468	0,27619	0,1513
2879,20093	0,1482	0,22774	0,19167	0,1148	0,2763	0,15154
2877,27246	0,14816	0,22777	0,19161	0,1148	0,27633	0,15151
2875,34399	0,14828	0,22775	0,19165	0,11476	0,2763	0,15149
2873,41553	0,14838	0,22784	0,19188	0,11489	0,27641	0,15175
2871,48706	0,14828	0,22784	0,19179	0,11489	0,27647	0,15179
2869,55859	0,14825	0,2277	0,19161	0,11478	0,27636	0,15166
2867,63013	0,14827	0,2277	0,19165	0,11482	0,27642	0,15175
2865,70166	0,1483	0,22772	0,19172	0,11494	0,27646	0,15188
2863,77319	0,14832	0,22768	0,1917	0,11492	0,27639	0,1518
2861,84473	0,14825	0,22776	0,19173	0,11487	0,2764	0,15171
2859,91626	0,14825	0,22783	0,1918	0,1149	0,27645	0,15172
2857,98779	0,14825	0,22778	0,1917	0,1148	0,27633	0,15152
2856,05933	0,14822	0,22779	0,19168	0,11471	0,27611	0,15129
2854,13086	0,14826	0,22783	0,19182	0,11473	0,27609	0,1512
2852,20239	0,14829	0,22784	0,1918	0,11467	0,27608	0,15105
2850,27393	0,1484	0,22796	0,19184	0,11474	0,27612	0,15102
2848,34546	0,14855	0,22795	0,19195	0,11489	0,27623	0,15105
2846,41699	0,14857	0,22781	0,19195	0,11482	0,27613	0,15094
2844,48853	0,14858	0,2278	0,192	0,11486	0,27613	0,15087
2842,56006	0,14861	0,22785	0,19202	0,11492	0,27614	0,15087
2840,63159	0,14868	0,22787	0,19209	0,11494	0,27614	0,1509
2838,70313	0,14874	0,22794	0,19228	0,11509	0,2763	0,151
2836,77466	0,14874	0,22799	0,19224	0,11509	0,27625	0,15104
2834,84619	0,14877	0,22797	0,19217	0,11503	0,27619	0,151
2832,91772	0,14878	0,22799	0,1923	0,11511	0,27627	0,15098
2830,98926	0,14875	0,22801	0,19233	0,11511	0,2762	0,15099
2829,06079	0,14881	0,22797	0,19234	0,11514	0,27618	0,151
2827,13232	0,14886	0,22794	0,19244	0,11526	0,2763	0,15108
2825,20386	0,14883	0,22791	0,19244	0,11528	0,27633	0,15116
2823,27539	0,14885	0,22798	0,19241	0,11528	0,27635	0,15115
2821,34692	0,14891	0,22804	0,19245	0,11535	0,27647	0,15113
2819,41846	0,14892	0,22797	0,19249	0,11536	0,2765	0,15115
2817,48999	0,14893	0,22796	0,19255	0,11538	0,27647	0,15122
2815,56152	0,14894	0,228	0,19263	0,11546	0,27659	0,15129
2813,63306	0,14895	0,22801	0,19265	0,11547	0,27661	0,15124

2811,70459	0,14909	0,22812	0,19278	0,11551	0,27654	0,15126
2809,77612	0,14919	0,22814	0,19285	0,11557	0,27663	0,15142
2807,84766	0,14909	0,22806	0,19276	0,11552	0,27658	0,15146
2805,91919	0,14906	0,22805	0,1928	0,11554	0,27652	0,15143
2803,99072	0,1491	0,22804	0,19287	0,11558	0,27664	0,15146
2802,06226	0,14912	0,22805	0,19282	0,11555	0,27666	0,15141
2800,13379	0,14921	0,22817	0,1929	0,11563	0,27663	0,15141
2798,20532	0,14924	0,22823	0,19296	0,11572	0,27669	0,15148
2796,27686	0,14923	0,22816	0,19292	0,11572	0,27675	0,15145
2794,34839	0,14929	0,22813	0,19294	0,11568	0,27675	0,15142
2792,41992	0,14926	0,22819	0,19302	0,11571	0,27676	0,15141
2790,49146	0,14918	0,22824	0,19315	0,11582	0,27688	0,1515
2788,56299	0,14924	0,22825	0,19315	0,11589	0,27693	0,1516
2786,63452	0,1493	0,22818	0,19313	0,11582	0,27681	0,1515
2784,70605	0,14929	0,22809	0,19317	0,11575	0,27676	0,15146
2782,77759	0,14939	0,22814	0,19311	0,11576	0,27678	0,15152
2780,84912	0,14941	0,22827	0,19313	0,11582	0,2768	0,15151
2778,92065	0,14938	0,22819	0,19322	0,11586	0,27679	0,15154
2776,99219	0,14948	0,22815	0,19325	0,11586	0,27674	0,15157
2775,06372	0,14955	0,2283	0,19333	0,11588	0,27678	0,1516
2773,13525	0,1495	0,22823	0,19338	0,11593	0,27681	0,15163
2771,20679	0,1495	0,22813	0,19339	0,11592	0,27681	0,15162
2769,27832	0,14954	0,22821	0,19347	0,11597	0,27687	0,15169
2767,34985	0,14949	0,22814	0,1935	0,11603	0,27684	0,15168
2765,42139	0,14951	0,22811	0,19342	0,11595	0,27683	0,1516
2763,49292	0,14957	0,22815	0,19341	0,11596	0,27691	0,15164
2761,56445	0,14956	0,2281	0,19349	0,1161	0,27696	0,15175
2759,63599	0,1496	0,22815	0,19354	0,11612	0,27697	0,15175
2757,70752	0,14968	0,22824	0,19352	0,11605	0,27694	0,1517
2755,77905	0,14968	0,22817	0,19354	0,11606	0,27697	0,15176
2753,85059	0,1497	0,22807	0,1936	0,11611	0,27702	0,15177
2751,92212	0,14973	0,22811	0,19364	0,11616	0,27702	0,15176
2749,99365	0,14976	0,22823	0,19375	0,11625	0,27706	0,15188
2748,06519	0,14979	0,22825	0,19386	0,11625	0,27706	0,15192
2746,13672	0,14987	0,22824	0,19382	0,11622	0,27709	0,15191
2744,20825	0,14992	0,22826	0,19382	0,11628	0,27714	0,15198
2742,27979	0,14991	0,22831	0,19386	0,1163	0,2771	0,15198
2740,35132	0,14987	0,22831	0,19383	0,1163	0,2771	0,15198
2738,42285	0,14987	0,22826	0,19392	0,11638	0,27713	0,15202
2736,49438	0,14989	0,22829	0,19392	0,11636	0,27711	0,15202
2734,56592	0,14984	0,22834	0,19383	0,11632	0,27711	0,15201
2732,63745	0,14991	0,22833	0,19389	0,11637	0,27712	0,15206
2730,70898	0,15003	0,22833	0,19393	0,11638	0,27708	0,15206
2728,78052	0,15004	0,22831	0,19393	0,11641	0,27708	0,15202
2726,85205	0,1501	0,22833	0,19401	0,11648	0,2772	0,15202
2724,92358	0,1501	0,22843	0,19406	0,11647	0,27729	0,15204
2722,99512	0,15004	0,22844	0,19408	0,11648	0,2773	0,15204
2721,06665	0,15006	0,22838	0,19415	0,11652	0,27729	0,15205

2719,13818	0,15011	0,22835	0,19422	0,11653	0,27725	0,15205
2717,20972	0,15014	0,22833	0,19417	0,11656	0,27726	0,1521
2715,28125	0,15012	0,22834	0,19416	0,11658	0,27722	0,15214
2713,35278	0,15016	0,22833	0,19421	0,11662	0,27721	0,15212
2711,42432	0,15023	0,22836	0,1942	0,11666	0,27722	0,15216
2709,49585	0,15024	0,22841	0,1942	0,11665	0,27712	0,15218
2707,56738	0,15024	0,22841	0,19421	0,11667	0,27711	0,15214
2705,63892	0,15024	0,22843	0,19419	0,11669	0,27718	0,15217
2703,71045	0,15029	0,22847	0,19425	0,11675	0,27718	0,15224
2701,78198	0,15032	0,2285	0,19431	0,11682	0,27726	0,15226
2699,85352	0,1503	0,22851	0,19434	0,11682	0,27731	0,15234
2697,92505	0,15035	0,22845	0,1944	0,11686	0,27729	0,15245
2695,99658	0,15036	0,22843	0,19444	0,1169	0,27731	0,15248
2694,06812	0,15033	0,22847	0,19444	0,11688	0,27731	0,15248
2692,13965	0,15033	0,22849	0,19446	0,11686	0,27733	0,15248
2690,21118	0,15032	0,22844	0,19447	0,11689	0,27736	0,15248
2688,28271	0,15037	0,22846	0,19444	0,11696	0,27737	0,15253
2686,35425	0,1504	0,22847	0,19441	0,11693	0,27737	0,15253
2684,42578	0,15037	0,22842	0,19446	0,11699	0,27737	0,15259
2682,49731	0,15043	0,22847	0,19462	0,11713	0,27746	0,15272
2680,56885	0,15051	0,22847	0,19469	0,11713	0,27754	0,15279
2678,64038	0,15052	0,22845	0,19465	0,11715	0,27751	0,15279
2676,71191	0,15051	0,2285	0,19463	0,1172	0,27741	0,15278
2674,78345	0,15051	0,22846	0,19467	0,11718	0,27738	0,15277
2672,85498	0,15059	0,22854	0,19468	0,11712	0,27742	0,15276
2670,92651	0,15058	0,22862	0,19467	0,1171	0,27733	0,15274
2668,99805	0,15049	0,22854	0,19472	0,11721	0,27729	0,15276
2667,06958	0,15052	0,22854	0,19475	0,11725	0,27741	0,15283
2665,14111	0,15056	0,22856	0,19475	0,11721	0,27744	0,15281
2663,21265	0,15056	0,22859	0,19477	0,11725	0,27745	0,15278
2661,28418	0,15058	0,22856	0,1948	0,11728	0,27748	0,15285
2659,35571	0,15059	0,22852	0,19484	0,11728	0,27746	0,15288
2657,42725	0,15063	0,22859	0,19486	0,11728	0,27748	0,1529
2655,49878	0,15062	0,22862	0,19495	0,1174	0,27755	0,15298
2653,57031	0,15063	0,22866	0,19502	0,11753	0,27758	0,153
2651,64185	0,15073	0,22867	0,19502	0,11753	0,27758	0,15299
2649,71338	0,15079	0,22862	0,19504	0,11755	0,27757	0,15306
2647,78491	0,15082	0,22871	0,19506	0,11757	0,27761	0,15311
2645,85645	0,15089	0,22874	0,19513	0,1176	0,27765	0,15311
2643,92798	0,15091	0,22871	0,19519	0,11766	0,27766	0,15317
2641,99951	0,15087	0,22876	0,19521	0,11767	0,27771	0,15319
2640,07104	0,1509	0,22876	0,19533	0,11773	0,27783	0,15323
2638,14258	0,15092	0,22877	0,19538	0,11775	0,2779	0,15332
2636,21411	0,1509	0,22877	0,19536	0,1177	0,27786	0,15331
2634,28564	0,15096	0,22875	0,19542	0,11775	0,27779	0,15333
2632,35718	0,15101	0,22876	0,19547	0,1178	0,27778	0,15343
2630,42871	0,15102	0,22873	0,19546	0,11776	0,27779	0,15339
2628,50024	0,15102	0,2287	0,19541	0,11778	0,27781	0,15335

2626,57178	0,15106	0,22869	0,19537	0,11781	0,27784	0,15341
2624,64331	0,1511	0,22877	0,19539	0,11783	0,27784	0,15342
2622,71484	0,15108	0,22884	0,19547	0,11787	0,27782	0,15344
2620,78638	0,15106	0,22877	0,19555	0,11786	0,27784	0,15347
2618,85791	0,15103	0,2287	0,19558	0,11781	0,27785	0,15343
2616,92944	0,15105	0,22873	0,19558	0,1178	0,27777	0,15345
2615,00098	0,15111	0,22881	0,19557	0,11785	0,27781	0,15348
2613,07251	0,15107	0,22888	0,19562	0,11792	0,27789	0,15351
2611,14404	0,15103	0,22885	0,19574	0,118	0,27787	0,15358
2609,21558	0,15108	0,2288	0,19576	0,11805	0,27795	0,15357
2607,28711	0,15111	0,22884	0,19574	0,11805	0,27799	0,15358
2605,35864	0,15116	0,22887	0,19579	0,11801	0,27792	0,15361
2603,43018	0,15122	0,22888	0,19582	0,118	0,27798	0,15358
2601,50171	0,15124	0,22886	0,19579	0,11808	0,27801	0,1536
2599,57324	0,15124	0,22883	0,19582	0,11812	0,27796	0,15366
2597,64478	0,15126	0,22886	0,19586	0,11809	0,27802	0,15369
2595,71631	0,15129	0,2289	0,19586	0,11807	0,27806	0,15368
2593,78784	0,15127	0,22893	0,19593	0,11812	0,27806	0,15371
2591,85938	0,15132	0,22896	0,19595	0,11819	0,27811	0,15377
2589,93091	0,15145	0,22892	0,19592	0,11819	0,27812	0,15382
2588,00244	0,15148	0,22888	0,19603	0,1182	0,27815	0,15387
2586,07397	0,15148	0,22894	0,196	0,11826	0,27814	0,15386
2584,14551	0,15149	0,22899	0,1959	0,1182	0,27811	0,15383
2582,21704	0,15151	0,22894	0,19604	0,11819	0,27815	0,15391
2580,28857	0,15157	0,22892	0,19613	0,11829	0,27812	0,15398
2578,36011	0,15159	0,22901	0,19609	0,11831	0,27804	0,15391
2576,43164	0,15154	0,22903	0,19611	0,1183	0,27806	0,15387
2574,50317	0,15155	0,22905	0,19605	0,11829	0,27814	0,15398
2572,57471	0,15161	0,22906	0,19595	0,11824	0,27814	0,15399
2570,64624	0,15159	0,22898	0,19597	0,11823	0,2782	0,15389
2568,71777	0,15156	0,22899	0,196	0,11827	0,27833	0,15397
2566,78931	0,15165	0,22905	0,19605	0,1183	0,27827	0,15409
2564,86084	0,15168	0,22899	0,19613	0,1183	0,27824	0,15409
2562,93237	0,15159	0,229	0,19615	0,11825	0,27837	0,15408
2561,00391	0,15164	0,22908	0,19616	0,11828	0,27843	0,15413
2559,07544	0,15169	0,22911	0,19616	0,11839	0,27839	0,15422
2557,14697	0,15167	0,22915	0,19617	0,11841	0,27833	0,15422
2555,21851	0,15174	0,22917	0,1962	0,11838	0,27835	0,15423
2553,29004	0,15172	0,22915	0,19623	0,11837	0,27842	0,15427
2551,36157	0,15171	0,22919	0,19623	0,1184	0,2784	0,1543
2549,43311	0,15179	0,22922	0,19619	0,11847	0,27837	0,15438
2547,50464	0,15176	0,22922	0,19616	0,11843	0,27838	0,15437
2545,57617	0,15174	0,22921	0,19621	0,1184	0,27844	0,15438
2543,64771	0,1518	0,2292	0,19633	0,1185	0,27846	0,15445
2541,71924	0,15185	0,22926	0,19638	0,11853	0,2784	0,15439
2539,79077	0,15194	0,22929	0,19633	0,11851	0,27839	0,15438
2537,8623	0,15195	0,2292	0,19633	0,11848	0,27844	0,15445
2535,93384	0,15186	0,2292	0,19637	0,11847	0,27853	0,15444

2534,00537	0,15187	0,2293	0,1964	0,11854	0,27859	0,15444
2532,0769	0,15193	0,22931	0,19648	0,11856	0,27853	0,15449
2530,14844	0,15198	0,22924	0,19654	0,11851	0,27854	0,15451
2528,21997	0,152	0,22926	0,19657	0,11855	0,27861	0,15452
2526,2915	0,152	0,22934	0,19656	0,11859	0,27865	0,15455
2524,36304	0,15202	0,2294	0,19651	0,11865	0,27868	0,15462
2522,43457	0,15209	0,22943	0,19657	0,11868	0,27869	0,15466
2520,5061	0,15209	0,22947	0,19667	0,11867	0,27871	0,15468
2518,57764	0,15204	0,22953	0,19665	0,1187	0,27871	0,15468
2516,64917	0,15209	0,22952	0,19663	0,11874	0,27875	0,15471
2514,7207	0,15213	0,22951	0,19666	0,11877	0,2788	0,15474
2512,79224	0,15212	0,22954	0,19667	0,11882	0,27872	0,15474
2510,86377	0,15223	0,22962	0,19673	0,11883	0,27868	0,15474
2508,9353	0,15226	0,22974	0,19678	0,11883	0,27875	0,15477
2507,00684	0,15217	0,22974	0,19683	0,11886	0,27875	0,15482
2505,07837	0,1522	0,22966	0,1969	0,11889	0,27869	0,15483
2503,1499	0,15222	0,2297	0,19695	0,11893	0,27866	0,15484
2501,22144	0,15219	0,22976	0,19703	0,11896	0,27868	0,15493
2499,29297	0,15222	0,22979	0,19704	0,11895	0,27873	0,155
2497,3645	0,15222	0,22973	0,19703	0,11897	0,27873	0,15506
2495,43604	0,1522	0,22966	0,19714	0,11905	0,27873	0,15512
2493,50757	0,15225	0,22971	0,19728	0,11918	0,27879	0,15517
2491,5791	0,15233	0,22977	0,19732	0,11929	0,27883	0,15516
2489,65063	0,15237	0,22986	0,19729	0,1193	0,27873	0,15511
2487,72217	0,15236	0,22984	0,19731	0,1193	0,27866	0,15513
2485,7937	0,15237	0,22975	0,19747	0,11936	0,27878	0,15519
2483,86523	0,1524	0,22982	0,19755	0,1194	0,27879	0,15519
2481,93677	0,15241	0,22981	0,19753	0,11944	0,27878	0,15519
2480,0083	0,15243	0,22973	0,19763	0,11955	0,27889	0,15526
2478,07983	0,15248	0,22982	0,19769	0,11956	0,27878	0,15525
2476,15137	0,15255	0,22983	0,19771	0,11955	0,27869	0,15526
2474,2229	0,15256	0,2298	0,19781	0,11966	0,27879	0,1554
2472,29443	0,15256	0,22991	0,19782	0,11969	0,27876	0,1554
2470,36597	0,15256	0,22988	0,19781	0,11971	0,2787	0,15535
2468,4375	0,15254	0,22978	0,19788	0,11978	0,2787	0,15543
2466,50903	0,15259	0,22984	0,19792	0,11977	0,27863	0,15546
2464,58057	0,15263	0,22992	0,19801	0,11981	0,27862	0,15549
2462,6521	0,15265	0,22997	0,19811	0,11983	0,27864	0,15551
2460,72363	0,15267	0,23	0,1981	0,11988	0,27865	0,15554
2458,79517	0,15269	0,22998	0,19809	0,11994	0,27869	0,15556
2456,8667	0,1528	0,23	0,19811	0,1199	0,27866	0,15551
2454,93823	0,15288	0,23006	0,19814	0,11994	0,27863	0,15555
2453,00977	0,15289	0,2301	0,19813	0,11999	0,27866	0,15561
2451,0813	0,15288	0,23008	0,19819	0,11999	0,27871	0,1556
2449,15283	0,1529	0,23007	0,19831	0,12008	0,27875	0,15569
2447,22437	0,15297	0,23013	0,19834	0,1201	0,2788	0,15575
2445,2959	0,15302	0,23013	0,19835	0,12003	0,27881	0,15573
2443,36743	0,15303	0,23013	0,1984	0,12008	0,27879	0,15576

2441,43896	0,15307	0,23019	0,19848	0,12016	0,27884	0,15586
2439,5105	0,15309	0,23021	0,19855	0,1201	0,27894	0,1559
2437,58203	0,15313	0,23018	0,19856	0,12007	0,27899	0,15584
2435,65356	0,15314	0,23019	0,1986	0,12017	0,27898	0,15586
2433,7251	0,15312	0,23023	0,19869	0,12021	0,27904	0,15595
2431,79663	0,15317	0,23022	0,1987	0,12019	0,27907	0,15599
2429,86816	0,15321	0,23017	0,19865	0,12015	0,27902	0,156
2427,9397	0,15323	0,23024	0,19872	0,12017	0,27906	0,15606
2426,01123	0,15323	0,23035	0,19885	0,12032	0,27906	0,15613
2424,08276	0,15324	0,23032	0,19887	0,12039	0,27899	0,15614
2422,1543	0,15328	0,23029	0,19889	0,12043	0,27906	0,15623
2420,22583	0,15327	0,23034	0,19898	0,12057	0,27905	0,15634
2418,29736	0,15329	0,23035	0,19907	0,12065	0,27897	0,15637
2416,3689	0,15338	0,23034	0,19915	0,12063	0,27904	0,15636
2414,44043	0,15341	0,23037	0,19923	0,12068	0,27905	0,15636
2412,51196	0,15343	0,23039	0,19932	0,12077	0,279	0,1564
2410,5835	0,15346	0,23042	0,19935	0,12076	0,27899	0,15641
2408,65503	0,15339	0,23049	0,19941	0,12077	0,27898	0,15648
2406,72656	0,15334	0,23047	0,19951	0,12086	0,27897	0,15658
2404,7981	0,15338	0,23044	0,19956	0,12089	0,27897	0,15661
2402,86963	0,1534	0,23046	0,19957	0,12092	0,27897	0,15659
2400,94116	0,15341	0,23051	0,19965	0,12095	0,27893	0,15661
2399,0127	0,15346	0,23054	0,19971	0,12098	0,27889	0,15663
2397,08423	0,15354	0,2305	0,1998	0,12101	0,27897	0,15665
2395,15576	0,15359	0,23045	0,1999	0,12104	0,27897	0,1567
2393,22729	0,15357	0,23043	0,19984	0,12107	0,27891	0,15669
2391,29883	0,15358	0,23051	0,19987	0,1211	0,27891	0,15672
2389,37036	0,15361	0,23052	0,19991	0,12113	0,27892	0,15676
2387,44189	0,15363	0,23053	0,19994	0,12116	0,27893	0,15679
2385,51343	0,15366	0,23054	0,19997	0,12119	0,27894	0,15682
2383,58496	0,15368	0,23056	0,2	0,12122	0,27895	0,15686
2381,65649	0,15371	0,23057	0,20003	0,12125	0,27895	0,15689
2379,72803	0,15373	0,23058	0,20006	0,12128	0,27896	0,15693
2377,79956	0,15376	0,2306	0,2001	0,12131	0,27897	0,15696
2375,87109	0,15378	0,23061	0,20013	0,12134	0,27898	0,15699
2373,94263	0,15381	0,23062	0,20016	0,12137	0,27899	0,15703
2372,01416	0,15383	0,23064	0,20019	0,1214	0,27899	0,15706
2370,08569	0,15386	0,23065	0,20022	0,12143	0,279	0,1571
2368,15723	0,15388	0,23066	0,20025	0,12146	0,27901	0,15713
2366,22876	0,15391	0,23067	0,20028	0,12149	0,27902	0,15716
2364,30029	0,15393	0,23069	0,20032	0,12152	0,27903	0,1572
2362,37183	0,15396	0,2307	0,20035	0,12155	0,27903	0,15723
2360,44336	0,15398	0,23071	0,20038	0,12158	0,27904	0,15727
2358,51489	0,15401	0,23073	0,20041	0,12161	0,27905	0,1573
2356,58643	0,15404	0,23074	0,20044	0,12164	0,27906	0,15733
2354,65796	0,15406	0,23075	0,20047	0,12167	0,27907	0,15737
2352,72949	0,15409	0,23077	0,20051	0,1217	0,27907	0,1574
2350,80103	0,15411	0,23078	0,20054	0,12173	0,27908	0,15744

2348,87256	0,15414	0,23079	0,20057	0,12176	0,27909	0,15747
2346,94409	0,15416	0,2308	0,2006	0,12179	0,2791	0,15751
2345,01563	0,15419	0,23082	0,20063	0,12182	0,27911	0,15754
2343,08716	0,15421	0,23083	0,20066	0,12185	0,27911	0,15757
2341,15869	0,15424	0,23084	0,20069	0,12188	0,27912	0,15761
2339,23022	0,15426	0,23086	0,20073	0,12191	0,27913	0,15764
2337,30176	0,15429	0,23087	0,20076	0,12194	0,27914	0,15768
2335,37329	0,15431	0,23088	0,20079	0,12197	0,27915	0,15771
2333,44482	0,15434	0,2309	0,20082	0,122	0,27916	0,15774
2331,51636	0,15436	0,23091	0,20085	0,12203	0,27916	0,15778
2329,58789	0,15439	0,23092	0,20088	0,12206	0,27917	0,15781
2327,65942	0,15441	0,23093	0,20092	0,12209	0,27918	0,15785
2325,73096	0,15444	0,23095	0,20095	0,12212	0,27919	0,15788
2323,80249	0,15446	0,23096	0,20098	0,12215	0,2792	0,15791
2321,87402	0,15449	0,23097	0,20101	0,12218	0,2792	0,15795
2319,94556	0,15451	0,23099	0,20104	0,12221	0,27921	0,15798
2318,01709	0,15454	0,231	0,20107	0,12224	0,27922	0,15802
2316,08862	0,15456	0,23101	0,2011	0,12227	0,27923	0,15805
2314,16016	0,15459	0,23103	0,20114	0,1223	0,27924	0,15808
2312,23169	0,15461	0,23104	0,20117	0,12233	0,27924	0,15812
2310,30322	0,15464	0,23105	0,2012	0,12236	0,27925	0,15815
2308,37476	0,15466	0,23106	0,20123	0,12239	0,27926	0,15819
2306,44629	0,15469	0,23108	0,20126	0,12242	0,27927	0,15822
2304,51782	0,15471	0,23109	0,20129	0,12245	0,27928	0,15825
2302,58936	0,15474	0,2311	0,20133	0,12249	0,27928	0,15829
2300,66089	0,15476	0,23112	0,20136	0,12252	0,27929	0,15832
2298,73242	0,15479	0,23113	0,20139	0,12255	0,2793	0,15836
2296,80396	0,15481	0,23114	0,20142	0,12258	0,27931	0,15839
2294,87549	0,15484	0,23116	0,20145	0,12261	0,27932	0,15842
2292,94702	0,15486	0,23117	0,20148	0,12264	0,27932	0,15846
2291,01855	0,15489	0,23118	0,20151	0,12267	0,27933	0,15849
2289,09009	0,15491	0,23119	0,20155	0,1227	0,27934	0,15853
2287,16162	0,15494	0,23121	0,20158	0,12273	0,27935	0,15856
2285,23315	0,15496	0,23122	0,20161	0,12276	0,27936	0,15859
2283,30469	0,15499	0,23123	0,20164	0,12279	0,27936	0,15863
2281,37622	0,15501	0,23125	0,20167	0,12282	0,27937	0,15866
2279,44775	0,15511	0,23126	0,2017	0,12285	0,27938	0,1587
2277,51929	0,15518	0,23127	0,20174	0,12288	0,27939	0,15873
2275,59082	0,15512	0,23129	0,20164	0,12291	0,27937	0,15876
2273,66235	0,1551	0,2313	0,2017	0,12294	0,2794	0,1588
2271,73389	0,15515	0,23131	0,20181	0,12297	0,27949	0,15883
2269,80542	0,15519	0,23132	0,20191	0,123	0,27947	0,15887
2267,87695	0,15518	0,23134	0,20199	0,12303	0,27946	0,15893
2265,94849	0,15513	0,23135	0,20205	0,12306	0,27951	0,15886
2264,02002	0,15517	0,23136	0,20216	0,12309	0,27954	0,15884
2262,09155	0,15523	0,23138	0,2022	0,12312	0,27951	0,15881
2260,16309	0,15521	0,23139	0,20226	0,12315	0,27952	0,15877
2258,23462	0,1552	0,23137	0,20236	0,12318	0,27955	0,15877

2256,30615	0,15523	0,23146	0,20235	0,12321	0,27955	0,15876
2254,37769	0,15528	0,23159	0,20238	0,12324	0,27959	0,15873
2252,44922	0,1553	0,23156	0,20251	0,12327	0,27961	0,15874
2250,52075	0,15524	0,23156	0,20254	0,1233	0,27964	0,15873
2248,59229	0,15526	0,23161	0,20251	0,12333	0,27969	0,15872
2246,66382	0,15535	0,23163	0,20261	0,12336	0,27974	0,15877
2244,73535	0,15536	0,23167	0,20274	0,12339	0,27978	0,15883
2242,80688	0,1554	0,23173	0,20285	0,12342	0,27978	0,15887
2240,87842	0,15543	0,23176	0,20294	0,12345	0,27975	0,15891
2238,94995	0,15541	0,23176	0,20301	0,12348	0,27973	0,15891
2237,02148	0,15543	0,23181	0,20307	0,12351	0,27967	0,15894
2235,09302	0,15542	0,23184	0,20309	0,12354	0,2797	0,15901
2233,16455	0,15543	0,23184	0,2031	0,12357	0,27981	0,15905
2231,23608	0,15552	0,23191	0,20315	0,1236	0,27979	0,15904
2229,30762	0,15553	0,23195	0,20317	0,12363	0,27972	0,15903
2227,37915	0,15549	0,2319	0,20315	0,12366	0,27975	0,15906
2225,45068	0,15554	0,2319	0,20317	0,12369	0,27977	0,15907
2223,52222	0,15562	0,23196	0,20319	0,1237	0,27977	0,15906
2221,59375	0,15569	0,23198	0,20323	0,12371	0,27984	0,15906
2219,66528	0,15574	0,23196	0,20331	0,12379	0,2799	0,15909
2217,73682	0,15577	0,23203	0,20335	0,12386	0,27988	0,15914
2215,80835	0,15576	0,23206	0,20337	0,12394	0,27989	0,15917
2213,87988	0,15573	0,23206	0,20345	0,12399	0,27994	0,1592
2211,95142	0,15574	0,2321	0,20355	0,12398	0,27994	0,1592
2210,02295	0,15577	0,23204	0,20351	0,124	0,27991	0,15918
2208,09448	0,1558	0,23204	0,20353	0,12404	0,27992	0,15929
2206,16602	0,15583	0,23217	0,20374	0,12411	0,28003	0,15942
2204,23755	0,15583	0,23224	0,20378	0,12414	0,28005	0,15944
2202,30908	0,15588	0,23224	0,20376	0,12405	0,28	0,15938
2200,38062	0,15594	0,23226	0,20385	0,12404	0,28003	0,15931
2198,45215	0,15601	0,2323	0,20386	0,1241	0,28004	0,15939
2196,52368	0,15605	0,23228	0,20385	0,12414	0,28004	0,15949
2194,59521	0,15609	0,23229	0,2039	0,1242	0,28006	0,15946
2192,66675	0,15614	0,23237	0,20394	0,12423	0,28008	0,15944
2190,73828	0,15612	0,23234	0,20391	0,12423	0,28007	0,15948
2188,80981	0,15612	0,23234	0,20394	0,12427	0,28007	0,15956
2186,88135	0,15612	0,23239	0,20407	0,12432	0,28011	0,15964
2184,95288	0,15612	0,23239	0,20416	0,12436	0,28016	0,15968
2183,02441	0,15623	0,23244	0,20414	0,12439	0,28023	0,15974
2181,09595	0,15629	0,23253	0,20411	0,12436	0,28021	0,15972
2179,16748	0,15629	0,23255	0,20417	0,12436	0,28017	0,15968
2177,23901	0,15629	0,2325	0,20418	0,12439	0,28025	0,15969
2175,31055	0,15626	0,23247	0,20414	0,12439	0,28031	0,15972
2173,38208	0,15631	0,23255	0,20429	0,12449	0,28043	0,15989
2171,45361	0,15623	0,23246	0,20416	0,12435	0,2803	0,15978
2169,52515	0,15603	0,23226	0,20384	0,1241	0,28007	0,15949
2167,59668	0,15625	0,23244	0,20404	0,12429	0,28035	0,15973
2165,66821	0,15652	0,23273	0,20428	0,12446	0,28048	0,15995



2163,73975	0,15651	0,23276	0,20422	0,12441	0,28035	0,15988
2161,81128	0,15656	0,2328	0,20425	0,12448	0,28043	0,1599
2159,88281	0,15659	0,23283	0,20422	0,12449	0,28039	0,15985
2157,95435	0,15657	0,23279	0,20415	0,12443	0,28036	0,15983
2156,02588	0,15657	0,23285	0,20417	0,1244	0,28047	0,15991
2154,09741	0,15653	0,23288	0,20417	0,12439	0,28049	0,15993
2152,16895	0,15654	0,23292	0,20417	0,12438	0,28054	0,15995
2150,24048	0,15663	0,23302	0,20415	0,12425	0,28051	0,15995
2148,31201	0,15667	0,23299	0,2041	0,12417	0,28048	0,15997
2146,38354	0,1567	0,23295	0,20413	0,12424	0,28066	0,16005
2144,45508	0,15676	0,23304	0,20419	0,12425	0,28075	0,16008
2142,52661	0,1568	0,23313	0,20418	0,12419	0,2807	0,16001
2140,59814	0,15685	0,23317	0,20419	0,12418	0,28081	0,15998
2138,66968	0,15687	0,23321	0,20421	0,12417	0,28098	0,16005
2136,74121	0,15685	0,23317	0,20418	0,12418	0,28102	0,16007
2134,81274	0,15684	0,23314	0,20422	0,12416	0,28105	0,16007
2132,88428	0,15682	0,23323	0,20424	0,1241	0,28104	0,16012
2130,95581	0,15687	0,23325	0,2042	0,12413	0,28102	0,16014
2129,02734	0,15692	0,23321	0,2042	0,12417	0,28104	0,16015
2127,09888	0,1569	0,23322	0,20422	0,12417	0,28108	0,16024
2125,17041	0,15691	0,23326	0,20426	0,1242	0,28118	0,16031
2123,24194	0,15697	0,2333	0,20426	0,12415	0,2812	0,16029
2121,31348	0,15698	0,23336	0,20422	0,12411	0,28115	0,16032
2119,38501	0,15696	0,2334	0,20433	0,12417	0,28122	0,16037
2117,45654	0,15703	0,23341	0,20437	0,12415	0,28129	0,16037
2115,52808	0,15709	0,23349	0,2043	0,1241	0,28128	0,16035
2113,59961	0,15706	0,2336	0,20432	0,12406	0,28127	0,16035
2111,67114	0,15708	0,23355	0,20432	0,124	0,28132	0,16036
2109,74268	0,15718	0,2335	0,2043	0,12407	0,28146	0,16041
2107,81421	0,15722	0,23359	0,20433	0,12412	0,28151	0,16047
2105,88574	0,15725	0,23366	0,20425	0,12397	0,28147	0,1604
2103,95728	0,15737	0,23371	0,20409	0,12381	0,28149	0,16034
2102,02881	0,15745	0,23379	0,20402	0,12384	0,28161	0,16041
2100,10034	0,15747	0,23384	0,20394	0,12381	0,28164	0,16042
2098,17188	0,15751	0,23386	0,20384	0,12366	0,28164	0,16034
2096,24341	0,15746	0,23397	0,20382	0,12364	0,2818	0,16034
2094,31494	0,15739	0,23401	0,20375	0,12364	0,28193	0,16036
2092,38647	0,15745	0,234	0,20362	0,12356	0,28192	0,16041
2090,45801	0,15746	0,2341	0,20356	0,12348	0,28204	0,16047
2088,52954	0,15736	0,23415	0,2035	0,12339	0,28214	0,16044
2086,60107	0,1574	0,23414	0,20347	0,12335	0,28221	0,16041
2084,67261	0,15753	0,23421	0,20353	0,12336	0,28233	0,16046
2082,74414	0,15757	0,23421	0,20348	0,12328	0,28234	0,16049
2080,81567	0,15764	0,23413	0,20337	0,12319	0,28235	0,16047
2078,88721	0,15772	0,23415	0,20333	0,12318	0,28241	0,16047
2076,95874	0,15773	0,23422	0,20328	0,12317	0,28238	0,16058
2075,03027	0,15768	0,23426	0,20333	0,12315	0,28234	0,16067
2073,10181	0,15763	0,23434	0,20335	0,12312	0,28231	0,16056

2071,17334	0,15765	0,23437	0,2033	0,12309	0,28223	0,16047
2069,24487	0,15767	0,23433	0,20346	0,12316	0,28221	0,16052
2067,31641	0,15776	0,23441	0,20363	0,12333	0,28235	0,1607
2065,38794	0,15769	0,23444	0,20362	0,12343	0,28239	0,16081
2063,45947	0,15751	0,23432	0,2037	0,12348	0,28232	0,16068
2061,53101	0,15767	0,23435	0,20388	0,1236	0,28233	0,16072
2059,60254	0,1578	0,23444	0,20399	0,12369	0,28231	0,16086
2057,67407	0,15779	0,23441	0,20407	0,12382	0,28229	0,16089
2055,74561	0,15787	0,2344	0,20415	0,12399	0,28232	0,16099
2053,81714	0,15787	0,23445	0,20418	0,12401	0,28229	0,16101
2051,88867	0,15789	0,23442	0,20425	0,12402	0,28228	0,16098
2049,96021	0,15791	0,23433	0,20441	0,12414	0,28231	0,16107
2048,03174	0,15789	0,23434	0,20461	0,12427	0,28234	0,16117
2046,10327	0,15791	0,23433	0,20477	0,12436	0,28235	0,1612
2044,1748	0,15803	0,23441	0,20485	0,12443	0,28235	0,16123
2042,24634	0,15815	0,23459	0,20483	0,12447	0,28232	0,16125
2040,31787	0,15809	0,2345	0,20478	0,12446	0,28231	0,16117
2038,3894	0,15817	0,23443	0,20481	0,12448	0,2824	0,1611
2036,46094	0,15829	0,23451	0,20483	0,12449	0,28242	0,16115
2034,53247	0,15824	0,2345	0,20474	0,1244	0,28236	0,16117
2032,604	0,15828	0,23455	0,20466	0,12431	0,28234	0,16119
2030,67554	0,15836	0,23459	0,20467	0,12432	0,28238	0,16121
2028,74707	0,15838	0,23451	0,2047	0,12434	0,28247	0,16122
2026,8186	0,15836	0,2345	0,20465	0,12429	0,2825	0,16127
2024,89014	0,15833	0,23451	0,20465	0,12421	0,28253	0,16128
2022,96167	0,15828	0,2345	0,20464	0,12413	0,28255	0,16123
2021,0332	0,15826	0,23453	0,2046	0,12408	0,28251	0,16117
2019,10474	0,15841	0,23461	0,20469	0,12427	0,28261	0,16127
2017,17627	0,15838	0,23459	0,20475	0,12447	0,28271	0,16139
2015,2478	0,15821	0,23442	0,20484	0,12444	0,28257	0,16125
2013,31934	0,15836	0,23442	0,20501	0,12455	0,28251	0,16127
2011,39087	0,15849	0,23448	0,20515	0,12471	0,28258	0,16144
2009,4624	0,15853	0,23447	0,20528	0,12474	0,28263	0,16151
2007,53394	0,15861	0,23455	0,20538	0,12485	0,28271	0,1616
2005,60547	0,15869	0,23457	0,20551	0,12496	0,2827	0,16171
2003,677	0,15877	0,23451	0,20561	0,12502	0,28261	0,16177
2001,74854	0,15872	0,23454	0,20559	0,12509	0,28262	0,16173
1999,82007	0,15877	0,2346	0,20569	0,12521	0,28274	0,16184
1997,8916	0,15869	0,23457	0,20575	0,12517	0,28269	0,16182
1995,96313	0,15865	0,23457	0,20576	0,12506	0,28259	0,16163
1994,03467	0,15914	0,23473	0,20592	0,12533	0,28288	0,16207
1992,1062	0,15897	0,23469	0,20582	0,12544	0,28293	0,16219
1990,17773	0,15857	0,2346	0,2057	0,12525	0,28258	0,16177
1988,24927	0,15891	0,23474	0,2059	0,12539	0,28262	0,16198
1986,3208	0,15898	0,23476	0,20603	0,12547	0,28266	0,16199
1984,39233	0,15902	0,23477	0,20613	0,12543	0,28267	0,16191
1982,46387	0,15918	0,2348	0,20627	0,12549	0,28283	0,16213
1980,5354	0,1591	0,23476	0,20628	0,12549	0,28279	0,16207

1978,60693	0,15915	0,23483	0,20625	0,1255	0,2828	0,16212
1976,67847	0,15913	0,23483	0,20634	0,1255	0,28288	0,16226
1974,75	0,1592	0,23479	0,20645	0,12553	0,28293	0,16226
1972,82153	0,15922	0,23477	0,20635	0,12552	0,28297	0,16221
1970,89307	0,15916	0,23478	0,20641	0,12558	0,28293	0,1622
1968,9646	0,15957	0,23497	0,20657	0,12586	0,2831	0,16256
1967,03613	0,15954	0,23499	0,20632	0,12584	0,28311	0,16263
1965,10767	0,15919	0,23482	0,20623	0,12557	0,2828	0,16221
1963,1792	0,15951	0,23494	0,20652	0,12567	0,28287	0,16232
1961,25073	0,15953	0,23501	0,20655	0,12571	0,28303	0,16246
1959,32227	0,15937	0,23498	0,20652	0,12561	0,28301	0,16233
1957,3938	0,15956	0,23511	0,20664	0,12568	0,28307	0,16244
1955,46533	0,15956	0,23519	0,20666	0,1257	0,28316	0,16252
1953,53687	0,15946	0,23522	0,20662	0,1256	0,28327	0,16247
1951,6084	0,15939	0,23524	0,2066	0,12551	0,28328	0,16238
1949,67993	0,15952	0,23535	0,20668	0,12561	0,28333	0,1625
1947,75146	0,15945	0,23535	0,20664	0,12566	0,2834	0,16256
1945,823	0,15953	0,23528	0,20664	0,12567	0,28344	0,16254
1943,89453	0,16014	0,23545	0,20681	0,12601	0,28379	0,1631
1941,96606	0,15962	0,23529	0,20658	0,12587	0,28363	0,16289
1940,0376	0,15932	0,23518	0,20668	0,12561	0,28329	0,16229
1938,10913	0,15999	0,23549	0,20707	0,12589	0,28361	0,16264
1936,18066	0,16	0,23556	0,20704	0,12593	0,28368	0,16275
1934,2522	0,15997	0,23555	0,20701	0,12593	0,2836	0,16276
1932,32373	0,15991	0,23558	0,20702	0,12589	0,28365	0,16271
1930,39526	0,15997	0,23571	0,20715	0,12594	0,28376	0,16277
1928,4668	0,15988	0,2357	0,20719	0,12598	0,28382	0,16292
1926,53833	0,15998	0,23565	0,20714	0,12589	0,28385	0,16288
1924,60986	0,16076	0,23591	0,20736	0,1263	0,28433	0,16358
1922,6814	0,16001	0,2356	0,20688	0,12611	0,28428	0,16352
1920,75293	0,16013	0,23561	0,20689	0,12594	0,28416	0,16312
1918,82446	0,16113	0,23612	0,20753	0,12639	0,28469	0,1637
1916,896	0,15977	0,23575	0,2069	0,12578	0,28428	0,16306
1914,96753	0,15983	0,23573	0,20668	0,12559	0,2841	0,16271
1913,03906	0,16089	0,23612	0,20717	0,12604	0,28466	0,16333
1911,1106	0,1607	0,23607	0,20705	0,12595	0,28481	0,16349
1909,18213	0,1606	0,23615	0,20688	0,12588	0,2849	0,16353
1907,25366	0,16051	0,23619	0,20683	0,12577	0,28494	0,1633
1905,3252	0,16057	0,23618	0,2068	0,1257	0,28499	0,1632
1903,39673	0,1608	0,23626	0,20683	0,12573	0,28524	0,16333
1901,46826	0,16086	0,23628	0,20675	0,12559	0,28538	0,16343
1899,53979	0,16071	0,23624	0,20658	0,12536	0,2854	0,16328
1897,61133	0,16104	0,23651	0,20656	0,12545	0,28565	0,16336
1895,68286	0,16121	0,23674	0,20648	0,12554	0,28591	0,16374
1893,75439	0,16052	0,23646	0,20628	0,12515	0,28572	0,16321
1891,82593	0,16127	0,23664	0,20663	0,12549	0,28609	0,16351
1889,89746	0,1614	0,23668	0,20657	0,12565	0,28645	0,16411
1887,96899	0,16017	0,23624	0,20612	0,12493	0,28595	0,16319

1886,04053	0,16093	0,23647	0,20646	0,12522	0,28611	0,16334
1884,11206	0,16118	0,23657	0,20658	0,1255	0,28633	0,16368
1882,18359	0,16083	0,23651	0,20655	0,12534	0,28616	0,16338
1880,25513	0,1612	0,23665	0,2068	0,12551	0,28619	0,1636
1878,32666	0,161	0,23654	0,20679	0,12553	0,28613	0,16363
1876,39819	0,1612	0,23663	0,20694	0,12567	0,28615	0,16372
1874,46973	0,16119	0,23664	0,20698	0,12569	0,28605	0,16365
1872,54126	0,1612	0,23667	0,20706	0,12576	0,28602	0,16366
1870,61279	0,16228	0,23708	0,20766	0,12643	0,28657	0,16465
1868,68433	0,16143	0,23673	0,20711	0,12629	0,28652	0,16485
1866,75586	0,15999	0,23622	0,20662	0,12569	0,28576	0,16374
1864,82739	0,1611	0,23659	0,20746	0,12619	0,28595	0,16398
1862,89893	0,16157	0,23672	0,20788	0,12644	0,28602	0,16414
1860,97046	0,16147	0,23667	0,20789	0,12651	0,28587	0,16409
1859,04199	0,16153	0,2366	0,20807	0,12678	0,28594	0,1642
1857,11353	0,16146	0,23651	0,20825	0,12691	0,2859	0,16419
1855,18506	0,16166	0,23665	0,2086	0,12709	0,28592	0,1643
1853,25659	0,16145	0,23657	0,20854	0,1271	0,28592	0,16433
1851,32813	0,16183	0,23676	0,20885	0,12735	0,28608	0,16453
1849,39966	0,16161	0,23665	0,20878	0,1274	0,28609	0,16452
1847,47119	0,16176	0,23663	0,20853	0,12747	0,28622	0,16491
1845,54272	0,16308	0,23735	0,2097	0,12808	0,28674	0,16546
1843,61426	0,16082	0,23652	0,20901	0,12708	0,28597	0,16402
1841,68579	0,16017	0,23603	0,20817	0,12658	0,28551	0,16353
1839,75732	0,16202	0,23684	0,20902	0,12749	0,28618	0,1647
1837,82886	0,16216	0,23697	0,2092	0,12771	0,2863	0,16496
1835,90039	0,16157	0,23676	0,2088	0,12749	0,28608	0,16479
1833,97192	0,16138	0,23669	0,20893	0,12744	0,28584	0,16444
1832,04346	0,16281	0,23725	0,20961	0,12823	0,28651	0,16555
1830,11499	0,16229	0,23709	0,20923	0,12817	0,28672	0,16603
1828,18652	0,16064	0,23634	0,20848	0,1271	0,28581	0,16452
1826,25806	0,16243	0,23708	0,20917	0,12778	0,28645	0,16536
1824,32959	0,16176	0,237	0,20898	0,12769	0,28649	0,16526
1822,40112	0,16094	0,23659	0,2087	0,12717	0,28597	0,16436
1820,47266	0,16232	0,23714	0,20934	0,12783	0,28642	0,16504
1818,54419	0,16217	0,23718	0,20934	0,12801	0,28658	0,16517
1816,61572	0,16174	0,23704	0,20916	0,12775	0,28646	0,16485
1814,68726	0,1619	0,23714	0,20922	0,1277	0,28643	0,16481
1812,75879	0,16238	0,23731	0,20936	0,12804	0,28682	0,16549
1810,83032	0,16219	0,23723	0,20912	0,12801	0,28699	0,16569
1808,90186	0,16166	0,23708	0,20885	0,12756	0,28673	0,16502
1806,97339	0,16204	0,23722	0,20901	0,12759	0,28694	0,16509
1805,04492	0,16226	0,23735	0,20895	0,12747	0,28724	0,16513
1803,11646	0,1627	0,2377	0,20871	0,12739	0,28776	0,1654
1801,18799	0,16256	0,23783	0,20799	0,12709	0,28812	0,1656
1799,25952	0,16156	0,23759	0,2075	0,12626	0,28767	0,16468
1797,33105	0,16145	0,23748	0,20737	0,12618	0,28765	0,1646
1795,40259	0,1624	0,2378	0,20762	0,12678	0,2881	0,16531

1793,47412	0,16343	0,23843	0,20873	0,12722	0,28848	0,16563
1791,54565	0,16115	0,23742	0,20782	0,12635	0,28782	0,16492
1789,61719	0,16025	0,23678	0,20735	0,12611	0,28701	0,16415
1787,68872	0,16254	0,23781	0,20865	0,12737	0,28772	0,16532
1785,76025	0,16256	0,23791	0,20894	0,12766	0,288	0,16559
1783,83179	0,16162	0,23747	0,20856	0,12715	0,28758	0,16495
1781,90332	0,16232	0,2377	0,20853	0,12752	0,28803	0,16581
1779,97485	0,16225	0,23777	0,20846	0,12754	0,28828	0,16605
1778,04639	0,16148	0,23758	0,20844	0,12698	0,2878	0,165
1776,11792	0,16221	0,23788	0,20829	0,12737	0,28824	0,16586
1774,18945	0,16414	0,23883	0,20976	0,12835	0,28908	0,1669
1772,26099	0,16188	0,23799	0,20919	0,12708	0,28821	0,1652
1770,33252	0,16049	0,23719	0,20756	0,1262	0,28766	0,16442
1768,40405	0,1627	0,23826	0,20861	0,12727	0,28861	0,16567
1766,47559	0,16103	0,23771	0,208	0,12633	0,28784	0,16407
1764,54712	0,16251	0,23819	0,20786	0,12688	0,28851	0,16527
1762,61865	0,16406	0,239	0,2091	0,12782	0,28948	0,16635
1760,69019	0,16051	0,23756	0,20735	0,12596	0,28808	0,16412
1758,76172	0,16254	0,23829	0,2077	0,12678	0,28885	0,16553
1756,83325	0,16275	0,2386	0,20839	0,12722	0,28929	0,16594
1754,90479	0,16075	0,23771	0,20727	0,12613	0,28839	0,16459
1752,97632	0,16348	0,23888	0,20865	0,12736	0,28945	0,16599
1751,04785	0,16329	0,23906	0,20904	0,12758	0,28982	0,16627
1749,11938	0,16041	0,2378	0,20676	0,12626	0,28884	0,16537
1747,19092	0,1619	0,23839	0,20725	0,12693	0,28935	0,16622
1745,26245	0,16191	0,23847	0,20784	0,12696	0,28933	0,16572
1743,33398	0,1615	0,23814	0,20696	0,12663	0,28917	0,16569
1741,40552	0,16343	0,23916	0,20835	0,1275	0,28984	0,16645
1739,47705	0,16097	0,23834	0,20798	0,12641	0,28903	0,16468
1737,54858	0,16062	0,23789	0,20662	0,12616	0,28893	0,16513
1735,62012	0,16519	0,2402	0,21005	0,12839	0,29067	0,16705
1733,69165	0,16061	0,23883	0,20922	0,12625	0,28941	0,16412
1731,76318	0,15843	0,2372	0,20627	0,12501	0,28807	0,16321
1729,83472	0,16238	0,2389	0,20732	0,1272	0,29002	0,16665
1727,90625	0,16052	0,23822	0,20761	0,12632	0,28898	0,16436
1725,97778	0,16152	0,23843	0,20749	0,12663	0,28922	0,16523
1724,04932	0,16214	0,23878	0,20812	0,12718	0,28966	0,16588
1722,12085	0,16039	0,2379	0,20719	0,12631	0,28869	0,16453
1720,19238	0,16294	0,23908	0,20809	0,12754	0,28977	0,16641
1718,26392	0,16342	0,23956	0,20938	0,1279	0,29032	0,16696
1716,33545	0,15883	0,23763	0,20754	0,12552	0,28825	0,16381
1714,40698	0,15965	0,2377	0,20658	0,12588	0,28853	0,16472
1712,47852	0,16115	0,23838	0,2074	0,12674	0,28913	0,16542
1710,55005	0,16044	0,2381	0,20748	0,12642	0,28877	0,16468
1708,62158	0,16175	0,23858	0,20749	0,12707	0,2895	0,16614
1706,69312	0,16277	0,23921	0,20856	0,12767	0,29	0,16663
1704,76465	0,15891	0,23739	0,20626	0,12586	0,28855	0,16475
1702,83618	0,16246	0,23889	0,20787	0,12741	0,28984	0,16665

1700,90771	0,16453	0,24054	0,21087	0,12803	0,29077	0,16684
1698,97925	0,15558	0,23618	0,20591	0,12357	0,28685	0,16145
1697,05078	0,16135	0,23816	0,20762	0,12657	0,28919	0,16557
1695,12231	0,15958	0,23838	0,20882	0,12628	0,28918	0,16412
1693,19385	0,1575	0,23698	0,20613	0,12516	0,28823	0,16328
1691,26538	0,16266	0,23921	0,20801	0,12787	0,29056	0,16717
1689,33691	0,15997	0,2384	0,20723	0,12682	0,28994	0,16572
1687,40845	0,16078	0,23853	0,20657	0,1269	0,2902	0,1664
1685,47998	0,16503	0,24076	0,21069	0,1288	0,29178	0,16755
1683,55151	0,15696	0,2378	0,20663	0,12493	0,28947	0,16404
1681,62305	0,15789	0,23763	0,20558	0,12548	0,28951	0,16465
1679,69458	0,15989	0,23853	0,20676	0,12673	0,29036	0,16581
1677,76611	0,16048	0,23882	0,20729	0,12676	0,29044	0,16561
1675,83765	0,16142	0,23946	0,20818	0,12699	0,29076	0,16577
1673,90918	0,15772	0,23796	0,20663	0,12527	0,28925	0,16359
1671,98071	0,1597	0,23848	0,20651	0,12613	0,29014	0,16539
1670,05225	0,16189	0,23959	0,20775	0,12723	0,29131	0,16702
1668,12378	0,15659	0,23749	0,2056	0,12469	0,28876	0,16304
1666,19531	0,15902	0,23811	0,20577	0,12563	0,28935	0,16433
1664,26685	0,1617	0,23941	0,20767	0,12691	0,29046	0,16554
1662,33838	0,15868	0,23809	0,206	0,1255	0,28947	0,16418
1660,40991	0,15905	0,23811	0,20597	0,12563	0,28939	0,16424
1658,48145	0,15969	0,23833	0,20661	0,12571	0,2893	0,16409
1656,55298	0,1605	0,23834	0,20554	0,12582	0,28954	0,16551
1654,62451	0,16508	0,24072	0,2091	0,12772	0,29114	0,16731
1652,69604	0,15698	0,23851	0,20695	0,12325	0,28843	0,16283
1650,76758	0,15457	0,23557	0,20388	0,12211	0,2858	0,15942
1648,83911	0,16199	0,2385	0,20487	0,12598	0,28955	0,16661
1646,91064	0,16134	0,23873	0,20596	0,12567	0,28947	0,1661
1644,98218	0,15592	0,2363	0,20393	0,12271	0,28628	0,16059
1643,05371	0,15972	0,23774	0,20435	0,12442	0,28777	0,16367
1641,12524	0,15978	0,23789	0,20487	0,12436	0,28766	0,16325
1639,19678	0,15967	0,23752	0,20402	0,12424	0,28779	0,16379
1637,26831	0,16211	0,23859	0,20548	0,12542	0,2888	0,16548
1635,33984	0,15875	0,23739	0,20458	0,12342	0,28748	0,16326
1633,41138	0,1562	0,23559	0,20264	0,12169	0,28545	0,16042
1631,48291	0,15969	0,23662	0,20318	0,12316	0,28647	0,16278
1629,55444	0,16078	0,23706	0,20411	0,12357	0,28687	0,16311
1627,62598	0,15877	0,2361	0,20273	0,12246	0,28621	0,16211
1625,69751	0,15974	0,23632	0,20293	0,12266	0,28626	0,16217
1623,76904	0,16035	0,23666	0,20353	0,12292	0,28662	0,16258
1621,84058	0,15703	0,23531	0,20194	0,12118	0,28539	0,16046
1619,91211	0,15916	0,23603	0,2022	0,12207	0,28623	0,1618
1617,98364	0,16176	0,23755	0,20488	0,12363	0,28736	0,16287
1616,05518	0,15759	0,23645	0,20413	0,12194	0,28613	0,1603
1614,12671	0,1583	0,23655	0,2033	0,12235	0,28669	0,16136
1612,19824	0,16104	0,23784	0,20472	0,12414	0,28826	0,16371
1610,26978	0,16068	0,23794	0,20521	0,1244	0,28854	0,16381

1608,34131	0,1605	0,23799	0,20499	0,12452	0,28873	0,16419
1606,41284	0,16082	0,23835	0,20583	0,1249	0,28894	0,16419
1604,48438	0,16099	0,23859	0,20619	0,12522	0,2892	0,16435
1602,55591	0,16137	0,23887	0,20645	0,12557	0,28958	0,16491
1600,62744	0,16132	0,239	0,20684	0,12558	0,28972	0,16487
1598,69897	0,1617	0,23916	0,20719	0,12581	0,28997	0,16499
1596,77051	0,16216	0,23933	0,20752	0,12618	0,29037	0,1654
1594,84204	0,1621	0,23956	0,20762	0,12643	0,29067	0,16572
1592,91357	0,16218	0,23975	0,20792	0,12663	0,2907	0,1658
1590,98511	0,16245	0,23974	0,20809	0,1268	0,29086	0,16599
1589,05664	0,1627	0,23993	0,2082	0,12705	0,29129	0,16621
1587,12817	0,16252	0,24004	0,20844	0,12704	0,29136	0,1659
1585,19971	0,16258	0,24008	0,20831	0,12715	0,29149	0,16615
1583,27124	0,16322	0,24048	0,20876	0,12756	0,29186	0,16647
1581,34277	0,16247	0,24029	0,20871	0,12719	0,29171	0,16595
1579,41431	0,16316	0,24056	0,20848	0,12769	0,29227	0,16717
1577,48584	0,16561	0,24182	0,21086	0,1291	0,29312	0,168
1575,55737	0,16135	0,24015	0,20965	0,12694	0,29148	0,16508
1573,62891	0,16078	0,23957	0,20781	0,12651	0,29129	0,16541
1571,70044	0,16532	0,24176	0,21001	0,12906	0,29345	0,16885
1569,77197	0,16341	0,24106	0,20981	0,12829	0,29301	0,16801
1567,84351	0,16146	0,23991	0,20836	0,12712	0,29194	0,16643
1565,91504	0,16441	0,24123	0,21016	0,12893	0,29327	0,16833
1563,98657	0,16252	0,24034	0,20931	0,12815	0,29275	0,1676
1562,05811	0,16485	0,24134	0,21033	0,12921	0,29369	0,16904
1560,12964	0,16984	0,24412	0,21469	0,13165	0,296	0,17194
1558,20117	0,1575	0,23973	0,20838	0,12494	0,2915	0,16572
1556,27271	0,16121	0,23999	0,20913	0,1271	0,29232	0,16651
1554,34424	0,1639	0,2413	0,21092	0,129	0,29373	0,16825
1552,41577	0,163	0,2409	0,21034	0,12837	0,29295	0,16704
1550,4873	0,16441	0,24127	0,20987	0,12942	0,2939	0,16931
1548,55884	0,16336	0,24097	0,21002	0,12906	0,29354	0,16835
1546,63037	0,16443	0,24141	0,21083	0,12943	0,29384	0,16838
1544,7019	0,16515	0,24162	0,21082	0,12994	0,29471	0,17009
1542,77344	0,16417	0,24141	0,21086	0,12912	0,29425	0,16937
1540,84497	0,16657	0,24271	0,21332	0,13	0,29493	0,1701
1538,9165	0,15977	0,24005	0,21018	0,12658	0,29219	0,16638
1536,98804	0,16155	0,24025	0,20963	0,12744	0,2926	0,16678
1535,05957	0,16628	0,24244	0,21183	0,13032	0,29504	0,17051
1533,1311	0,16374	0,24166	0,21074	0,12932	0,29439	0,16981
1531,20264	0,16207	0,24083	0,20977	0,12823	0,29314	0,16751
1529,27417	0,16551	0,24228	0,21129	0,13026	0,29478	0,16999
1527,3457	0,165	0,24228	0,21145	0,1304	0,29498	0,17038
1525,41724	0,1632	0,24138	0,21052	0,1292	0,2938	0,16863
1523,48877	0,16598	0,24241	0,21183	0,13058	0,29488	0,17036
1521,5603	0,16417	0,24197	0,21173	0,12968	0,29438	0,16926
1519,63184	0,1623	0,24108	0,21052	0,1282	0,29303	0,167
1517,70337	0,16516	0,24203	0,21059	0,1298	0,29459	0,1703

1515,7749	0,16346	0,24128	0,21013	0,12925	0,29412	0,16943
1513,84644	0,16393	0,24152	0,2108	0,1293	0,29395	0,16851
1511,91797	0,16495	0,24194	0,21148	0,12971	0,29435	0,16892
1509,9895	0,16484	0,24165	0,21046	0,12974	0,29472	0,17024
1508,06104	0,16769	0,24316	0,21244	0,1313	0,29606	0,17238
1506,13257	0,16208	0,24132	0,21108	0,12786	0,29369	0,1684
1504,2041	0,16067	0,23999	0,21022	0,12712	0,29223	0,1656
1502,27563	0,16503	0,2419	0,21137	0,12999	0,29462	0,16965
1500,34717	0,16519	0,24212	0,21199	0,13027	0,29468	0,16941
1498,4187	0,1652	0,2421	0,21189	0,13022	0,29465	0,16968
1496,49023	0,16401	0,24186	0,21236	0,12986	0,29424	0,1687
1494,56177	0,16264	0,24112	0,21156	0,12898	0,29339	0,16731
1492,6333	0,16535	0,24221	0,21219	0,13052	0,2947	0,16982
1490,70483	0,16562	0,24253	0,21254	0,13107	0,29521	0,1709
1488,77637	0,16334	0,24152	0,21087	0,12975	0,29431	0,16989
1486,8479	0,16336	0,24157	0,21132	0,12965	0,29412	0,16924
1484,91943	0,16374	0,24191	0,21229	0,12992	0,29423	0,16892
1482,99097	0,16435	0,24213	0,21244	0,13037	0,29453	0,16938
1481,0625	0,16401	0,24205	0,21225	0,13032	0,29443	0,1694
1479,13403	0,16403	0,24223	0,21259	0,13019	0,29436	0,16913
1477,20557	0,16443	0,24228	0,21229	0,13037	0,29479	0,16979
1475,2771	0,16437	0,24223	0,21203	0,13036	0,29488	0,17018
1473,34863	0,16438	0,24255	0,21288	0,13031	0,29468	0,16977
1471,42017	0,16182	0,24146	0,21121	0,12897	0,29379	0,16845
1469,4917	0,1624	0,24141	0,21082	0,12913	0,29386	0,16877
1467,56323	0,16482	0,24242	0,21238	0,13044	0,29477	0,1702
1465,63477	0,16456	0,24229	0,21222	0,13041	0,29485	0,17055
1463,7063	0,16247	0,24164	0,2114	0,12921	0,29387	0,16866
1461,77783	0,16307	0,24176	0,21127	0,12947	0,29416	0,16907
1459,84937	0,16551	0,24264	0,21182	0,13102	0,29566	0,17177
1457,9209	0,16541	0,24301	0,21281	0,13106	0,29579	0,17177
1455,99243	0,1596	0,24075	0,21133	0,12794	0,29267	0,16627
1454,06396	0,16197	0,24115	0,21069	0,12933	0,29389	0,16887
1452,1355	0,16348	0,24207	0,21157	0,13028	0,29454	0,16972
1450,20703	0,16344	0,24225	0,21193	0,1302	0,29433	0,16909
1448,27856	0,1637	0,24233	0,21169	0,13051	0,29479	0,16998
1446,3501	0,16243	0,24184	0,21141	0,12987	0,29412	0,16891
1444,42163	0,16337	0,24222	0,21173	0,13025	0,29432	0,16918
1442,49316	0,16363	0,24242	0,21205	0,13063	0,29462	0,16931
1440,5647	0,16294	0,24213	0,21155	0,13048	0,29458	0,16914
1438,63623	0,16466	0,24297	0,21276	0,13142	0,29524	0,17008
1436,70776	0,16322	0,24256	0,21265	0,13088	0,29465	0,16944
1434,7793	0,16076	0,24135	0,211	0,12959	0,29351	0,16765
1432,85083	0,16353	0,24249	0,21164	0,13093	0,29466	0,16958
1430,92236	0,16412	0,24301	0,21227	0,13134	0,29496	0,17012
1428,9939	0,16214	0,2422	0,21123	0,13021	0,29426	0,16895
1427,06543	0,16325	0,24259	0,21184	0,13055	0,29449	0,16909
1425,13696	0,1636	0,24277	0,212	0,13086	0,29479	0,16967



1423,2085	0,16228	0,24213	0,21097	0,13023	0,29454	0,16938
1421,28003	0,16376	0,24281	0,21245	0,13084	0,29483	0,1693
1419,35156	0,1634	0,24266	0,21267	0,13082	0,29479	0,16939
1417,4231	0,16083	0,24139	0,21053	0,12951	0,29393	0,16857
1415,49463	0,16256	0,24221	0,2113	0,1302	0,29441	0,16917
1413,56616	0,16321	0,24257	0,21228	0,13051	0,29448	0,16917
1411,6377	0,16303	0,24236	0,21177	0,13032	0,29445	0,16947
1409,70923	0,16287	0,2424	0,21179	0,13026	0,29442	0,16931
1407,78076	0,16297	0,2425	0,21202	0,1304	0,29452	0,16929
1405,85229	0,16344	0,24267	0,2119	0,13066	0,29491	0,17017
1403,92383	0,16224	0,24233	0,21158	0,13013	0,29446	0,16944
1401,99536	0,16289	0,24269	0,21204	0,13058	0,29473	0,16952
1400,06689	0,16361	0,24298	0,21233	0,13111	0,29527	0,17031
1398,13843	0,16259	0,2424	0,21176	0,13056	0,29494	0,16997
1396,20996	0,16356	0,24263	0,21225	0,13095	0,29529	0,17047
1394,28149	0,16322	0,24244	0,21235	0,13071	0,29523	0,17029
1392,35303	0,16235	0,24211	0,2119	0,13	0,29464	0,16928
1390,42456	0,16397	0,2428	0,21245	0,1308	0,29513	0,17024
1388,49609	0,1642	0,24293	0,21294	0,13111	0,29521	0,17054
1386,56763	0,16249	0,242	0,21195	0,13008	0,2944	0,16957
1384,63916	0,16232	0,24153	0,21133	0,12961	0,29387	0,16914
1382,71069	0,16304	0,24194	0,21189	0,13016	0,29429	0,16956
1380,78223	0,16332	0,24246	0,21249	0,13091	0,29516	0,17038
1378,85376	0,1632	0,24257	0,21264	0,13099	0,29518	0,17041
1376,92529	0,16386	0,24295	0,21299	0,13118	0,29526	0,1705
1374,99683	0,16415	0,24316	0,21287	0,13153	0,29572	0,17122
1373,06836	0,16313	0,24288	0,21244	0,13097	0,29513	0,17029
1371,13989	0,16368	0,24327	0,21301	0,13099	0,29512	0,16993
1369,21143	0,16418	0,24352	0,21325	0,13159	0,29572	0,17071
1367,28296	0,16355	0,24328	0,21299	0,13141	0,29535	0,17008
1365,35449	0,16433	0,24364	0,21335	0,13158	0,29547	0,17019
1363,42603	0,16461	0,24372	0,21319	0,13188	0,29612	0,17122
1361,49756	0,16357	0,24339	0,21268	0,13124	0,29573	0,17044
1359,56909	0,16408	0,2436	0,21298	0,13098	0,29545	0,16985
1357,64063	0,16479	0,24371	0,21325	0,13112	0,29577	0,17016
1355,71216	0,16456	0,24362	0,21334	0,13121	0,2959	0,17024
1353,78369	0,16435	0,24373	0,21357	0,13138	0,29597	0,17036
1351,85522	0,1646	0,24391	0,21389	0,13159	0,29622	0,17071
1349,92676	0,16462	0,24383	0,214	0,13176	0,29623	0,17099
1347,99829	0,16458	0,24382	0,21413	0,13188	0,29624	0,17106
1346,06982	0,16479	0,24405	0,21426	0,13192	0,2964	0,17121
1344,14136	0,16479	0,24417	0,21427	0,13185	0,29629	0,17116
1342,21289	0,16518	0,24422	0,21441	0,13207	0,29638	0,17147
1340,28442	0,16535	0,2441	0,21407	0,13223	0,29647	0,17224
1338,35596	0,16478	0,24392	0,21371	0,13187	0,29613	0,17179
1336,42749	0,165	0,24407	0,21422	0,1319	0,29622	0,17124
1334,49902	0,16549	0,24432	0,21479	0,13226	0,29658	0,17164
1332,57056	0,16549	0,24451	0,21486	0,13242	0,29667	0,17188

1330,64209	0,16556	0,24457	0,21476	0,13252	0,29662	0,17195
1328,71362	0,1657	0,24457	0,21501	0,13256	0,29657	0,17217
1326,78516	0,16581	0,24454	0,21525	0,13262	0,29671	0,17229
1324,85669	0,1658	0,24447	0,2151	0,13277	0,29679	0,17232
1322,92822	0,16575	0,24463	0,21512	0,13297	0,29683	0,17238
1320,99976	0,16588	0,24476	0,21527	0,1332	0,29723	0,17272
1319,07129	0,1659	0,24467	0,21519	0,13325	0,29743	0,173
1317,14282	0,16583	0,24465	0,21522	0,13325	0,2972	0,1727
1315,21436	0,16591	0,24472	0,21535	0,13343	0,29719	0,17257
1313,28589	0,16584	0,24475	0,21532	0,13344	0,29732	0,17274
1311,35742	0,16582	0,24473	0,21543	0,13338	0,29739	0,17263
1309,42896	0,16598	0,24478	0,21558	0,1334	0,2974	0,17259
1307,50049	0,16601	0,24488	0,21555	0,1333	0,29738	0,1726
1305,57202	0,16604	0,24482	0,21567	0,13338	0,29746	0,17261
1303,64355	0,16615	0,2449	0,21586	0,13361	0,29762	0,173
1301,71509	0,16619	0,24511	0,21594	0,1338	0,29781	0,17341
1299,78662	0,1663	0,2452	0,21611	0,13396	0,2979	0,17365
1297,85815	0,16644	0,24536	0,21619	0,13394	0,29795	0,17396
1295,92969	0,16647	0,24538	0,21606	0,13396	0,29811	0,17428
1294,00122	0,16651	0,24518	0,216	0,13412	0,2983	0,17469
1292,07275	0,16665	0,24517	0,21603	0,13421	0,29848	0,17503
1290,14429	0,16678	0,24532	0,2161	0,13436	0,29867	0,17536
1288,21582	0,16679	0,24533	0,21621	0,13455	0,29889	0,17596
1286,28735	0,1668	0,24531	0,21627	0,13461	0,2991	0,17656
1284,35889	0,16681	0,24545	0,21628	0,13464	0,29927	0,17699
1282,43042	0,16679	0,24545	0,21626	0,13463	0,29945	0,17738
1280,50195	0,16687	0,24525	0,21633	0,13464	0,29955	0,17771
1278,57349	0,1668	0,24523	0,2166	0,13482	0,29968	0,17811
1276,64502	0,16653	0,24523	0,21676	0,13493	0,29994	0,17845
1274,71655	0,16653	0,24522	0,21672	0,1349	0,30016	0,17883
1272,78809	0,16653	0,24528	0,2166	0,13489	0,3003	0,17933
1270,85962	0,16643	0,2453	0,21646	0,13483	0,30045	0,17967
1268,93115	0,16654	0,2454	0,2165	0,13492	0,30078	0,18014
1267,00269	0,16664	0,24547	0,21664	0,13517	0,30114	0,1808
1265,07422	0,16671	0,24543	0,21679	0,13527	0,30135	0,18108
1263,14575	0,16693	0,24555	0,21694	0,13545	0,30144	0,18116
1261,21729	0,16701	0,24569	0,2169	0,13567	0,3014	0,18128
1259,28882	0,16685	0,24567	0,21694	0,13572	0,30128	0,18107
1257,36035	0,16677	0,24569	0,21722	0,13574	0,30114	0,18052
1255,43188	0,16683	0,24577	0,21725	0,13552	0,30095	0,1799
1253,50342	0,16687	0,24592	0,21705	0,1352	0,30067	0,17924
1251,57495	0,1669	0,24606	0,21702	0,13521	0,30033	0,17862
1249,64648	0,16689	0,24617	0,21709	0,13528	0,3001	0,17814
1247,71802	0,16685	0,24639	0,21713	0,13518	0,29998	0,17778
1245,78955	0,16692	0,24659	0,21708	0,13492	0,2997	0,17743
1243,86108	0,16708	0,2466	0,21692	0,13462	0,29934	0,17705
1241,93262	0,16718	0,2466	0,21682	0,13453	0,29916	0,17663
1240,00415	0,1671	0,24657	0,2168	0,13459	0,2991	0,17629

1238,07568	0,16698	0,2465	0,21683	0,13466	0,29901	0,17609
1236,14722	0,16684	0,24658	0,21686	0,13468	0,29896	0,17602
1234,21875	0,16667	0,24664	0,21684	0,13459	0,29907	0,17599
1232,29028	0,16673	0,24662	0,21685	0,13458	0,2992	0,17602
1230,36182	0,16688	0,24663	0,2169	0,13468	0,29925	0,17593
1228,43335	0,16699	0,24667	0,21692	0,13478	0,29926	0,1756
1226,50488	0,16709	0,24677	0,21683	0,13489	0,29918	0,17542
1224,57642	0,16706	0,24686	0,2168	0,13493	0,29912	0,17546
1222,64795	0,16706	0,24687	0,21697	0,13493	0,29911	0,17542
1220,71948	0,16709	0,24687	0,21705	0,13489	0,29904	0,17522
1218,79102	0,16704	0,24689	0,21707	0,13481	0,29909	0,17499
1216,86255	0,16701	0,24699	0,21719	0,13495	0,29919	0,17497
1214,93408	0,16696	0,24713	0,21717	0,13515	0,29914	0,17517
1213,00562	0,16702	0,24718	0,21713	0,1351	0,29914	0,17535
1211,07715	0,16721	0,24727	0,21721	0,13511	0,29923	0,17544
1209,14868	0,16706	0,24723	0,2173	0,13536	0,29934	0,17551
1207,22021	0,16677	0,24709	0,21743	0,13559	0,29939	0,1756
1205,29175	0,16683	0,24729	0,2175	0,13564	0,29934	0,17572
1203,36328	0,16689	0,24744	0,21751	0,13553	0,29933	0,17566
1201,43481	0,16677	0,24737	0,21764	0,1355	0,29933	0,17541
1199,50635	0,16674	0,24748	0,21761	0,13558	0,29925	0,17527
1197,57788	0,16678	0,24757	0,21752	0,13562	0,29928	0,17523
1195,64941	0,16689	0,24758	0,21761	0,13566	0,29941	0,17509
1193,72095	0,16699	0,2477	0,21761	0,13579	0,29939	0,175
1191,79248	0,16689	0,24784	0,21763	0,1359	0,29924	0,17505
1189,86401	0,16672	0,24796	0,21772	0,1359	0,29918	0,1751
1187,93555	0,16664	0,24811	0,21785	0,13601	0,29929	0,17517
1186,00708	0,16653	0,24829	0,21808	0,13619	0,29932	0,17527
1184,07861	0,16633	0,24836	0,21819	0,1363	0,29911	0,17531
1182,15015	0,16619	0,24833	0,21817	0,13647	0,29909	0,17538
1180,22168	0,16616	0,24843	0,21825	0,13657	0,29921	0,17551
1178,29321	0,1662	0,24861	0,21847	0,13668	0,2993	0,17561
1176,36475	0,16632	0,24861	0,21864	0,13686	0,29958	0,1757
1174,43628	0,16649	0,24858	0,21861	0,13687	0,29974	0,17582
1172,50781	0,1666	0,24866	0,21863	0,13692	0,29984	0,17599
1170,57935	0,16664	0,2487	0,2187	0,13698	0,30017	0,17621
1168,65088	0,16676	0,24877	0,21869	0,13686	0,30028	0,1765
1166,72241	0,16688	0,24892	0,21867	0,13691	0,30026	0,17656
1164,79395	0,16688	0,24906	0,21868	0,13706	0,30038	0,17631
1162,86548	0,16689	0,24916	0,21893	0,13714	0,30051	0,17627
1160,93701	0,16698	0,2491	0,21918	0,13734	0,30063	0,17642
1159,00854	0,16717	0,24911	0,21919	0,1375	0,30064	0,17649
1157,08008	0,16738	0,24923	0,21923	0,13752	0,30055	0,17651
1155,15161	0,16757	0,24929	0,21931	0,13767	0,3005	0,17653
1153,22314	0,16767	0,24951	0,21942	0,13785	0,3005	0,17674
1151,29468	0,1676	0,2497	0,21962	0,13793	0,30059	0,17713
1149,36621	0,1676	0,24965	0,21979	0,13813	0,30073	0,17743
1147,43774	0,16784	0,24957	0,21998	0,13832	0,30078	0,1776

1145,50928	0,16803	0,24951	0,22017	0,13837	0,3008	0,17764
1143,58081	0,16816	0,24956	0,22031	0,13856	0,30081	0,17772
1141,65234	0,16825	0,24952	0,2205	0,13891	0,30092	0,17789
1139,72388	0,16833	0,24942	0,22064	0,13916	0,3011	0,17806
1137,79541	0,16845	0,24946	0,22065	0,13926	0,30123	0,17824
1135,86694	0,16846	0,24932	0,22074	0,13933	0,30143	0,17834
1133,93848	0,16844	0,24928	0,22087	0,13937	0,30168	0,17842
1132,01001	0,16842	0,24951	0,22092	0,13936	0,30181	0,17862
1130,08154	0,16856	0,24962	0,22087	0,13932	0,30177	0,17888
1128,15308	0,16893	0,24982	0,22067	0,13922	0,30176	0,17915
1126,22461	0,16914	0,24997	0,22064	0,13916	0,30195	0,17932
1124,29614	0,16924	0,25004	0,2208	0,13923	0,30198	0,17939
1122,36768	0,16934	0,2503	0,22088	0,13937	0,30186	0,17944
1120,43921	0,16936	0,2504	0,22108	0,13958	0,30196	0,1796
1118,51074	0,16938	0,25034	0,22138	0,13977	0,30206	0,17984
1116,58228	0,1695	0,2503	0,2216	0,13987	0,3021	0,17999
1114,65381	0,16962	0,25036	0,22178	0,13997	0,30225	0,18011
1112,72534	0,16967	0,25055	0,22194	0,13999	0,3023	0,18023
1110,79688	0,16995	0,25061	0,22209	0,13988	0,30224	0,18017
1108,86841	0,17022	0,25059	0,22229	0,13997	0,30242	0,18014
1106,93994	0,17013	0,25059	0,22246	0,14025	0,30266	0,18037
1105,01147	0,17018	0,25062	0,22249	0,14036	0,30269	0,18051
1103,08301	0,17037	0,2508	0,22267	0,14054	0,30278	0,18067
1101,15454	0,17054	0,2509	0,22313	0,14097	0,30294	0,18113
1099,22607	0,17081	0,25096	0,22346	0,14121	0,30302	0,18133
1097,29761	0,17107	0,25112	0,22355	0,14141	0,30317	0,18133
1095,36914	0,17138	0,25122	0,22369	0,14164	0,30325	0,18149
1093,44067	0,17161	0,25143	0,22378	0,14166	0,30339	0,18161
1091,51221	0,17159	0,25169	0,22378	0,1417	0,30374	0,18176
1089,58374	0,17154	0,25166	0,22393	0,14182	0,30393	0,18192
1087,65527	0,17165	0,25149	0,22417	0,14191	0,30402	0,18204
1085,72681	0,17192	0,2513	0,22442	0,14227	0,30438	0,18235
1083,79834	0,17206	0,25113	0,22456	0,14264	0,30463	0,18271
1081,86987	0,17215	0,25111	0,2244	0,14257	0,30459	0,18283
1079,94141	0,17243	0,25109	0,22431	0,14253	0,30466	0,18278
1078,01294	0,17262	0,25091	0,22454	0,14278	0,30492	0,18288
1076,08447	0,17261	0,25072	0,22471	0,14277	0,30507	0,18304
1074,15601	0,17257	0,25075	0,22476	0,14256	0,30501	0,18311
1072,22754	0,17256	0,25085	0,22489	0,14252	0,30496	0,18324
1070,29907	0,17243	0,25107	0,22485	0,14239	0,305	0,18329
1068,37061	0,17229	0,25139	0,22458	0,14207	0,30481	0,18319
1066,44214	0,17233	0,25156	0,22443	0,14176	0,30438	0,18305
1064,51367	0,17232	0,25168	0,22433	0,14161	0,30424	0,18287
1062,58521	0,17225	0,25161	0,22414	0,14165	0,30441	0,18273
1060,65674	0,17238	0,25141	0,224	0,14165	0,30437	0,18262
1058,72827	0,17236	0,25143	0,22398	0,14156	0,30408	0,18249
1056,7998	0,1722	0,25155	0,22396	0,14146	0,30401	0,18253
1054,87134	0,1723	0,25149	0,22378	0,14117	0,30418	0,18255

1052,94287	0,1725	0,2513	0,22372	0,14098	0,30428	0,18259
1051,0144	0,17256	0,25128	0,22391	0,14102	0,30449	0,18315
1049,08594	0,17262	0,2515	0,22399	0,14111	0,30488	0,18386
1047,15747	0,17287	0,25163	0,22398	0,14141	0,30531	0,18443
1045,229	0,17319	0,25158	0,22405	0,14189	0,30576	0,18512
1043,30054	0,1735	0,25166	0,22419	0,14218	0,30615	0,18562
1041,37207	0,17378	0,25186	0,22435	0,14225	0,30651	0,18577
1039,4436	0,17379	0,25221	0,22463	0,14231	0,30677	0,1861
1037,51514	0,17372	0,25273	0,22489	0,14238	0,30682	0,18641
1035,58667	0,174	0,25311	0,22495	0,1426	0,307	0,18675
1033,6582	0,17423	0,25323	0,22513	0,14313	0,30763	0,18776
1031,72974	0,17428	0,2533	0,2256	0,14359	0,3085	0,18913
1029,80127	0,17454	0,25346	0,2261	0,14388	0,30912	0,19031
1027,8728	0,17485	0,25371	0,22647	0,14414	0,30935	0,19131
1025,94434	0,17493	0,25385	0,22683	0,14444	0,30967	0,19229
1024,01587	0,17504	0,25384	0,22719	0,14485	0,31015	0,19295
1022,0874	0,17535	0,25374	0,2272	0,14494	0,31026	0,19277
1020,15894	0,17557	0,25368	0,22706	0,14465	0,30999	0,19213
1018,23047	0,17579	0,2539	0,22715	0,14441	0,30971	0,1915
1016,302	0,17617	0,2541	0,2272	0,14424	0,30939	0,19073
1014,37354	0,17639	0,25396	0,22715	0,14412	0,30891	0,18995
1012,44507	0,17647	0,25379	0,22705	0,14399	0,30853	0,18936
1010,5166	0,17654	0,25391	0,22686	0,14383	0,30833	0,18884
1008,58813	0,17649	0,25422	0,22692	0,14396	0,30818	0,18842
1006,65967	0,17667	0,25452	0,2271	0,14418	0,30814	0,18815
1004,7312	0,17692	0,25484	0,22711	0,14405	0,30817	0,18791
1002,80273	0,17697	0,25502	0,22723	0,14382	0,30821	0,18764
1000,87427	0,17721	0,25492	0,22747	0,14403	0,3083	0,18746
998,9458	0,17751	0,25493	0,22771	0,14437	0,30829	0,1874
997,01733	0,17771	0,25518	0,22799	0,14426	0,30828	0,18727
995,08887	0,17805	0,25551	0,22826	0,14425	0,30847	0,18733
993,1604	0,1784	0,25562	0,22843	0,14459	0,30867	0,18761
991,23193	0,17859	0,25554	0,22859	0,14468	0,30888	0,18777
989,30347	0,17878	0,25567	0,22877	0,14469	0,30895	0,18777
987,375	0,17906	0,25585	0,22891	0,14491	0,30885	0,18778
985,44653	0,17931	0,25602	0,22909	0,14506	0,30907	0,18808
983,51807	0,17937	0,25637	0,22907	0,14513	0,30939	0,18837
981,5896	0,17941	0,25665	0,22884	0,14516	0,30934	0,18841
979,66113	0,17963	0,25672	0,2288	0,14509	0,30912	0,18856
977,73267	0,17999	0,25672	0,22885	0,145	0,30906	0,1887
975,8042	0,18014	0,25687	0,22895	0,14503	0,30936	0,18877
973,87573	0,18013	0,2572	0,22904	0,14521	0,30971	0,18896
971,94727	0,18031	0,25742	0,2288	0,14539	0,30966	0,18908
970,0188	0,18029	0,25733	0,22877	0,14561	0,30965	0,1891
968,09033	0,18006	0,25713	0,22914	0,14595	0,31	0,18919
966,16187	0,18015	0,257	0,22932	0,14612	0,3102	0,18936
964,2334	0,18031	0,25696	0,22942	0,14609	0,31022	0,18952
962,30493	0,18032	0,25711	0,22956	0,14607	0,31024	0,18964

960,37646	0,18038	0,25728	0,22953	0,14604	0,30995	0,18966
958,448	0,1803	0,25724	0,22958	0,14622	0,30996	0,18972
956,51953	0,18012	0,2573	0,22971	0,14655	0,31041	0,18985
954,59106	0,18018	0,25752	0,22984	0,14673	0,31046	0,18992
952,6626	0,18043	0,25765	0,23012	0,14688	0,31052	0,18999
950,73413	0,18054	0,2578	0,2304	0,14691	0,31076	0,19018
948,80566	0,1807	0,25784	0,23058	0,1468	0,31073	0,1905
946,8772	0,18096	0,25779	0,23064	0,14679	0,31068	0,19074
944,94873	0,18101	0,25802	0,2306	0,1468	0,31062	0,19073
943,02026	0,18124	0,2583	0,23065	0,14691	0,31054	0,19072
941,0918	0,18173	0,25856	0,23071	0,14698	0,31059	0,19069
939,16333	0,18194	0,25886	0,23069	0,14696	0,31071	0,19058
937,23486	0,18197	0,25891	0,23083	0,1473	0,31107	0,19071
935,3064	0,18201	0,25876	0,23107	0,14768	0,31157	0,19085
933,37793	0,18189	0,25852	0,23101	0,14762	0,31176	0,19073
931,44946	0,18193	0,25839	0,2309	0,14767	0,31176	0,19086
929,521	0,18233	0,25851	0,23111	0,148	0,31184	0,19113
927,59253	0,18247	0,25859	0,2314	0,14805	0,31189	0,1911
925,66406	0,18229	0,2587	0,23161	0,14804	0,31218	0,19106
923,7356	0,18237	0,25875	0,23155	0,14814	0,31277	0,1911
921,80713	0,18258	0,25884	0,23141	0,14827	0,31293	0,19117
919,87866	0,18257	0,25915	0,23156	0,14846	0,31282	0,19132
917,9502	0,18247	0,25924	0,23162	0,14843	0,31304	0,19143
916,02173	0,18252	0,2592	0,23148	0,14815	0,31302	0,19139
914,09326	0,18258	0,25942	0,23161	0,14822	0,31272	0,19135
912,16479	0,18266	0,25964	0,23183	0,14856	0,31257	0,19143
910,23633	0,18297	0,25968	0,23187	0,1486	0,31238	0,1914
908,30786	0,18327	0,25971	0,23218	0,14873	0,31253	0,19158
906,37939	0,18362	0,25983	0,23246	0,14892	0,31279	0,19182
904,45093	0,18397	0,2598	0,2324	0,1487	0,31254	0,19176
902,52246	0,1841	0,25957	0,23268	0,14865	0,31249	0,19195
900,59399	0,18431	0,25944	0,23295	0,14873	0,31273	0,19201
898,66553	0,18438	0,25969	0,23276	0,14862	0,31264	0,19161
896,73706	0,18439	0,25996	0,23264	0,14859	0,31251	0,19152
894,80859	0,18458	0,25982	0,23265	0,14849	0,3127	0,19175
892,88013	0,18448	0,25959	0,23265	0,14843	0,31302	0,19179
890,95166	0,18434	0,25947	0,23262	0,14858	0,3131	0,19177
889,02319	0,18461	0,25954	0,23265	0,14864	0,31307	0,19187
887,09473	0,18493	0,25988	0,23279	0,1485	0,31303	0,19178
885,16626	0,18499	0,26023	0,23292	0,14843	0,31291	0,19165
883,23779	0,18492	0,2604	0,23305	0,14852	0,31289	0,19178
881,30933	0,18508	0,26041	0,23325	0,1486	0,31301	0,19208
879,38086	0,18542	0,2606	0,23341	0,14873	0,31309	0,19231
877,45239	0,18554	0,26099	0,2335	0,14874	0,31308	0,19213
875,52393	0,18569	0,26126	0,23359	0,14865	0,31311	0,19213
873,59546	0,18598	0,26161	0,23374	0,1488	0,31317	0,19257
871,66699	0,18602	0,26184	0,23379	0,14925	0,31322	0,19285
869,73853	0,18601	0,26181	0,23387	0,14972	0,3134	0,19299

867,81006	0,18591	0,26173	0,23405	0,1499	0,31365	0,19305
865,88159	0,18583	0,26162	0,23413	0,14998	0,31395	0,1932
863,95313	0,18631	0,26188	0,23418	0,15002	0,31417	0,19333
862,02466	0,18655	0,2623	0,23429	0,15006	0,31421	0,19318
860,09619	0,18653	0,2624	0,23447	0,15032	0,31434	0,19307
858,16772	0,18675	0,26264	0,23459	0,15051	0,31445	0,1929
856,23926	0,18669	0,26286	0,23457	0,15064	0,31448	0,19284
854,31079	0,18693	0,26281	0,23469	0,15105	0,31472	0,19328
852,38232	0,1872	0,26291	0,23485	0,15152	0,3151	0,19368
850,45386	0,18696	0,26308	0,23478	0,15168	0,31513	0,1937
848,52539	0,18698	0,26318	0,23488	0,15169	0,31513	0,1939
846,59692	0,18703	0,26321	0,23511	0,15199	0,31552	0,19436
844,66846	0,18714	0,26311	0,23516	0,15244	0,3156	0,1944
842,73999	0,18738	0,26313	0,23523	0,15267	0,31546	0,19425
840,81152	0,18735	0,2633	0,23536	0,15254	0,31574	0,19451
838,88306	0,18763	0,26337	0,23562	0,1524	0,3158	0,19507
836,95459	0,18816	0,26333	0,23614	0,15259	0,31575	0,19576
835,02612	0,18843	0,26346	0,23643	0,15286	0,31615	0,19614
833,09766	0,18846	0,26383	0,23641	0,15311	0,31644	0,19631
831,16919	0,18832	0,26419	0,23663	0,1535	0,31676	0,19685
829,24072	0,18848	0,26428	0,23671	0,15372	0,3169	0,19698
827,31226	0,1887	0,26431	0,23671	0,15395	0,31656	0,19651
825,38379	0,18838	0,26445	0,23693	0,15421	0,31666	0,19653
823,45532	0,1879	0,26451	0,23685	0,1541	0,31701	0,19681
821,52686	0,1876	0,26455	0,23702	0,15405	0,31714	0,19679
819,59839	0,18754	0,26464	0,23726	0,15421	0,3173	0,19674
817,66992	0,18773	0,2648	0,23699	0,15442	0,31737	0,19671
815,74146	0,18783	0,2648	0,23677	0,15457	0,31732	0,19661
813,81299	0,18811	0,26452	0,23634	0,1543	0,31712	0,1965
811,88452	0,18869	0,26441	0,23621	0,15417	0,31706	0,19644
809,95605	0,18891	0,26446	0,23679	0,15439	0,31729	0,19646
808,02759	0,18898	0,26458	0,23706	0,15438	0,31738	0,19656
806,09912	0,18927	0,2649	0,23719	0,1545	0,31723	0,19672
804,17065	0,18926	0,26532	0,23742	0,15475	0,31707	0,19704
802,24219	0,18913	0,26572	0,2374	0,15477	0,31711	0,1974
800,31372	0,18932	0,26597	0,23748	0,15481	0,31734	0,19732
798,38525	0,18951	0,26606	0,23746	0,1549	0,31742	0,19724
796,45679	0,18965	0,26596	0,2372	0,15512	0,3172	0,19729
794,52832	0,19006	0,26597	0,23755	0,15546	0,31707	0,19697
792,59985	0,19041	0,2663	0,23803	0,15545	0,31718	0,19675
790,67139	0,19036	0,26623	0,23792	0,15541	0,31739	0,19687
788,74292	0,19028	0,26594	0,23778	0,15548	0,31776	0,19684
786,81445	0,19038	0,26606	0,23766	0,15529	0,31795	0,19686
784,88599	0,19072	0,26625	0,23772	0,15547	0,31798	0,19708
782,95752	0,19093	0,2666	0,23816	0,15598	0,31806	0,19708
781,02905	0,19075	0,26688	0,2385	0,15605	0,31803	0,19703
779,10059	0,19056	0,26652	0,23855	0,15571	0,31768	0,19697
777,17212	0,19033	0,26643	0,23843	0,15509	0,31701	0,19683

775,24365	0,19034	0,26663	0,23861	0,15498	0,31657	0,1974
773,31519	0,19064	0,26637	0,2389	0,15556	0,31658	0,19817
771,38672	0,19075	0,26618	0,23883	0,15587	0,31672	0,19832
769,45825	0,19093	0,26626	0,23897	0,15613	0,31708	0,19841
767,52979	0,19119	0,26646	0,23963	0,15667	0,31768	0,19857
765,60132	0,19139	0,26664	0,24033	0,15703	0,31802	0,19866
763,67285	0,19177	0,2668	0,24047	0,15703	0,3179	0,19867
761,74438	0,19192	0,26741	0,24048	0,15714	0,31798	0,19898
759,81592	0,19181	0,26783	0,24093	0,1576	0,31857	0,19966
757,88745	0,19195	0,26759	0,2412	0,1576	0,31886	0,19982
755,95898	0,19204	0,26749	0,2412	0,15717	0,31885	0,1997
754,03052	0,19224	0,26744	0,24127	0,15721	0,31911	0,20001
752,10205	0,19273	0,26732	0,24122	0,15745	0,3193	0,2001
750,17358	0,19263	0,26746	0,24107	0,15763	0,31936	0,20006
748,24512	0,19226	0,26733	0,24131	0,15782	0,31951	0,20036
746,31665	0,19234	0,26692	0,24177	0,15782	0,31961	0,20027
744,38818	0,1925	0,2668	0,24177	0,15827	0,31983	0,20003
742,45972	0,19261	0,26678	0,24178	0,15894	0,32005	0,20022
740,53125	0,19264	0,26664	0,24204	0,15896	0,31997	0,20041
738,60278	0,19264	0,26668	0,2423	0,15885	0,3201	0,20062
736,67432	0,19286	0,26706	0,24254	0,15884	0,32043	0,20083
734,74585	0,19319	0,2674	0,24261	0,15879	0,32052	0,2008
732,81738	0,19352	0,26755	0,24268	0,15898	0,32079	0,20093
730,88892	0,19366	0,26757	0,24271	0,15926	0,32123	0,2012
728,96045	0,19339	0,26752	0,24302	0,15966	0,3216	0,20158
727,03198	0,19336	0,26769	0,24333	0,16004	0,32194	0,20188
725,10352	0,19369	0,26822	0,24313	0,15951	0,32197	0,20115
723,17505	0,19389	0,26859	0,24307	0,15953	0,32201	0,20096
721,24658	0,19435	0,26836	0,243	0,16106	0,32232	0,20223
719,31812	0,19488	0,26845	0,24373	0,16149	0,32257	0,20232
717,38965	0,19501	0,26918	0,2448	0,16104	0,32275	0,20145
715,46118	0,19488	0,26942	0,24481	0,16132	0,32289	0,20164
713,53271	0,1944	0,26956	0,24503	0,16169	0,32295	0,2024
711,60425	0,19435	0,27025	0,24537	0,16206	0,32286	0,2028
709,67578	0,19462	0,27048	0,24537	0,16249	0,32303	0,20297
707,74731	0,19454	0,27006	0,24563	0,16299	0,32346	0,20331
705,81885	0,1946	0,27006	0,24606	0,16343	0,32371	0,20379
703,89038	0,195	0,27047	0,24674	0,16402	0,32389	0,20468
701,96191	0,19524	0,27056	0,24712	0,1653	0,32421	0,20565
700,03345	0,19519	0,27051	0,24717	0,16655	0,32472	0,20661
698,10498	0,19509	0,27075	0,24723	0,16716	0,32491	0,20756
696,17651	0,1953	0,27107	0,24717	0,16762	0,32496	0,20799
694,24805	0,19594	0,27107	0,2475	0,16802	0,32544	0,2084
692,31958	0,19661	0,27131	0,24794	0,16824	0,32565	0,20892
690,39111	0,19691	0,27183	0,24802	0,16862	0,32584	0,20921
688,46265	0,19657	0,27189	0,24821	0,16881	0,32627	0,20928
686,53418	0,19619	0,27185	0,24814	0,16937	0,32644	0,20983
684,60571	0,19653	0,27183	0,24804	0,17002	0,32657	0,21026



682,67725	0,19709	0,27152	0,24847	0,17079	0,32679	0,21042
680,74878	0,1977	0,27138	0,24877	0,17198	0,3272	0,21103
678,82031	0,19745	0,2716	0,24912	0,17148	0,32727	0,21042
676,89185	0,19725	0,27158	0,24913	0,17271	0,32731	0,21146
674,96338	0,19729	0,27189	0,24999	0,17342	0,32767	0,21181
673,03491	0,19734	0,27255	0,25048	0,1734	0,3272	0,21184
671,10645	0,19738	0,27265	0,25064	0,17337	0,32721	0,21186
669,17798	0,19743	0,27276	0,25081	0,17334	0,32794	0,21189
667,24951	0,19747	0,27287	0,25097	0,17332	0,3259	0,21191
665,32104	0,19751	0,27298	0,25114	0,17329	0,32622	0,21193
663,39258	0,19756	0,27308	0,2513	0,17326	0,3272	0,21196
661,46411	0,1976	0,27319	0,25147	0,17324	0,32436	0,21198
659,53564	0,19765	0,2733	0,25163	0,17321	0,32384	0,21201
657,60718	0,19769	0,27341	0,2518	0,17318	0,32654	0,21203
655,67871	0,19774	0,27351	0,25196	0,17315	0,32618	0,21205
653,75024	0,19799	0,27362	0,25213	0,17313	0,32552	0,21208
651,82178	0,1985	0,27373	0,25229	0,1731	0,32727	0,2121
649,89331	0,19887	0,27384	0,25246	0,17307	0,3276	0,21213
647,96484	0,19886	0,27395	0,25262	0,17305	0,32744	0,21201
646,03638	0,19883	0,27405	0,25279	0,17302	0,32802	0,21188
644,10791	0,19896	0,27436	0,25322	0,17299	0,32853	0,21182
642,17944	0,19909	0,27428	0,2538	0,17297	0,32929	0,21238
640,25098	0,19929	0,27459	0,25431	0,17233	0,32957	0,21217
638,32251	0,19943	0,274	0,25429	0,17154	0,32954	0,21216
636,39404	0,1993	0,27387	0,25511	0,17129	0,32934	0,21257
634,46558	0,19899	0,2746	0,25554	0,17083	0,32875	0,21256
632,53711	0,19944	0,27446	0,25513	0,1713	0,32881	0,21291
630,60864	0,20004	0,27372	0,25527	0,17208	0,32904	0,21271
628,68018	0,20001	0,27344	0,25548	0,17258	0,32879	0,21254
626,75171	0,20007	0,274	0,25587	0,17229	0,32864	0,21237
624,82324	0,20081	0,27466	0,25601	0,1724	0,32899	0,21222
622,89478	0,20144	0,27481	0,25626	0,17262	0,32909	0,21241
620,96631	0,20148	0,27474	0,2568	0,17213	0,32849	0,21196
619,03784	0,20238	0,27429	0,25619	0,17299	0,32817	0,21208
617,10938	0,20283	0,27424	0,25612	0,17314	0,32836	0,21215
615,18091	0,20174	0,2747	0,25704	0,17199	0,32872	0,21108
613,25244	0,20164	0,27487	0,25758	0,17252	0,32922	0,21061
611,32397	0,20238	0,27545	0,25792	0,17257	0,32931	0,2104
609,39551	0,20335	0,27574	0,2573	0,17132	0,32872	0,21
607,46704	0,20411	0,2757	0,25698	0,17164	0,32871	0,21041
605,53857	0,20388	0,27656	0,25752	0,17247	0,32924	0,21111
603,61011	0,20426	0,27656	0,2576	0,17272	0,32926	0,21174
601,68164	0,20484	0,2756	0,25829	0,17328	0,32967	0,21249
599,75317	0,20496	0,27574	0,25867	0,17306	0,32989	0,21257
597,82471	0,2059	0,27589	0,25811	0,17306	0,32937	0,21223
595,89624	0,20665	0,27553	0,25876	0,17424	0,32961	0,21223
593,96777	0,20664	0,27617	0,25964	0,17391	0,33012	0,21235
592,03931	0,20695	0,27703	0,25949	0,17258	0,33056	0,21232

590,11084	0,20731	0,27677	0,25877	0,17314	0,33097	0,21246
588,18237	0,20723	0,27684	0,25872	0,17349	0,33094	0,21301
586,25391	0,20722	0,27788	0,25956	0,17288	0,3313	0,21398
584,32544	0,20727	0,27864	0,25939	0,17332	0,33196	0,21471
582,39697	0,20718	0,27947	0,2593	0,17306	0,33246	0,21499
580,46851	0,208	0,28041	0,25999	0,17376	0,333	0,21607
578,54004	0,2089	0,28076	0,25998	0,17595	0,33359	0,21664
576,61157	0,2085	0,28079	0,26041	0,17559	0,33405	0,21614
574,68311	0,20848	0,28027	0,26108	0,17539	0,3341	0,21682
572,75464	0,20894	0,28014	0,26105	0,17637	0,33404	0,21806
570,82617	0,20876	0,28109	0,26171	0,17608	0,33428	0,21885
568,89771	0,20902	0,28193	0,26261	0,17647	0,33487	0,21914
566,96924	0,20986	0,28235	0,26294	0,17748	0,33516	0,21944
565,04077	0,21038	0,28287	0,26383	0,17808	0,33514	0,22103
563,1123	0,2107	0,28389	0,26514	0,17906	0,33582	0,22194
561,18384	0,21144	0,28523	0,26584	0,18017	0,33691	0,22141
559,25537	0,21175	0,28585	0,26683	0,18152	0,33801	0,22242
557,3269	0,21176	0,28633	0,26815	0,18293	0,33869	0,22406
555,39844	0,21315	0,28786	0,26894	0,1836	0,33898	0,22424
553,46997	0,21445	0,28968	0,27063	0,18477	0,34089	0,22524
551,5415	0,21505	0,29126	0,27269	0,18655	0,34348	0,227
549,61304	0,21615	0,29324	0,27374	0,18723	0,34533	0,22773
547,68457	0,21675	0,29523	0,27609	0,18767	0,34777	0,22825
545,7561	0,21796	0,29657	0,27808	0,18945	0,35001	0,22999
543,82764	0,22078	0,29849	0,27842	0,19156	0,3521	0,23316
541,89917	0,22321	0,30103	0,28095	0,19306	0,35519	0,2354
539,9707	0,22491	0,30326	0,28446	0,19536	0,35826	0,23656
538,04224	0,22731	0,30771	0,28765	0,19764	0,36199	0,23804
536,11377	0,23057	0,31297	0,29168	0,19892	0,36683	0,24028
534,1853	0,23294	0,31672	0,29529	0,20121	0,37201	0,24397
532,25684	0,23494	0,32276	0,30025	0,20252	0,37759	0,24513
530,32837	0,23932	0,32862	0,30457	0,20492	0,38392	0,24727
528,3999	0,24415	0,33466	0,31004	0,20726	0,39228	0,25029
526,47144	0,24749	0,34583	0,32091	0,2059	0,4033	0,24881
524,54297	0,25184	0,35264	0,32729	0,2091	0,41226	0,25284
522,6145	0,25731	0,35718	0,33072	0,21458	0,41865	0,25991
520,68604	0,26284	0,37092	0,34104	0,21679	0,43082	0,2614
518,75757	0,26859	0,38455	0,35153	0,21896	0,44676	0,26402
516,8291	0,27385	0,39423	0,35931	0,22065	0,46006	0,26918
514,90063	0,28032	0,40336	0,36642	0,22405	0,47197	0,27258
512,97217	0,28638	0,41352	0,37336	0,22858	0,48336	0,27612
511,0437	0,28996	0,42974	0,38512	0,23123	0,49969	0,2826
509,11523	0,29695	0,44527	0,39879	0,23385	0,52263	0,28768
507,18677	0,30435	0,45915	0,40759	0,23624	0,54035	0,2907
505,2583	0,30784	0,47091	0,41462	0,23688	0,54965	0,29436
503,32983	0,31238	0,48164	0,42677	0,23812	0,56661	0,29772
501,40137	0,3139	0,49335	0,43453	0,24054	0,58302	0,30152
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VD439	VD441

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0,20742	0,20996
0,20876	0,21104
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0,20898	0,21122
0,20894	0,21091
0,20779	0,20993
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0,2104	0,21212
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0,20779	0,2098
0,20737	0,20956
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0,20557	0,20754
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0,20397	0,20593
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0,20242	0,20448
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0,20233	0,20407
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0,20221	0,20395
0,20224	0,20403
0,20234	0,20415
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0,20223	0,20408
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0,20205	0,20385



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0,20194	0,20385
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0,20197	0,20361
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0,20196	0,20364
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0,20225	0,20392
0,2023	0,20396
0,20242	0,20408
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0,20868	0,21093
0,2087	0,21098
0,2088	0,21106
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0,20881	0,21113
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0,20889	0,21131

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0,22934	0,23313
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0,22931	0,23293
0,2294	0,23298
0,22909	0,23277
0,22968	0,23311
0,22799	0,23173
0,22846	0,23256
0,23055	0,23465
0,23024	0,23453
0,22915	0,23343
0,22927	0,2338
0,23006	0,23481
0,2301	0,23451
0,22761	0,23182
0,22787	0,23263
0,22922	0,23356
0,22963	0,23355
0,22917	0,23326
0,22851	0,23259
0,22909	0,23306
0,22936	0,23322
0,22859	0,23262
0,23005	0,23376
0,22916	0,23277
0,22726	0,23117
0,22869	0,23264
0,22929	0,23307
0,2277	0,23161
0,22874	0,23248
0,22891	0,23259

0,22747	0,23139
0,22937	0,23289
0,22923	0,23264
0,22666	0,23052
0,22797	0,23173
0,22893	0,23244
0,22857	0,23219
0,22866	0,23225
0,22884	0,23249
0,22871	0,2326
0,22801	0,23204
0,22881	0,23274
0,2294	0,2332
0,22858	0,23251
0,22939	0,2332
0,22951	0,23322
0,22926	0,2332
0,23039	0,2344
0,23098	0,23486
0,22967	0,23383
0,2293	0,2336
0,23025	0,23441
0,23082	0,23491
0,23062	0,23457
0,23075	0,23462
0,2302	0,23425
0,22947	0,23347
0,23024	0,23407
0,23042	0,23421
0,23018	0,23378
0,23074	0,23423
0,23025	0,23391
0,22962	0,23327
0,23037	0,23374
0,23069	0,23405
0,23053	0,2341
0,23054	0,23414
0,23071	0,23426
0,23075	0,23438
0,23084	0,23457
0,23097	0,23494
0,23104	0,23515
0,23117	0,23519
0,23073	0,23486
0,2303	0,23445
0,23077	0,2347
0,23107	0,23501
0,23111	0,23515

0,23133	0,23533
0,23153	0,23556
0,23167	0,2359
0,23179	0,23609
0,23193	0,23609
0,23213	0,23622
0,23214	0,23622
0,23219	0,23615
0,23233	0,23618
0,23216	0,23606
0,23224	0,23611
0,23252	0,2363
0,23253	0,23636
0,23269	0,23652
0,23293	0,23665
0,23301	0,23682
0,23316	0,23716
0,23339	0,23746
0,23361	0,23782
0,23398	0,23834
0,23455	0,23888
0,23509	0,23937
0,23555	0,23994
0,23612	0,24077
0,23666	0,24167
0,23727	0,24257
0,23802	0,2437
0,23844	0,24473
0,23886	0,24543
0,2395	0,24619
0,23989	0,24701
0,24038	0,24792
0,24122	0,24904
0,24193	0,25002
0,24239	0,25061
0,24256	0,25095
0,2424	0,25099
0,2421	0,2506
0,24157	0,24989
0,24081	0,24897
0,24005	0,2478
0,23919	0,24646
0,23836	0,24524
0,23776	0,24421
0,23722	0,24334
0,23683	0,24277
0,23645	0,24227
0,23595	0,24181



0,23566	0,24149
0,23548	0,24107
0,23537	0,2408
0,23531	0,24085
0,23518	0,24084
0,23524	0,24071
0,23524	0,24053
0,23505	0,24027
0,23496	0,23999
0,23474	0,23967
0,23444	0,23933
0,23426	0,23909
0,23426	0,23894
0,23455	0,23905
0,2348	0,23951
0,23471	0,23975
0,23446	0,2396
0,23434	0,2395
0,23422	0,23935
0,23378	0,23894
0,23327	0,23851
0,23311	0,23828
0,23307	0,23815
0,23295	0,23792
0,2329	0,23774
0,23291	0,23771
0,23294	0,23766
0,23296	0,23748
0,23291	0,23735
0,23301	0,23739
0,23313	0,23749
0,23311	0,23764
0,23317	0,23773
0,23321	0,23766
0,23315	0,23761
0,2331	0,23763
0,2332	0,23768
0,23335	0,23777
0,2334	0,23772
0,23344	0,23763
0,23357	0,23768
0,23372	0,23774
0,23392	0,23778
0,23405	0,23792
0,23396	0,23805
0,23387	0,23808
0,23394	0,23815
0,23413	0,23832

0,23429	0,23863
0,23436	0,23901
0,23439	0,23907
0,23438	0,23885
0,23419	0,23866
0,23403	0,23854
0,23421	0,23863
0,23431	0,2388
0,23437	0,23886
0,23471	0,23902
0,23492	0,23924
0,23498	0,23949
0,23517	0,23967
0,23525	0,23955
0,2351	0,23923
0,23497	0,23903
0,23496	0,23895
0,23506	0,23891
0,23524	0,23896
0,23524	0,23897
0,23512	0,23896
0,23518	0,23906
0,23538	0,23911
0,2356	0,23924
0,23578	0,23951
0,23587	0,23961
0,23591	0,23972
0,23601	0,23993
0,23611	0,24
0,23612	0,2401
0,23622	0,24017
0,23617	0,24
0,23605	0,24002
0,23634	0,24022
0,2366	0,2403
0,23663	0,24048
0,23682	0,24076
0,237	0,24106
0,23696	0,24134
0,23693	0,24138
0,23697	0,24122
0,23694	0,24129
0,23696	0,24161
0,23716	0,24177
0,23751	0,2419
0,23787	0,24215
0,23807	0,24252
0,23844	0,24339

0,23917	0,24459
0,24004	0,24589
0,24102	0,24736
0,24178	0,24861
0,2422	0,24941
0,24254	0,24995
0,24264	0,25021
0,24252	0,25022
0,24261	0,25032
0,24321	0,25082
0,24436	0,25183
0,24556	0,25322
0,24671	0,25486
0,24802	0,25677
0,24907	0,25833
0,24953	0,25862
0,24928	0,25782
0,2485	0,25656
0,24751	0,2548
0,24627	0,25263
0,24497	0,25075
0,24386	0,24915
0,24299	0,24771
0,24252	0,24676
0,24214	0,24616
0,24152	0,24568
0,241	0,24524
0,24089	0,24487
0,24088	0,24475
0,24066	0,24448
0,24038	0,24409
0,24021	0,24395
0,24015	0,24406
0,24037	0,24428
0,24065	0,24423
0,24069	0,24415
0,24067	0,24419
0,24056	0,24392
0,24053	0,24373
0,24079	0,24407
0,24102	0,24434
0,24121	0,24433
0,24142	0,2445
0,24147	0,24456
0,2415	0,24448
0,24157	0,24465
0,24163	0,24471
0,24176	0,2447

0,2417	0,24481
0,24141	0,24484
0,24134	0,24496
0,24152	0,24517
0,24178	0,24539
0,24199	0,24557
0,24195	0,24564
0,24193	0,2458
0,242	0,24595
0,24203	0,24598
0,24217	0,24593
0,24225	0,24575
0,24235	0,24556
0,24256	0,24548
0,24259	0,24538
0,24279	0,24548
0,24338	0,2459
0,24365	0,246
0,24331	0,24589
0,24295	0,24607
0,24296	0,24619
0,24294	0,24614
0,24289	0,24627
0,24308	0,24651
0,24318	0,2468
0,24354	0,2472
0,24415	0,24729
0,24419	0,24697
0,24415	0,24695
0,24447	0,24699
0,24462	0,24686
0,24476	0,24696
0,24491	0,24693
0,24481	0,24683
0,24469	0,24679
0,24471	0,24641
0,2447	0,24623
0,24465	0,24655
0,24468	0,24674
0,24469	0,24657
0,24473	0,24647
0,24482	0,24655
0,24489	0,24653
0,24502	0,2466
0,24513	0,2468
0,24523	0,24708
0,24544	0,24764
0,24561	0,24799

0,24569	0,24797
0,246	0,24828
0,24658	0,24881
0,24692	0,2491
0,2469	0,24918
0,24684	0,24911
0,2467	0,24913
0,2467	0,24946
0,24688	0,24975
0,2469	0,24989
0,24687	0,25008
0,24684	0,25006
0,24693	0,24988
0,24736	0,24983
0,24763	0,24991
0,24766	0,24988
0,24813	0,24981
0,24874	0,24998
0,24867	0,25007
0,24853	0,2501
0,24879	0,25044
0,24877	0,25047
0,2486	0,25013
0,24862	0,24997
0,24851	0,24988
0,24845	0,24984
0,2486	0,25
0,24885	0,25036
0,24928	0,25076
0,24951	0,25112
0,24949	0,25133
0,24972	0,25123
0,24983	0,25129
0,24975	0,25154
0,24991	0,25148
0,24992	0,25135
0,24958	0,25135
0,2494	0,25113
0,24954	0,25109
0,24944	0,25148
0,24934	0,25176
0,24966	0,25186
0,24976	0,25204
0,24969	0,25201
0,24966	0,25157
0,24968	0,2513
0,24996	0,25113
0,24983	0,25072

0,24938	0,25079
0,24917	0,25105
0,24923	0,25103
0,24964	0,25119
0,24988	0,2512
0,24991	0,2512
0,25001	0,25124
0,24977	0,25069
0,24955	0,25048
0,24964	0,2509
0,24953	0,25084
0,24961	0,25075
0,25006	0,25107
0,24998	0,25111
0,24989	0,251
0,25036	0,251
0,25066	0,25085
0,25078	0,25098
0,25082	0,25147
0,25088	0,25168
0,25126	0,25201
0,25154	0,25277
0,25163	0,2531
0,25183	0,25283
0,25187	0,25239
0,25181	0,25222
0,25183	0,25224
0,2516	0,25199
0,25112	0,25179
0,25117	0,252
0,2518	0,25235
0,2522	0,25253
0,25261	0,25262
0,25317	0,25315
0,25324	0,25381
0,25311	0,25422
0,25318	0,25482
0,25313	0,25534
0,25337	0,25553
0,25399	0,25581
0,25416	0,25622
0,25415	0,25647
0,25481	0,25658
0,25558	0,257
0,25589	0,25747
0,25604	0,25744
0,25588	0,25742
0,25566	0,25759

0,25599	0,25761
0,25644	0,25774
0,25653	0,25781
0,25679	0,25803
0,25718	0,25805
0,25704	0,25811
0,25705	0,25817
0,25706	0,25823
0,25707	0,25829
0,25708	0,25835
0,2571	0,25841
0,25704	0,25846
0,25698	0,25852
0,25733	0,25858
0,2565	0,25842
0,25616	0,258
0,25635	0,25758
0,2568	0,25746
0,25745	0,2574
0,25759	0,25747
0,25734	0,25769
0,25699	0,25766
0,25693	0,2577
0,25748	0,258
0,25716	0,25771
0,25643	0,25754
0,25714	0,25806
0,25741	0,25766
0,25666	0,25667
0,25643	0,256
0,25637	0,2559
0,25625	0,25632
0,2564	0,2562
0,25689	0,2563
0,25702	0,25638
0,25639	0,25575
0,25589	0,25596
0,25569	0,25625
0,25597	0,25614
0,25634	0,25595
0,25637	0,25535
0,25668	0,25578
0,2568	0,2566
0,25658	0,25674
0,25698	0,257
0,25753	0,25695
0,25742	0,25678
0,25708	0,25698

0,25747	0,25715
0,2582	0,25718
0,25822	0,2576
0,25805	0,25825
0,25864	0,2583
0,25978	0,25885
0,2601	0,2598
0,25994	0,25995
0,26114	0,26038
0,26254	0,2608
0,26291	0,26095
0,2636	0,2618
0,26454	0,26275
0,26502	0,26397
0,26549	0,26528
0,26616	0,2655
0,26675	0,26573
0,26758	0,26714
0,26889	0,26847
0,26996	0,26929
0,27176	0,27125
0,27471	0,27348
0,27695	0,27512
0,27951	0,27795
0,28298	0,28146
0,28608	0,28527
0,28939	0,28922
0,29317	0,29267
0,29756	0,29696
0,3022	0,30172
0,30723	0,30701
0,31336	0,3136
0,32142	0,32205
0,33099	0,33199
0,33937	0,33986
0,34753	0,34785
0,35809	0,35894
0,37123	0,37093
0,38084	0,38214
0,38548	0,39166
0,39639	0,40171
0,41146	0,41329
0,42268	0,42741
0,43058	0,44249
0,43778	0,45054
0,45088	0,45943
0,45913	0,46932
0,46098	0,47221



APPENDICE C

TESTS DE FLOTTATION - DÉSULFURATION CONCENTRÉ D'HÉMO-ILMÉNITE-  
RTFT & MINERAI ARSÉNIFÈRE DE LA MINE LAPA (CD-ROM)

C1-Cinétique							
DATE	Echantillon	N° Echantillon	N° Série	Cont-nat (g)	Cont-act (g)	% Actif	% Tot
7 mars 2011	C1.mn.	C1-VQ-DT 12	10221	21.0	0.0	0.02	42.39
C2-Cinétique							
7 mars 2011	C2.mn.	C2-VQ-DT 12	10222	0.7	0.0	0.00	42.89
C3-Cinétique							
7 mars 2011	C3.mn.	C3-VQ-DT 12	10223	22.4	0.0	0.00	27.14
C1ép-Cinétique							
7 mars 2011	C1ép.mn.	C1ép-VQ-DT 12	10224	29.1	0.0	0.12	12.47
C2ép-Cinétique							
7 mars 2011	C2ép.mn.	C2ép-VQ-DT 12	10225	4.1	0.0	0.00	5.11
C3ép-Cinétique							
7 mars 2011	C3ép.mn.	C3ép-VQ-DT 12	10226	8.2	0.0	0.19	16.42
Concentré							
DATE	Echantillon	N° Echantillon	N° Série	Cont-nat (g)	Cont-act (g)	% Actif	% Tot
22 mars 2011	Concentré	C-VQ-DT 7	1781	76.1	0.0	0.00	11.00
22 mars 2011	Concentré	C-VQ-DT 1	1782	129.6	14.2	0.00	44.74
22 mars 2011	Concentré	C-VQ-DT 2	1783	76.8	11.6	0.00	46.32
22 mars 2011	Concentré	C-VQ-DT 3	1784	124.4	16.8	0.00	45.86
22 mars 2011	Concentré	C-VQ-DT 4	1785	104.8	15.0	0.00	41.00
22 mars 2011	Concentré	C-VQ-DT 5	1786	107.1	16.9	0.00	51.10
22 mars 2011	Concentré	C-VQ-DT 6	1787	116	17.2	0.00	48.80
24 mars 2011	Concentré	C-VQ-DT 7	1788	102.8	19.9	0.00	46.86
24 mars 2011	Concentré	C-VQ-DT 8	1789	104.0	15.6	0.00	46.12
24 mars 2011	Concentré	C-VQ-DT 9	1790	109.0	15.0	0.00	44.04
24 mars 2011	Concentré	C-VQ-DT 10	1791	102.9	20.4	0.00	46.84
7 mars 2011	Concentré	C-VQ-DT 11	1792	126.0	17.16	0.00	46.72
7 mars 2011	Concentré	C-VQ-DT 12	1793	120.8	19.2	0.00	46.26
8 mars 2011	Concentré	C-VQ-DT 13	1794	121.1	15.0	0.00	46.72
8 mars 2011	Concentré	C-VQ-DT 14	1795	124.1	12.2	0.00	46.46
8 mars 2011	Concentré	C-VQ-DT 15	1796	100.8	12.9	0.00	46.24
8 mars 2011	Concentré	C-VQ-DT 16	1797	107.0	12.8	0.00	46.22
10 mars 2011	Concentré	C-VQ-DT 17	1798	110.0	11.2	0.00	44.22
10 mars 2011	Concentré	C-VQ-DT 18	1799	124.8	22.0	0.00	54.40
8 mars 2011	Concentré	C-VQ-DT 19	1800	104.0	11.10	0.00	6.87
Concentré épuré							
DATE	Echantillon	N° Echantillon	N° Série	Cont-nat (g)	Cont-act (g)	% Actif	% Tot
7 mars 2011	Concentré épuré	CEP-VQ-DT 11	10227	21.0	0.0	0.00	22.89
7 mars 2011	Concentré épuré	CEP-VQ-DT 12	10228	17.4	0.0	0.00	10.27
8 mars 2011	Concentré épuré	CEP-VQ-DT 13	10229	10.8	0.0	0.00	10.89
8 mars 2011	Concentré épuré	CEP-VQ-DT 14	10230	11.8	0.0	0.00	17.22
8 mars 2011	Concentré épuré	CEP-VQ-DT 15	10231	8.0	0.0	0.19	26.87
8 mars 2011	Concentré épuré	CEP-VQ-DT 16	10232	10.0	0.0	0.24	29.22
10 mars 2011	Concentré épuré	CEP-VQ-DT 17	10233	27.1	0.0	0.00	6.40
10 mars 2011	Concentré épuré	CEP-VQ-DT 18	10234	39.2	12.7	0.00	2.11
8 mars 2011	Concentré épuré	CEP-VQ-DT 19	10235	76.0	20.0	0.00	0.81
Résidus							
DATE	Echantillon	N° Echantillon	N° Série	Cont-nat (g)	Cont-act (g)	% Actif	% Tot
22 mars 2011	Talling c	F-VQ-DT 7	1782	400.0	101.0	0.00	0.00
22 mars 2011	Talling c	F-VQ-DT 1	1783	426.8	159.7	0.00	0.23
22 mars 2011	Talling c	F-VQ-DT 2	1784	444.0	107.1	0.00	0.26
22 mars 2011	Talling c	F-VQ-DT 3	1785	426.7	140	0.00	0.17
22 mars 2011	Talling c	F-VQ-DT 4	1786	403.2	120	0.00	0.22
22 mars 2011	Talling c	F-VQ-DT 5	1787	424.2	120.0	0.00	0.20
24 mars 2011	Talling c	F-VQ-DT 7	1789	421.6	107.6	0.00	0.26
24 mars 2011	Talling c	F-VQ-DT 8	1790	441.8	114.4	0.00	0.29
24 mars 2011	Talling c	F-VQ-DT 9	1791	410.0	106.0	0.00	0.26
24 mars 2011	Talling c	F-VQ-DT 10	1792	421.0	107.7	0.00	0.26
7 mars 2011	Talling c	F-VQ-DT 11	1793	420.0	107.7	0.00	0.26
7 mars 2011	Talling c	F-VQ-DT 12	1794	426.8	106.0	0.00	0.29
8 mars 2011	Talling c	F-VQ-DT 13	1795	418.0	104.0	0.00	0.23
8 mars 2011	Talling c	F-VQ-DT 14	1796	426.7	100.1	0.00	0.20
8 mars 2011	Talling c	F-VQ-DT 15	1797	426.9	104.4	0.00	0.26
8 mars 2011	Talling c	F-VQ-DT 16	1798	421.2	107.0	0.00	0.20
10 mars 2011	Talling c	F-VQ-DT 17	1799	444.4	104.0	0.00	0.20
10 mars 2011	Talling c	F-VQ-DT 18	1800	440.7	109.0	0.00	0.19
8 mars 2011	Talling c	F-VQ-DT 19	1801	442.7	100.0	0.00	0.27
Alimentation recalculée							
DATE	Echantillon	N° Echantillon	N° Série	Cont-nat (g)	Cont-act (g)	% Actif	% Tot
22 mars 2011	reast. head	F-VQ-DT 0	1024	807.0	100.4	100.00	0.41
22 mars 2011	reast. head	F-VQ-DT 1	1025	809.0	101.1	100.00	0.44
22 mars 2011	reast. head	F-VQ-DT 2	1026	807.1	100.0	100.00	0.40
22 mars 2011	reast. head	F-VQ-DT 3	1027	810.0	100.8	100.00	0.44
22 mars 2011	reast. head	F-VQ-DT 4	1028	841.1	107.0	100.00	0.42
22 mars 2011	reast. head	F-VQ-DT 5	1029	810.0	100.0	100.00	0.44
22 mars 2011	reast. head	F-VQ-DT 6	1030	810.0	107.6	100.00	0.20
24 mars 2011	reast. head	F-VQ-DT 7	1031	810.0	104.4	100.00	0.24
24 mars 2011	reast. head	F-VQ-DT 8	1032	810.0	102.8	100.00	0.20
24 mars 2011	reast. head	F-VQ-DT 9	1033	810.0	107.8	100.00	0.24
24 mars 2011	reast. head	F-VQ-DT 10	1034	804.7	107.0	100.00	0.20
7 mars 2011	reast. head	F-VQ-DT 11	1035	807.0	109.0	100.00	0.20
7 mars 2011	reast. head	F-VQ-DT 12	1036	807.0	100.0	100.00	0.20
8 mars 2011	reast. head	F-VQ-DT 13	1037	810.0	102.2	100.00	0.21
8 mars 2011	reast. head	F-VQ-DT 14	1038	804	107.0	100.00	0.20
8 mars 2011	reast. head	F-VQ-DT 15	1039	810.0	100.0	100.00	0.21
8 mars 2011	reast. head	F-VQ-DT 16	1040	810.0	100.0	100.00	0.21
10 mars 2011	reast. head	F-VQ-DT 17	1041	810.0	107.7	100.00	0.20
10 mars 2011	reast. head	F-VQ-DT 18	1042	810.0	104.4	100.00	0.21
8 mars 2011	reast. head	F-VQ-DT 19	1043	809	104.1	100.00	0.20
Résidus + concentré épuré							
DATE	Echantillon	N° Echantillon	N° Série	Cont-nat (g)	Cont-act (g)	% Actif	% Tot
7 mars 2011	Talling osans ep	T+CEP-VQ-DT 11	10237	100.0	0.0	0.00	0.26
7 mars 2011	Talling osans ep	T+CEP-VQ-DT 12	10238	100.0	0.0	0.00	0.14
8 mars 2011	Talling osans ep	T+CEP-VQ-DT 13	10239	100.0	0.0	0.00	0.10
8 mars 2011	Talling osans ep	T+CEP-VQ-DT 14	10240	100.0	0.0	0.00	0.19
8 mars 2011	Talling osans ep	T+CEP-VQ-DT 15	10241	100.0	0.0	0.00	0.19
8 mars 2011	Talling osans ep	T+CEP-VQ-DT 16	10242	100.0	0.0	0.00	0.20
10 mars 2011	Talling osans ep	T+CEP-VQ-DT 17	10243	100.0	0.0	0.00	0.17
10 mars 2011	Talling osans ep	T+CEP-VQ-DT 18	10244	100.0	0.0	0.00	0.19
8 mars 2011	Talling osans ep	T+CEP-VQ-DT 19	10245	100.0	0.0	0.00	0.24



APPENDICE D

OBSERVATIONS MEB - DÉSULFURATION MINÉRAI ARSÉNIFÈRE DE LA MINE

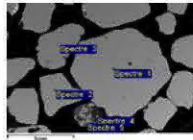
LAPA (CD-ROM)

Legende  
 Pyrite (Ni 0.7%; Co 0.2%)  
 Chalcopyrite (Ni 0.7%)  
 Millerite (Ferriate Fe 1.2%)  
 Sphérite (Fe 0%)

Opac 10-11um

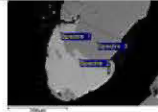
specie1			specie5		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	57	69.48	S	57	69.44
Fe	43	30.52	Fe	40	30.56

specie1 et 3: pyrite



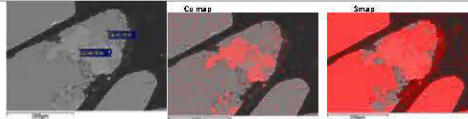
Opac 10-11um

specie1			specie2			specie3		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	38	53.02	S	56	69.31	S	57	69.6
Fe	30	23.82	Fe	29	23.54	Fe	43	30.4
Cu	33	23.15	Cu	33	23.15			



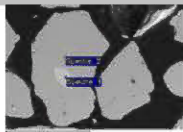
Opac 10-11um

specie1			specie2		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	38	53.3	S	56	69.25
Fe	30	23.82	Fe	41	28.7
Cu	32	22.89	Cu	3	1.95



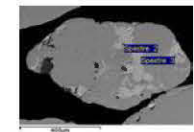
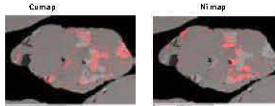
Opac 10-11um

specie1			specie2		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	39	53.52	S	56	69.25
Fe	1	0.43	Fe	44	30.69
Ni	61	46.05			



Opac 10-11um

specie1			specie2		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	39	53.6	S	39	53.83
Fe	1	0.77	Fe	29	23.52
Ni	60	45.63	Cu	32	23.65



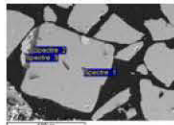
Opac 10-11um

specie2		
Element	%Masse	%Atomique
O	31.15	61.17
Ti	1	0.66
Fe	67.85	38.17



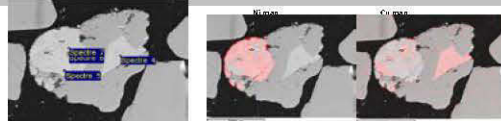
Opac 10-11um

specie1			specie2			specie3		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	57	69.43	O	49.42	66.7	S	38	53.2
Fe	43	30.57	Mg	11.11	9.87	Fe	30	24.03
			Al	4.03	4.82	Cu	32	22.77
			Si	14.88	11.44			
			Fe	18.57	7.18			



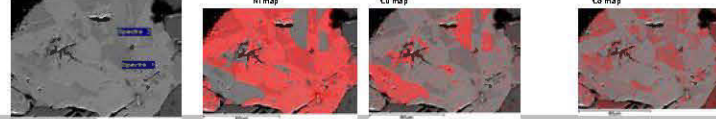
Opac 10-11um

specie2 (me same as specie5)			specie4		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	39	53.84	S	38	53.91
Fe	1	0.72	Fe	30	24.31
Ni	61	45.84	Cu	32	22.78



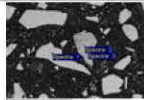
Millerite

specie2			specie2		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	45	60.28	S	39	53.84
Fe	6	4.76	Fe	1	0.72
Co	7	5.14	Ni	61	45.94
Ni	41	29.81			



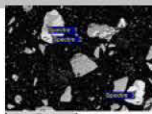
Opac 10-11um

specie1			Millerite specie2			Millerite specie3		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	56	69.3	O	36.53	66.24	O	37.94	65.68
Fe	44	30.7	Ti	9.12	5.52	Mg	1.95	2.22
			Fe	54.35	39.24	Ti	27.87	16.11
						Fe	32.24	15.99

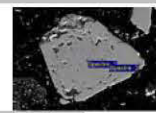


Opac 10-11um

specie1			Cpy			Millerite specie2		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	37.52	30.22	S	38	53.43	S	38	53.14
Fe	42.48	29.78	Fe	29	23.65	Fe	1	0.78
			Cu	33	23.12	Ni	61	46.09

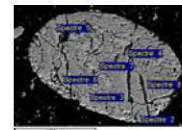


specie1			specie2		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
O	30.15	62.33	S	57	69.92
Fe	67.85	37.67	Fe	43	30.08



Opac 10-11um

Millerite specie1			Millerite specie2			Millerite specie3			Chalcopyrite specie1		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	46	60.89	S	39	53.95	S	46	60.44	S	39	54.31
Fe	7	5.01	Fe	2	1.3	Fe	7	5.09	Fe	28	22.51
Co	4	2.97	Ni	39	48.74	Co	4	2.88	Ni	3	2.04
Ni	40	31.13				Ni	43	31.39	Cu	30	21.15



**Tableau de données 1007**  
 CIX5

specie2			specie3		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	17	69,22	S	38	52,29
Fe	43	30,48	Fe	29	22,62
			Cu	33	23,09



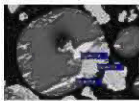
**Tableau de données 1007**  
 C9-IX10

specie1			specie2		
Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	38	53,03	S	56	68,7
Fe	30	23,86	Fe	41	28,86
Cu	32	23,11	Ni	4	2,44



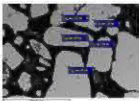
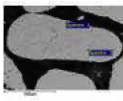
**Tableau de données 1007**  
 zoom2

specie1			specie2			specie3		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	38	53,46	S	57	69,74	S	45	59,69
Fe	30	24,11	Fe	43	30,26	Fe	6	4,77
Cu	32	22,43				Cu	15	10,34
						Ni	34	38,8



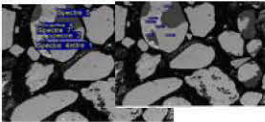
**Tableau de données 1007**  
 C9-IX10

specie1			specie2			specie3			specie4		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	56	69,07	S	56	69,14	S	56	69,14	S	37	51,71
Fe	41	29,13	Fe	43	30,47	Fe	43	30,47	Fe	2	1,67
Ni	3	1,8	Ni	1	0,39	Ni	1	0,39	Ni	61	46,61

**Tableau de données 1007**  
 C11-IX10

specie1			specie2			specie5			specie7		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	54	67,55	S	35	68,37	S	39	67,61	S	39	67,61
Fe	39	27,8	Fe	40	30,65	Fe	7	5,23	Fe	2	1,52
Co	3	2,11	Ni	1	0,98	Ni			Ni	60	1,36
Cu	4	2,55									



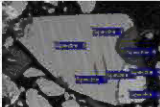
**Tableau de données 1007**  
 zoom

specie1			specie2			specie3		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
O	35	65,23	S	38	69,13	S	56,0	68,93
Fe	65	34,77	Fe	35	24,82	Fe	43,6	30,8
			Ni	9	6,05	Ni	0,4	0,27



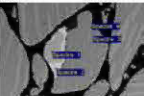
**Tableau de données 1007**  
 C9-IX5

specie2			specie3			specie6			specie7			specie8		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	38	52,27	O	27	66,7	O	27	66,7	O	32	65,66	O	32	65,66
Fe	2	1,39	Ti	11	6,54	Ti	11	6,54	Ti	27	15,65	Na	4	3,17
Ni	60	45,34	Fe	52	26,76	Fe	34	16,74	Fe	34	16,74	Mg	1	0,58
												Al	13	9,9
												Si	34	17,11
												K	0	0,13
												Ca	6	3,03
												Fe	1	0,43



**Tableau de données 1007**  
 C9-IX10

specie1			specie2			specie3			specie4		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	56	69,32	S	38	53,23	O	40	69,09	O	41	68,9
Fe	44	30,68	Fe	29	23,53	Ti	11	6,6	Ti	27	15,19
			Cu	33	23,24	Fe	49	24,31	Fe	33	15,91




**Tableau de données 1007**  
 C9-IX5

specie1		
Element	%Masse	%Atomique
S	57	69,64
Fe	43	30,36



**Tableau de données 1007**  
 C11-IX2

specie1			specie2			specie3			specie4		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	57	69,94	S	38	53,61	S	37	70,13	O	41	68,9
Fe	43	30,06	Fe	30	23,79	Fe	43	29,87			
			Cu	32	22,6						



**Tableau de données 1007**  
 C12-IX5

specie1		
Element	%Masse	%Atomique
S	56	69,34
Fe	44	30,66



**Tableau de données 1007**  
 C11-IX2

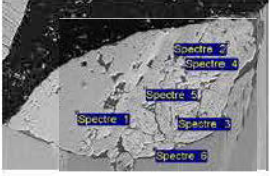
specie1		
Element	%Masse	%Atomique
S	56	69,34
Fe	44	30,66



**Tableau de données 1007**  
 C16-IX5

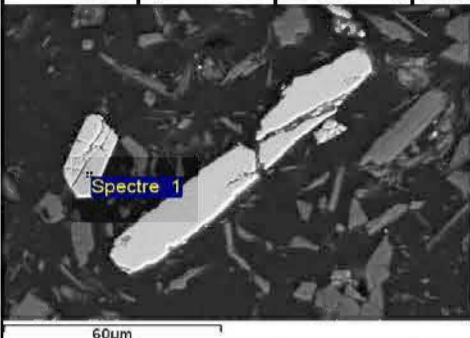
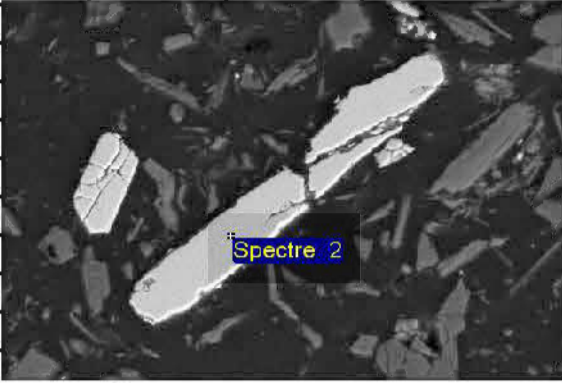

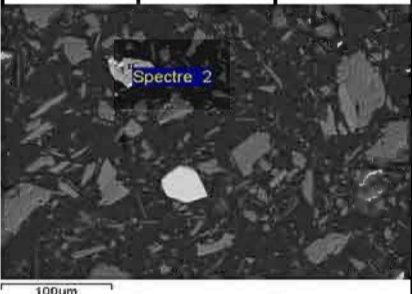
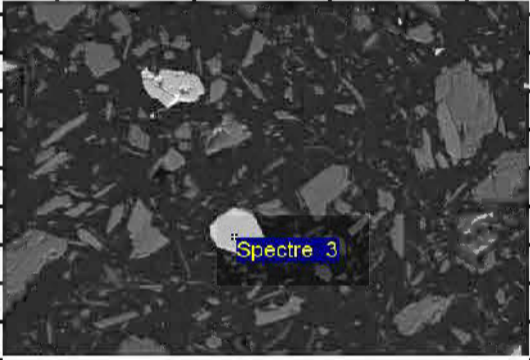

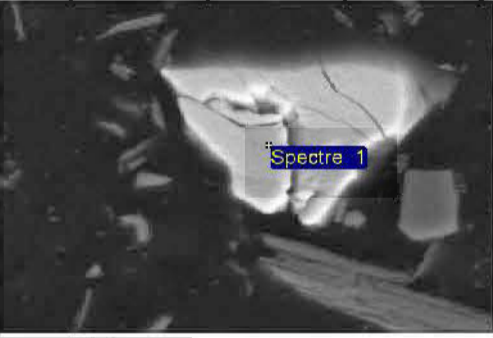

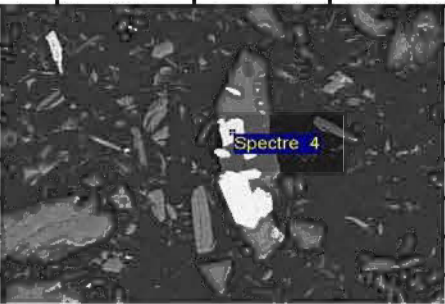
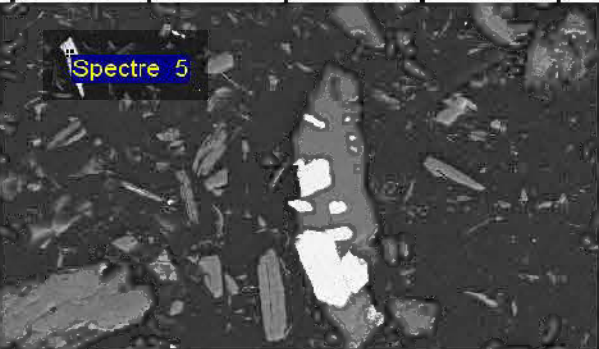
specie1			specie2			specie5			specie6		
Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique	Element	%Masse	%Atomique
S	56	69,34	S	38	53,61	S	37	70,13	O	41	68,9
Fe	44	30,66	Fe	30	23,79	Fe	43	29,87			
			Cu	32	22,6						

S	37	40,21	S	46	40,46	S	20	6,428	S	40	40,19
Fe	57	20,87	Fe	54	26,15	Fe	52	2,596	Fe	5	5,92
Al	7	4,92	Cu	28	1,5,2	Ni	7	4,85	Ca	4	2,77
						Cu	11	9,82	Si	42	10,12



Spectre 1
Spectre 2
Spectre 3
Spectre 4



17032:Alim Lapa										
C1										
spectre1			spectre2			spectre3				
Elément	%Masse	%Atomique	à refaire			Elément	%Masse	%Atomique		
S	23,65	38,74				S	41,22	54,98		
Fe	32,27	30,35				Fe	58,78	45,02		
As	44,08	30,91								
										
C2										
spectre2			spectre3							
Elément	%Masse	%Atomique				Elément	%Masse	%Atomique		
S	42,69	56,48				S	23,04	37,97		
Fe	57,31	43,52				Fe	32,22	30,48		
						As	44,74	31,55		
										
C3										
spectre2						C6				
Elément	%Masse	%Atomique				Elément	%Masse	%Atomique		
S	39,49	54,83				S	38,77	54,09		
Fe	28,86	23,01				Fe	28,77	23,05		
Cu	31,64	22,17				Cu	32,47	22,86		
										
C8										
spectre3			spectre4			spectre5				
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique		
S	23,58	38,68	S	22,85	37,77	S	41,83	55,61		
Fe	32,04	30,17	Fe	31,71	30,09	Fe	58,17	44,39		
As	44,38	31,15	As	45,44	32,14					
										

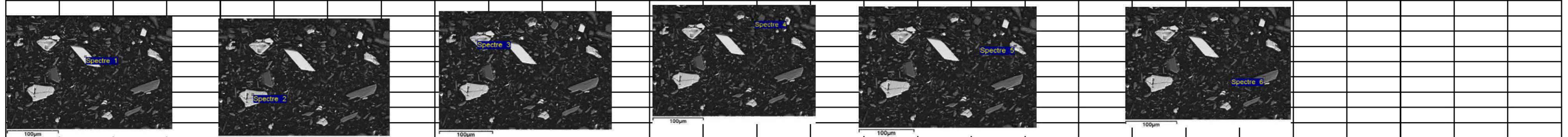




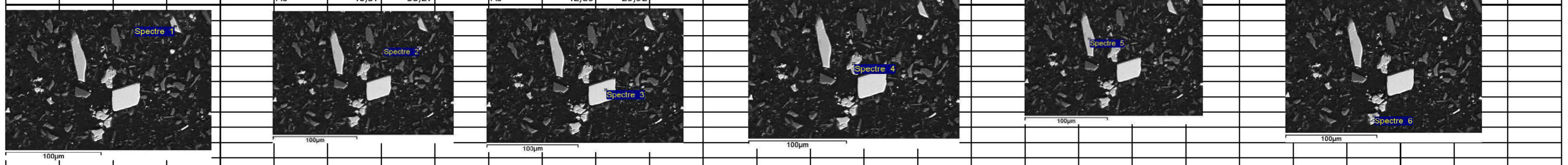


**concentré VDLapa14**

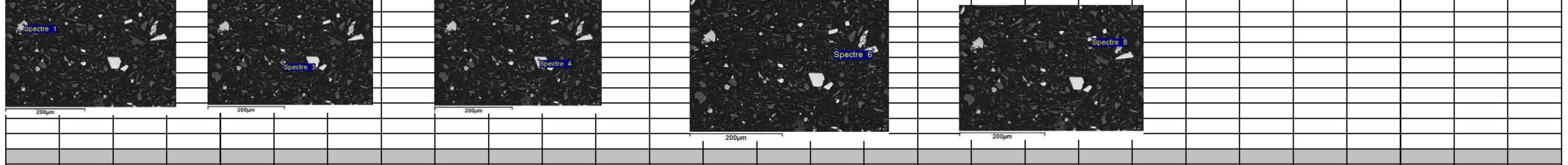
											93,4											
											6,6											
spectre1			spectre2			spectre3			spectre4			spectre5			spectre6							
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique					
S	23,5	38,54	S	42,21	55,99	S	42	56,05	S	24,33	39,56	S	42,26	56,04	O	51,82	67,06					
Fe	32,39	30,5	Fe	57,79	44,01	Fe	58	43,95	Fe	32,73	30,56	Fe	57,74	43,96	Mg	12,34	10,51					
As	44,11	30,96							As	42,94	29,88				Si	24,93	18,38					
															Fe	10,92	4,05					



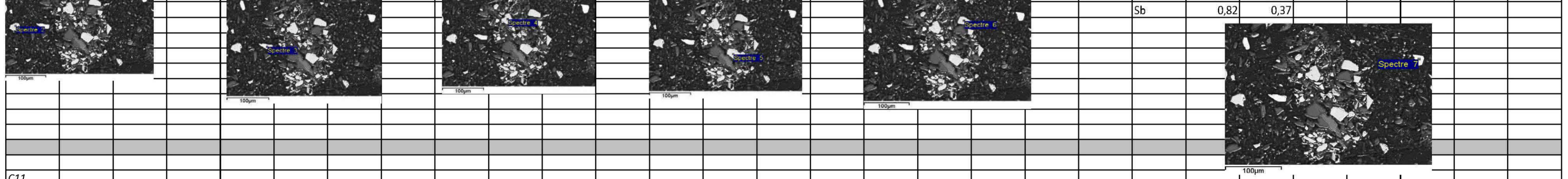
											42,38		56,17		21,83		36,45		23,96		39,05		41,35		55,12		42,31		56,09					
											57,62		43,83		31,6		30,28		33,16		31,03		58,65		44,88		57,69		43,91		57,6		43,82	
spectre1			spectre2			spectre3			spectre4			spectre5			spectre6																			
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique														
S	42,38	56,17	S	21,83	36,45	S	23,96	39,05	S	23,96	39,05	S	23,03	37,88	S	23,47	38,45	S	42,4	56,18														
Fe	57,62	43,83	Fe	31,6	30,28	Fe	32,85	31,02	Fe	32,85	31,02	Fe	33,01	31,17	Fe	32,95	30,99	Fe	57,6	43,82														
			As	46,57	33,27	As	42,89	29,92	As	42,89	29,92	As	43,96	30,95	As	43,58	30,55																	



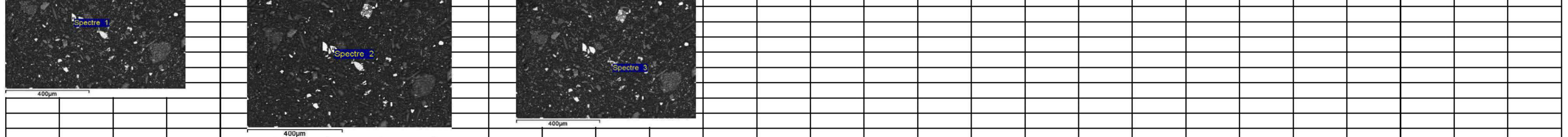
spectre1			spectre3			spectre4			spectre6			spectre7		
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique
S	38,3	53,59	S	23	37,86	S	23,09	37,97	S	23,03	37,88	S	23,47	38,45
Fe	29,21	23,47	Fe	32,79	30,99	Fe	32,85	31,02	Fe	33,01	31,17	Fe	32,95	30,99
Cu	32,49	22,94	As	44,22	31,15	As	44,06	31,01	As	43,96	30,95	As	43,58	30,55



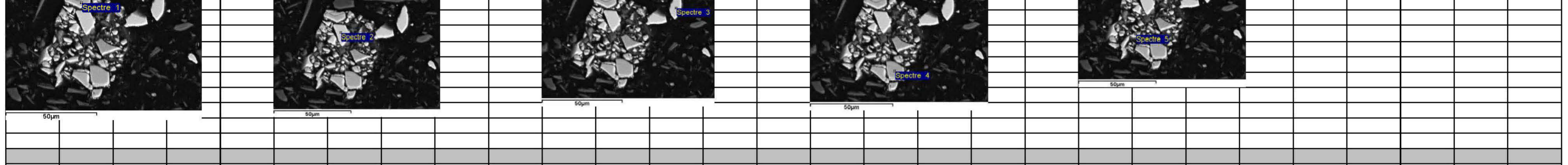
spectre2			spectre3			spectre4			spectre5			spectre6			spectre7			OU	Elément	%Masse	%Atomique
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique		Elément	%Masse	%Atomique
S	42,4	56,18	S	23,92	39,03	S	42,84	56,62	S	42,33	56,12	S	42,39	56,17	S	20,74	35,3		S	21,75	36,67
Fe	57,6	43,82	As	32,87	30,79	Fe	57,16	43,38	Fe	57,28	43,6	Fe	57,61	43,83	Fe	11,9	11,63		Fe	12,14	11,75
			As	43,21	30,17				Ni	0,39	0,28				Co	2,2	2,03		Ni	19,5	17,95
															Ni	18,8	17,48		As	46,61	33,63
															As	45,54	33,18				
															Sb	0,82	0,37				



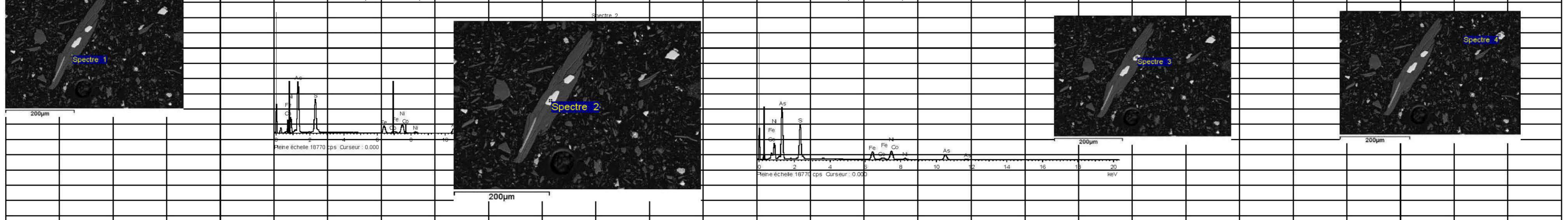
spectre1			spectre2			spectre3		
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique
S	23,53	38,49	S	21,06	35,68	S	43,11	56,9
Fe	33,34	31,31	Fe	8,97	8,73	Fe	56,89	43,1
As	43,13	30,19	Co	11,49	10,59			
			Ni	13,06	12,09			
			As	45,41	32,92			



spectre1			spectre2			spectre3			spectre4			spectre5		
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique
S	42,8	56,58	S	24,56	39,8	S	24,72	40,02	S	43,05	56,84	S	44,3	58,08
Fe	57,2	43,42	Fe	33,25	30,94	Fe	33,01	30,69	Fe	56,95	43,16	Fe	55,7	41,92
			As	42,19	29,26	As	42,27	29,29						



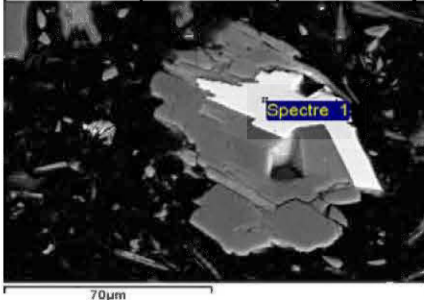
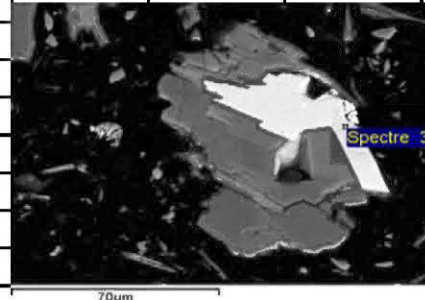
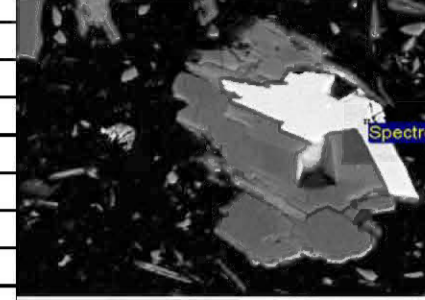
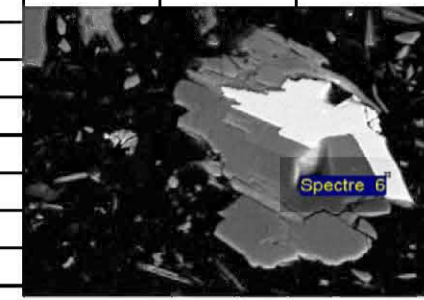
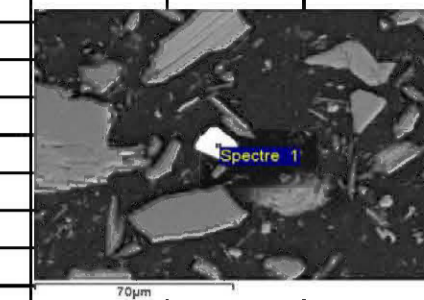
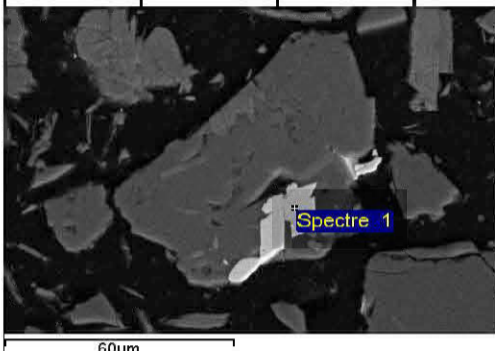
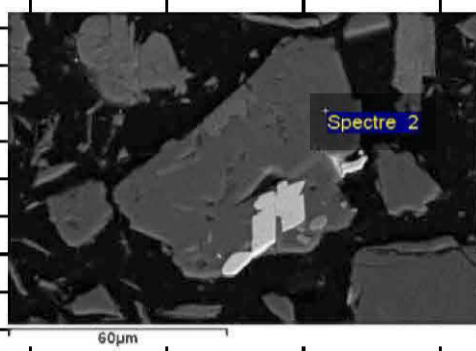
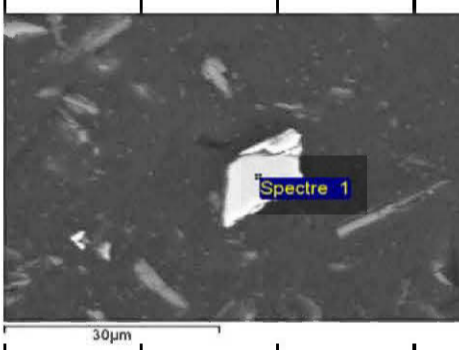
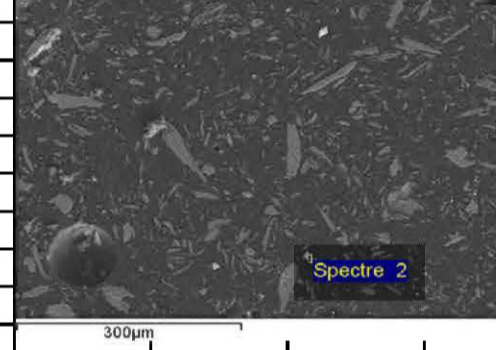
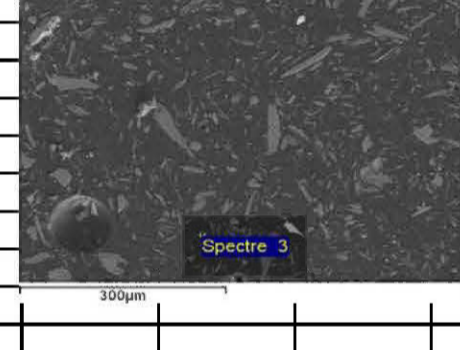
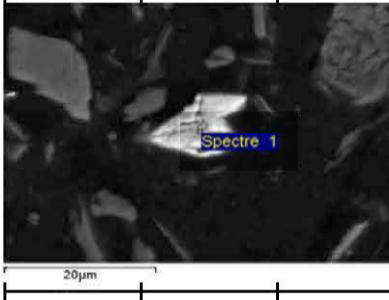
spectre1			spectre2			OU			spectre3			OU			spectre4				
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique		Elément	%Masse	%Atomique	Elément	%Masse	%Atomique		Elément	%Masse	%Atomique	Elément	%Masse	%Atomique
O	51,79	65,3	S	20,25	34,53		S	20,95	35,58	S	20,53	34,89		S	21,3	36,03	S	22,68	37,47
Mg	15,72	13,05	Fe	11,58	11,34		Fe	11,69	11,4	Fe	11,99	11,7		Fe	12,12	11,78	Fe	32,51	30,84
Si	27,77	19,95	Co	2,04	1,89		Ni	20,26	18,79	Co	2,21	2,04		Ni	19,94	18,43	As	44,82	31,69
Fe	4,72	1,7	Ni	19,77	18,42		As	47,1	34,23	Ni	19,43	18,03		As	46,63	33,76			
			As	46,35	33,83					As	45,84	33,34							



C12-Sb		
antimoine		
spectre1		
Elément	%Masse	%Atomique





Rejet VD Lapa 14														
C5-1X40														
spectre1			spectre3			spectre4			spectre6			wolframite		
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique
S	42,99	56,77	S	41,59	55,4	S	41,59	55,4	S	42,65	56,44	O	23,6	68,88
Fe	57,01	43,23	Fe	56,65	43,32	Fe	56,65	43,32	Fe	57,35	43,56	Ca	12,86	14,98
			Ni	1,76	1,28	Ni	1,76	1,28				W	63,55	16,14
														
C17-1X40														
spectre1			spectre2			x=0,21								
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Fe								
S	21,84	36,42	O	51,25	64,67	88	56	32						
Fe	32	30,64	Na	5,39	4,73	S	36	42						
As	46,17	32,95	Al	12,4	9,28		0,79							
			Si	26,62	19,14									
			Ca	4,34	2,18									
														
talc VDLapa14														
C22			C22 général			spectre3								
spectre1			spectre2			spectre3								
Elément	%Masse	%Atomique	Elément	%Masse	%Atomique	Elément	%Masse	%Atomique						
S	22	36,6	S	56,76	69,57	S	57,75	70,42						
Fe	32,37	30,92	Fe	43,24	30,43	Fe	42,25	29,58						
As	45,63	32,48												
														
Sb-sulfure														
Berthierite														
Elément	%Masse	%Atomique												
S	31,11	58,76												
Fe	11,87	12,87												
Sb	57,02	28,36												
														

APPENDICE E

MINI-CELLULES (CD-ROM)



Mesure en dessous de la limite de détection (LDM) donc nous rapportons la demie de la LDM

Echantillon	m eau + bouteille	quantité eau passé	#flush	date	jours	pH	Eh mV/salm	Ehne mV	Conductivité µS/cm	Concentration ponctuelle (mg/L)																								
										Mn																								
										Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Mn	Mg	Mo	N	Ni	Pb	S	Sb	Se	Si	Ti	Zn		
MC-17032-F-01	313.81	28.61	1	2011-04-21	0	8.01	417.8	621.8	126.40	MC-17032-F-01	0.050	2.62	0.046	0.0005	0.01	135	0.028	0.008	0.0015	0.0015	0.003	0.36	0.007	0.002	0.009	0.004	0.004	0.020	0.009	0.090	0.002	0.002	0.065	
MC-17032-F-02	324.60	39.76	2	2011-04-26	4	8.07	378.1	881.0	105.10	MC-17032-F-02	0.050	3.44	0.016	0.0005	0.01	86.4	0.032	0.002	0.0015	0.0015	0.003	3.46	0.003	0.012	0.017	0.01	82.5	10.8	0.05	14.6	0.001	0.001	0.005	
MC-17032-F-03	320	44.63	3	2011-04-28	7	8.17	386.6	659.3	323.3	MC-17032-F-03	0.050	3.17	0.009	0.0005	0.01	39.9	0.030	0.002	0.0015	0.0015	0.003	3.27	0.001	0.0045	0.007	0.01	22.8	8.29	0.05	19.5	0.001	0.002	0.005	
MC-17032-F-04	323.37	37.17	4	2011-05-02	11	7.80	421.0	625.0	333.0	MC-17032-F-04	0.012	2.72	0.008	0.0005	0.01	35.3	0.012	0.002	0.0015	0.0015	0.003	4.93	0.001	0.0045	0.012	0.01	22.8	9.49	0.05	10.2	0.001	0.018	0.018	
MC-17032-F-05	319.42	34.22	5	2011-05-05	14	7.92	466.4	660.4	284.0	MC-17032-F-05	0.017	2.89	0.008	0.0005	0.01	29.7	0.015	0.002	0.0015	0.0015	0.003	4.43	0.002	0.0045	0.007	0.01	14.3	8.49	0.05	5.46	0.001	0.017	0.017	
MC-17032-F-06	322.84	37.44	6	2011-05-09	18	7.95	463.4	637.5	294.0	MC-17032-F-06	0.034	2.80	0.007	0.0005	0.01	36.5	0.016	0.002	0.0015	0.0015	0.003	4.71	0.001	0.0045	0.010	0.01	15.8	8.22	0.05	10.4	0.001	0.016	0.016	
MC-17032-F-07	308.59	23.59	7	2011-05-12	21	8.18	499.4	675.4	190.4	MC-17032-F-07	0.007	0.0005	0.01	23.5	0.016	0.002	0.0015	0.0015	0.003	3.96	0.002	0.0045	0.006	0.01	7.70	5.51	0.05	15.2	0.001	0.027	0.027			
MC-17032-F-08	329.78	44.68	8	2011-05-16	25	7.90	496.7	760.5	198.0	MC-17032-F-08	0.068	2.05	0.007	0.0005	0.01	19.5	0.010	0.002	0.0015	0.0015	0.003	3.49	0.001	0.0045	0.002	0.01	6.41	4.29	0.05	9.62	0.001	0.020	0.020	
MC-17032-F-09	312.94	27.74	9	2011-05-19	28	8.19	474.6	678.5	171.0	MC-17032-F-09	0.051	1.76	0.009	0.0005	0.01	19.5	0.010	0.002	0.0015	0.0015	0.003	3.67	0.002	0.0045	0.002	0.01	6.02	4.17	0.05	9.62	0.001	0.005	0.005	
MC-17032-F-10	323.46	38.24	10	2011-05-23	32	7.97	394.6	659.3	199.7	MC-17032-F-10	0.091	1.69	0.007	0.0005	0.01	19.2	0.005	0.002	0.0015	0.0015	0.003	4.04	0.003	0.0045	0.007	0.01	5.99	4.30	0.05	43.6	0.001	0.044	0.044	
MC-17032-F-11	313.31	28.11	11	2011-05-26	35	8.16	356.3	589.3	177.0	MC-17032-F-11	0.034	1.64	0.009	0.0005	0.01	21.2	0.010	0.002	0.0015	0.0015	0.003	3.65	0.001	0.0045	0.002	0.01	6.02	4.17	0.05	9.62	0.001	0.005	0.005	
MC-17032-F-12	315.01	29.21	12	2011-05-30	39	7.99	399.9	512.9	38.4	MC-17032-F-12	0.052	1.56	0.010	0.0005	0.01	18.8	0.014	0.002	0.0015	0.0015	0.003	3.65	0.004	0.0045	0.013	0.01	6.62	4.26	0.05	42.9	0.001	0.019	0.019	
MC-17032-F-13	319.04	33.64	13	2011-06-02	42	7.76	437.7	641.7	150.3	MC-17032-F-13	0.062	1.60	0.003	0.0005	0.010	16.2	0.011	0.002	0.0015	0.0015	0.003	3.71	0.002	0.0045	0.003	0.01	4.76	3.29	0.05	22.8	0.001	0.039	0.039	
MC-17032-F-14	324.10	38.99	14	2011-06-06	46	7.77	460.4	654.4	144.5	MC-17032-F-14	0.038	1.25	0.005	0.0005	0.01	17.0	0.007	0.002	0.0015	0.0015	0.003	3.39	0.002	0.0045	0.002	0.01	3.33	2.68	0.05	14.6	0.001	0.097	0.097	
MC-17032-F-15	326.76	41.66	16	2011-06-09	49	8.23	463.0	667.0	144.7	MC-17032-F-15	0.072	1.40	0.007	0.0005	0.023	16.4	0.012	0.002	0.0015	0.0015	0.003	3.17	0.001	0.0045	0.015	0.01	2.81	2.82	0.05	12.2	0.001	0.028	0.028	
MC-17032-F-16	313.06	28.46	16	2011-06-13	53	7.82	423.6	636.6	94.6	MC-17032-F-16	0.073	1.34	0.006	0.0005	0.023	16.5	0.012	0.002	0.0015	0.0015	0.003	3.22	0.002	0.0045	0.002	0.01	2.34	2.37	0.05	27.9	0.001	0.017	0.017	
MC-17032-F-17	333.29	54.65	17	2011-06-16	56	8.26	416.6	639.6	33.8	MC-17032-F-17	0.073	1.34	0.006	0.0005	0.023	16.5	0.012	0.002	0.0015	0.0015	0.003	4.11	0.003	0.0045	0.005	0.01	3.67	3.09	0.05	29.8	0.001	0.025	0.025	
MC-17032-F-18	323.78	38.69	18	2011-06-21	61	8.13	273.5	477.5	32.2	MC-17032-F-18	0.061	1.46	0.009	0.0005	0.01	20.3	0.012	0.002	0.0015	0.0015	0.003	4.11	0.003	0.0045	0.005	0.01	3.67	3.09	0.05	29.8	0.001	0.025	0.025	
MC-17032-F-19	323	37.60	19	2011-06-23	63	7.91	242.4	468.4	130.3	MC-17032-F-19	0.084	1.36	0.008	0.0005	0.01	19.8	0.008	0.002	0.0015	0.0015	0.003	3.48	0.005	0.0045	0.006	0.01	2.40	1.67	0.05	10.2	0.001	0.042	0.042	
MC-17032-F-20	344.811	59.61	20	2011-06-27	67	7.90	250.2	459.2	122.8	MC-17032-F-20	0.094	1.69	0.008	0.0005	0.01	15.3	0.008	0.002	0.0015	0.0015	0.003	3.10	0.005	0.0045	0.004	0.01	2.15	1.69	0.05	8.28	0.001	0.024	0.024	
MC-17032-F-21	330.05	44.65	21	2011-06-30	70	7.77	463.7	667.7	128.1	MC-17032-F-21	0.026	1.01	0.005	0.0005	0.01	15.3	0.0015	0.002	0.0015	0.0015	0.003	3.03	0.001	0.0045	0.002	0.01	1.86	1.49	0.05	6.40	0.001	0.025	0.025	
MC-17032-F-22	346.26	60.66	22	2011-07-04	74	8.06	492.6	666.6	132.5	MC-17032-F-22	0.040	0.994	0.006	0.0005	0.01	15.8	0.0015	0.002	0.0015	0.0015	0.003	2.86	0.001	0.0045	0.002	0.01	2.24	1.71	0.05	6.95	0.001	0.025	0.025	
MC-17032-F-23	331.74	46.44	23	2011-07-07	77	7.83	451.0	655.0	138.4	MC-17032-F-23	0.038	0.883	0.004	0.0005	0.01	15.2	0.0015	0.002	0.0015	0.0015	0.003	2.90	0.001	0.0045	0.003	0.01	2.26	1.71	0.05	6.79	0.001	0.025	0.025	
MC-17032-F-24	335.03	50.73	24	2011-07-11	81	8.01	438.0	643.0	160.7	MC-17032-F-24	0.034	0.908	0.003	0.0005	0.01	15.7	0.0015	0.002	0.0015	0.0015	0.003	2.95	0.001	0.0045	0.002	0.01	2.47	1.72	0.05	6.89	0.001	0.025	0.025	
MC-17032-F-25	339.79	45.69	25	2011-07-14	84	8.04	440.8	644.8	136.0	MC-17032-F-25	0.073	0.839	0.005	0.0005	0.01	16.6	0.0015	0.002	0.0015	0.0015	0.003	3.11	0.001	0.0045	0.002	0.01	2.31	1.62	0.05	6.48	0.001	0.025	0.025	
MC-17032-F-26	318.97	31.77	26	2011-07-18	88	7.84	459.0	633.0	85.7	MC-17032-F-26	0.005	1.19	0.009	0.0005	0.01	20.6	0.0015	0.002	0.0015	0.0015	0.003	0.67	3.30	0.001	0.0045	0.003	0.01	6.32	2.51	0.05	17.2	0.001	0.025	0.025
MC-17032-F-27	331.13	46.63	27	2011-07-21	91	7.81	464.9	668.9	181.0	MC-17032-F-27	0.034	1.10	0.006	0.0005	0.01	17.4	0.0015	0.002	0.0015	0.0015	0.003	3.17	0.001	0.0045	0.002	0.01	2.45	1.82	0.05	52.5	0.001	0.025	0.025	
MC-17032-F-28	334.60	49.46	28	2011-07-25	95	7.93	467.6	661.6	152.2	MC-17032-F-28	0.032	0.974	0.006	0.0005	0.01	16.8	0.0015	0.002	0.0015	0.0015	0.003	3.06	0.001	0.0045	0.002	0.01	2.34	1.68	0.05	22.2	0.001	0.025	0.025	
MC-17032-F-29	328.73	41.63	29	2011-07-28	98	7.65	346.2	552.2	144.2	MC-17032-F-29	0.005	1.06	0.006	0.0005	0.01	18.3	0.0015	0.002	0.0015	0.0015	0.003	3.09	0.001	0.0045	0.002	0.01	2.17	1.61	0.05	18.8	0.001	0.025	0.025	
MC-17032-F-30	335.77	60.67	30	2011-08-01	102	7.99	390.8	494.8	147.1	MC-17032-F-30	0.069	0.893	0.007	0.0005	0.01	18.8	0.0015	0.002	0.0015	0.0015	0.003	3.28	0.001	0.0045	0.002	0.01	3.84	1.48	0.05	12.7	0.001	0.025	0.025	
MC-17032-F-31	335.02	49.67	31	2011-08-04	105	8.24	299.0	473.0	144.5	MC-17032-F-31	0.070	0.882	0.007	0.0005	0.01	18.3	0.0015	0.002	0.0015	0.0015	0.003	3.29	0.001	0.0045	0.002	0.01	3.32	1.48	0.05	10.2	0.001	0.025	0.025	
MC-17032-F-32	330.82	46.62	32	2011-08-08	109	8.16	299.7	463.7	141.6	MC-17032-F-32	0.063	0.919	0.007	0.0005	0.01	18.4	0.0015	0.002	0.0015	0.0015	0.003	3.04	0.001	0.0045	0.002	0.01	2.87	1.40	0.05	10.5	0.001	0.025	0.025	
MC-17032-F-33	318.6	33.49	33	2011-08-11	112	8.06	448.0	652.0	146.8	MC-17032-F-33	0.036	1.03	0.006	0.0005	0.01	17.2	0.0015	0.002	0.0015	0.0015	0.003	3.38	0.001	0.0045	0.002	0.01	2.84	1.30	0.05	8.43	0.001	0.025	0.025	
MC-17032-F-34	328.4	43.20	34	2011-08-15	116	7.90	447.7	651.7	138.4	MC-17032-F-34	0.038	0.957	0.009	0.0005	0.01	18.8	0.0015	0.002	0.0015	0.0015	0.003	3.19	0.001	0.0045	0.002	0.01	2.86	1.35	0.05	8.38	0.001	0.025	0.025	
MC																																		





Mélange Résidu/Conteneur de la C										Mesure en dessous de la limite de détection (LDM) donc nous rapportons la demi de la LDM										Concentration maximale (mg/L)													
Échantillon	m eau + bouteille (g)	Quantité eau passé #/rush	date	jours	pH	Eh mV/air	Eh mV	Conductivité µmhos	LCM	A	As	Ba	Bs	Bi	Cs	Cd	Cs	Cr	Cu	Fe	Mn	Mo	N	Nb	S	Sb	Se	Si	Ti	Zn			
										0,010	0,060	0,001	0,001	0,020	0,030	0,003	0,004	0,003	0,003	0,008	0,001	0,002	0,009	0,004	0,020	0,080	0,080	0,100	0,020	0,005			
MC-18349-DTR-01	312,42	27,88	1	2011-04-21	0	7,68	396,3	600,3	4100,0	MC-18348-DT-F01	0,005	0,387	0,080	0,0005	0,01	737	0,004	0,011	0,0015	0,0015	0,003	37,4	0,183	0,054	0,084	0,01	788	2,48	0,05	8,47	0,001	0,009	
MC-18349-DTR-02	325,84	41,10	2	2011-04-25	4	7,88	374,2	576,2	2800,0	MC-18348-DT-F03	0,005	0,374	0,084	0,0005	0,025	530	0,0015	0,0015	0,0015	0,0015	0,0015	21,6	0,053	0,014	0,033	0,01	516	2,46	0,05	13,8	0,001	0,009	
MC-18349-DTR-03	332,51	47,77	3	2011-04-28	7	7,68	483,2	645,2	1720,0	MC-18348-DT-F05	0,005	0,384	0,080	0,0005	0,020	481	0,010	0,002	0,0015	0,0015	0,0015	9,02	0,058	0,016	0,01	351	4,38	0,05	8,13	0,001	0,005		
MC-18349-DTR-04	326,74	42,00	4	2011-05-02	11	7,85	449,6	653,6	1689,0	MC-18348-DT-F04	0,005	0,392	0,083	0,0005	0,01	376	0,007	0,002	0,0015	0,0015	0,0015	7,88	0,028	0,0045	0,017	0,01	311	4,22	0,05	8,84	0,001	0,005	
MC-18349-DTR-05	331,41	46,67	5	2011-05-05	14	7,81	464,8	658,8	639,0	MC-18348-DT-F02	0,009	0,399	0,037	0,0005	0,01	178	0,005	0,002	0,0015	0,0015	0,0015	4,37	0,013	0,0045	0,008	0,01	139	3,35	0,05	7,48	0,001	0,007	
MC-18349-DTR-06	322,25	44,51	6	2011-05-08	18	7,99	483,1	657,1	755,0	MC-18348-DT-F08	0,004	0,385	0,039	0,0005	0,01	128	0,005	0,002	0,0015	0,0015	0,0015	3,82	0,039	0,0045	0,002	0,01	182	3,22	0,05	7,68	0,001	0,005	
MC-18349-DTR-07	305,89	21,15	7	2011-05-12	21	8,02	469,4	673,6	389,0	MC-18348-DT-F07	0,041	0,637	0,017	0,0005	0,01	61,3	0,003	0,002	0,0015	0,0015	0,0015	2,47	0,006	0,0045	0,002	0,01	34,8	2,00	0,05	11,0	0,001	0,014	
MC-18349-DTR-08	313,13	28,30	8	2011-05-16	25	7,77	497,0	701,0	277,0	MC-18348-DT-F09	0,086	0,713	0,013	0,0005	0,01	21,7	0,004	0,002	0,0015	0,0015	0,0015	2,15	0,004	0,0045	0,002	0,01	19,0	2,08	0,05	7,87	0,001	0,019	
MC-18349-DTR-09	316,19	30,40	9	2011-05-19	28	8,03	459,7	647,7	249,0	MC-18348-DT-F06	0,080	0,638	0,013	0,0005	0,01	22,7	0,0015	0,001	0,0015	0,0015	0,0015	2,22	0,008	0,0045	0,010	0,01	15,4	2,30	0,05	38,7	0,001	0,022	
MC-18349-DTR-10	314,67	29,23	10	2011-05-23	32	8,03	386,4	670,4	180,0	MC-18348-DT-F10	0,052	0,473	0,015	0,0005	0,01	22,9	0,004	0,002	0,0015	0,0015	0,0015	0,011	0,022	0,009	0,0045	0,005	0,01	8,16	2,15	0,05	25,0	0,001	0,014
MC-18349-DTR-11	316,99	32,25	11	2011-05-26	35	8,16	357,0	561,0	197,0	MC-18348-DT-F11	0,096	0,610	0,011	0,0005	0,01	20,9	0,003	0,002	0,0015	0,0015	0,0015	2,12	0,009	0,0045	0,006	0,02	4,83	1,87	0,05	90,0	0,002	0,024	
MC-18349-DTR-12	316,05	31,31	12	2011-05-30	39	7,81	309,4	513,4	82,0	MC-18348-DT-F13	0,058	0,638	0,011	0,0005	0,01	19,4	0,0015	0,002	0,0015	0,0015	0,0015	2,21	0,005	0,0045	0,013	0,01	4,49	1,87	0,05	38,4	0,001	0,026	
MC-18349-DTR-13	310,09	31,44	13	2011-06-01	42	7,71	469,9	690,9	122,0	MC-18348-DT-F15	0,092	0,658	0,008	0,0005	0,01	14,3	0,004	0,002	0,0015	0,0015	0,0015	1,81	0,003	0,0045	0,004	0,01	7,29	1,24	0,05	60,6	0,001	0,013	
MC-18349-DTR-14	330,74	46,00	14	2011-06-06	46	7,86	469,4	665,0	123,0	MC-18348-DT-F14	0,080	0,386	0,008	0,0005	0,021	14,7	0,005	0,002	0,0015	0,0015	0,0015	2,03	0,004	0,0045	0,002	0,031	1,49	0,228	0,05	41,8	0,001	0,014	
MC-18349-DTR-15	325,62	40,83	15	2011-06-09	49	7,89	466,4	656,4	128,0	MC-18348-DT-F12	0,074	0,636	0,009	0,0005	0,01	15,5	0,005	0,002	0,0015	0,0015	0,0015	2,25	0,004	0,0045	0,004	0,021	1,90	1,09	0,05	34,6	0,001	0,021	
MC-18349-DTR-16	315,50	32,78	16	2011-06-13	53	7,84	417,2	621,2	162,0	MC-18348-DT-F16	0,089	0,617	0,011	0,0005	0,01	18,3	0,004	0,002	0,0015	0,0015	0,0015	2,59	0,004	0,0045	0,002	0,01	1,39	1,10	0,05	101	0,001	0,026	
MC-18349-DTR-17	339,91	54,17	17	2011-06-18	58	7,90	419,4	670,6	136,0	MC-18348-DT-F17	0,037	0,645	0,009	0,0005	0,01	15,4	0,008	0,004	0,0015	0,0015	0,0015	2,43	0,004	0,0045	0,002	0,01	0,844	0,819	0,05	44,0	0,001	0,011	
MC-18349-DTR-18	313,86	31,22	18	2011-06-21	61	8,09	284,1	488,1	68,0	MC-18348-DT-F18	0,083	0,474	0,007	0,0005	0,01	14,4	0,006	0,002	0,0015	0,0015	0,0015	2,50	0,004	0,0045	0,002	0,01	1,03	0,847	0,05	28,0	0,001	0,018	
MC-18349-DTR-19	316,01	31,23	19	2011-06-23	63	8,00	248,2	456,2	109,0	MC-18348-DT-F19	0,111	0,628	0,008	0,0005	0,01	13,6	0,004	0,002	0,0015	0,0015	0,0015	2,35	0,004	0,0045	0,002	0,01	0,895	0,618	0,05	14,1	0,001	0,014	
MC-18349-DTR-20	319,86	32,22	20	2011-06-27	67	7,87	299,0	490,0	112,0	MC-18348-DT-F20	0,101	0,498	0,007	0,0005	0,01	13,0	0,0015	0,002	0,0015	0,0015	0,0015	2,43	0,005	0,0045	0,002	0,01	0,907	0,208	0,05	11,6	0,001	0,019	
MC-18349-DTR-21	323,33	38,50	21	2011-06-30	70	7,83	480,1	664,1	116,0	MC-18348-DT-F22	0,023	0,391	0,007	0,0005	0,01	14,1	0,0015	0,002	0,0015	0,0015	0,0015	2,49	0,001	0,0045	0,002	0,01	0,718	0,628	0,05	11,4	0,001	0,027	
MC-18349-DTR-22	326,71	41,97	22	2011-07-04	74	7,88	464,8	658,8	125,0	MC-18348-DT-F23	0,021	0,432	0,006	0,0005	0,01	14,8	0,0015	0,002	0,0015	0,0015	0,0015	2,65	0,001	0,0045	0,002	0,01	1,08	0,672	0,05	13,9	0,001	0,011	
MC-18349-DTR-23	322,87	42,92	23	2011-07-07	77	7,90	462,8	656,8	243,0	MC-18348-DT-F25	0,014	0,382	0,003	0,0005	0,01	13,7	0,0015	0,002	0,0015	0,0015	0,0015	2,49	0,001	0,0045	0,002	0,01	0,892	0,547	0,05	11,5	0,001	0,022	
MC-18349-DTR-24	328,33	43,59	24	2011-07-11	81	8,08	419,4	633,6	138,0	MC-18348-DT-F24	0,045	0,400	0,005	0,0005	0,01	14,7	0,0015	0,002	0,0015	0,0015	0,0015	2,72	0,001	0,0045	0,002	0,01	0,883	0,674	0,05	11,9	0,001	0,048	
MC-18349-DTR-25	315,65	30,91	25	2011-07-14	84	7,93	439,8	643,8	132,0	MC-18348-DT-F26	0,058	0,417	0,005	0,0005	0,01	14,7	0,0015	0,002	0,0015	0,0015	0,0015	2,77	0,001	0,0045	0,002	0,01	0,812	0,543	0,05	8,76	0,001	0,026	
MC-18349-DTR-26	311,73	33,91	26	2011-07-18	88	7,73	437,8	643,8	139,0	MC-18348-DT-F28	0,043	0,405	0,008	0,0005	0,01	17,1	0,0015	0,002	0,0015	0,0015	0,0015	3,30	0,001	0,0045	0,002	0,01	0,393	0,632	0,05	17,2	0,001	0,046	
MC-18349-DTR-27	319,95	31,11	27	2011-07-21	91	7,99	431,3	638,3	260,0	MC-18348-DT-F29	0,026	0,642	0,007	0,0005	0,01	14,0	0,0015	0,002	0,0015	0,0015	0,0015	2,82	0,001	0,0045	0,002	0,01	0,891	0,749	0,05	51,8	0,001	0,016	
MC-18349-DTR-28	319,01	34,27	28	2011-07-25	95	7,89	449,0	649,0	157,0	MC-18348-DT-F28	0,035	0,606	0,010	0,0005	0,01	16,3	0,0015	0,002	0,0015	0,0015	0,0015	3,48	0,001	0,0045	0,002	0,01	0,840	0,780	0,05	49,4	0,001	0,005	
MC-18349-DTR-29	319,81	32,07	29	2011-07-28	98	7,74	421,6	625,6	140,0	MC-18348-DT-F26	0,056	0,616	0,007	0,0005	0,01	12,6	0,0015	0,002	0,0015	0,0015	0,0015	2,65	0,001	0,0045	0,002	0,01	0,827	0,618	0,05	17,0	0,001	0,026	
MC-18349-DTR-30	321,82	37,01	30	2011-08-01	102	7,87	314,8	519,8	156,0	MC-18348-DT-F30	0,057	0,409	0,008	0,0005	0,01	14,9	0,0015	0,002	0,0015	0,0015	0,0015	3,17	0,001	0,0045	0,002	0,01	0,690	0,663	0,05	16,3	0,001	0,025	
MC-18349-DTR-31	314,16	29,42	31	2011-08-04	105	8,00	288,2	492,2	151,0	MC-18348-DT-F33	0,096	0,434	0,009	0,0005	0,01	13,7	0,0015	0,002	0,0015	0,0015	0,0015	3,05	0,001	0,0045	0,002								



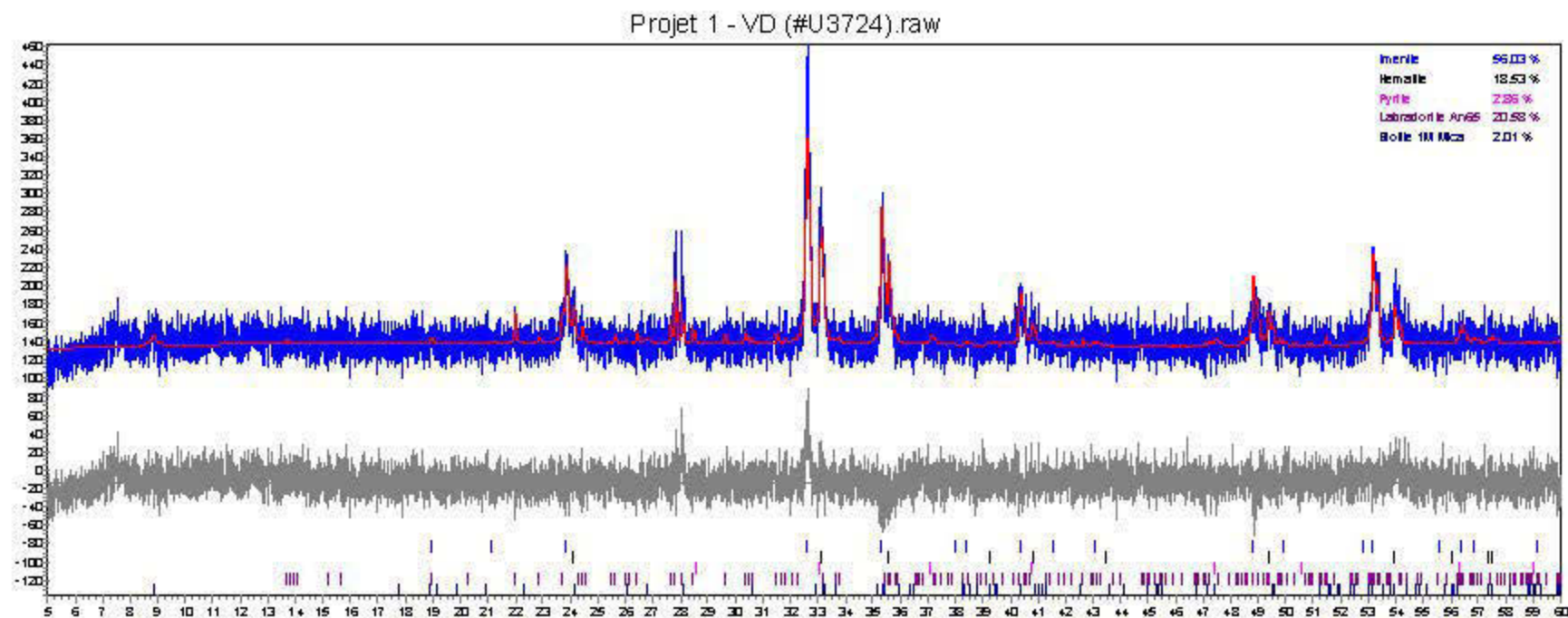
CONCENTRÉ DE TALEC					Mesure en dessous de la limite de détection (LDM) donc nous rapportons la demie de la LDM																					Concentration ponctuelle (mg/L)										
Echantillon	m eau + bouteille	Quantité eau passé # flush	Date	Jours	pH	EmV Valim	Eme mV	Conductivité µS/cm	Al	As	Ba	Be	Bi	Ca	Cd	Cs	Cr	Cu	Fe	Mg	Mn	Mo	Ms	N	Pb	S	Sb	Se	Si	Ti	Zn					
MC-18894-DT-01	311.74	25.68	1	#####	0	7.98	491.0	805.9	1764.0	MC-18894-DT-01	0.005	3.20	0.084	0.0005	0.01	199	0.020	0.022	0.0015	0.0015	0.002	18.2	0.011	0.0045	0.077	0.01	288	6.39	0.05	9.81	0.001	0.005				
MC-18894-DT-02	321.19	45.03	2	#####	9	8.03	357.3	589.3	809.0	MC-18894-DT-02	0.005	3.80	0.024	0.0005	0.01	74.4	0.027	0.002	0.0015	0.0015	0.002	9.84	0.004	0.0045	0.020	0.01	133	5.89	0.05	12.2	0.001	0.005				
MC-18894-DT-03	331.33	45.17	3	#####	7	8.06	450.0	824.0	49.0	MC-18894-DT-03	0.005	3.24	0.069	0.0005	0.01	27.6	0.031	0.002	0.0005	0.0015	0.005	5.98	0.003	0.0045	0.013	0.01	42.4	2.28	0.05	10.3	0.001	0.005				
MC-18894-DT-04	328.82	40.68	4	#####	11	7.85	435.5	839.3	35.0	MC-18894-DT-04	0.011	2.85	0.009	0.0005	0.021	35.6	0.017	0.002	0.003	0.0015	0.005	5.81	0.004	0.0045	0.012	0.01	28.1	6.90	0.05	9.97	0.001	0.012				
MC-18894-DT-05	319.03	32.87	5	#####	14	8.06	454.6	858.9	32.6	MC-18894-DT-05	0.005	3.02	0.008	0.0005	0.01	33.4	0.018	0.002	0.003	0.0015	0.005	5.71	0.003	0.0045	0.013	0.01	20.1	7.57	0.05	10.7	0.001	0.020				
MC-18894-DT-06	325.58	40.40	8	#####	13	7.82	455.5	866.4	38.0	MC-18894-DT-06	0.025	2.53	0.010	0.0005	0.01	30.4	0.015	0.002	0.0005	0.0015	0.003	5.83	0.003	0.0045	0.011	0.01	17.1	7.29	0.05	11.8	0.001	0.015				
MC-18894-DT-07	315.04	28.89	7	#####	21	8.25	465.6	867.0	248.0	MC-18894-DT-07	0.029	1.81	0.008	0.0005	0.01	25.0	0.010	0.006	0.0015	0.0015	0.005	4.75	0.003	0.0045	0.009	0.01	8.10	4.69	0.05	7.65	0.001	0.018				
MC-18894-DT-08	328.37	42.21	8	#####	25	7.90	465.6	899.0	23.0	MC-18894-DT-08	0.006	2.10	0.009	0.0005	0.01	24.2	0.010	0.002	0.003	0.0015	0.005	4.77	0.003	0.0045	0.009	0.01	9.40	5.41	0.05	8.54	0.001	0.025				
MC-18894-DT-09	322.811	35.85	9	#####	7.05	8.11	467.1	891.1	177.1	MC-18894-DT-09	0.027	1.72	0.008	0.0005	0.01	20.0	0.008	0.002	0.0005	0.0010	0.003	4.00	0.004	0.0045	0.008	0.01	2.17	4.21	0.05	8.10	0.001	0.032				
MC-18894-DT-10	317.48	31.52	10	#####	33	7.96	357.3	871.2	172.4	MC-18894-DT-10	0.042	1.36	0.009	0.0005	0.01	19.6	0.009	0.002	0.0015	0.0015	0.005	3.99	0.004	0.0045	0.011	0.01	8.58	4.25	0.05	8.25	0.001	0.018				
MC-18894-DT-11	312.79	26.63	11	#####	35	8.19	357.8	861.8	188.6	MC-18894-DT-11	0.005	1.79	0.009	0.0005	0.01	22.4	0.012	0.002	0.003	0.0015	0.005	4.49	0.003	0.0045	0.010	0.01	6.00	4.46	0.05	39.1	0.001	0.009				
MC-18894-DT-12	314.15	27.60	12	#####	39	7.72	299.9	802.0	18.9	MC-18894-DT-12	0.023	1.75	0.008	0.0005	0.01	20.8	0.008	0.002	0.0015	0.0015	0.005	4.29	0.004	0.0045	0.008	0.021	2.12	4.46	0.05	34.0	0.001	0.019				
MC-18894-DT-13	316.94	30.14	13	#####	40	7.72	465.3	860.1	159.8	MC-18894-DT-13	0.029	1.90	0.008	0.0005	0.01	19.0	0.010	0.002	0.0005	0.0015	0.003	3.99	0.002	0.0045	0.002	0.01	5.37	4.49	0.05	19.6	0.001	0.023				
MC-18894-DT-14	316.71	33.65	14	#####	48	7.70	465.7	859.7	147.2	MC-18894-DT-14	0.027	1.33	0.008	0.0005	0.01	17.1	0.008	0.002	0.003	0.0015	0.005	3.74	0.002	0.0045	0.006	0.01	4.83	3.85	0.05	14.3	0.001	0.013				
MC-18894-DT-15	324.6	46.64	15	#####	49	8.02	448.0	852.0	146.8	MC-18894-DT-15	0.052	1.26	0.008	0.0005	0.022	17.2	0.007	0.002	0.004	0.0015	0.005	3.67	0.003	0.0045	0.006	0.01	3.88	3.83	0.05	12.8	0.001	0.019				
MC-18894-DT-16	318.011	28.75	16	#####	53	8.10	419.3	822.2	193.6	MC-18894-DT-16	0.100	0.209	0.009	0.0005	0.01	14.2	0.003	0.002	0.006	0.0015	0.005	2.71	0.005	0.0045	0.005	0.01	1.89	0.772	0.05	10.9	0.002	0.028				
MC-18894-DT-17	320.48	64.32	17	#####	56	8.19	411.3	815.3	149.3	MC-18894-DT-17	0.029	0.995	0.011	0.0005	0.035	17.1	0.008	0.002	0.002	0.0015	0.005	3.27	0.003	0.0045	0.007	0.01	2.15	2.03	0.05	36.1	0.001	0.012				
MC-18894-DT-18	326.25	40.69	18	#####	61	8.14	270.3	474.3	35.8	MC-18894-DT-18	0.026	1.30	0.011	0.0005	0.026	20.6	0.009	0.002	0.003	0.0015	0.005	4.20	0.004	0.0045	0.009	0.01	3.17	2.82	0.05	30.2	0.001	0.015				
MC-18894-DT-19	323.168	45.02	19	#####	63	7.89	246.1	450.1	148.1	MC-18894-DT-19	0.065	0.65	0.008	0.0005	0.01	15.2	0.006	0.002	0.002	0.0015	0.005	3.28	0.005	0.0045	0.002	0.01	1.80	1.65	0.05	10.6	0.001	0.022				
MC-18894-DT-20	335.11	48.84	20	#####	67	7.83	253.6	457.4	123.1	MC-18894-DT-20	0.059	1.17	0.007	0.0005	0.020	19.9	0.005	0.002	0.0015	0.0015	0.005	3.48	0.004	0.0045	0.002	0.01	2.87	1.76	0.05	14.2	0.001	0.018				
MC-18894-DT-21	346.00	63.83	21	#####	70	7.81	461.4	865.4	124.9	MC-18894-DT-21	0.018	0.616	0.008	0.0005	0.01	15.6	0.005	0.002	0.0015	0.0015	0.005	3.13	0.001	0.0045	0.002	0.01	1.59	1.30	0.05	9.55	0.001	0.025				
MC-18894-DT-22	366.77	70.01	22	#####	74	7.85	468.4	890.4	129.9	MC-18894-DT-22	0.048	0.825	0.007	0.0005	0.01	16.3	0.005	0.002	0.0015	0.0015	0.005	3.21	0.001	0.0045	0.002	0.01	1.88	1.80	0.05	8.83	0.001	0.025				
MC-18894-DT-23	333.61	47.60	23	#####	77	7.84	452.2	856.2	133.9	MC-18894-DT-23	0.028	0.515	0.004	0.0005	0.01	15.4	0.005	0.002	0.0015	0.0015	0.005	3.02	0.001	0.0045	0.002	0.01	1.72	1.34	0.05	8.36	0.001	0.005				
MC-18894-DT-24	347.11	60.95	24	#####	81	7.97	446.0	850.0	136.2	MC-18894-DT-24	0.028	0.696	0.007	0.0005	0.01	15.1	0.005	0.002	0.0015	0.0015	0.005	2.88	0.001	0.0045	0.002	0.01	1.83	1.39	0.05	8.50	0.001	0.025				
MC-18894-DT-25	323.23	37.67	25	#####	84	7.85	436.0	840.0	127.2	MC-18894-DT-25	0.016	0.723	0.005	0.0005	0.01	15.9	0.005	0.002	0.0015	0.0015	0.005	3.18	0.001	0.0045	0.002	0.01	1.62	1.48	0.05	8.00	0.001	0.025				
MC-18894-DT-26	316.581	30.57	26	#####	83	8.00	439.2	843.2	153.0	MC-18894-DT-26	0.005	0.980	0.007	0.0005	0.01	14.2	0.005	0.002	0.0015	0.0015	0.005	3.33	0.001	0.0045	0.002	0.01	2.68	1.84	0.05	11.7	0.001	0.005				
MC-18894-DT-27	327.77	41.24	27	#####	91	7.79	456.2	849.2	159.0	MC-18894-DT-27	0.019	0.948	0.004	0.0005	0.01	16.4	0.005	0.002	0.0015	0.0015	0.005	3.09	0.001	0.0045	0.002	0.01	2.18	1.64	0.05	49.7	0.001	0.005				
MC-18894-DT-28	326.12	42.06	28	#####	95	7.92	467.9	861.9	171.1	MC-18894-DT-28	0.005	0.630	0.006	0.0005	0.01	19.0	0.005	0.002	0.0015	0.0015	0.005	3.72	0.001	0.0045	0.002	0.01	2.48	1.71	0.05	33.8	0.001	0.025				
MC-18894-DT-29	324.79	46.03	29	#####	98	7.83	358.1	862.1	166.8	MC-18894-DT-29	0.005	0.684	0.007	0.0005	0.01	15.0	0.005	0.002	0.0015	0.0015	0.005	2.98	0.001	0.0045	0.002	0.01	1.68	1.23	0.05	18.4	0.001	0.025				
MC-18894-DT-30	345.31	57.14	30	#####	103	7.89	260.0	494.0	134.6	MC-18894-DT-30	0.024	0.800	0.006	0.0005	0.01	14.8	0.005	0.002	0.0015	0.0015	0.005	3.02	0.001	0.0045	0.002	0.01	1.69	1.31	0.05	15.1	0.001	0.025				
MC-18894-DT-31	328.94	42.78	31	#####	105	8.13	273.7	467.7	140.7	MC-18894-DT-31	0.005	0.787	0.005	0.0005	0.01	15.7	0.005	0.002	0.0015	0.0015	0.005	3.18	0.001	0.0045	0.002	0.01	1.62	1.31	0.05	12.7	0.001	0.025				
MC-18894-DT-32	330.27	44.11	32	#####	109	7.97	263.0	487.0	129.9	MC-18894-DT-32	0.061	0.881	0.003	0.0005	0.01	15.5	0.005	0.002	0.0015	0.0015	0.005	3.17	0.001	0.0045	0.002	0.01	1.85	1.36	0.05	12.6	0.001	0.025				
MC-18894-DT-33	321.04	35.63	33	#####	112	7.82	464.1	846.1	149.0	MC-18894-DT-33	0.022	0.725	0.006	0.0005	0.01	17.6	0.005	0.002	0.0015	0.0015	0.005	3.71	0.001	0.0045	0.002	0.01	1.84	1.22	0.05	10.4	0.001	0.005				
MC-18894-DT-34	320.58	44.42	34	#####	119	7.80	449.7	852.7	135.3	MC-18894-DT-34	0.024	0.700	0.009	0.0005	0.01	15.4	0.005	0.002	0.0015	0.0015	0.005	3.22	0.001	0.0045	0.002	0.01	1.79	1.29	0.05	12.8	0.001	0.025				
MC-18894-DT-35	324.45	38.29	35	#####	121	8.04	421.4	857.4	141.4	MC-18894-DT-35	0.064	0.744	0.007	0.0005	0.01	16.6	0.005	0.002	0.0015	0.0015	0.005	3.04	0.001	0.0045	0.002	0.01	1.73	1.21	0.05	9.50	0.001	0.053				
MC-18894-DT-36	322.101	36.82	36	#####	123	7.85	224.2	428.2	129.8	MC-18894-DT-36	0.028	0.820	0.007	0.0005	0.01	16.8	0.007	0.002	0.0015	0.0015	0.005	3.44	0.005	0.0045	0.004	0.01	1.64	0.975	0.05	8.82	0.					

APPENDICE F

DRX (CD-ROM)

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Alim QIT  
Analyse : Robin Potvin  
Date :



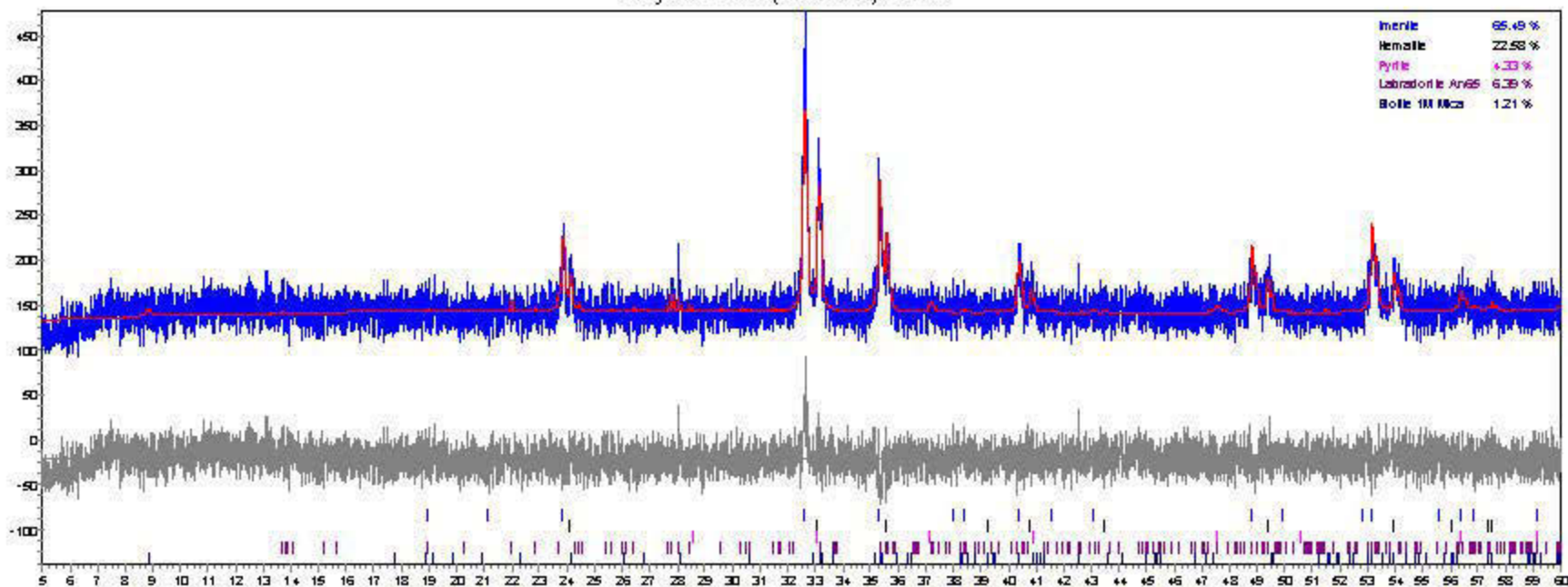
Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date :

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Alim QIT  
Analyse : Robin Potvin  
Date :

Projet 1 - VD (#U3725).raw:1



Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

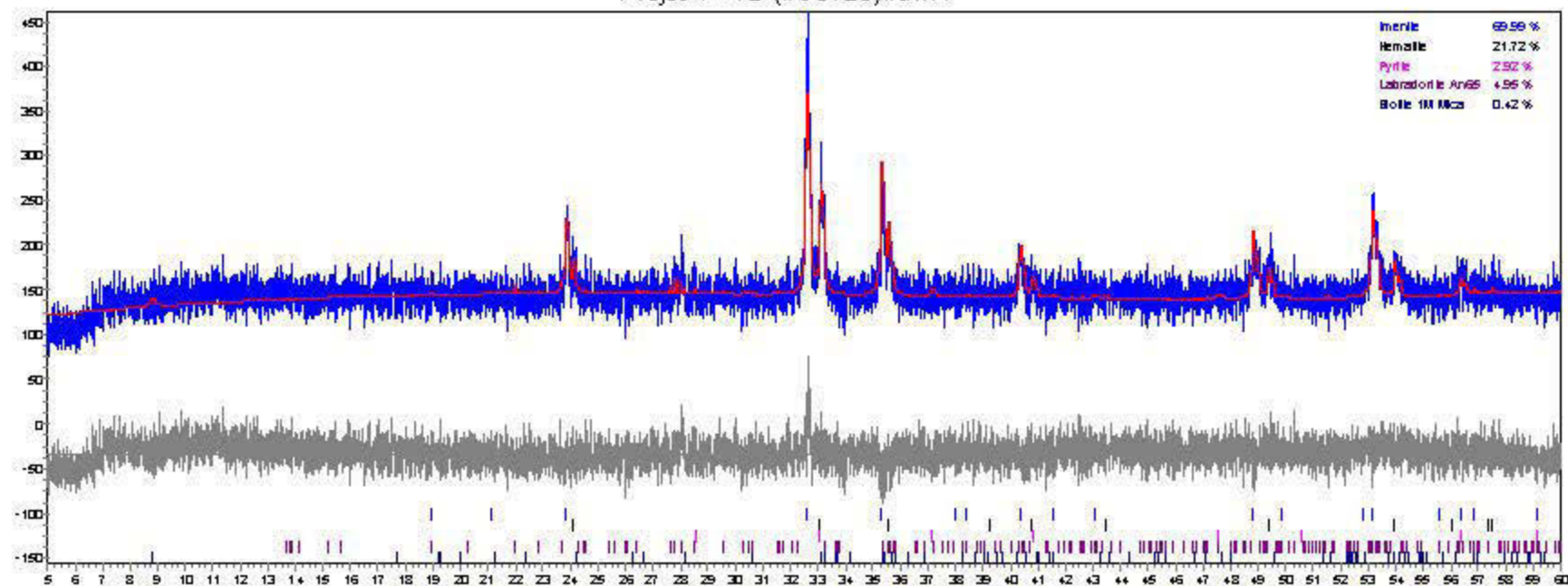
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## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Alim QIT  
Analyse : Robin Potvin  
Date :

Projet 1 - VD (#U3723).raw:1



Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date :



Unité de recherche et de service en technologie minérale  
de l'Abitibi-Témiscamingue

445, boul. de l'Université

Rouyn-Noranda (Québec) J9X 5E4

Tél.: (819) 762-0971 poste 2558 • Fax: (819) 797-6672

## Analyse minéralogique quantitative par diffraction des rayons X

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Échantillonnage : Alim QIT  
Analyse : Robin Potvin  
Date :

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U3723 : QIT Alim >300µm  
U3724 : QIT Alim 150-300 µm  
U3725 : QIT Alim <150µm

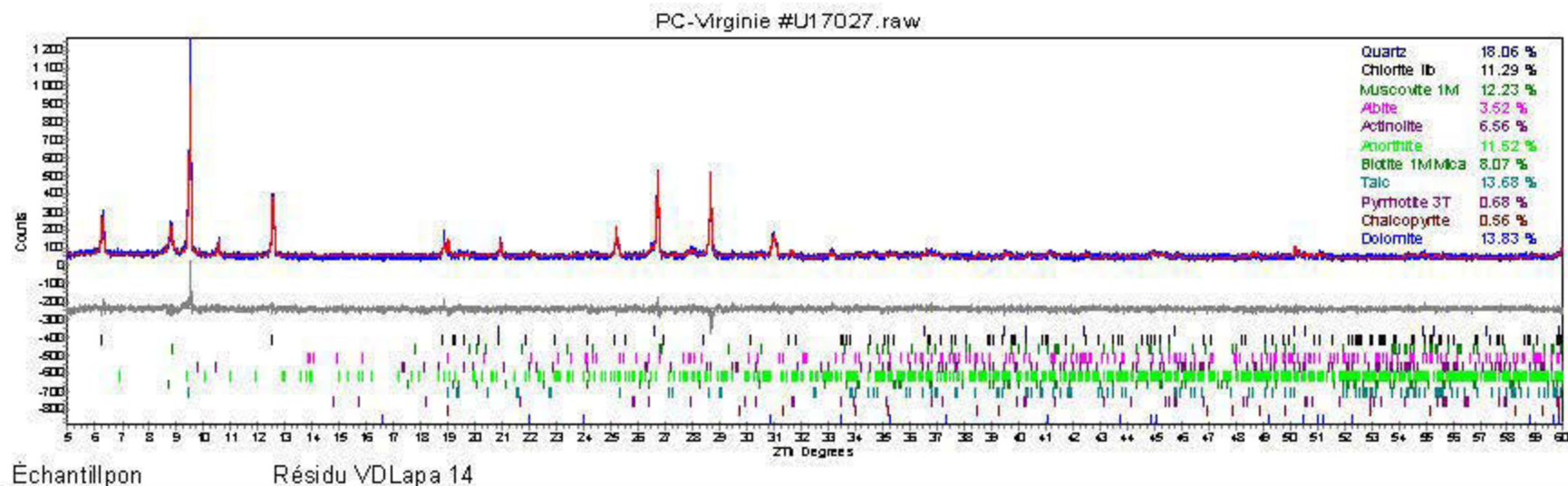
Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date :

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## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011

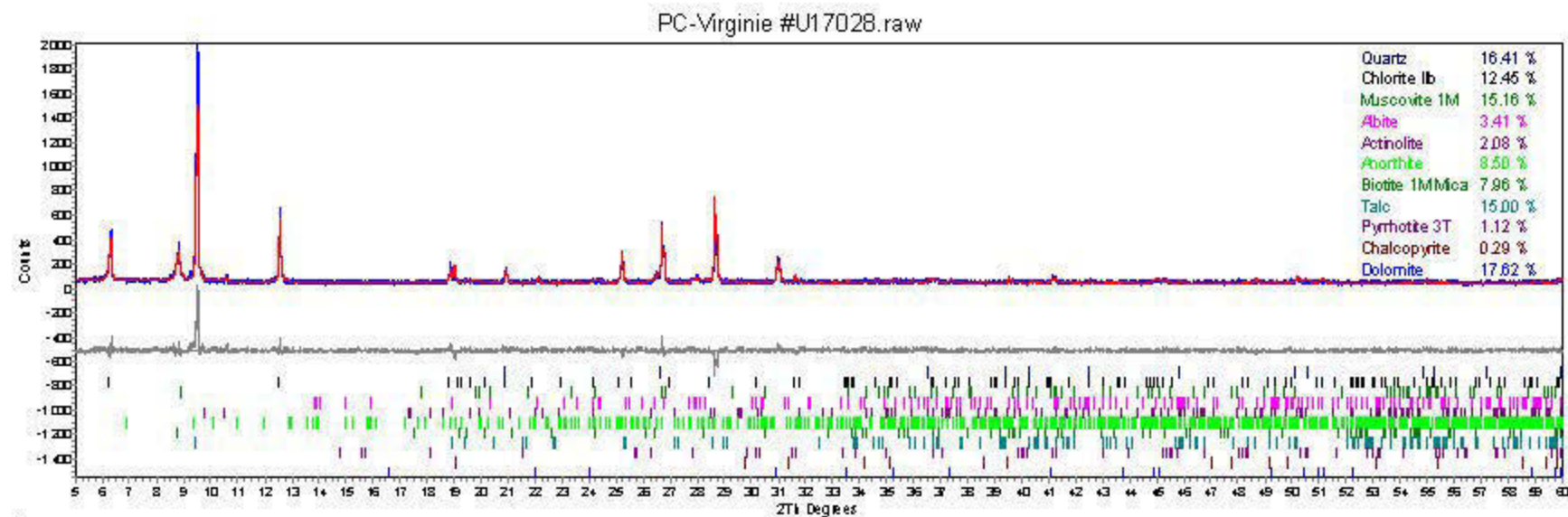


Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date : 8 mars 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011



Échantillon Alimentation 2010-11-04

Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

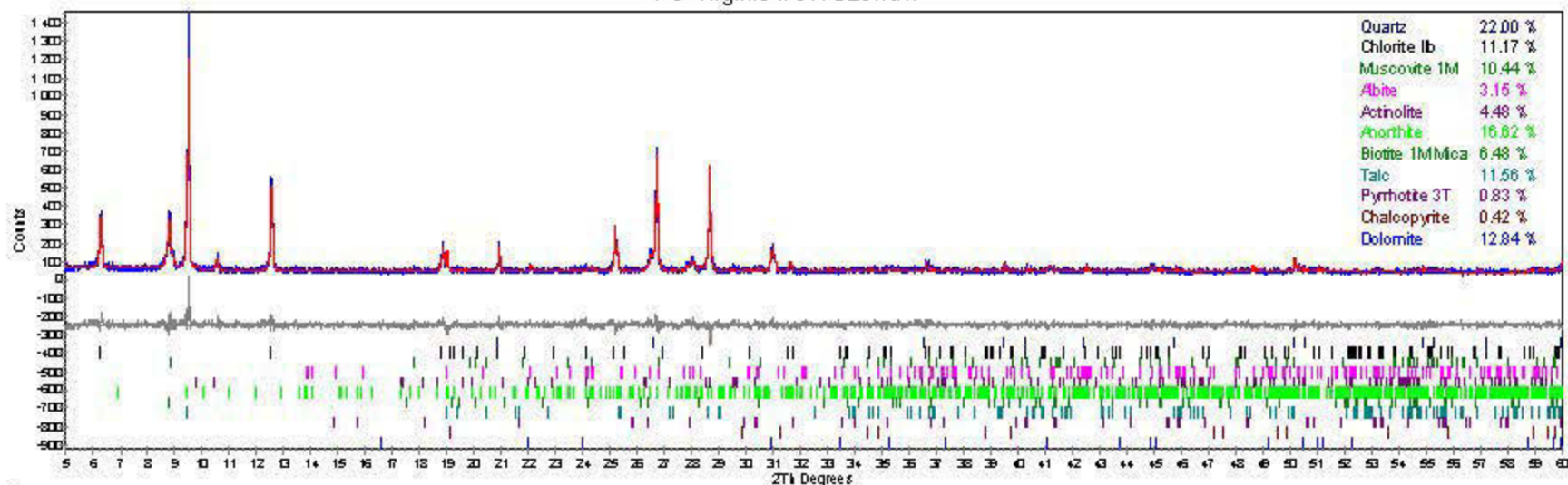
Date : 8 mars 2011



## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011

PC-Virginie #U17029.raw



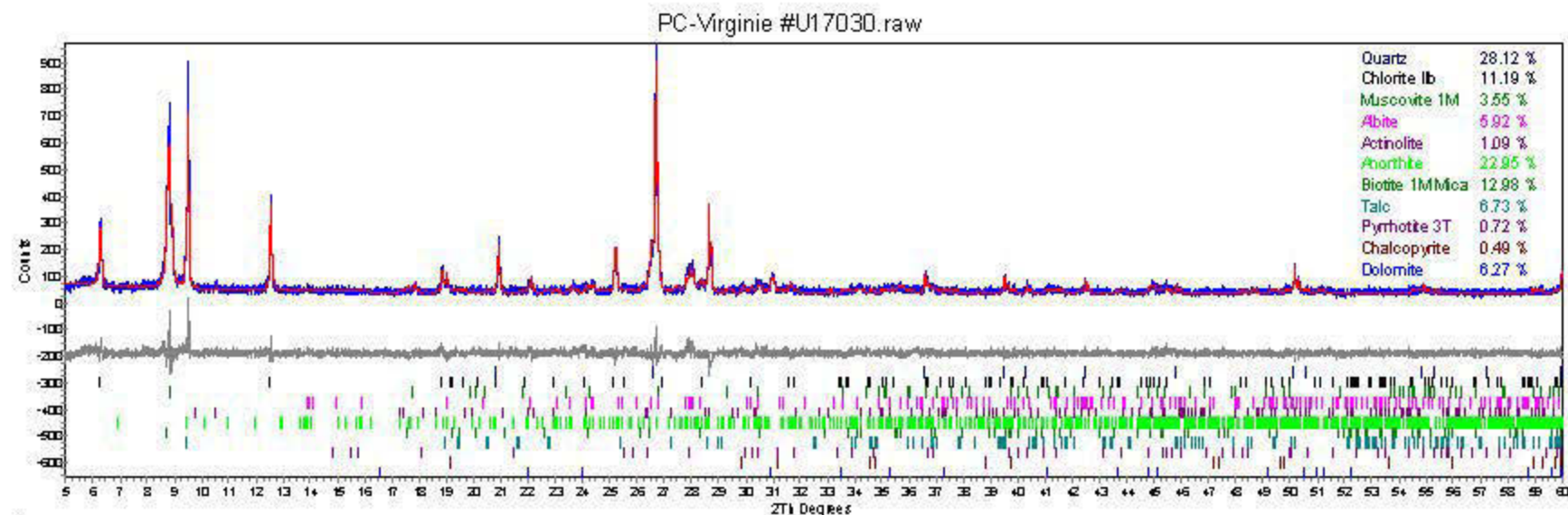
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Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date : 8 mars 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011



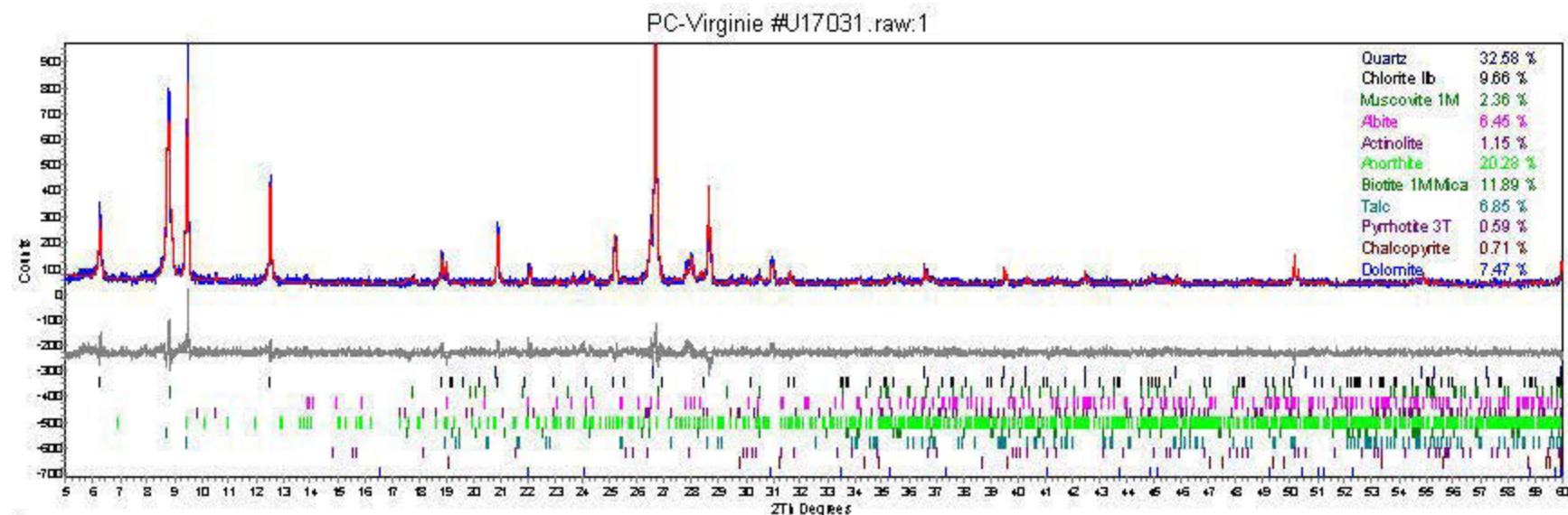
Échantillon Alimentation 2010-11-08

Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date : 8 mars 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011



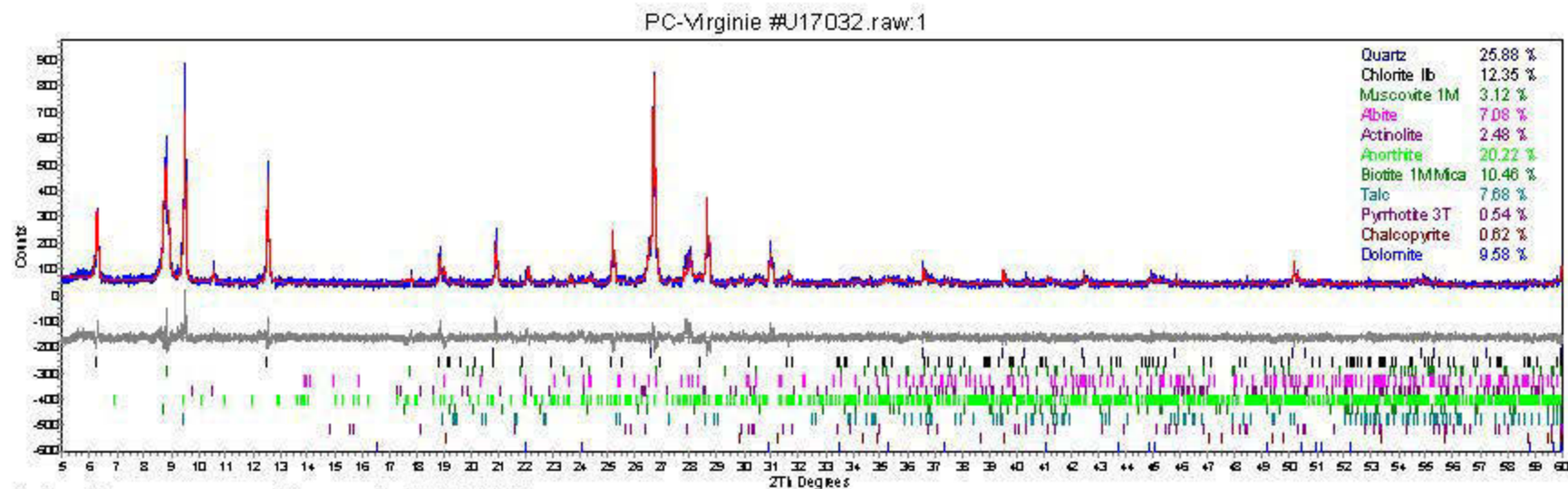
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Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date : 8 mars 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011



Échantillon Alimentation 2010-11-10

Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

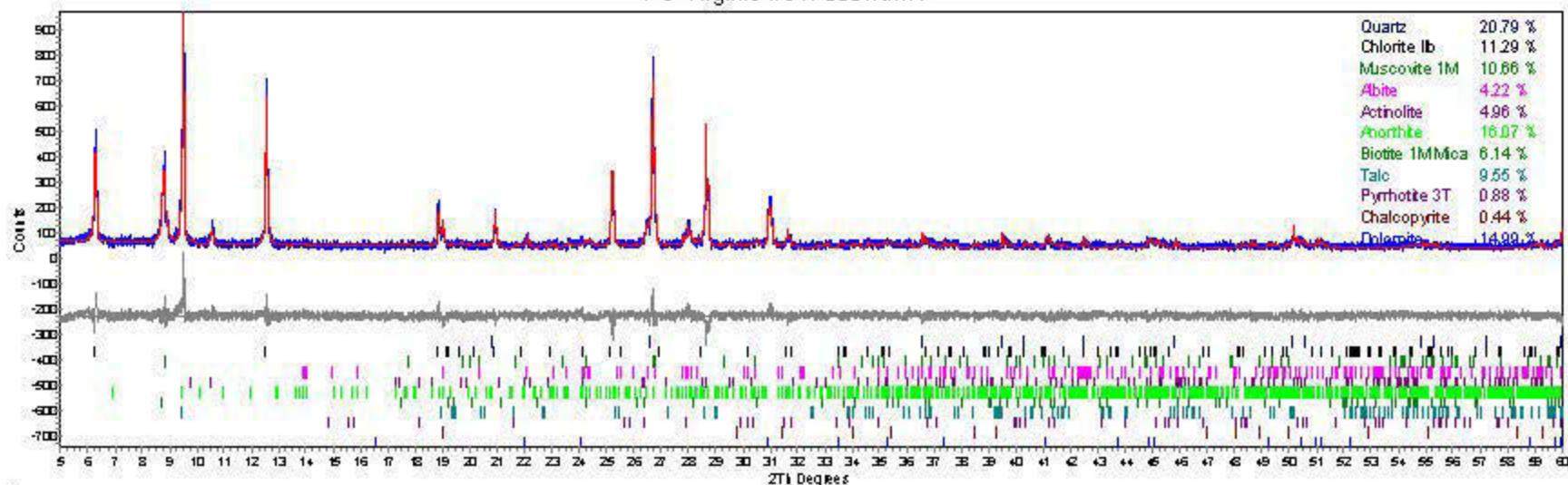
Date : 8 mars 2011



## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011

PC-Virginie #U17033.raw.1



Échantillon Alimentation 2010-11-11

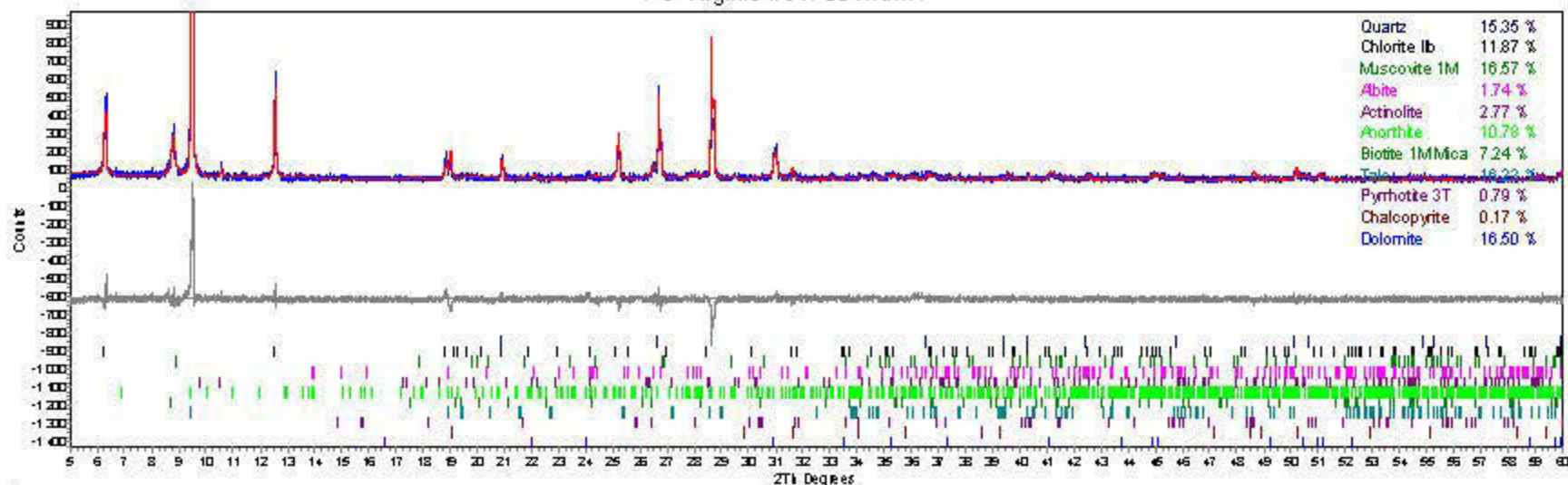
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Mathieu Villeneuve, Chimiste

Date : 8 mars 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011

PC-Virginie #U17034.raw.1



Échantillon Alimentation 2010-11-17

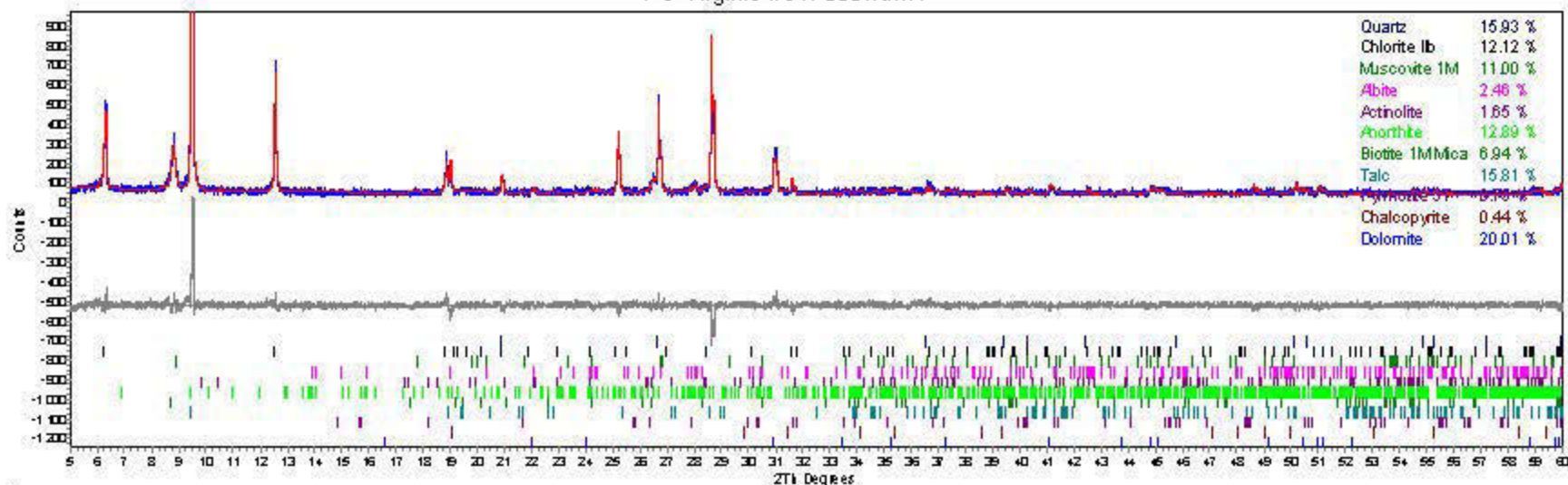
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Mathieu Villeneuve, Chimiste

Date : 8 mars 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011

PC-Virginie #U17035.raw.1



Échantillon : Alimentation 2010-11-19

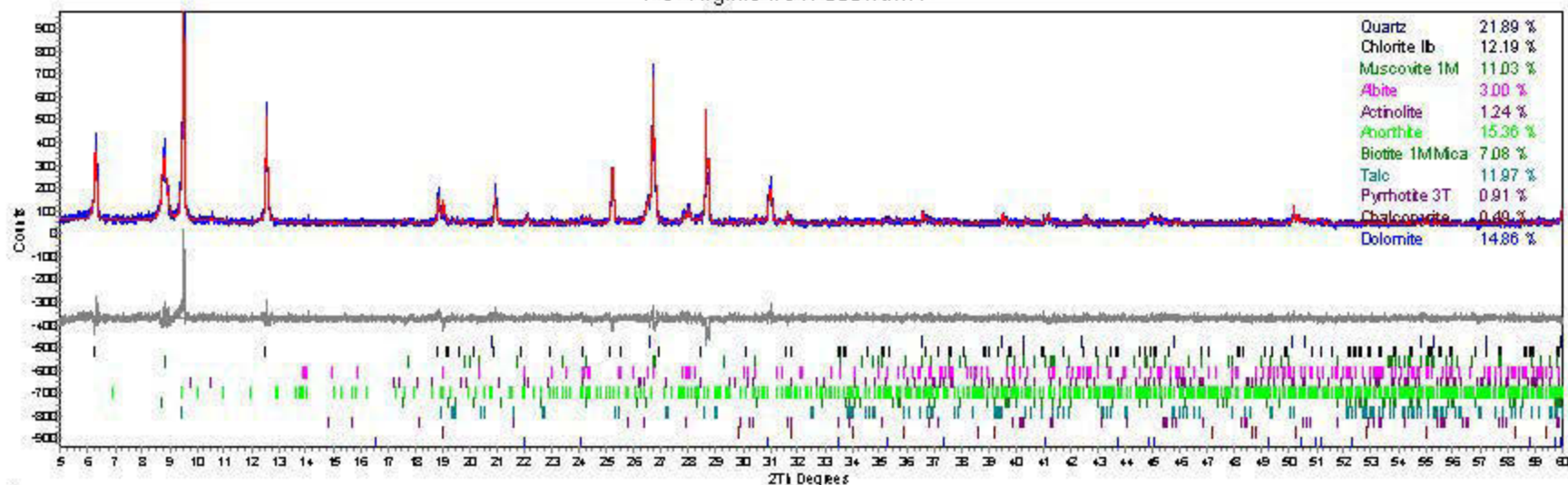
Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date : 8 mars 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Mélanie Bélanger  
Analyse : Geneviève Pepin, géo. stag.  
Date : 04 mars 2011

PC-Virginie #U17036.raw.1



Échantillon Alimentation 2010-11-22

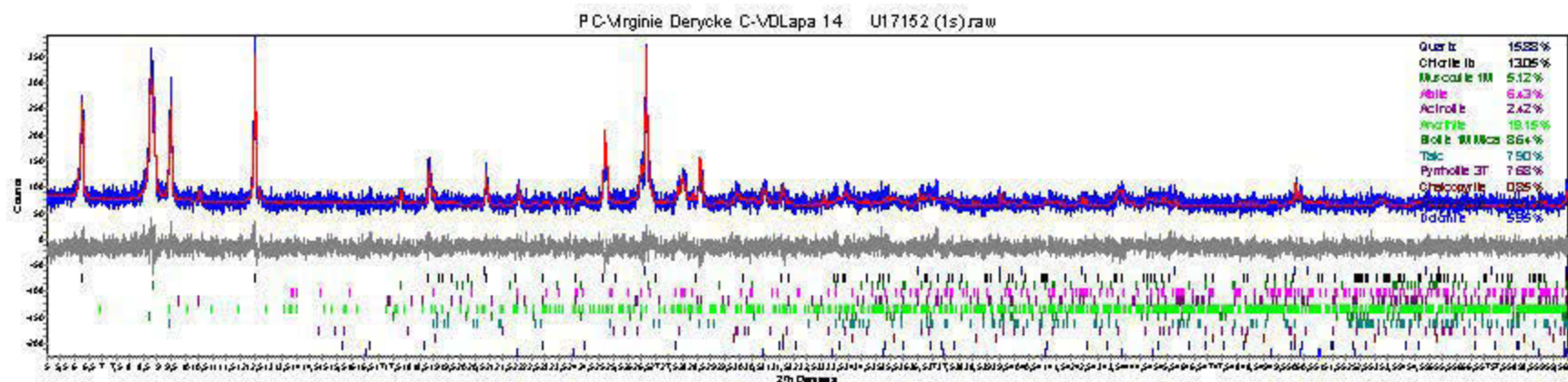
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Mathieu Villeneuve, Chimiste

Date : 8 mars 2011



## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Janie Guimond Rousson  
Analyse : Geneviève Pepin, géo. stag.  
Date : 10 juin 2011

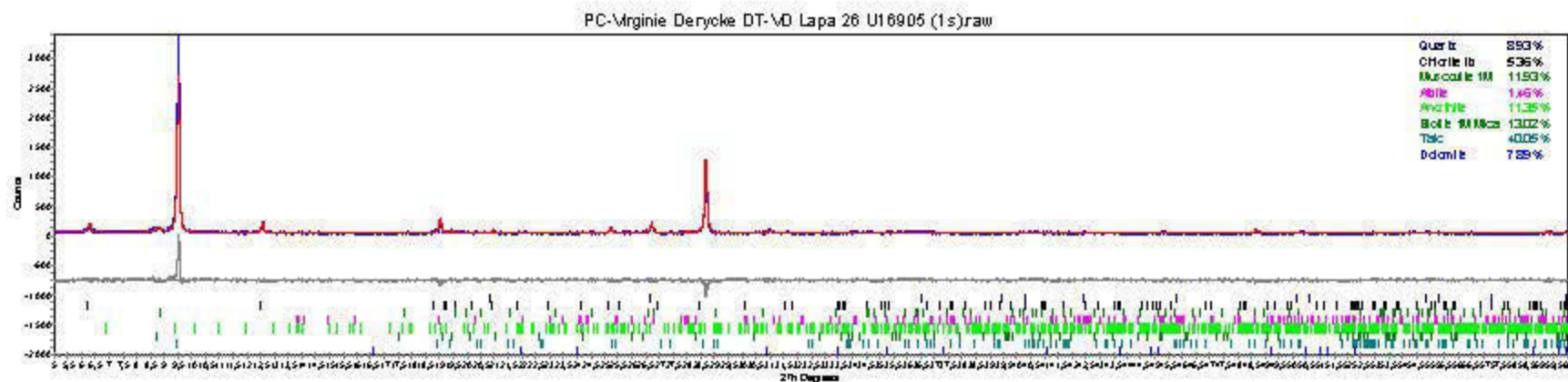


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Mathieu Villeneuve, Chimiste

Date : 31 janvier 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Janie Guimond Rousson  
Analyse : Geneviève Pepin, géo. stag.  
Date : 10 juin 2011

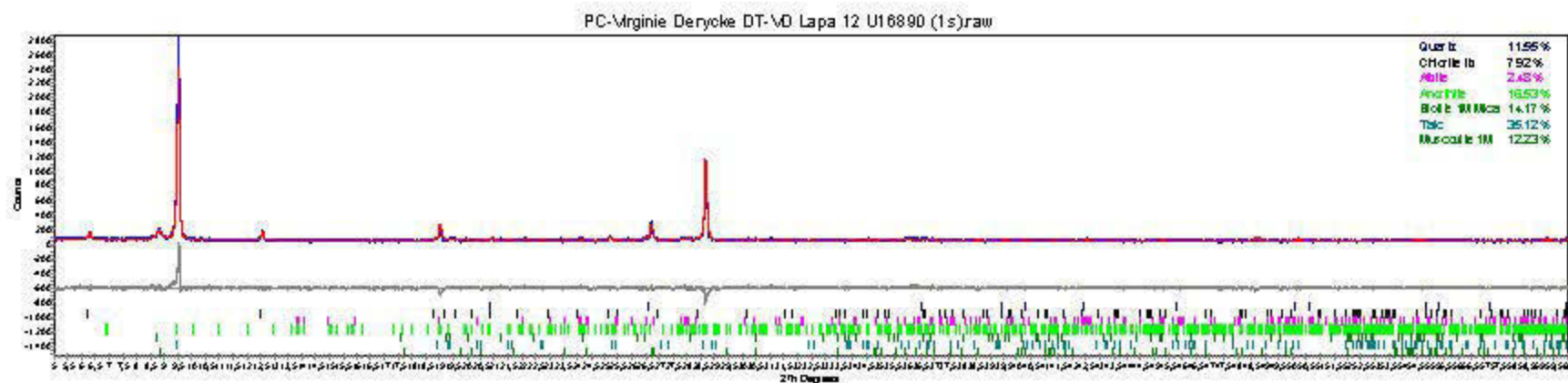


Approuvé par : \_\_\_\_\_  
Mathieu Villeneuve, Chimiste

Date : 31 janvier 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Janie Guimond Rousson  
Analyse : Geneviève Pepin, géo. stag.  
Date : 10 juin 2011

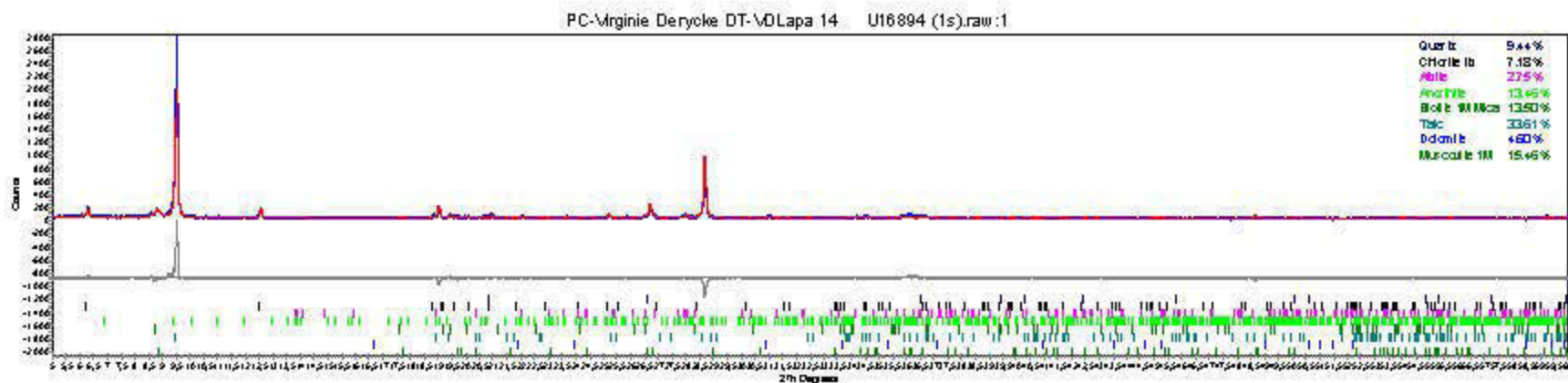


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Mathieu Villeneuve, Chimiste

Date : 31 janvier 2011

## Analyse minéralogique quantitative par diffraction des rayons X

Échantillonnage : Janie Guimond Rousson  
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Date : 10 juin 2011

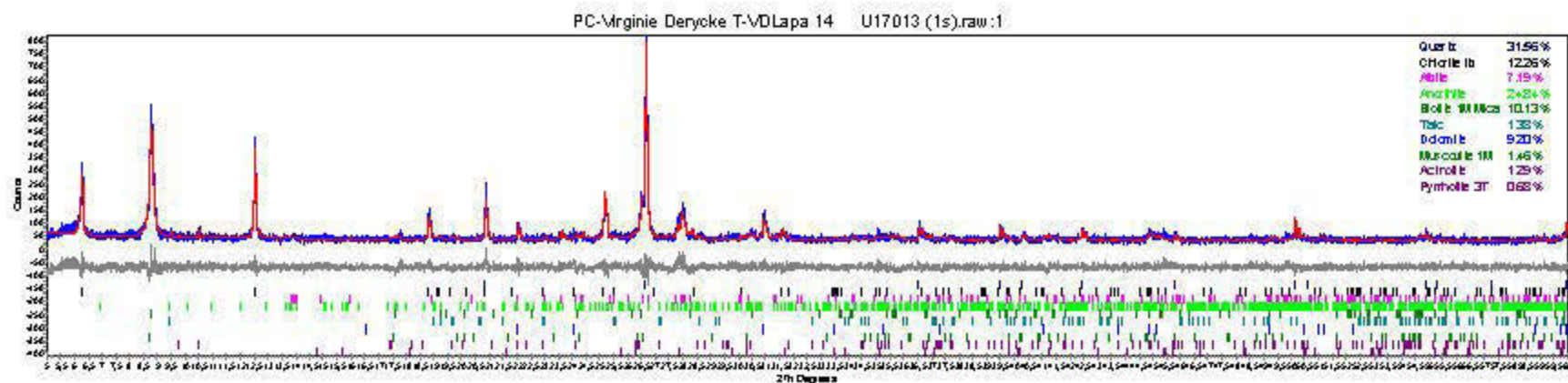


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Échantillonnage : Janie Guimond Rousson  
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Date : 10 juin 2011



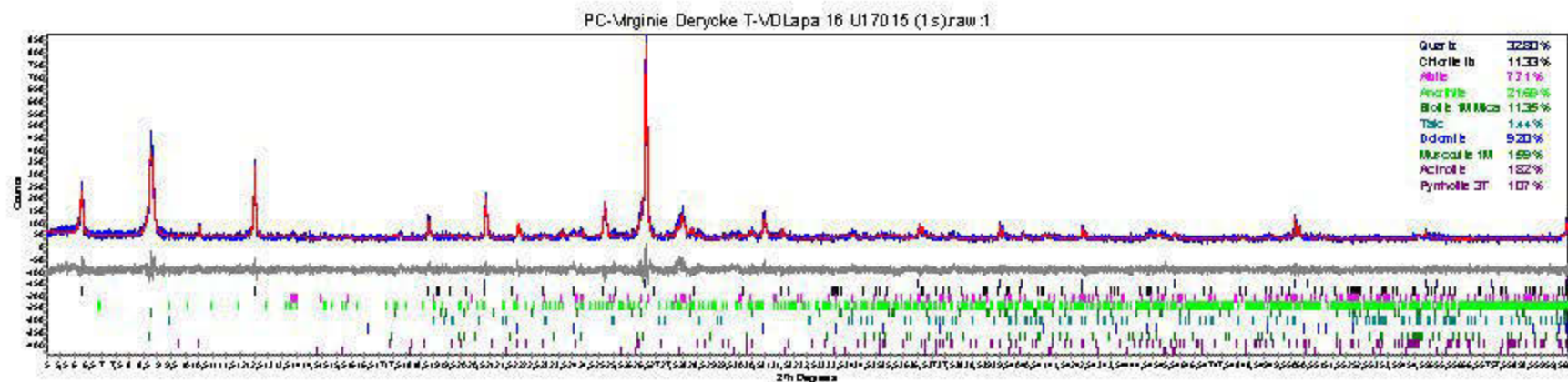
Approuvé par : \_\_\_\_\_  
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Date : 31 janvier 2011



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Échantillonnage : Janie Guimond Rousson  
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Approuvé par : \_\_\_\_\_  
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Date : 31 janvier 2011