A RUBRIC FOR ELECTROCHEMICAL TESTING OF METALLIC BIOMATERIALS

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ABSTRACT

A Rubric for Electrochemical Testing of Metallic Biomaterials

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Corrosion is a major factor for the failure of metallic medical implants. Testing a metal's suseptability to corrosion prior to implantation is key to a successful implantation. Electrochemical processes were used in this study to evaluate the characteristics of corrosion of both AISI 316 stainless steel and titanium alloy Ti6Al4V, welded and non-welded. Linear, potentiodynamic, and cyclic polarization curves were produced by the PARC 2273 potentiostat showing the corrosion tendencies of the metals in four unique solutions 3.5% NaCl, 0.35% NaCl, phosphate buffered saline solution (PBS), and Butterfield phosphate buffered solution (BPS). The concentration of chloride ions in solutions affected the passivation current ($I_{passive}$) and the passivation range of both AISI 316 and Ti6Al4V. In general, larger concentrations of the chloride ions increased the passivation current and decreased the passivation range. Both AISI 316 and Ti6Al4V exhibited passive behavior. Ti6Al4V proved to be the more corrosion resistant metal in the test solutions, showing the ability to repassivate and resist pitting.

Keywords: Corrosion, Electrochemical Corrosion, Corrosion Potential (E_{corr}), Polarization, AISI 316 Stainless Steel, Titanium Alloy, Metal Implants, Passivty, Biomaterials

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CHAPTER 1: INTRODUCTION

The study of corrosion is an interdisciplinary topic that incorporates the study of materials, corrosion, and chemistry. Corrosion has been studied using non-electrochemical techniques for many years. Techniques for determining corrosion rate include weight loss measurements, analysis of dissolved species in solution, and dimensional changes in the sample. These test methods have their limitations, typically the amount of time needed for experimentation, or access to the corroding material.

Electrochemical testing allows engineers and scientist to monitor corrosion rates with a high degree of sensitivity and control. They are able to study and predict a material's durability as well as estimate how a material will perform in different applications in a much shorter time than by other methods[1]. Such testing methods are particularly useful in testing the susceptibility of biomaterials to corrosion. Studying the effect of corrosion on a biomaterial is important because of the adverse effects implant corrosion can have on the patient. Corrosion will diminish an implant's structural integrity leading to a need for repeated surgical intervention for replacement. The implant's dissolution products can also cause harmful effects to the patient.

Corrosion is not always the main cause of failure of medical implants. There are instances in which wear or fatigue of the implant damages its surface and works in consort with corrosion, leading to failure. Studies done by B. Aksakal, on Titanium alloy Ti6Al4V and stainless showed 42% of failures were caused by corrosion, 25% by fatigue, 16.5 by inclusions and stress gaps, and 16.5% by production impurities[2]. Corrosion is a major cause for the failure of medical implants.

CHAPTER 2: GOAL

The goal of this thesis is to develop a versatile, flexible, robust, and easy to use system to evaluate candidate metallic biomaterials susceptibility to corrosion. The system will be tested by placing metallic biomaterials used in medical implants in a variety of solutions. The results of the study will be a functional system for corrosion testing of biomaterials.

CHAPTER 3: BACKROUND

This section will feature background information on corrosion, biomaterials and electrochemical testing methods. This information will be useful in understanding the results of tests such as tafel plots, potentiodynamic polarization, and cyclic polarization.

3.1 Corrosion

3.1.1 Basics of Corrosion

Corrosion is the "deteriorative loss of metal as a result of dissolution environmental reactions[3]." Figure 1, shows the four requirements necessary for corrosion:

1. A conductive material, to transfer of electrons in a solid state circuit

2. An anode, a site where oxidation occurs

3. A cathode, a site where reduction occurs

4. And an electrolyte, to allow the closure of the electrical circuit via a fluid path for ions
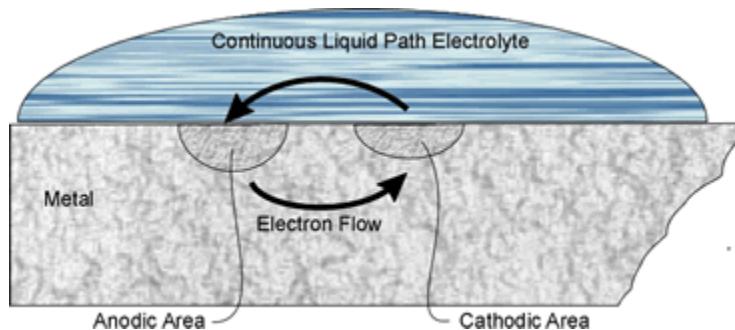
Figure 1: Diagram of Corrosion Pathway

Corrosion is best understood by initially considering the simple state used to develop the electromotive force (EMF) series seen in Table 1. The EMF series of reactions is measured using a standard hydrogen electrode (SHE) as a reference. The

other electrode is the pure metal in equilibrium with a 1 molar solution of the metal ion. Each metal generates a different potential versus the SHE. The more positive the potential measured the more noble the metal. Conversely, the more negative the potential measured the more active the metal. The most cathodic reaction shown is gold and the most anodic reaction shown is sodium[4]. In a simple system the only reactions occurring are the oxidation and reduction of the material as shown in Figure 2. At equilibrium (E_o) of this system the anodic and cathodic reaction are in balance, and no net corrosion is occurring. The corresponding current density at equilibrium is i_o, the exchange current. This is different than corrosion potential and corrosion current (E_{corr}, I_{corr}), which depend on mixed potential systems, and the intersection of independent anodic and cathodic curves. Mixed potential systems will be discussed in subsequent sections.

Table 1: Electromotive Force (EMF) Series

Element	Electrode Reaction	Standard Electrode Potential (v)
Sodium	$Na \rightarrow Na^+ + e$	-2.712
Magnesium	$Mg \rightarrow Mg^{++} + 2e$	-2.340
Beryllium	$Be \rightarrow Be^{++} + 2e$	-1.700
Aluminum	$Al \rightarrow Al^{+++} + 3e$	-1.670
Manganese	$Mn \rightarrow Mn^{++} + 2e$	-1.050
Zinc	$Zn \rightarrow Zn^{++} + 2e$	-0.762
Chromium	$Cr \rightarrow Cr^{+++} + 3e$	-0.710
Iron	$Fe \rightarrow Fe^{+++} + 3e$	-0.440
Cadmium	$Cd \rightarrow Cd^{++} + 2e$	-0.402
Cobalt	$Co \rightarrow Co^{++} + 2e$	-0.277
Nickel	$Ni \rightarrow Ni^{++} + 2e$	-0.250
Tin	$Sn \rightarrow Sn^{++} + 2e$	-0.136
Lead	$Pb \rightarrow Pb^{++} + 2e$	-0.126
Hydrogen	$H \rightarrow 2H^{++} + 2e$	(reference) 0.000
Copper	$Cu \rightarrow Cu^{++} + 2e$	0.345
Copper	$Cu \rightarrow Cu^+ + e$	0.522
Silver	$Ag \rightarrow Ag^+ + e$	0.800
Platinum	$Pt \rightarrow Pt^{++} + 2e$	1.200
Gold	$Au \rightarrow Au^{+++} + 3e$	1.420
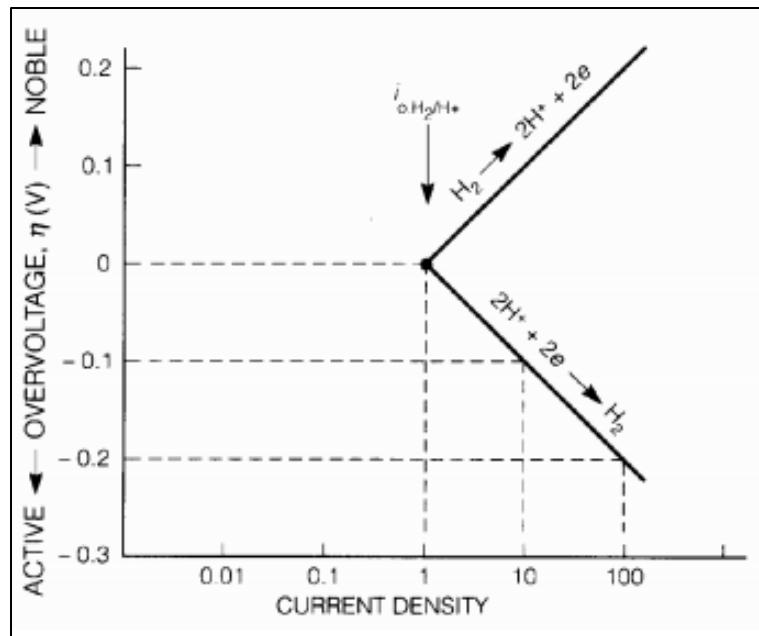
Figure 2: Oxidation and Reduction of Hydrogen Gas

There are many types of corrosion such as galvanic corrosion, crevice corrosion, pitting corrosion, cavitation corrosion and stress corrosion cracking. Their name usually describes the mechanism, or the metal's appearance after it is corroded. Metallic corrosion is usually an electrochemical process where an anode and a cathode are connected in the solid state and the circuit is completed through a conductive liquid state. Oxidation takes place at the anode in a corrosion cell; the electrons leave the anode and flow towards the cathode. The anodic area is usually where the metal deteriorates and corrosion occurs. Typically a metal, M, gives up ne^-, producing M^{n+} a soluble ion; n is the number of electrons exchanged for each ion. The cathode in a corrosion cell is where reduction takes place; electrons travel through the solid state portion of the corrosion circuit to the cathode. The cathode is where the electrons are consumed by the cathodic reaction. The reduction and oxidation reactions are termed half-cell reactions because they must be occurring simultaneously for corrosion to occur. Typically, the slowest reaction determines the rate of corrosion.

Where no current is following there is a potential (or voltage) difference between the anode and the cathode that drives the metal to corrode[5]. In the case of two different metals that are electrically connected in the solid state, the one with the lower potential will become the anode and actively corrodes; while the other metal, being more noble, becomes the cathode. The anode undergoes an oxidation process in which the metal loses electrons, which travel to the cathode through the solid state circuit. The anodic area is usually where the metal deteriorates and corrosion occurs. The cathode surface provides a location for cathodic reactions. This could be plating of the more noble metal. However the most common cathodic reactions include $O_2+2H_2O+4e^-\rightarrow 4(OH)^-$ in aerated neutral solutions and $2H^++2e^-\rightarrow H_2$ in acidic solutions. The cathodic area receives electrons from the anode which are absorbed by atoms, molecules or ions to complete the reaction. This will typically involve a release of gas from the cathodic area such as hydrogen or oxygen.

The corrosion rate is the weight loss of the metal as a function of time or equivalently the current divided by the metal surface area[6]. Care must be taken in using the overall corrosion rate because a lower rate of corrosion that is highly localized may actually be more damaging than a higher corrosion rate over the entire surface.

Corrosion can occur between two different metals which are in electrical contact where one is the anode and the other is the cathode. However, corrosion more typically occurs when two different locations on the same metal form a cathode/anode pair. This latter case can lead to localized corrosion if particular anodic sites are stabilized. Corrosion in biomaterials is typically localized corrosion such as: pitting corrosion, crevice corrosion, or stress corrosion cracking. In all cases, the same principle of electrochemistry applies. In localized corrosion, a certain site on the metal will become

the anode and another site will become the cathode. The two sites are electrically connected because they are on the same piece of metal, so electrons can easily travel from one site to the other (anode to cathode). The circuit is complete if an electrolyte is present which allows ions a path to close the circuit, satisfying four requirements needed for corrosion. The electrolyte is typically the fluid environment surrounding the metal, such as seawater, moist soil, biological fluids, etc. Bacteria can exacerbate the localization because they exist on the same scale as the anodic sites and may expedite the rate of corrosion by participating in the polarization process at each electrode[7].

Most metals used in a physiological environment are passive metals. This phenomenon will be explained in more detail in a later chapter. Passive metals can be particularly sensitive to pitting corrosion, crevice corrosion, and stress corrosion[8].

Pitting corrosion occurs on the metal when a local anode stabilizes and is supported by a large cathodic area. This produces a small hole or pit on the surface of the metal. Localization can be caused by a variety of factors such as inclusions in the base metal, biofilm formations, or other chemical, mechanical, or geometric singularities on the metals surface. An anodic site on the surface is often established because the oxygen concentration is reduced there. This accelerates corrosion at that site and establishes a cathodic "halo" around it. The electrons generated at the anode are consumed in the cathodic "halo" region where oxygen is readily available.

Crevice corrosion usually also occurs on passive metals. Again the passive film that forms on such metals breaks down in regions of low oxygen concentration creating a local anode on the metals surface. Such low oxygen regions are observed in the crevice formed by two Mg abutting surfaces as seen in Figure 3. Other parts of the metal's

surface where oxygen is abundant become the cathode, supporting corrosion. In a crevice the oxygen concentration is lower and it establishes as an anode.
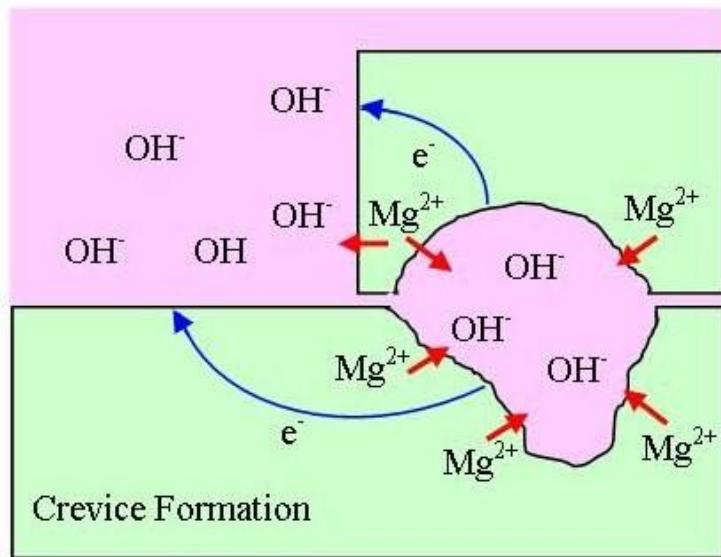
Figure 3: Example of Crevice Corrosion of Magnisium (Mg)

Stress corrosion cracking (SCC) is the cracking of a material that occurs in special situations. Three factors are required for SCC to occur; tensile stress, a particular environment, and a susceptible material will cause the material to crack. This is a very localized type of corrosion where the surrounding parts of the metal are left unharmed and there is very little metal lost. This usually occurs on a passive metal where the passive layer has not form uniformly leaving areas of metal susceptible to corrosion. The area of electrochemical activity is usually a grain boundary or on particular crystallographic plane in a grain. The crack walls and the metal surface remain passive, acting as the cathode, while the crack tip is the anode and rapidly corrodes. The cracks typically propagate perpendicular to the applied stress. An increase in tensile strength and/or corrosivity of the environment can accelerate the process. This corrosion process

is of importance because it comes without warning, leading to catastrophic failure of the material.

The possible effects of corrosion include but are not limited to loss of material, loss of life span of material, loss of appearance, reduced strength.

3.1.2 Corrosion Mechanisms: Thermodynamics

There are many factors that can affect corrosion including temperature, pressure, solution, concentrations, metals present, pH, flow, and many others. Using the laws of thermodynamics we can determine if a metal can corrode and using kinetics are we can determine the rate at which the corrosion will occur. The concept of free energy has been used to characterize equilibrium in chemical systems since first discussed by Gibbs. This concept of free energy is very useful in determining the possibility of corrosion, although it provides no information about the rate of corrosion. Electrochemical techniques can be used to determine the rate at which corrosion can occur.

Free energy (G) is a measure of the thermodynamic driving force for corrosion. Most metals are "thermodynamicalyy unstable and will tend to seek a lower energy state[9]." Understanding the free energy of the system will allow us to determine if corrosion can occur, but again provides no information about the rate of reaction. Remember the electromotive series is developed with pure metal electrodes in equilibrium with 1 molar solution of their ions. This is rarely the case in actual systems. Corrosion occurs until metal ions in the environment and metal atoms in the solid reach equilibrium; that is, their free energies are equal[10].

The Nernst equation can be used to calculate the equilibrium potential of more complex systems where ionic concentrations are not 1 molar (non-standard).

$$E = E^o - \frac{RT}{nF}\ln\left(\frac{red}{ox}\right)$$
Eq. 1

In this expression

E = electrode potential

E_o = the standard electrode potential (dependent on electrode material)

R = gas constant

T = Temperature in Kelvin

n = numberof electrons in reaction

F = Fardays constant

red = activity product of reduced species

ox = activity product of oxidized species

In our experiments we will be using electrochemical test such as linear and potentiodynamic polarization where we measure corrosion currents induced by increasing or decreasing the potential exposed to the metal. Free energy and potential can be correlated through the equation

$$\Delta G = -|n|\,FE$$
Eq. 2

where n is the number of electrons, F is Faraday's constant and E is the potential. Therefore electrochemical potential can be used to control corrosion. If the potential at

the metal surface is greater than the equilibrium potential corrosion will occur.

Conversely if the potential is less than the equilibrium potential it can cause plating, or

another cathodic reaction.

Table 2: Reaction to Gibbs Free Energy and Cell Potential $Mn^+ + ne^- = M$

G	E	Reaction
0	0	No reaction
Negative	Positive	Plating
Positive	Negative	Corrosion

3.1.3 Corrosion Mechanisms: Kinetics

Kinetic approaches allow us to determine the rate of corrosion by using the

oxidation and reduction reactions of the corrosion cell[11]. For example in the case of iron

(Fe) in oxygen free neutral water (H_2O) the suspected reactions are

Oxidation: Fe $\rightarrow$ Fe^{2+} + 2e$^-$

Reduction: $2H_2O$ + 2e$^-$ $\rightarrow$ H_2+2OH$^-$
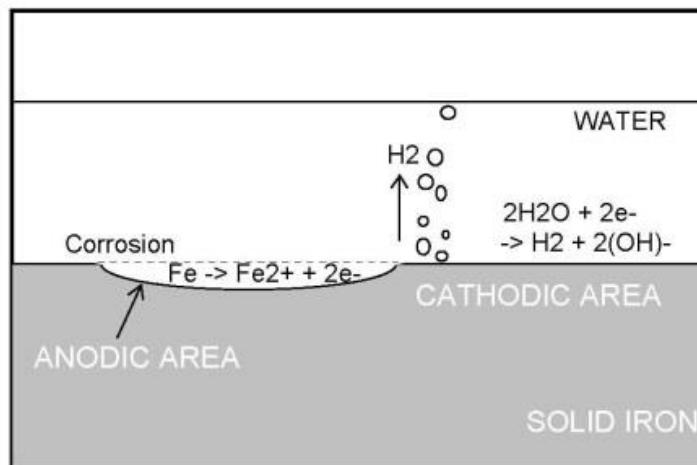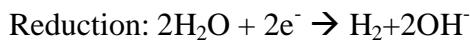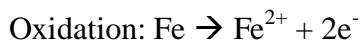
Figure 4: Diagram of Iron dissolution into Hydrogen gas

In this reaction iron is oxidized and loses two electrons. These two electrons are consumed in a reduction reaction, splitting water, producing hydrogen gas and hydroxide ions. As shown in Figure 4, the oxidation of iron produces a water soluble ion and a loss of solid mass. This electrochemical reaction happens at the surface of the metal. One location on the iron is the anode and another location is the cathode, the faster the iron is oxidized into ferrous ions the greater the rate of corrosion. Current flows from the anode to the cathode and the greater the rate of corrosion the larger the current will become. The current at the anode and current at the cathode are always equal. The measurement of corrosion current is the amount of electrons which flow per second, amps (A). Typically, corrosion rates are given in current density, amperes per cm^2 of exposed surface.

3.1.4 Polarization

The rates at which reactions occur at the anode and cathode influences the rate of corrosion. When corrosion reactions are allowed to proceed, the flow of current alters the potential at the anode and the cathode moving them closer together. Polarization is the change in equilibrium potential of an electrochemical cell as current flows through it. Figure 5 shows an Evan's diagram of the equilibrium hydrogen reaction and the equilibrium iron reaction on the same graphic[12]. In the Evan's diagram the potential is shown on the y-axis and current density (current/area) is shown on the x-axis. Each reaction has its own reduction and oxidation reaction and its own equilibrium potential (E_o) and equilibrium current (I_o) where the redox reactions are equal. When the two reactions are coupled they will polarize to the point where the two curves intersect. The potential and current at this intersection are known as the corrosion potential (E_{corr}) and the corrosion current (I_{corr}). At this point the oxidation reaction of iron and the reduction

reaction of hydrogen occur at equal rates, and there is no net charge buildup because all the electrons being discharged at the anode are being consumed by the hydrogen reaction at the cathode.
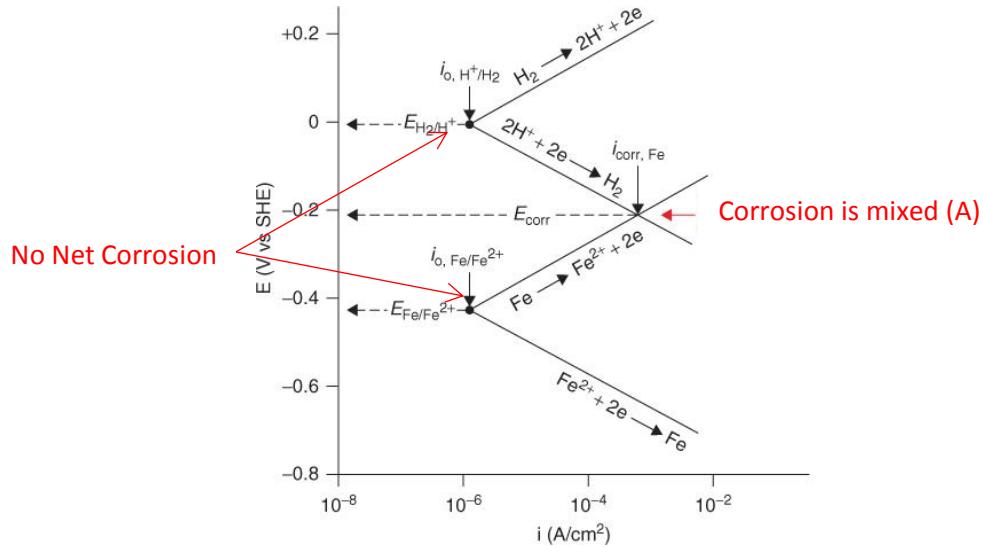
Figure 5: Evans Diagram of Iron and Hydrogen Reactions

In most active systems one of the half-cell reactions controls the rate of corrosion. Typically it is the cathodic reaction that is more complex, is slower, and thus limits the overall rate of reaction. The potential of the cell can increase or decrease when the reaction is allowed to proceed and current flows. At the anode, an increase in current will increase the potential over the equilibrium potential. This accelerates the oxidation reaction producing more electrons as more ions are released from the anode. The opposite is true at the site of the cathodic reaction. An increase in current decreases the potential at the cathode, and the cathodic reaction proceeds at a faster rate. Note that potential changes at each site changes until the potential at the anode and cathode are equal. The current at the cathode is always equal to the current at the anode. Figure 6 shows only region (A) from Figure 5, the mixed anodic and cathodic half reactions overlayed on a current density vs potential graph. The I_{corr} and E_{corr} are defined by the intersection of the

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cathodic reaction for the reduction of the hydrogen ion and the anodic reaction for the

oxidation of iron.
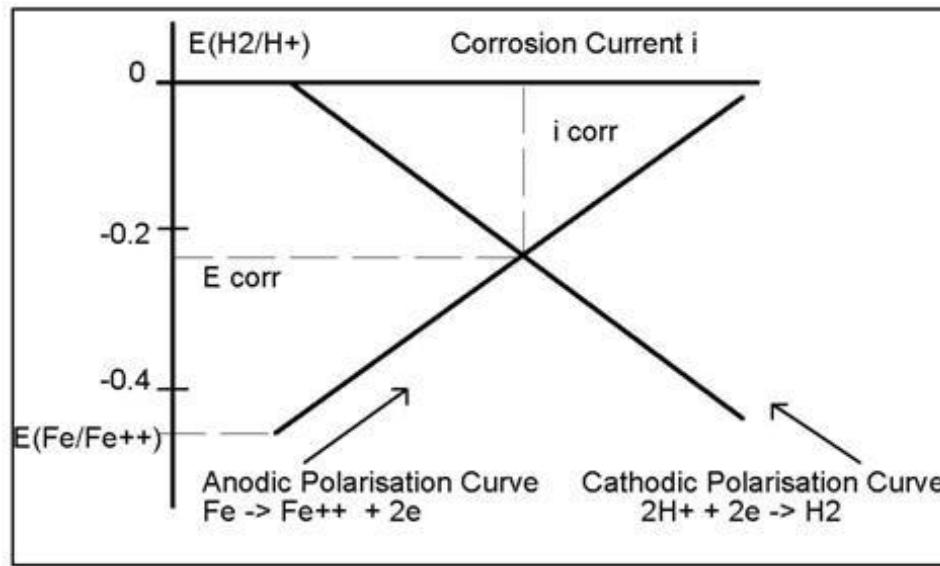
Figure 6: Tafel/Linear plot of Iron and Hydrogen Reaction

In addition to this polarization, developed by the activation required for the

reaction, polarization can also develop because the concentration of a reactant is depleted

near the reaction site[13]. As ions are consumed near the surface fewer ions are available at

the surface of the metal to allow the discharge for the electrons at the cathode. The

cathodic reaction is limited because it is in intimately linked to the anodic reaction, the

anodic reaction is limited as well. Figure 7 shows that the cathode exhibits activation

polarization between i_o and i_L. When the i_L is reached, no increase in current is produced

despite an increase in overpotential. This behavior is characteristic of concentration

polarization. Despite the increase in driving force,there are simply too few reactants to

support the transfer of elections from the cathode. The limiting current can be determined

from the equation:

$$i_L = \frac{DnF}{d} * c \qquad\qquad \text{Eq. 3}$$

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Where

D= diffusion coefficient of the ionic species

n= number of electrons

F=Faraday's constant

d= thickness of the depleted boundary layer

c= concentration

This expression indicates that the limiting current, i_L, can be increased by increasing the diffusion coefficient of the reacting ion, reducing the thickness of the depleted layer, or increasing the concentration of the reactants available. For example in the corrosion of Fe in acidic solutions, the slope of the strait line we see in Figure 6 would become vertical when there was no longer enough hydrogen (H^+) to be reduced into hydrogen gas (H_2). The further the potential is from E_{corr} the greater the current and the more likely concentration polarization will occur.
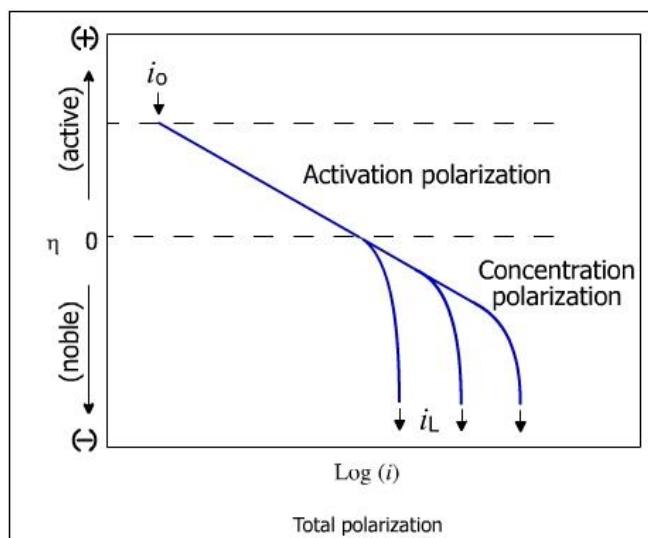
Figure 7: Example of Concentration Polarization Curve

3.1.5 Cases of Corrosion

A metal in solution can react in three basic ways. It can be immune to corrosion, it can actively corrode, and it can be passive. If a metal is immune in its environment no corrosion will occur, that is the weight loss of the material will be zero. For example gold in seawater is immune to corrosion because the free energy charge for the corrosion reaction is greater than zero. The material is thermodynamically stable for all available cathodic couplings. If a metal is active corrosion will occur, and the material will deteriorate in given its surrounding solution. Again this state is thermodynamically defined. The metal corrosion reaction has a negative ΔG of reaction for available cathodic reactions. The passive state is more complex. For a material to be passive, it must be thermodynamically susceptible to corrosion. Corrosion occurs for a period of time until the metal is covered by a tightly adherent, insoluble corrosion product. This corrosion product forms a diffusion blocking coat, which interfaces with corrosion half reactions and greatly reduces the corrosion rate and the material exhibits immune-like behavior, passivity. If the film is somehow damaged, corrosion of the metal will begin again.
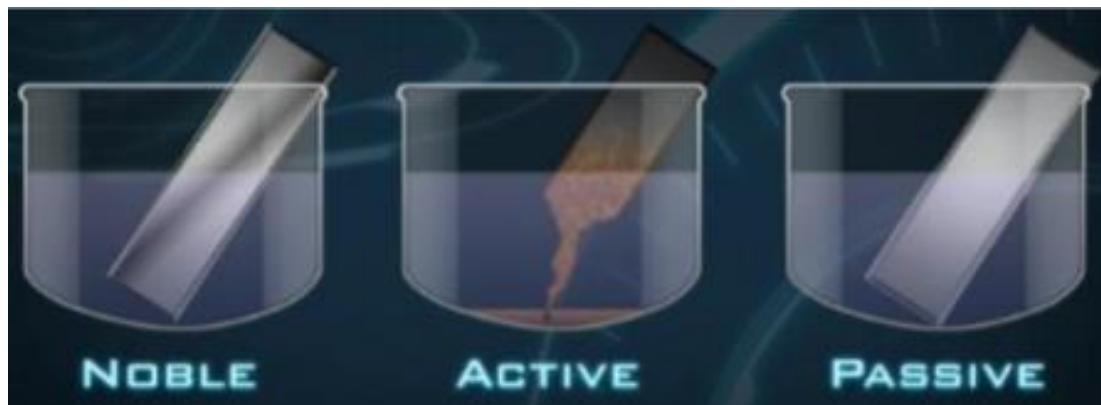
Figure 8: Diagram of Immune (noble), active, and passive metals

3.1.6 Passivity

A passive metal experiences little to no corrosion at high anodic potentials because a tightly adherent hydrated oxide film that is formed on the surface of the metal inhibits corrosion. The film becomes a barrier between the metal and the electrolyte and slows the dissolution of anodic reaction products because ions have low diffusivity in the oxide[14]. This greatly reduces the rate at which corrosion can take place. An idealized potentiodynamic scan for a passive material is shown in Figure 9. Starting from the bottom of the graph below equilibrium potential $E_{M/M+}$ no corrosion is occurring (Region A). However, as the potential is increased above $E_{M/M+}$ metal begins to actively corrode, and the corrosion current density increases with an increase in potential (Region B). At the primary passive potential (E_{pp}) there is a decrease in current density as potential increases. This is the beginning of the passive region and a critical state in the formation of the oxide film (Region C). The passive region continues until the oxide is fully formed the current density stabilizes and there is little to no increase in current density as potential increases (Region D). The metal will remain passive until a high enough potential causes it to go transpassive. There is a sharp increase in current density as potential increase in the transpassive region (Region E) and corrosion is again actively occurring. Most commercially available corrosion resistant metals rely on passivity for resistance. If that passive film breaks down or is mechanically damaged the metal becomes susceptible to corrosion. All metals used for orthopedic implants exhibit passive behavior.
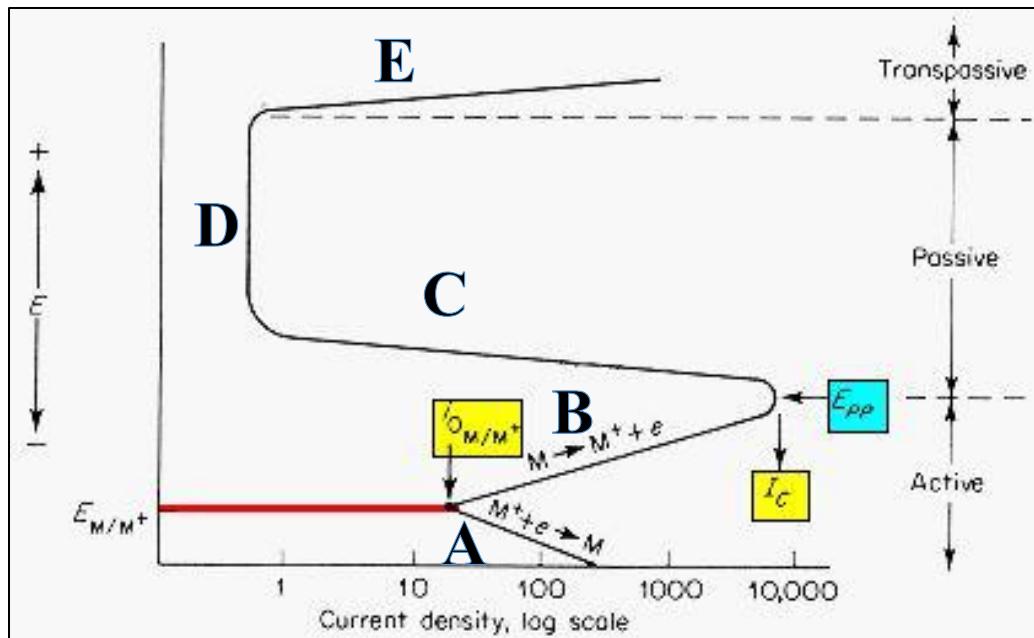
Figure 9: General Potentiodynamic Scan for Metal (M) which Passivates

3.2 Biomaterials

3.2.1 General information on Biomaterials

A biomaterial is a material that is intended to interact with the body to improve one's quality of life. The range of biomaterials is vast, encompassing biological biomaterials such as tissue, cartilage, and collagen to more traditional materials such as ceramics, polymers, and metals.

Any material which is meant to interact with the body must serve its intended function and not harm the host in other ways; in short the biomaterial must be biocompatible. Biocompatibility pertains both to the degradation of implant properties by interaction with physiological fluids and to the harm that implant materials can cause to physiological tissues. Biocompatibility is the ability of a material to perform its intended function with an appropriate host response in a specific application[15].

Metallic implant integrity is most affected by corrosion and fatigue. Each of the two processes, alone or in combination, can undermine the structural integrity of an implant and impair its strength, elasticity, ductility and fracture resistance.

Similarly, corrosion and the production of particulate residue can cause physiological responses which harm tissue. Corrosion products can be toxic, impairing cell function or even killing cells. They can cause inflammation or allergic responses. They can be carcinogenic, causing the development of cancerous tissue at the site, or at tissues remote from the site.

When a biomaterial is introduced into the body, it triggers a sequence of events in the surrounding tissue which ultimately ends in the formation of foreign body giant cells at the tissue-material interface. This reaction can have tremendous impact on the implant and on the surrounding tissue. Surface chemistry can have huge impact on the outcome of this process.

Host reactions following implantation include injury response, blood-material interactions, matrix formation, acute inflammation, chronic inflammation, granulation tissue development, the foreign body reaction, and fibrous capsule development. In cases where injury has occurred, and inflammation has ensued, but there has been no cellular necrosis or loss of fundamental membrane structure the process of tissue resolution can occur. This is the complete restitution of preexisting tissue. However, in most cases, implantation does cause necrosis, and granulation tissue grows in the region. The process of organization ensues, leading to fibrous tissue encapsulation.

For purposes of this study, it is important to note that the inflammatory process, at encapsulation, can greatly alter the chemical environment at the surface of the implant. Typically the pH can be dramatically lowered, and the oxygen pressure at the surface can change greatly. In addition, enzymes produced by cells involved in the foreign body response can accelerate the rate of the corrosion process. Increased corrosion rates cause the release of increased concentrations of metal ions which can further aggravate the inflammatory response, leading to a positive feedback in the corrosion loop.

This work will focus on the more traditional materials, specifically metals. Metals have been used since the early 1900's as support structures for of bone fractures and more recently as joint replacements (1950s)[16]. Today metals are used in a wide variety of implanted systems. They are used from head to toe in support plates, rods, screws, stents, and leads, see Table 3 for examples. The most common metals used are stainless steels, titanium alloys, and cobalt chrome alloys because they are well characterized and have good ductility, strength, and toughness. Furthermore, they are metals resistant to corrosion because they passivate. This resistance to corrosion in biological fluids is critical to their use as implants.

Table 3: Table of Metals Used in Different Displines of Medicine

Class	Example	Metal
Cardiovascular	Stent valve	316 SS, MP35N, Ti, Ti6Al4V
Orthopedic	Bone fix joint	316L SS, Ti6Al4V
Dental	Jaw, orthodontic filler	316L SS, MP35N, Ti, Ti6Al4V, Amalgram, (Sg,Sn,Hg,Cu)
Craniofacial	Plates and screws	316L SS, MP35N, Ti, Ti6Al4V
Ear	Eardrum	316L

3.2.2 Stainless Steel as a Biomaterial

Stainless Steel (SS) is used in medical devices due to its low cost (relative to titanium alloys) and its ability to resist corrosion as a result of its chromium content[17]. Stainless steel is also a very familiar metal to engineers since it is often used infrastructure, appliances, and tools where corrosion resistance is of primary importance. In fact, stainless steel was one of the first metals successfully in used medical implants. In stainless steel, the chromium (Cr) in the alloy – 12 wt% or more- reacts with oxygen to create an tightly adherent hydrated chromium oxide layer that protects the metal from corrosion. This leads to passive behavior in the metal. There are three different classes of stainless steels.

- Ferritic stainless steels contain ~12-17% Cr and have a body centered cubic structure. They are magnetic, and typically used in the cold worked condition.

- Martensitic stainless steels contain ~12 Cr, No Ni, and have a body centered tetrahedral structure. They are magnetic, and can be heat treated to high strength.

- Austenitic stainless steels contain ~18Cr, ~8% Ni. They are γ faced centered cubic structure and are nonmagnetic.

Austenitic type stainless steels are used in medical implants because they are more corrosion resistant in physiological fluids. Stainless steel can be processed in different ways to reach specifications. Molybdenum (Mo) is added to the austenitic stainless steels to help prevent localized corrosion. An estimated 8% of all humans are allergic to nickel (Ni). This can cause problems if patients with Ni allergy are implanted with stainless

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steel. Modifications to the surface of stainless steels like machining, laser heat treatment, and coating can influence corrosion resistance.

3.2.3 Titanium Alloys as a Biomaterial

Titanium (Ti) alloys are used as biomaterials because they have superior biocompatibility, resistance to corrosion, specific strength, elastic modulus, and lower density than stainless steel and Co-Cr alloys[18]. Ti alloys range from commercially pure titanium to a wide range of different alloy families based on the addition of other elements. The materials used for implants are commercially pure Ti and Titanium 6% Aluminum 4% Vanadium (Ti6Al4V). Commercially pure Ti has two main crystal structures: α-structure (hexagonal close packed) at low temperature and β-structure (body centered cubic) at high temperatures. The alpha phase is stable at physiological temperatures. Ti6Al4V contains a mixture of the two phases at physiological temperatures. Ti6Al4V was the first Ti alloy to be approved for medical use by the Food and Drug Administration (FDA)[19]. A benefit of Ti Alloys is that the elastic modulus is much lower than that of steel or Co-Cr and more closely resembles that of bone. When an implant's modulus is much greater than the surrounding bone it carries a disproportionate portion of the load causing bone to resorb. The bone loses strength, becomes brittle and can fracture. When Ti alloys are used as materials for artificial implants they can transfer stress more effectively to the bone, allowing the bone to maintain its density and strength.

3.2.4 Issues with SS and Ti as Biomaterials

As stated earlier, the nickel content in stainless steel causes a severe allergic reaction in a representative fraction of the population, leading to rejection of the implant[20]. Furthermore, the mechanism by which stainless steel creates a passivation

layer makes it susceptible to local corrosion in low oxygen environments. Finally, passive layers on stainless steel are subject to particulary aggressive attack by environment rich in the chloride ion (Cl^-)[21]. Though there are arguments about the exact mechanism, the chloride ion is thought to replace the hydroxide ion (OH^-) in the passive film. The chloride makes the film soluble and leads to localized holidays in the film. These holidays become stable localized anodes.

Ti alloys are prone to tribocorrosion- a type of corrosion that involves fretting and subsequent electrochemical corrosion. Tribocorrosion can occur in a Ti alloy hip and joint replacement[22]. The metal parts are in contact with each other and move relative to each other during loading, resulting in wear. The biological fluid acts as a very effective electrolyte, creating a corrosive cell. The region of wear, where the passive layer was has been removed becomes the anode. In addition, Ti6Al4V ($\alpha+\beta$ structure) and has excellent mechanical properties and is highly corrosion resistant but it contains aluminum. Aluminum has been shown to cause bone diseases and neurological disorders [23].

3.3 Electrochemical Methods in Corrosion Study

Electrochemistry is widely used to study corrosion because corrosion is inherently electrochemical in nature[24]. As stated earlier the anode releases electrons while the cathode consumes electrons, this occurs in two half reactions that are intimately coupled – the cathodic half reaction usually being the rate limiting component. The two half reactions occur simultaneously, creating an electrochemical cell that causes the deterioration of a metal at the anode. Using different types of equipment we can obtain data that characterizes corrosion in real time in a laboratory setting.

3.3.1 Individual Measurements

  A voltmeter, a reference electrode, a working electrode are required to measure corrosion potential. The reference electrode is used to measure the difference in potential between the environment and the working electrode. During testing the voltmeter may record changes in potential allowing for observation of stability or reactivity in different environments. Similar equipment is needed to measure current. An ammeter, a working electrode and a counter electrode (non-corroding metal) are required for this task. The counter electrode is used to transfer current to or from the working electrode. During the test the ammeter records changes in current revealing the rate of corrosion.

  Electrochemical testing is based on this ability to measure potential, current, and hence polarization either individually or together. The voltage measured "is a function of the inherent reactivity of the metal and the oxidizing power of the solution[9]" The current measured can be directly correlated to the corrosion rate of the metal. The linear polarization method will produce graphics of potential vs log of current at potentials very close to the corrosion potential. The test system allows the equilibrium potential to establish, then perturbs the system a few tens of millivolts in each direction. Classic tafel plots can be developed from this data. These plots reveal kinetic information about the corrosion in the system studied.

3.3.2 Combined measurements

  To collect polarization data we must collect both potential and current data simultaneously. Two common machines used in electrochemistry experiments to observe potential and current are a potentiostat and a galvanostat; today, these machines are often combined into one. A potentiostat can be used to run potentiostatic (or dynamic)

polarization test. In this test a constant (or changing) potential is applied to the surface and the change in current of the corroding metal is measured. A galvanostat allows us to run galvanostatic (or dynamic) polarization test where we use a constant (or changing) current and measure the change in potential of the corroding mental.

In all test cases, the data acquired can be analyzed to determine the metals corrosion behavior in a known environment. The procedures used to determine the rate of corrosion are well standardized by the American Society for testing Materials (ASTM). In our study, we will be using the potentiodynamic polarization test. In this test we will impose a programmed increase in potential while recording the change in corrosion current. Selecting the correct sweep rate (or increase in potential over time) for the potentiodynamic polarization test is critical because the polarization behavior of the metal is a time dependent phenomenon.

An increase in voltage will usually increase the current density or the amount of current flowing to or from the surface of the metal causing an increasing the rate of corrosion but there is a point of "passivation." Passivation occurs in a range of high anodic potential where the metal goes from being active to passive by creating an oxide layer as stated earlier. This passivation cannot be observed using a galvanic polarization test, but can be observed with a potentiodynamic polarization test.

CHAPTER 4: METHODS

Electrochemical testing methods were used in this study. Electrochemical methods enables investigators to determine corrosion rates and corrosion potentials for a wide variety of materials and environments. Benefits of electrochemical testing are that it produces accurate and swift results. Furthermore the samples can be conveniently weighted after exposure and the exposed surface can be examined using optical and electron microscopy to determine the characteristics of the corrosion which occurs.

4.1 Samples and Solutions

Carbon steel, stainless steel, and titanium alloys were examined in this study. The carbon steel was AISI 1018, provided in hot rolled strips 4cm wide, 11cm long, and 0.3 thick. The stainless steel was hot rolled AISI 316, provided as coupons that were 2.5cm wide, 2.5 cm long, and 0.2 cm thick. The titanium alloy was titanium 6 aluminum 4 vanadium (T6Al4V), provided as hot rolled strips 2.5cm wide, 9cm long, and 0.2cm thick. Prior to testing all samples were polished with 200, 400, and 600 grit paper and cleaned with deionized water. In all cases, the size of the test area was $1cm^2$; the contact area provided by the testing apparatus.

Four different solutions were used in corrosion testing of samples: 3.5% sodium chloride (NaCl) in water, 0.35% NaCl in water, phosphate buffered saline solution (PBS), and Butterfields phosphate buffered solution (BPS). The 3.5% NaCl solutions are often used as a first approximation to seawater, the 0.35% NaCl as a first approximation to sera. The other two solutions are commonly used in physiologic (PBS) and in microbiologic (BPS) applications. The composition of the metal alloys and make-up of solutions can be found in Tables 4 through 7.

Table 4: Composition of Stainless Steel

Metal	Fe	C	Cr	Ni	Mo	Mn	Si	P	S
Carbon Steel	Balance	1.35				1.65	.06	.04	.05
AISI 316	Balance	<.03%	16-18.5%	10-14%	2-3%	<2%	<1%	<.045%	<.03

Table 5: Composition Ti Alloy

Metal	Ti	C	Fe	N	O	H	Al	V
Ti6Al4V	Balance	<.08	<.05			<.015	5.5-6.76	3.5-4.5

Table 6: Mechanical Properties of Stainless Steels and Ti Alloys

Metal	Tensile Strength $(MN/m)^2$	Yield Strength $(MN/m)^2$	Elongation at Fracture	Vickers Hardness	Young's Modulus $(GN/m)^2$	Fatigue Limit $(GN/m)^2$
Carbon Steel	450	240	32	130	190	
AISI 316	650	280	45	190	211	.28
Ti-6Al-4V	1000	970	12		121	

Table 7: Solution composition per one liter of distilled H_2O

	NaCl	KCl	Na_2HPO_4	KH_2PO_4	Na_2CO_3
0.35% NaCl	3.5g	-	-	-	-
3.5% NaCl	35g	-	-	-	-
PBS	8g	0.2g	1.44g	.24g	
BPS	-	-	-	26.22g	7.78g

4.2 Polarization Testing Methods

The metals were characterized using polarization techniques. Linear polarization was used to characterize the AISI 1018 steel. Potentiodynamic polarization was used to

characterize AISI 316 SS, a metal that passivates. Cyclic polarization was used to characterize the passive metal Ti6Al4V. Linear polarization scanned ±20mV with respect to the corrosion potential Ecorr, with a step height of 1mV, and a scan rate of 0.166mV/s. Metals that passivate cannot be characterized with linear polarization because the corrosion current changes very little with small applied potentials. Potentiodynamic and cyclic polarization were used to study passive metals. The range of potentials which were scanned in this process was greatly increased over the range used in linear polarization. The potentiodynamic polarization test is runs from -250mV with respect to E_{corr} to 1.6V with the same step height and scan rate as linear polarization, 1mV and 0.166mV/s respectively. If the current is two decades greater than that observed at the breakdown potential then the scan is terminated. The cyclic polarization scan started at -100mV with respect to Ecorr, and used the same step height and scan rate as potentiodynamic polarization. The scan proceeded until a current was reached that was two decades greater than that seen at the start of the transpassive region. Then the potential scan was reversed (began to decrease instead of increase) at the same rate until it crossed the entire passivation range. The scan rate is important because polarization can change if scan rate is too fast or too slow. At faster scan rates higher currents are observed at a given potential. The scan rate of 0.166mV/s was chosen based on prior polarization studies and ASTM standard F2129[25]. The data acquired from electrochemical testing were compiled by a program called PowerSuite, provided with the potentiostat by Princeton Applied Research.

The potentiostat can measure current and corrosion over a wide range of applied currents or applied currents. The system contains a working electrode (the test sample), a

counter electrode, and reference electrode all in an environmental cell where all three

electrodes are in contact with the electrolyte as shown in Figure 10. The potential at the

working electrode cannot be measured directly because all potential is measured as a

difference from the reference electrode. The reference electrode must be exposed to the

same solution as the working electrode but is often separated into its own compartment

and placed near the working electrode via salt bridge, bridge tube, or Luggin capillary.

This is done to reduce the resistance of the solution between the two electrodes. The

counter electrode measures current through the solution. Having all three independent

electrodes allows for very accurate measurements between the reference electrode and

working electrode. In this way the system can be used to impose small potential at a

programmed rate, and current can be measured as the dependent variable.
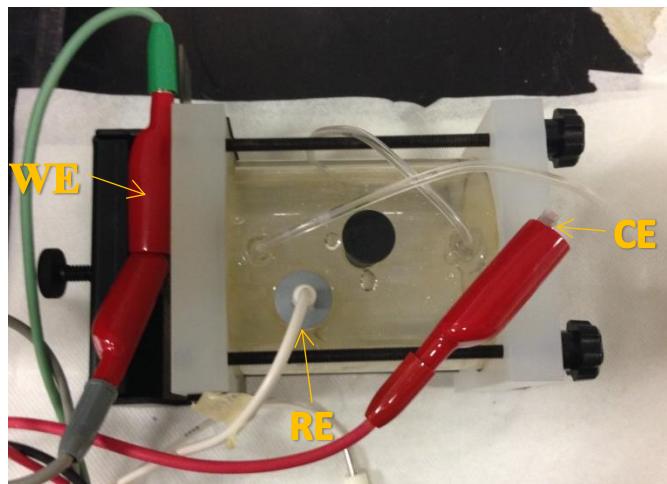
Figure 10: Electrode set up for Polarization Test

Upon completion of electrochemical testing the samples were labeled so they could be

linked with their electrochemical history. Selected samples were examined by scanning

electron microscope (Hitachi TM-1000) to characterize the surface after exposure.

4.3 Testing Equipment

4.3.1 PARSTAT 2273 Potentiostat/Galvanostat

The PARC 2273 is a single channel potentiostat/galvanostat. A potentiostat is an electrochemical testing instrument that allows the user to control the potential at the surface of the material under study. As described earlier, a potentiostat employs three electrodes to accomplish this, a working electrode, a reference electrode, and a counter electrode. The working electrode is the material being studied. The counter electrode is usually a non-corroding metal that passes current to the working electrode. The reference electrode provides a baseline to measure the voltage at the working electrode.

4.3.2 K0235 Flat Cell Kit

There are a variety of environmental cells that can be used to provide suitable environments for electrochemical characterization. This experiment employed the PARC K0235 Flat cell (Appendix X). This cell provides the flexibility to use a wide variety of shapes and sizes of working electrodes. One limitation is that the thickness of the working electrode cannot exceed 9.5mm. In all cases the exposed area of the metal is $1cm^2$. The well-defined area is created by pressing the working electrode against a penetration in the well of the cell. Figure 11 shows this penetration, a $1cm^2$ round hole at the center of the well.
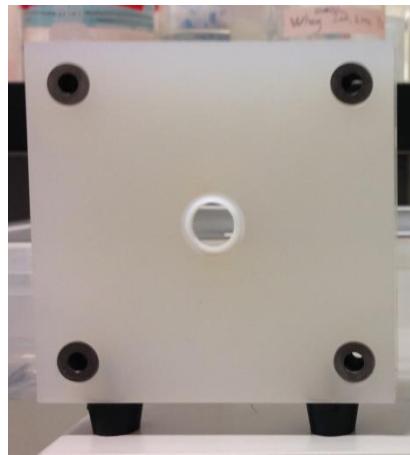
Figure 11: Image of 1cm^2 insert for exposing working electrode sample to solution

4.3.3 Platinum Counter Electrode

The counter electrode transfers current to or from the working electrode. The counter

electrode is built into the K0235 flat cell as shown in Figure 12.
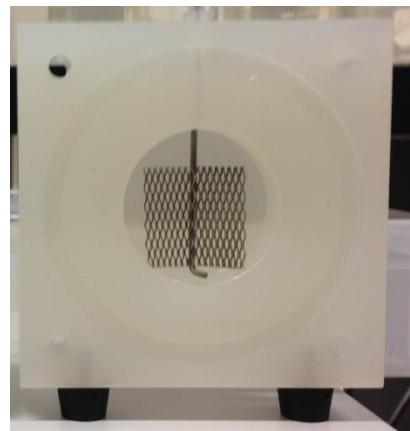
Figure 12: Image of Platinum Counter Electrode

4.3.4 Silver Chloride/Saturated Potassium Chloride Reference Electrode

The reference electrode measures the potential at the working electrode relative to itself.

It is a very important that the reference electrode is durable and that it has an unchanging

and reproducible potential. The reference electrode itself is isolated from the test

electrolyte; connected to it electrically only by a small channel. This small channel

maintains the chemical integrity of the electrode itself, while allowing it to measure solution potential.

4.4 Procedure

1. Prepare sample as described for experiment.

2. Prepare solution as described for experiment.

3. Fill reference electrode cell with solution (same solution that will be used in cell).

4. Make sure the solution travels through Luggin capillary and that there are no entrapped air bubbles.

5. Mount sample onto the holder which provides the $1cm^2$ working electrode.

    a. Be sure that the flange on the screw mount is pointed upward, this will facilitate attaching the electrodes to the working electrode.

6. Fill the cell with the solution.

7. Insert the reference electrode into the reference electrode cell.

8. Insert rubber stopper into the cell filling hole

9. Attach control cable to PARSTAT

    a. When inserting cable ensure that red dots on the cable and PARTSTAT are aligned

10. Attach electrical connections to the flat cell

    a. Connect green working electrode lead the working electrode flange (located on the clamping frame)

b. Connect <u>grey</u> sense electrode lead to the working electrode flange also

c. Connect <u>red</u> counter electrode lead to counter electrode (located opposite of clamping frame)

d. Plug <u>white</u> reference electrode lead into reference electrode

11. Turn on computer

12. Log in as administrator

13. Turn on PARSTAT

14. Press Enable Cell on PARSTAT

15. Open PowerSuite program

16. Select program

    a. Select PowerCorr

    b. Select Linear Corrosion

    c. Select Potentiodynamic Polarization

    d. Insert title of experiment

        i. Sample, Solution, Date

        For example SS 3.5 NaCl 05.16.14

    e. Insert values for density and equivalent weight

    f. Optional: Select Prescan definition tab and activate drift delay and set to 0.05mV/sec

      g.   Click finish on bottom of set up screen

17. Select use External Cell

18. Let program run until finish or stop manually if there is excessive bubbling coming from counter electrode

19. When finished pour test solution into appropriate container and dismount the sample

20. Rinse the flat cell thoroughly with water

CHAPTER 5: RESULTS

5.1 Overview of Results

Each of the following figures shows a polarization curve generated by a potentiodynamic scan of a particular material in a selected solution. In Figure 14, for AISI 1018 steel, tafel plots were determined from the linear portion of the curve (±20mV from E_{corr}). The data is plotted with potential (V) on the y-axis and log current density (A/cm^2) on the x-axis. This representation is typical for corrosion measurement, even though current is the dependent variable in the scan. The data presented in blue are smoothed data from the polarization scans; that is there was a moving average applied to the raw data. The data presented in red are the slope of the transpassive region of the metal.
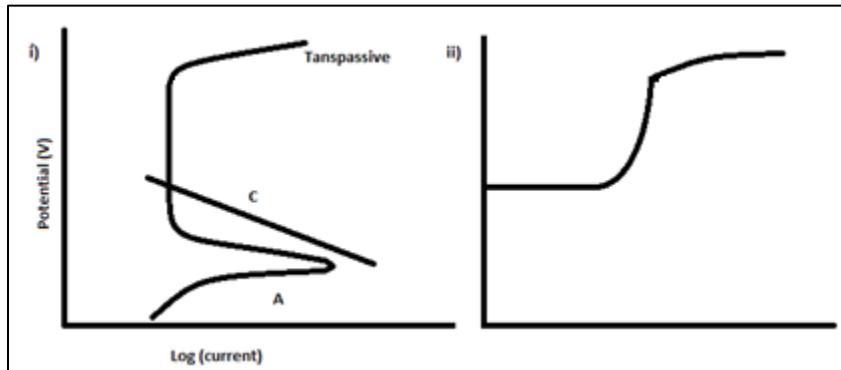
Figure 13: (i) Theoretical anodic polarization curve vs (ii) measured polarization curve

The stainless steel and titanium alloys used in this experiment were exposed to aerated solutions. Because the solution were aerated the main cathodic reaction in the cell in each case was $O_2+2H_2O \rightarrow 4(OH)^-$ which intersects the anodic polarization curve of both stainless steel and titanium in their passive region as shown in Figure 13(i). When this occurs the material will passivate spontaneously as shown in Figure 13(ii). A metal that experiences spontaneous passivation does not show an active to passive transition as

discussed earlier because the metal is already passivated. The results shown in Figure 7 are typical for cathodic reactions that intersect the anodic polarization curve in the active region.

All of the metal samples tested were coated by a passive layer formed spontaneously prior to testing, save two. Neither the AISI 1018 carbon steel, nor the welded AISI 316 steel had spontaneously formed protective layers. Thus the vast majority of sample and solution curves exhibited characteristics like Figure 13(ii). The E_{corr} values observed in the plots represent the potential where cathodic reaction and passive region of the anodic polarization curve intersect. Other values that were observed are the breakdown potential (E_{break}) and its corresponding current (I_{break}) when the material enters the transpassive region. The passive current ($I_{passive}$) is taken from the inflection point of the passive region on the polarization curve where the curve is most vertical. And the slope of the transpassive region represents the relation of potential and current when in the transpassive state.

5.2 Linear Polarization of Steel in 3.5% NaCl Solution
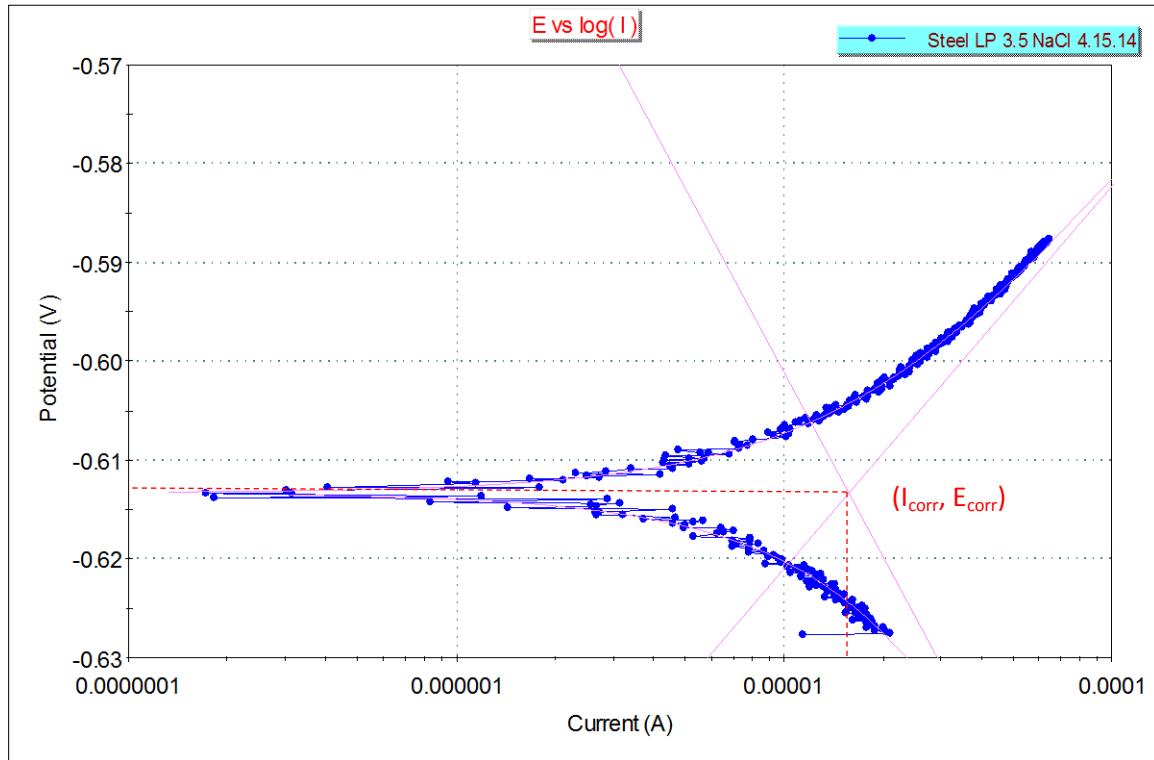
Figure 14: Linear Polarization Curve of Steel in 3.5% NaCl Solution

Figure 9 shows the linear polarization curve obtained for steel in 3.5% NaCl solution (35g/1000ml). The metal is known to be active in this environment. The E_{corr} for steel in this solution is -613 mV and the I_{corr} is of 16.9 uA/cm^2. The I_{corr} is used calculated to the corrosion rate of 8.7 mpy. The corrosion rate was suffiecent to alter the color of the solution after testing. After completion of the scan the solution was colored a light brown indicative of the corrosion product.

5.3 Stainless Steel Results

5.3.1 Potentiodynamic Polarization of 316 Stainless Steel in 3.5% NaCl Solution
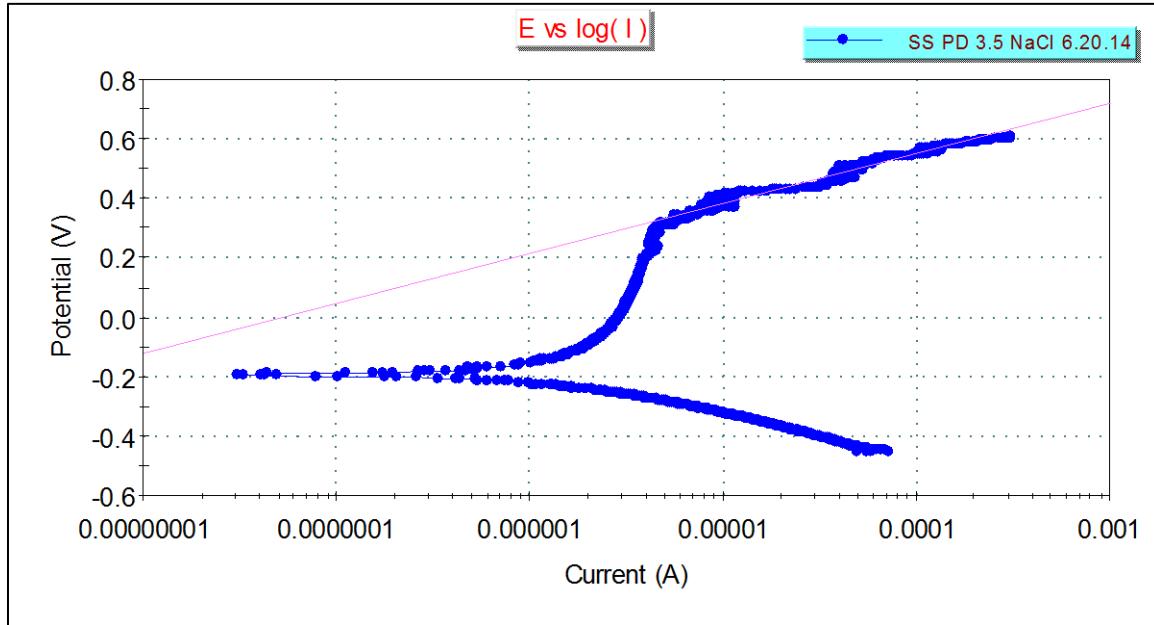
Figure 15: Potentiodynamic Polarization Curve of AISI 316 in 3.5% NaCl Solution

Table 8: Potentiodynamic Polarization Curve of AISI 316 in 3.5% NaCl Solution Results

SS	E_{corr}(mV)	$I_{passive}$ (uA/cm^2)	E_{break} (mV)	I_{break} (uA/cm^2)	Passivation Range (mV)	Transpassive Slope (V/A/cm^2)
3.5% NaCl	-198	3.63	322	5.60	520	0.1683

Figure 15 shows an E_{corr} of -198 mV and an $I_{passive}$ of 3.63uA/cm^2. The

passivation range starts at the corrosion potential (E_{corr}) -198 mV until the scan goes

transpassive at a breakdown potential (E_{break}) of 322mV resulting in a passivation range

of 520mV. In actuality, the passivation range is larger because this scan only captures the

passivation range remaining after the cathodic reaction crosses the passivation region of

the anodic polarization curve. The slope of the transpassive region is 0.1683 V/A/cm^2.

After completion of the scan the solution was brown with brown precipitates.

5.3.2 Potentiodynamic Polarization of 316 Stainless Steel in 0.35% NaCl Solution
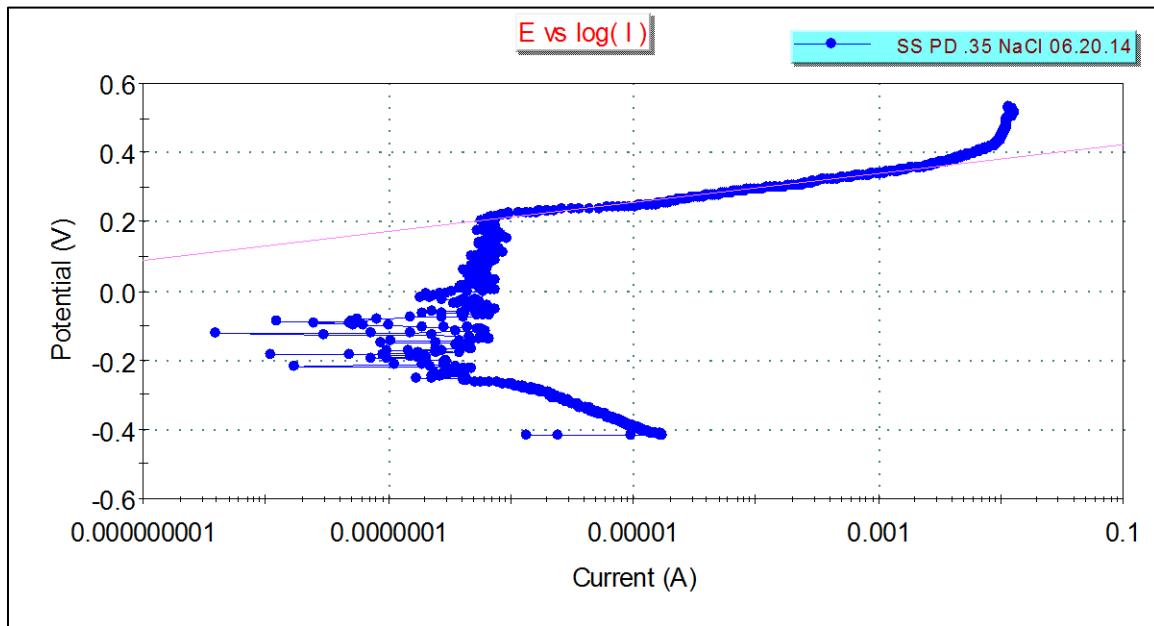
Figure 16: Potentiodynamic Polarization Curve of AISI 316 in 0.35% NaCl Solution

Table 9: Potentiodynamic Polarization Curve of AISI 316 in 0.35% NaCl Solution
Results

SS	E_{corr} (mV)	$I_{passive}$ (uA/cm2)	E_{break} (mV)	I_{break} (uA/cm2)	Passivation Range (mV)	Transpassive Slope (V/A/cm^2)
0.35% NaCl	-125	0.648	207	0.974	332	0.04161

The potentiodynamic polarization curve of stainless steel in 0.35% NaCl solution

is shown in Figure 16. The graph shows an E_{corr} of -125 mV and an $I_{passive}$ of

0.648uA/cm^2. The passivation range starts at the -125 mV (E_{corr}) until the scan goes

transpassive at 218 mV (E_{break}) resulting in a passivation range of 332 mV. The

passivation range for 316 SS in this solution is small but stable as it is almost vertical

from its start until $E_{break.}$ The slope of the transpassive region is 0.04161 V/A/cm^2. After

completion of the scan the solution had a slight brown tint.

5.3.3 Potentiodynamic Polarization of Stainless Steel in PBS
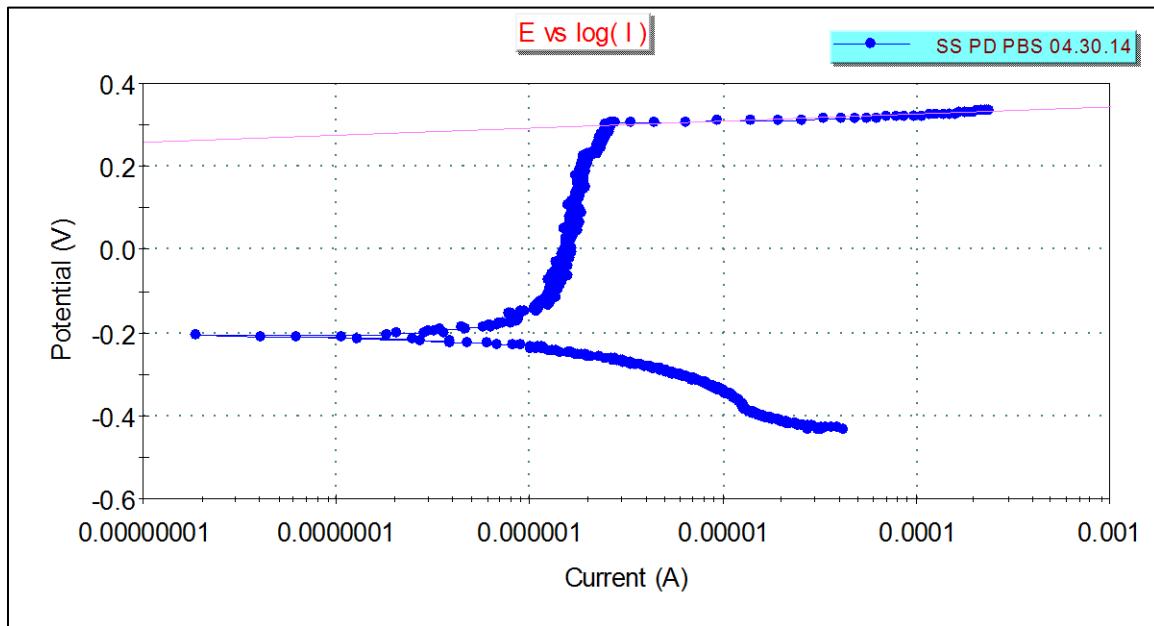
Figure 17: Potentiodynamic Polarization Curve of Stainless Steel in PBS

Table 10: Potentiodynamic Polarization Curve of Stainless Steel in PBS Results

SS	E_{corr} (mV)	$I_{passive}$ (uA/cm^2)	E_{break} (mV)	I_{break} (uA/cm^2)	Passivation Range (mV)	Transpassive Slope
PBS	-208	1.41	304	2.74	512	0.01723

The potentiodynamic polarization curve of stainless steel in phosphate buffered saline solution (PBS) is shown in Figure 17. The graph displays an E_{corr} of -208 mV and an $I_{passive}$ of 1.41 uA/cm^2. The passivation range starts at the -208 mV until the scan goes transpassive at 304 mV resulting in a passivation range of 512 mV. The curves of both the anodic and cathodic portion of the graph are less noisy then that in Figure 16. The same is true of the passivation region. The slope of the transpassive region is 0.01723 V/A/cm^2. The solution remained clear after the completion of the scan.

5.3.4 Potentiodynamic Polarization of Stainless Steel in BPS
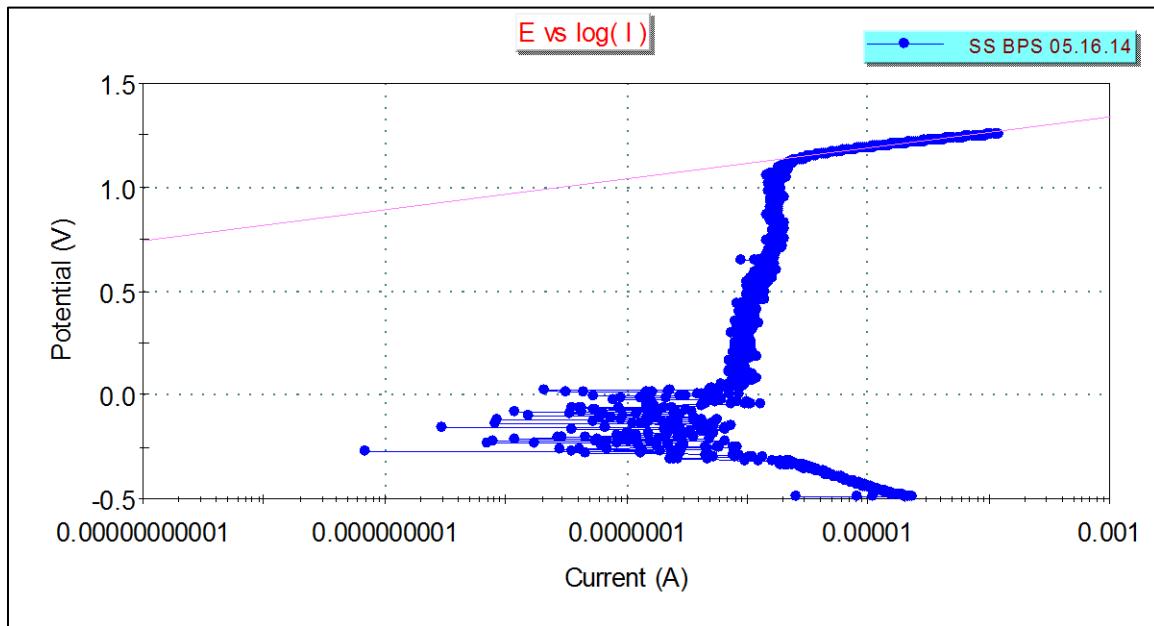
Figure 18: Potentiodynamic Polarization Curve of Stainless Steel in BPS

Table 11: Potentiodynamic Polarization Curve of Stainless Steel in BPS Results

SS	E_{corr} (mV)	$I_{passive}$ (uA/cm2)	E_{break} (mV)	I_{break} (uA/cm2)	Passivation Range(mV)	Transpassive Slope
BPS	-272	1.23	1130	2.75	1402	0.07447

The potentiodynamic polarization curve of stainless steel in Butterfield phosphate saline solution (BPS) is shown in Figure 18. The graph shows an E_{corr} of -272 mV and an $I_{passive}$ of 1.23 uA/cm^2. The passivation range starts at the -272 mV until the scan goes transpassive at 1130 mV resulting in a passivation range of 1402 mV. 316 SS experienced a very large passivation range in BPS. The slope of the transpassive region is 0.07447. The solution remained clear after the completion of the scan.

5.3.5 Potentiodynamic Polarization of 316 Stainless Steel weld in PBS
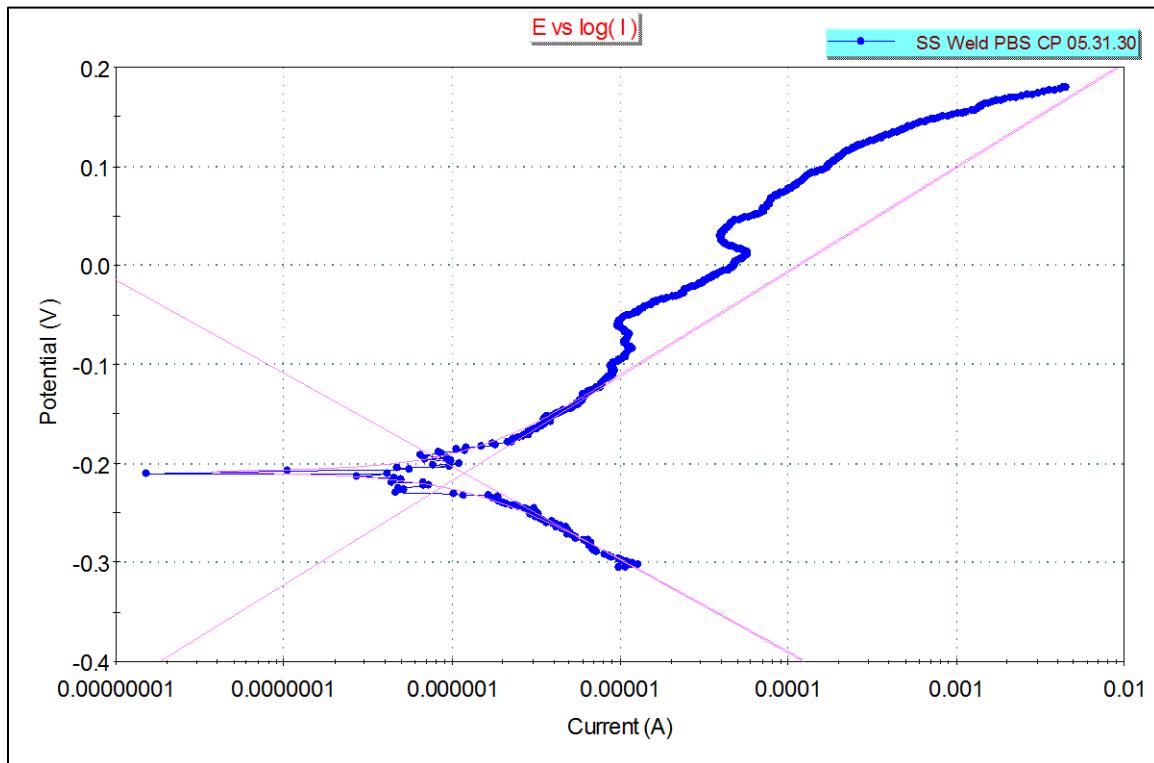
Figure 19: Potentiodynamic Polarization Curve of Welded Stainless Steel in BPS

Table 12: Potentiodynamic Polarization Curve of Welded Stainless Steel in PBS Results

SS	E_{corr} (mV)	I_{corr} (uA/cm2)	Corr. Rt. (myp)	E_{pass} (mV)	E_{break} (mV)	Passivation Range (mV)
PBS	-209	1.17	0.647	-	-	-

The potentiodynamic polarization curve of welded stainless steel in phosphate buffered saline solution (PBS) shows an E_{corr} of -209 mV and a I_{corr} of 1.71 uA/cm^2 with a corrosion rate of 0.647 mpy The solution had some particulates in it after completion of scan. The welded piece of stainless steel did not exhibit passivity during the scan.

5.4 Ti Alloy Results

5.4.1 Cyclic Polarization of Ti6Al4V in 3.5% NaCl Solution
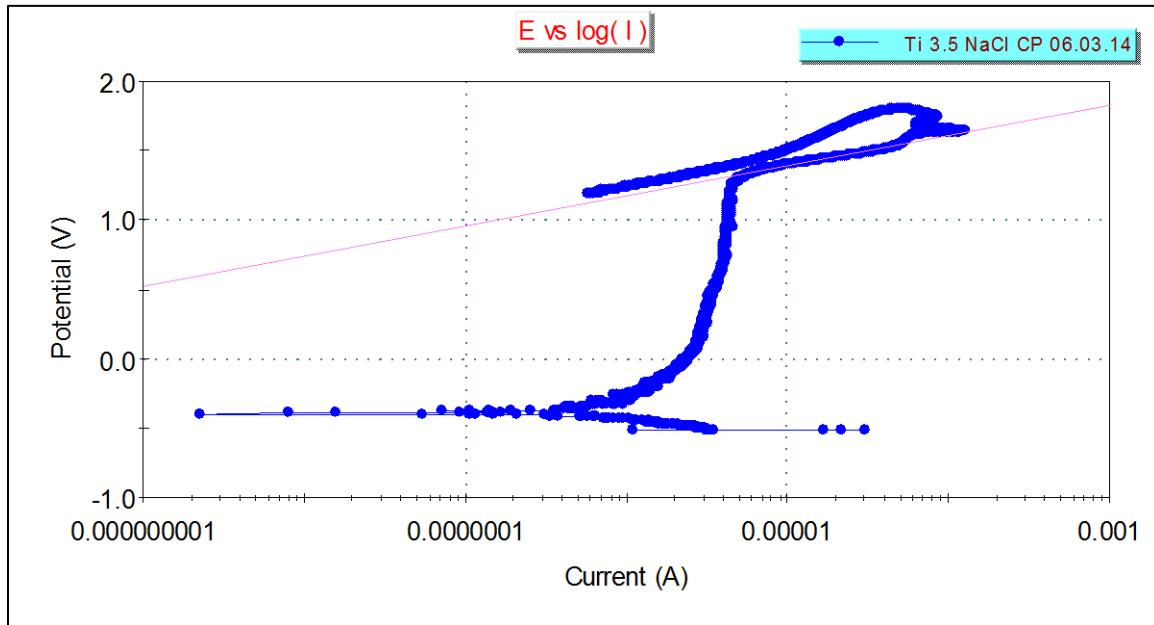
Figure 20: Cyclic Polarization Curve of Ti6Al4V in 3.5% NaCl Solution

Table 13: Cyclic Polarization Curve of Ti6Al4V in 3.5% NaCl Solution

Ti	E_{corr} (mV)	$I_{passive}$ (uA/cm^2)	E_{break} (mV)	I_{break} (uA/cm^2)	Passivation Range (mV)	Transpassive Slope
3.5% NaCl	-397	3.98	1300	5.07	1695	0.221

The cyclic polarization curve of Ti6Al4V in 3.5% NaCl solution shows an E_{corr} of -397 mV and an $I_{passive}$ of 3.98 uA/cm^2. The solution remained clear after the completion of the scan. When the scan was reversed Ti6Al4V repassivated at a potential of 1.39V.

5.4.2 Cyclic Polarization of Ti6Al4V in 0.35% NaCl Solution
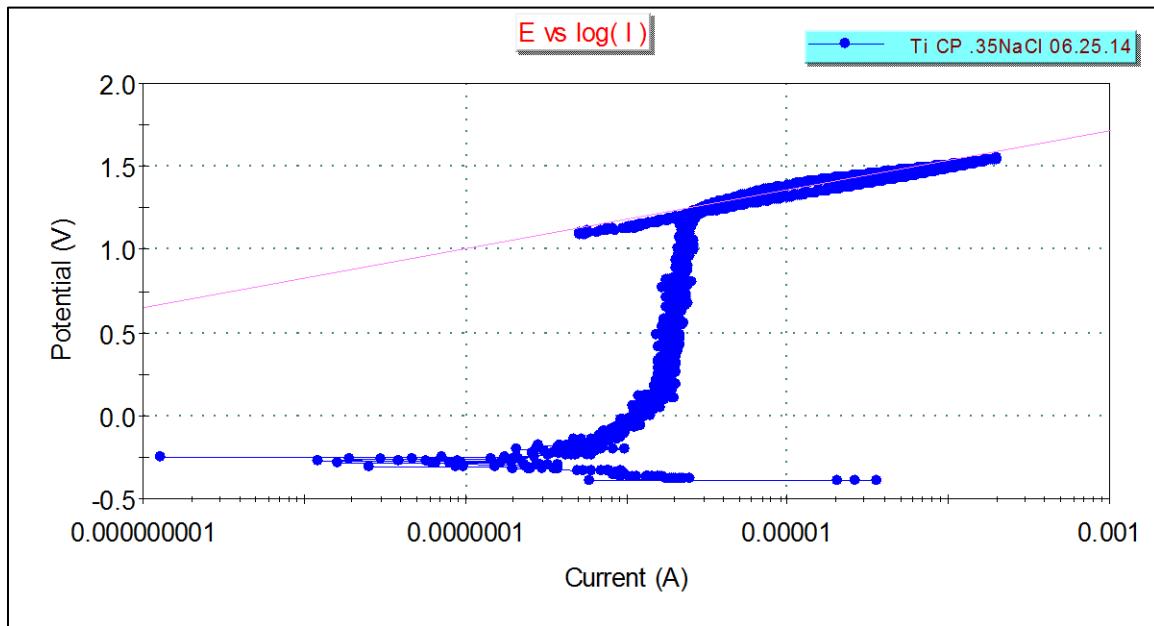
Figure 21: Cyclic Polarization Curve of Ti6Al4V in 0.35% NaCl Solution

Table 14: Cyclic Polarization Curve of Ti6Al4V in 0.35% NaCl Solution

Ti	E_{corr} (mV)	$I_{passive}$ (uA/cm2)	E_{break} (mV)	I_{break} (uA/cm2)	Passivation Range (mV)	Transpassive Slope
0.35% NaCl	-251	2.50	1200	2.65	1451	0.1779

The cyclic polarization curve of Ti6Al4V in 0.35% NaCl solution shows an E_{corr} of -251 mV and an $I_{passive}$ of 2.50 uA/cm^2. The solution remained clear after the completion of the scan. When the scan was reversed Ti6Al4V repassivated at a potential of 1.19V.

5.4.3 Cyclic Polarization of Ti6Al4V in PBS
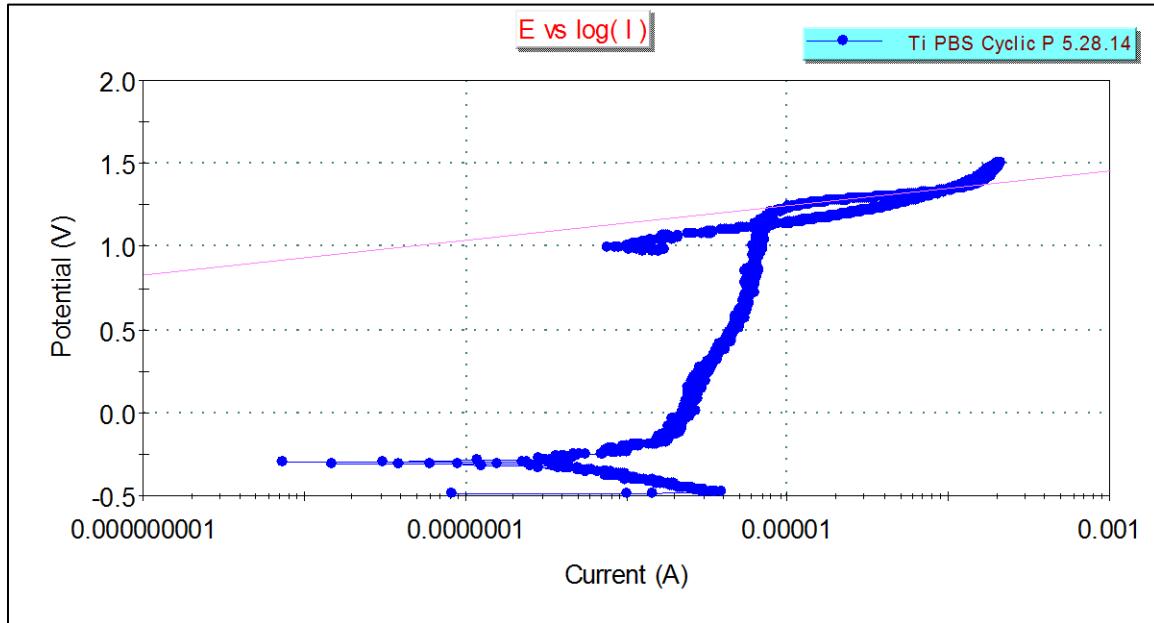
Figure 22: Cyclic Polarization Curve of Ti6Al4V in PBS

Table 15: Cyclic Polarization Curve of Ti6Al4V in PBS

Ti	E_{corr} (mV)	$I_{passive}$ (uA/cm2)	E_{break} (mV)	I_{break} (uA/cm2)	Passivation Range (mV)	Transpassive Slope
PBS	-295	4.49	1200	8.01	1495	0.1102

The cyclic polarization curve of Ti6Al4V in phosphate buffered saline solution (PBS) solution shows an E_{corr} of -295 mV and an $I_{passive}$ of 4.49 uA/cm^2. The solution remained clear after the completion of the scan. When the scan was reversed Ti6Al4V repassivated at a potential of 1.13V.

5.4.4 Cyclic Polarization of Ti6Al4V in BPS
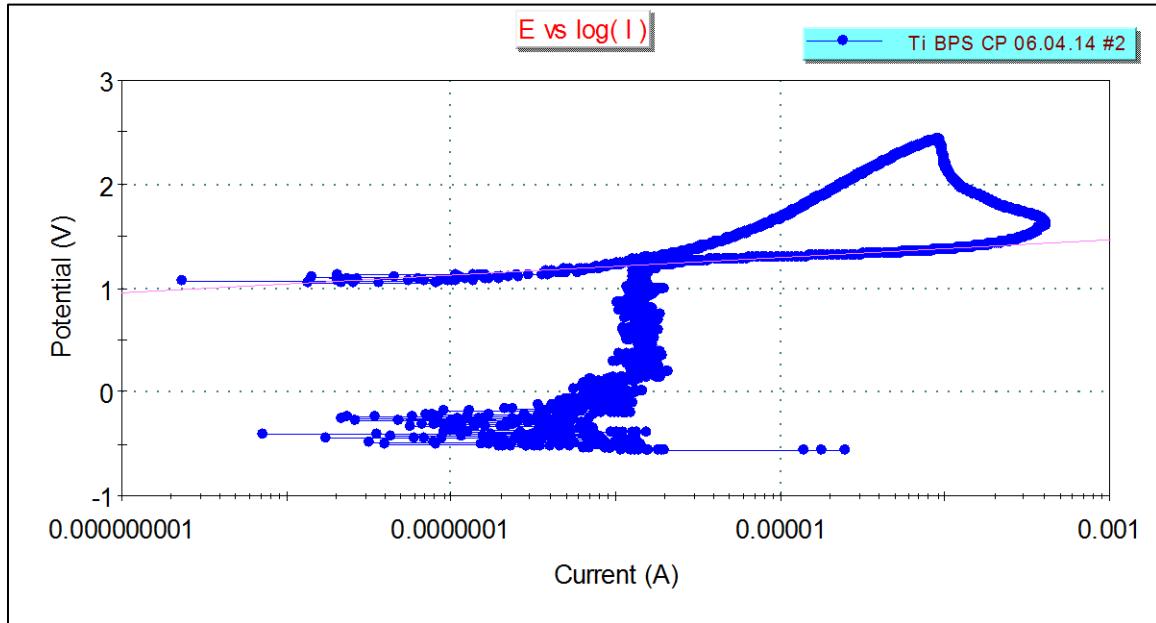
Figure 23: Cyclic Polarization Curve of Ti6Al4V in BPS

Table 16: Cyclic Polarization Curve of Ti6Al4V in BPS

Ti	E_{corr} (mV)	$I_{passive}$ (uA/cm2)	E_{break} (mV)	I_{break} (uA/cm2)	Passivation Range (mV)	Transpassive Slope
BPS	-411	1.31	1190	2.00	1563	0.09129

The cyclic polarization curve of Ti6Al4V in Butterfield phosphate saline solution (BPS) shows an E_{corr} of -411 mV and an $I_{passive}$ of 1.31 uA/cm^2. The solution remained clear after the completion of the scan. When the scan was reversed Ti6Al4V repassivated at a potential of 1.27V.

5.4.5 Cyclic Polarization of Ti6Al4V welded sample in 3.5% NaCl Solution
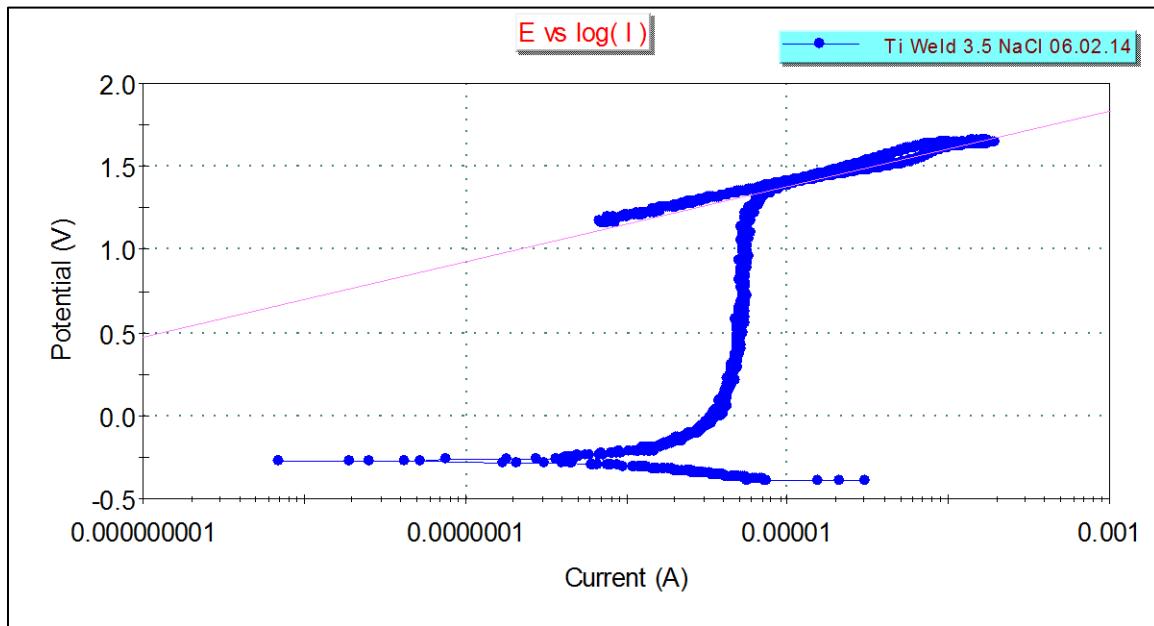
Figure 24: Cyclic Polarization Curve of Welded Ti6Al4V in 3.5% NaCl Solution

Table 17: Cyclic Polarization Curve of Welded Ti6Al4V in 3.5% NaCl Solution

Ti	E_{corr} (mV)	$I_{passive}$ (uA/cm2)	E_{break} (mV)	I_{break} (uA/cm2)	Passivation Range (mV)	Transpassive Slope
3.5% NaCl	-277	5.12	1310	6.93	1587	0.2265

The potentiodynamic polarization curve of stainless steel in PBS solution shows an E_{corr} of -277 mV and a $I_{passive}$ of 5.12 uA/cm^2. The solution remained clear after the completion of the scan. When the scan was reversed Ti6Al4V repassivated at a potential of 1.36V.

CHAPTER 6: DISCUSSION

The PARSTAT 2273 was found to be a reliable tool for measuring the corrosion susceptibility of biomaterials in different solutions. Analysis of the polarization data shows that both the AISI 316 stainless steel and Ti6Al4V alloy exhibit ranges of passive behavior in each of the four solutions in which they were exposed. Sodium chloride (NaCl) concentration in the solution had major implications for the corrosion current, passivation current, and passivation range of the metals. Several samples were prone to crevice corrosion in the system and were also prone to pitting. The titanium alloy repassivated in solution, but the stainless steel was less resilient. Welding diminished passivity in the stainless steel but had little effect on the titanium alloy.

Figure 25 shows the potentiodynamic scans for AISI 316SS in each of the four solutions studied superimposed in the same potential versus log current plot. The role that NaCl concentration plays in the stability or lack of stability in the passive film is clear. Table 18 presents the results in numerical form.

Table 18: Complete table of Results for 316 Stainless Steel

SS	E_{corr}(mV)	$I_{passive}$ (uA/cm^2)	E_{break} (mV)	I_{break} (uA/cm^2)	Passivation Range (mV)	Transpassive Slope (V/A/cm^2)
3.5% NaCl	-198	3.63	322	5.60	520	0.16830
PBS	-208	1.41	304	2.74	512	0.01723
0.35% NaCl	-125	0.648	207	0.974	332	0.04161
BPS	-272	1.23	1130	2.75	1402	0.07447
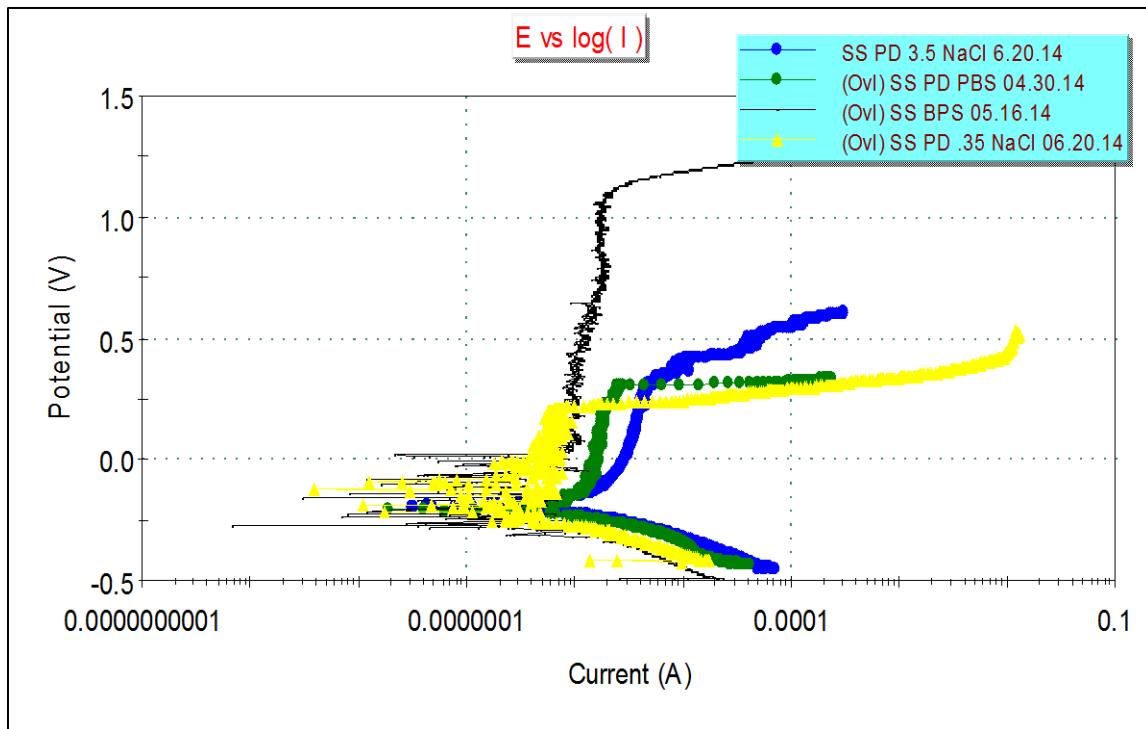
Figure 25: All 316SS Anodic Polarization Scans Superimposed on a Single E vs Log(I) Plot

Even when a metal exhibits passive behavior there is still some dissolution of metal. The passivation current observed for the stainless steel in 3.5% NaCl solution was greatest, followed by the $I_{passive}$ in PBS, then the $I_{passive}$ in BPS and finally the $I_{passive}$ in 0.35% NaCl. Stainless steel in BPS experienced a passivation range of 1402mV, a much larger range than observed in the other solutions. BPS is the least aggressive of the solutions tested.

As discussed previously, titanium alloy Ti6Al4V is very corrosion resistant. Figure 26 shows the cyclic polarization scans for and Ti6Al4V in each of the four solutions studied superimposed on the same potential vs log current plot. The behavior of Ti alloy was similar in all solutions, as further demonstrated in the numerical results provided Table 19.
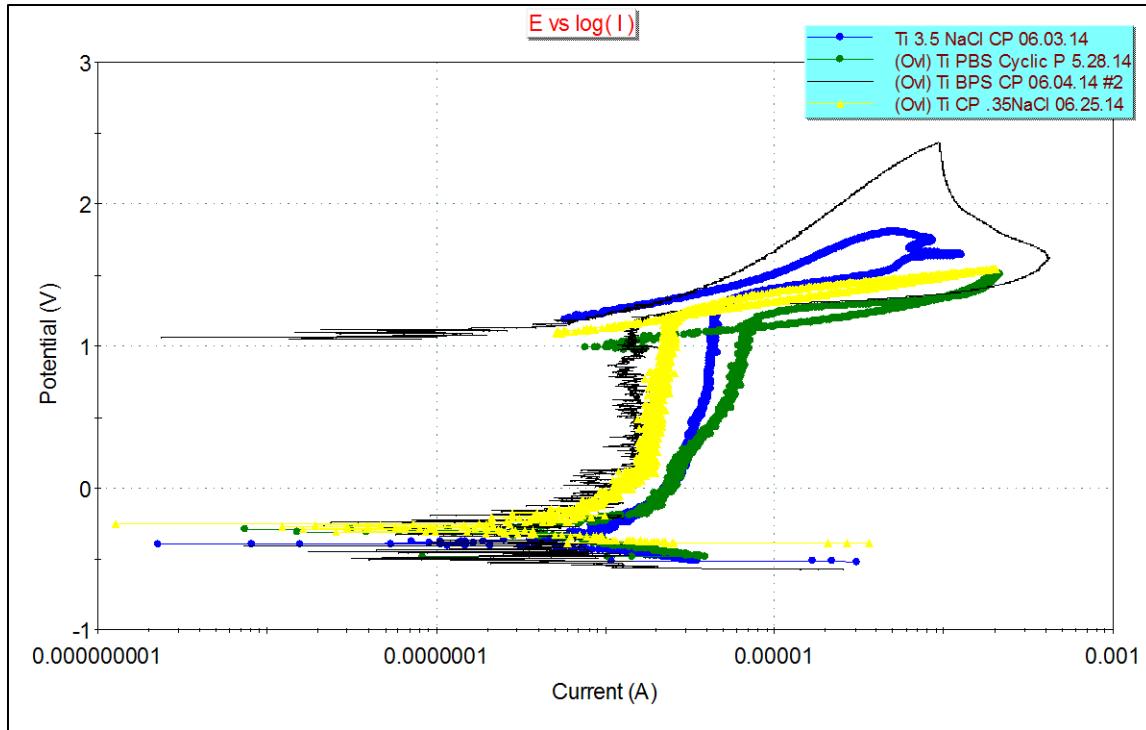
Figure 26: Ti6Al4V Cyclic Polarization Scans Superimposed on a Single E vs Log(I) Plot

Table 19: Complete table of Results for Ti6Al4V

Ti	E_{corr}(mV)	$I_{passive}$ (uA/cm^2)	E_{break} (mV)	I_{break} (uA/cm^2)	Passivation Range (mV)	Transpassive Slope (V/A/cm^2)
3.5% NaCl	-397	3.98	1300	5.07	1695	0.2210
PBS	-295	4.49	1200	8.01	1495	0.1102
0.35% NaCl	-251	2.50	1200	2.65	1451	0.1779
BPS	-411	1.31	1190	2.00	1563	0.09129

The scans all have similar shapes and again the concentration of NaCl ions has an effect the passivation current. Ti6AlV4 exhibits the highest passivation current in the PBS solution, followed by the 3.5% NaCl soultion, 0.35% NaCl solution, and finally the BPS. Higher concentrations of NaCl in the solution tend to increase the corrosion current. The reaction is more complex for PBS because of the additional ions in solution.

50

One technique to determine the tendency for a material to repassivate is to reverse the scan after the sample has been transpassive for approximately two decades of current density. Conversely, this also can provide an indication of pitting sensitivity. For the titanium alloy, all of the cyclic scans repassivated near the same potential that initiated transpassive behavior. This shows that the titanium alloy has a resistance to pitting and a strong tendency to repassivate, see Table 19. A sample where the reverse scan intersects near the transpassive potential has little to no tendency to pit in its environment. From visual inspection of the material no pitting or crevice corrosion occurred.

Table 19: Comparison of breakdown potential and repassivation potential

Ti	0.35% NaCl	3.5% NaCl	PBS	BPS
E_{break} (mV)	1250	1300	1320	1190
E_{repass} (mV)	1190	1390	1130	1270

Digital and scanning electron microscope (SEM) pictures were taken from stainless steel samples exposed to potentiodynamic scans in 0.35% NaCl and 3.5% NaCl solutions. Figure 27 shows digital photos of the two samples, 27A exposed to 0.35% NaCl solution and 27B exposed to 3.5% NaCl solution. Both pitting and crevice corrosion were evident in the samples. The crevice corrosion was observed around the circumference of the sample which was pressed against the teflon gasket in the flat cell creating a crevice. Crevice corrosion is a major cause of corrosion in the AISI 316 samples. A concentration cell was created due to different oxygen concentrations under the gasket and in the bulk solution at the sample surface. Pitting can also be seen on the digital photos and is much more prevalent on the stainless steel coupon exposed to 3.5%

NaCl solution. In Figure 28, The SEM images show a magnified view of the sample surface. Nascent pits are evident both in 0.35% NaCl solution and more evolved pits were observed in the 3.5% NaCl solution. The dark spots in Figure 28A are regions where pits are forming in the0.35 NaCl solution. Pits are more numerous and more well developed in the 3.5% NaCl solution, Figure 28B.
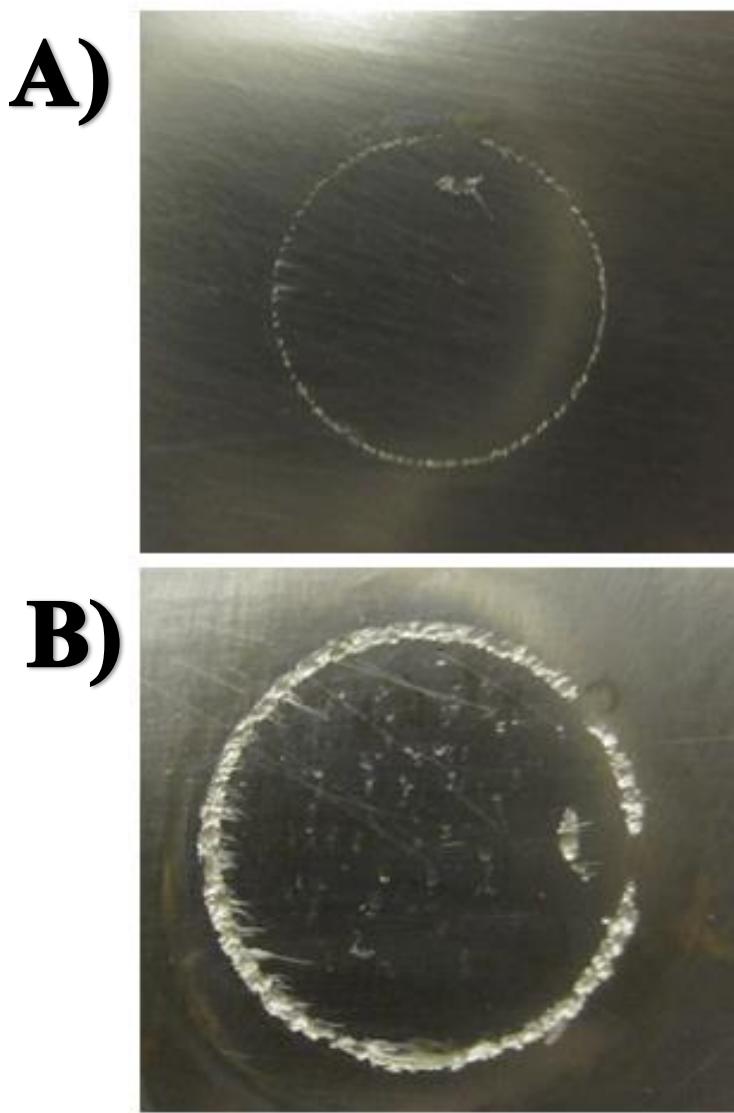
Figure 27: Digital images of the Surfaces of 316SS Samples Exposed to A) 0.35% NaCl and B) 3.5% NaCl 316 SS Solution

The 3.5% NaCl solution contained the highest concentration of NaCl and proved to be the most aggressive solution we tested. This is shown to be true by the digital and SEM images as well as the higher passivation current measured.
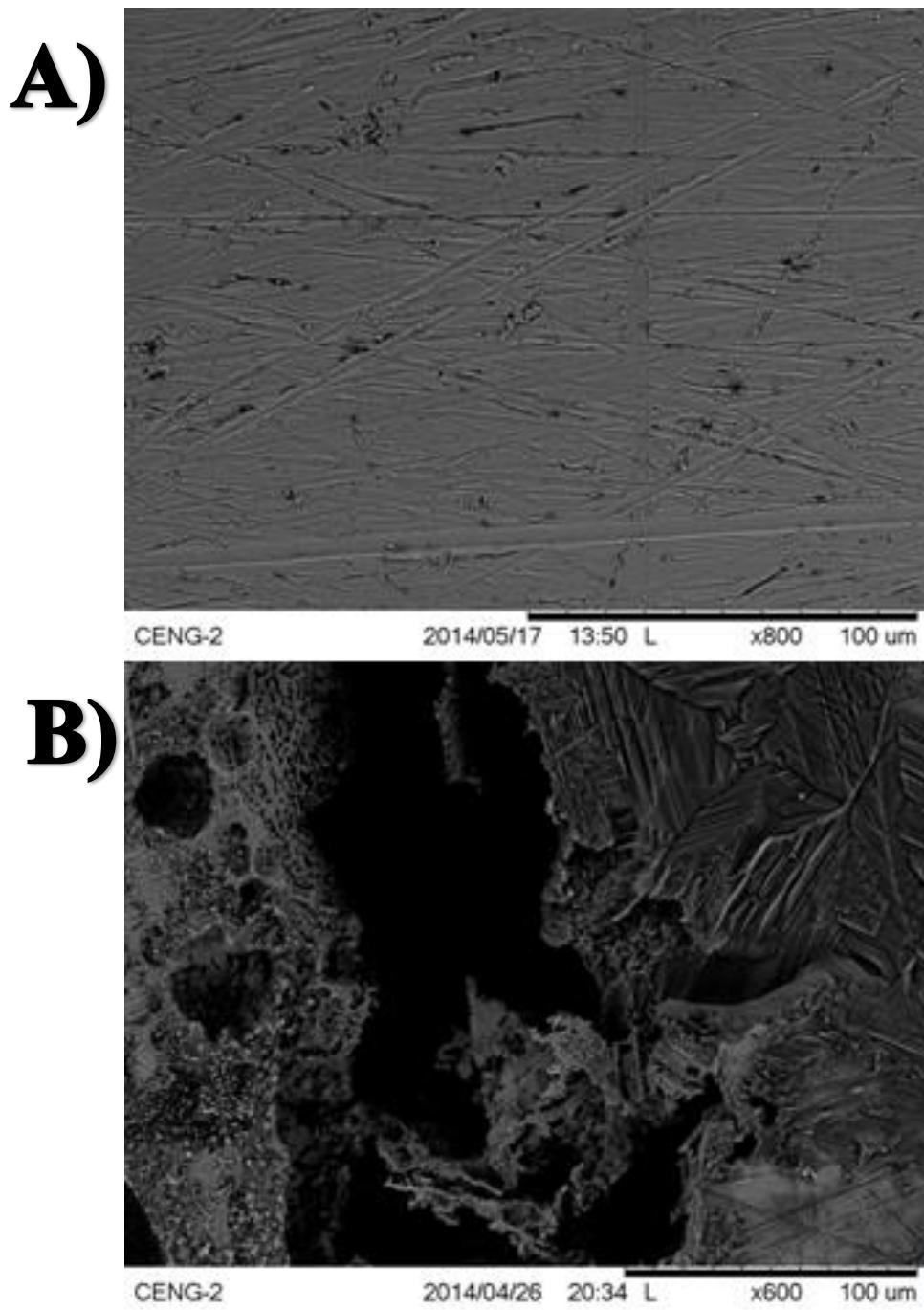
Figure 28: SEM images of the Surfaces of 316SS Samples Exposed to A) 0.35% NaCl and B) 3.5% NaCl Solution

The welded sample AISI 316 displayed an increase in corrosion rate and no evidence of passive behavior. Figure 29 shows the behavior of a welded sample and a non-welded sample of AISI 316 in PBS. At a given potential the corrosion current is two orders of magnitude greater for the welded sample. Welding a material can cause undesired local changes to the material. Discrepancies in the metal can include the formation of secondary precipitates, and the loss of protective chromium at the interface. The secondary precipitates can be targets for pitting and at welding temperatures the carbon can react with chromium that would normally bond with oxygen to form the passive layer. Furthermore, welding creates a non-passive oxide near the weld.
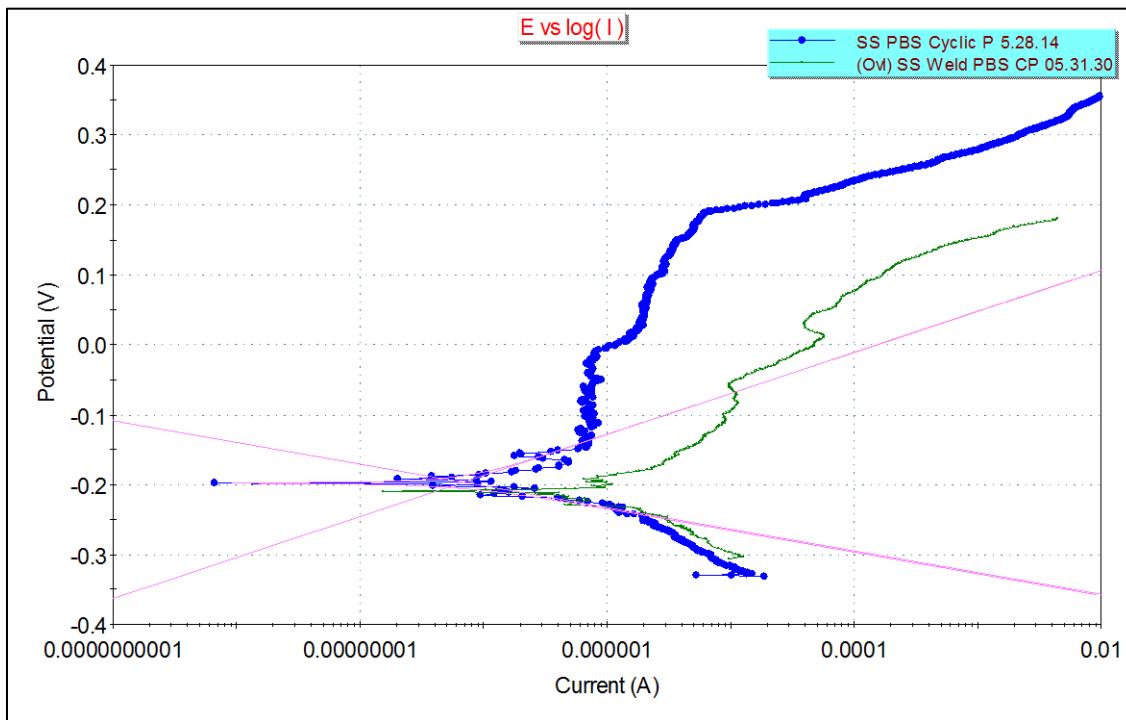
Figure 29: Comparision of Potentiodynamic Scans of Welded and Non-Welded AISI 316SS in Phophate Buffered Saline Solution

The welded Ti6Al4V sample showed no real difference in behavior vis-à-vis to the non-welded Ti6AlV shown in Figure 30. The samples exhibited similar E_{corr}, $I_{passive}$, and repassivaiton potential in 3.5% NaCl solution which was the most aggressive of the four solutions tested.
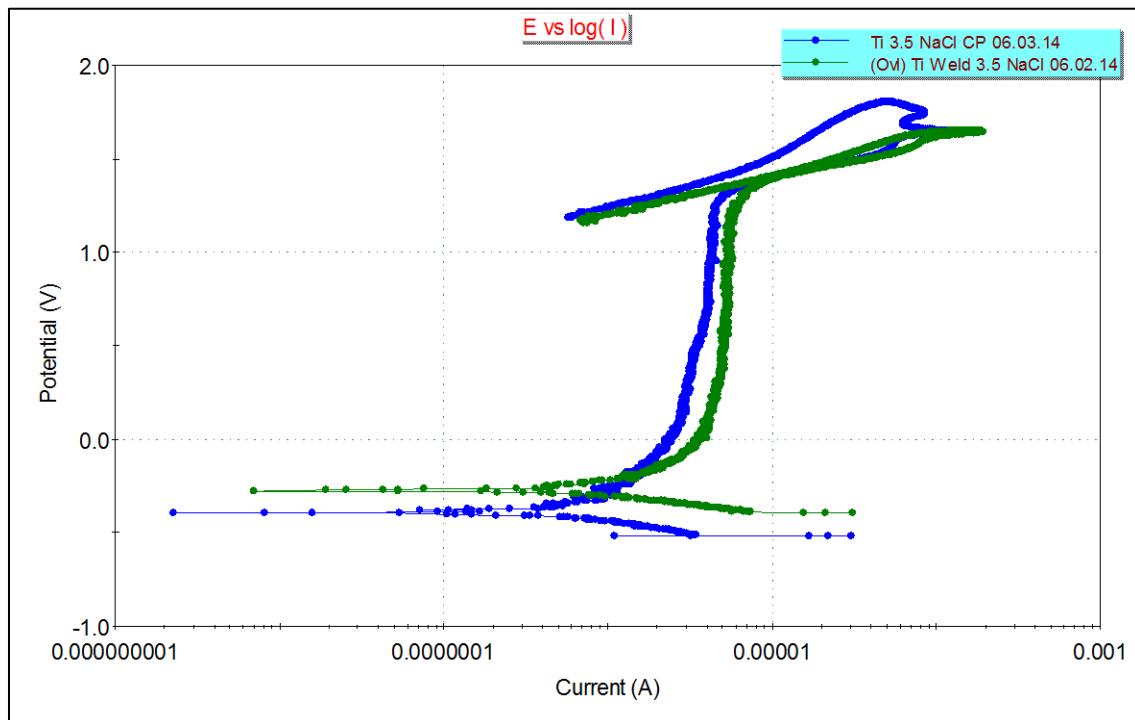
Figure 30: Comparison of Potentiodynamic Scans of Welded and Non-Welded Ti6Al4V in 3.5% NaCl Solution

CHAPTER 7: CONCLUSIONS

Based on this study the following conclusions can be drawn:

1) The PARC 2273 system is effective in determining corrosion characteristics of common metallic biomaterials using potentiodynamic scans.

2) Both AISI 316 and TiAl4V exhibit spontaneous passivity in the aerated test solutions used.

3) For both AISI 316 and Ti6Al4V samples an increase in the concentration of chloride ions increased the passivation current.

4) In general, the observed passivation range for AISI 316 decreased with the increased concentration of chloride ions.

5) The observed passivation range for titanium alloy was not affected by the presence of chloride ions.

6) AISI 316 is prone to crevice and pitting corrosion in aerated 3.5% NaCl and aerated 0.35% NaCl solutions.

7) Titanium alloy Ti6Al4V is resistant to pitting corrosion in the solutions studied

8) Welding destroys the passive film of AISI 316 stainless steel

9) Titanium alloy Ti6Al4V maintain their passivity even after welding.

CHAPTER 8: RECOMMENDATIONS FOR FUTURE WORK

In future studies using this corrosion system, I recommend:

1) That electrochemical impedance spectroscopy (EIS) be used to study the characteristics of the passive oxide layer on the metal surface, and the effects of changes in the solution on these characteristics.

2) That the effect of solution oxygen concentration be explored as an experimental variable.

3) That Co-Cr alloys, common metallic biomaterials, be tested to determine their corrosion characteristics.

4) That new stainless steels developed for biomedical application, such as nickel free stainless steel also be tested to determine their corrosion characteristics.

5) That the effect of pH values on corrosion current and passivation behavior of metallic biomaterials be explored.

6) That the behavior of metallic biomaterials in other solutions (Ringer's and Hank's solution) which are used to mimic biological fluid in *in vitro* testing be characterized.

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25. ASTM F2129-08 Standard Test Method for Conducting Cyclic Potentiodynamic Polarization Measurements to Determine the Corrosion Susceptibility of Small Implant Devices.

Appendix A: Data from Sample Potentiodynamic Scans

Carbon Steel in 3.5% NaCl Solution		
	Current (A)	Potential (V)
1	1.14E-05	-0.62761
2	2.10E-05	-0.62751
3	2.04E-05	-0.62741
4	2.06E-05	-0.62731
5	1.89E-05	-0.62721
6	2.01E-05	-0.62711
7	2.01E-05	-0.62701
8	1.78E-05	-0.62691
9	1.89E-05	-0.62681
10	1.86E-05	-0.62671
11	1.84E-05	-0.62661
12	1.79E-05	-0.62651
13	1.86E-05	-0.62641
14	1.86E-05	-0.62631
15	1.62E-05	-0.62621
16	1.82E-05	-0.62611
17	1.84E-05	-0.62601
18	1.68E-05	-0.62591
19	1.74E-05	-0.62581
20	1.77E-05	-0.62571
21	1.79E-05	-0.62561
22	1.55E-05	-0.62551
23	1.66E-05	-0.62541
24	1.71E-05	-0.62531
25	1.72E-05	-0.62521
26	1.57E-05	-0.62511
27	1.78E-05	-0.62501
28	1.70E-05	-0.62491
29	1.73E-05	-0.62481
30	1.62E-05	-0.62471
31	1.59E-05	-0.62461
32	1.54E-05	-0.62451
33	1.58E-05	-0.62441
34	1.61E-05	-0.62431
35	1.62E-05	-0.62421
36	1.44E-05	-0.62411
37	1.49E-05	-0.62401
38	1.34E-05	-0.62391
39	1.50E-05	-0.62381
40	1.43E-05	-0.62371
41	1.53E-05	-0.62361
42	1.49E-05	-0.62351
43	1.45E-05	-0.62341
44	1.36E-05	-0.62331
45	1.39E-05	-0.62321
46	1.44E-05	-0.62311
47	1.42E-05	-0.62301
48	1.19E-05	-0.62291
49	1.33E-05	-0.62281
50	1.26E-05	-0.62271
51	1.44E-05	-0.62261
52	1.40E-05	-0.62251
53	1.22E-05	-0.62241
54	1.19E-05	-0.62231
55	1.18E-05	-0.62221
56	1.32E-05	-0.62211
57	1.25E-05	-0.62201
58	1.29E-05	-0.62191
59	1.13E-05	-0.62181
60	1.13E-05	-0.62171
61	1.25E-05	-0.62161
62	1.29E-05	-0.62151
63	1.05E-05	-0.62141
64	1.22E-05	-0.62131
65	1.13E-05	-0.62121
66	1.19E-05	-0.62111
67	1.11E-05	-0.62101
68	1.09E-05	-0.62091
69	1.02E-05	-0.62081
70	1.04E-05	-0.62071
71	1.15E-05	-0.62061
72	8.79E-06	-0.62051
73	9.74E-06	-0.62031
74	9.92E-06	-0.62011
75	9.56E-06	-0.61991
76	8.92E-06	-0.61981
77	9.33E-06	-0.61961
78	7.79E-06	-0.61941
79	8.69E-06	-0.61921
80	7.82E-06	-0.61911
81	7.85E-06	-0.61891
82	6.94E-06	-0.61871
83	8.36E-06	-0.61851
84	7.14E-06	-0.61841
85	7.89E-06	-0.61821
86	6.92E-06	-0.61811
87	7.89E-06	-0.61791
88	5.28E-06	-0.61771
89	6.28E-06	-0.61751
90	6.54E-06	-0.61731
91	7.00E-06	-0.61711
92	6.41E-06	-0.61691
93	4.93E-06	-0.61681
94	5.02E-06	-0.61661
95	4.58E-06	-0.61641
96	5.32E-06	-0.61631
97	5.64E-06	-0.61611
98	3.73E-06	-0.61601
99	4.68E-06	-0.61581
100	3.22E-06	-0.61561
101	2.68E-06	-0.61551
102	2.74E-06	-0.61531
103	2.64E-06	-0.61521
104	4.58E-06	-0.61501
105	1.44E-06	-0.61481
106	2.67E-06	-0.61471
107	2.57E-06	-0.61451
108	3.17E-06	-0.61441
109	8.32E-07	-0.61421
110	2.90E-06	-0.61401
111	1.83E-07	-0.61381
112	1.19E-06	-0.61361
113	1.73E-07	-0.61341
114	-3.16E-07	-0.61331
115	-3.03E-07	-0.61301
116	-1.80E-06	-0.61281
117	-4.07E-07	-0.61271
118	-1.16E-06	-0.61241

119	-9.49E-07	-0.61221	160	-1.16E-05	-0.60581	201	-2.04E-05	-0.60171
120	-2.13E-06	-0.61201	161	-1.28E-05	-0.60571	202	-2.18E-05	-0.60161
121	-1.67E-06	-0.61191	162	-1.32E-05	-0.60561	203	-2.24E-05	-0.60151
122	-2.73E-06	-0.61171	163	-1.26E-05	-0.60551	204	-2.34E-05	-0.60141
123	-2.51E-06	-0.61161	164	-1.33E-05	-0.60541	205	-2.26E-05	-0.60131
124	-4.20E-06	-0.61141	165	-1.38E-05	-0.60531	206	-2.26E-05	-0.60121
125	-2.31E-06	-0.61131	166	-1.48E-05	-0.60521	207	-2.42E-05	-0.60111
126	-2.87E-06	-0.61111	167	-1.36E-05	-0.60511	208	-2.32E-05	-0.60101
127	-3.43E-06	-0.61091	168	-1.42E-05	-0.60501	209	-2.27E-05	-0.60091
128	-4.58E-06	-0.61081	169	-1.53E-05	-0.60491	210	-2.40E-05	-0.60081
129	-4.49E-06	-0.61061	170	-1.34E-05	-0.60481	211	-2.42E-05	-0.60071
130	-5.13E-06	-0.61041	171	-1.40E-05	-0.60471	212	-2.27E-05	-0.60061
131	-4.26E-06	-0.61031	172	-1.58E-05	-0.60461	213	-2.42E-05	-0.60051
132	-5.62E-06	-0.61011	173	-1.45E-05	-0.60451	214	-2.56E-05	-0.60041
133	-4.31E-06	-0.61001	174	-1.56E-05	-0.60441	215	-2.55E-05	-0.60031
134	-5.13E-06	-0.60991	175	-1.59E-05	-0.60431	216	-2.47E-05	-0.60021
135	-5.74E-06	-0.60981	176	-1.67E-05	-0.60421	217	-2.52E-05	-0.60011
136	-4.36E-06	-0.60961	177	-1.66E-05	-0.60411	218	-2.62E-05	-0.60001
137	-6.80E-06	-0.60941	178	-1.59E-05	-0.60401	219	-2.47E-05	-0.59991
138	-5.89E-06	-0.60931	179	-1.79E-05	-0.60391	220	-2.53E-05	-0.59981
139	-5.56E-06	-0.60921	180	-1.64E-05	-0.60381	221	-2.74E-05	-0.59971
140	-4.76E-06	-0.60901	181	-1.63E-05	-0.60371	222	-2.60E-05	-0.59961
141	-7.31E-06	-0.60881	182	-1.75E-05	-0.60361	223	-2.53E-05	-0.59951
142	-7.35E-06	-0.60861	183	-1.81E-05	-0.60351	224	-2.65E-05	-0.59941
143	-7.71E-06	-0.60851	184	-1.65E-05	-0.60341	225	-2.78E-05	-0.59931
144	-7.07E-06	-0.60831	185	-1.81E-05	-0.60331	226	-2.61E-05	-0.59921
145	-7.07E-06	-0.60811	186	-1.96E-05	-0.60321	227	-2.76E-05	-0.59911
146	-8.06E-06	-0.60791	187	-1.80E-05	-0.60311	228	-2.92E-05	-0.59901
147	-1.02E-05	-0.60771	188	-1.80E-05	-0.60301	229	-2.87E-05	-0.59891
148	-9.35E-06	-0.60751	189	-1.89E-05	-0.60291	230	-2.75E-05	-0.59881
149	-1.03E-05	-0.60731	190	-1.98E-05	-0.60281	231	-2.90E-05	-0.59871
150	-8.99E-06	-0.60721	191	-1.90E-05	-0.60271	232	-2.91E-05	-0.59861
151	-1.05E-05	-0.60701	192	-1.98E-05	-0.60261	233	-2.86E-05	-0.59851
152	-9.82E-06	-0.60691	193	-2.12E-05	-0.60251	234	-2.91E-05	-0.59841
153	-1.00E-05	-0.60671	194	-1.95E-05	-0.60241	235	-3.00E-05	-0.59831
154	-1.00E-05	-0.60651	195	-1.94E-05	-0.60231	236	-3.05E-05	-0.59821
155	-1.19E-05	-0.60631	196	-1.93E-05	-0.60221	237	-2.91E-05	-0.59811
156	-1.09E-05	-0.60621	197	-2.11E-05	-0.60211	238	-3.16E-05	-0.59801
157	-1.12E-05	-0.60611	198	-1.99E-05	-0.60201	239	-3.07E-05	-0.59791
158	-1.29E-05	-0.60601	199	-2.00E-05	-0.60191	240	-3.09E-05	-0.59781
159	-1.23E-05	-0.60591	200	-2.16E-05	-0.60181	241	-3.01E-05	-0.59771

242	-3.28E-05	-0.59761		283	-4.20E-05	-0.59351		324	-5.67E-05	-0.58941
243	-3.16E-05	-0.59751		284	-4.39E-05	-0.59341		325	-5.72E-05	-0.58931
244	-3.24E-05	-0.59741		285	-4.42E-05	-0.59331		326	-5.71E-05	-0.58921
245	-3.22E-05	-0.59731		286	-4.58E-05	-0.59321		327	-5.88E-05	-0.58911
246	-3.35E-05	-0.59721		287	-4.48E-05	-0.59311		328	-5.69E-05	-0.58901
247	-3.16E-05	-0.59711		288	-4.44E-05	-0.59301		329	-5.82E-05	-0.58891
248	-3.26E-05	-0.59701		289	-4.50E-05	-0.59291		330	-6.03E-05	-0.58881
249	-3.35E-05	-0.59691		290	-4.44E-05	-0.59281		331	-6.02E-05	-0.58871
250	-3.34E-05	-0.59681		291	-4.71E-05	-0.59271		332	-6.00E-05	-0.58861
251	-3.34E-05	-0.59671		292	-4.74E-05	-0.59261		333	-6.13E-05	-0.58851
252	-3.38E-05	-0.59661		293	-4.76E-05	-0.59251		334	-6.18E-05	-0.58841
253	-3.50E-05	-0.59651		294	-4.64E-05	-0.59241		335	-6.06E-05	-0.58831
254	-3.44E-05	-0.59641		295	-4.61E-05	-0.59231		336	-6.19E-05	-0.58821
255	-3.55E-05	-0.59631		296	-4.71E-05	-0.59221		337	-6.31E-05	-0.58811
256	-3.67E-05	-0.59621		297	-4.81E-05	-0.59211		338	-6.22E-05	-0.58801
257	-3.70E-05	-0.59611		298	-4.75E-05	-0.59201		339	-6.36E-05	-0.58791
258	-3.61E-05	-0.59601		299	-4.84E-05	-0.59191		340	-6.42E-05	-0.58781
259	-3.67E-05	-0.59591		300	-4.84E-05	-0.59181		341	-6.45E-05	-0.58771
260	-3.63E-05	-0.59581		301	-4.87E-05	-0.59171		342	-6.48E-05	-0.58761
261	-3.70E-05	-0.59571		302	-4.95E-05	-0.59161				
262	-3.72E-05	-0.59561		303	-4.95E-05	-0.59151				
263	-3.80E-05	-0.59551		304	-5.00E-05	-0.59141				
264	-3.69E-05	-0.59541		305	-5.12E-05	-0.59131				
265	-3.89E-05	-0.59531		306	-4.98E-05	-0.59121				
266	-3.73E-05	-0.59521		307	-5.14E-05	-0.59111				
267	-3.97E-05	-0.59511		308	-5.20E-05	-0.59101				
268	-3.91E-05	-0.59501		309	-5.16E-05	-0.59091				
269	-3.79E-05	-0.59491		310	-5.24E-05	-0.59081				
270	-3.86E-05	-0.59481		311	-5.32E-05	-0.59071				
271	-3.84E-05	-0.59471		312	-5.20E-05	-0.59061				
272	-4.00E-05	-0.59461		313	-5.40E-05	-0.59051				
273	-4.00E-05	-0.59451		314	-5.30E-05	-0.59041				
274	-4.10E-05	-0.59441		315	-5.41E-05	-0.59031				
275	-4.01E-05	-0.59431		316	-5.42E-05	-0.59021				
276	-4.06E-05	-0.59421		317	-5.45E-05	-0.59011				
277	-4.13E-05	-0.59411		318	-5.48E-05	-0.59001				
278	-4.14E-05	-0.59401		319	-5.46E-05	-0.58991				
279	-4.28E-05	-0.59391		320	-5.51E-05	-0.58981				
280	-4.30E-05	-0.59381		321	-5.65E-05	-0.58971				
281	-4.20E-05	-0.59371		322	-5.62E-05	-0.58961				
282	-4.30E-05	-0.59361		323	-5.81E-05	-0.58951				

AISI 316 in 3.5% NaCl Solution		
	Current (A)	Potential (V)
1	-3.07E-06	-0.45386
2	7.53E-05	-0.45286
3	7.78E-05	-0.45186
4	7.25E-05	-0.45086
5	6.90E-05	-0.44986
6	6.50E-05	-0.44886
7	6.31E-05	-0.44786
8	6.04E-05	-0.44686
9	5.90E-05	-0.44586
10	5.74E-05	-0.44486
11	5.59E-05	-0.44386
12	5.50E-05	-0.44286
13	5.35E-05	-0.44186
14	5.30E-05	-0.44086
15	5.16E-05	-0.43986
16	5.12E-05	-0.43886
17	5.01E-05	-0.43786
18	4.94E-05	-0.43686
19	4.88E-05	-0.43586
20	4.80E-05	-0.43486
21	4.74E-05	-0.43386
22	4.65E-05	-0.43286
23	4.61E-05	-0.43186
24	4.51E-05	-0.43086
25	4.50E-05	-0.42986
26	4.38E-05	-0.42886
27	4.37E-05	-0.42786
28	4.28E-05	-0.42686
29	4.26E-05	-0.42586
30	4.18E-05	-0.42486
31	4.16E-05	-0.42386
32	4.09E-05	-0.42286
33	4.08E-05	-0.42186
34	3.99E-05	-0.42086
35	3.97E-05	-0.41986
36	3.90E-05	-0.41886
37	3.85E-05	-0.41786
38	3.82E-05	-0.41686
39	3.75E-05	-0.41586
40	3.74E-05	-0.41486
41	3.73E-05	-0.41386
42	3.63E-05	-0.41286
43	3.63E-05	-0.41186
44	3.51E-05	-0.41086
45	3.53E-05	-0.40986
46	3.43E-05	-0.40886
47	3.41E-05	-0.40786
48	3.35E-05	-0.40686
49	3.31E-05	-0.40586
50	3.26E-05	-0.40486
51	3.23E-05	-0.40386
52	3.16E-05	-0.40286
53	3.14E-05	-0.40186
54	3.10E-05	-0.40086
55	3.06E-05	-0.39986
56	3.00E-05	-0.39886
57	3.00E-05	-0.39786
58	2.90E-05	-0.39686
59	2.91E-05	-0.39586
60	2.84E-05	-0.39486
61	2.84E-05	-0.39386
62	2.77E-05	-0.39286
63	2.76E-05	-0.39186
64	2.67E-05	-0.39086
65	2.70E-05	-0.38986
66	2.61E-05	-0.38886
67	2.62E-05	-0.38786
68	2.52E-05	-0.38686
69	2.56E-05	-0.38586
70	2.47E-05	-0.38486
71	2.48E-05	-0.38386
72	2.42E-05	-0.38286
73	2.40E-05	-0.38186
74	2.36E-05	-0.38086
75	2.33E-05	-0.37986
76	2.28E-05	-0.37886
77	2.26E-05	-0.37786
78	2.23E-05	-0.37686
79	2.21E-05	-0.37586
80	2.17E-05	-0.37486
81	2.14E-05	-0.37386
82	2.12E-05	-0.37286
83	2.08E-05	-0.37186
84	2.06E-05	-0.37086
85	2.03E-05	-0.36986
86	1.99E-05	-0.36886
87	1.99E-05	-0.36786
88	1.93E-05	-0.36686
89	1.94E-05	-0.36586
90	1.88E-05	-0.36486
91	1.89E-05	-0.36386
92	1.85E-05	-0.36286
93	1.81E-05	-0.36186
94	1.81E-05	-0.36086
95	1.76E-05	-0.35986
96	1.76E-05	-0.35886
97	1.70E-05	-0.35786
98	1.71E-05	-0.35686
99	1.65E-05	-0.35586
100	1.66E-05	-0.35486
101	1.61E-05	-0.35386
102	1.60E-05	-0.35286
103	1.57E-05	-0.35186
104	1.53E-05	-0.35086
105	1.54E-05	-0.34986
106	1.48E-05	-0.34886
107	1.49E-05	-0.34786
108	1.46E-05	-0.34686
109	1.44E-05	-0.34586
110	1.42E-05	-0.34486
111	1.40E-05	-0.34386
112	1.38E-05	-0.34286
113	1.35E-05	-0.34186
114	1.36E-05	-0.34086
115	1.30E-05	-0.33986
116	1.32E-05	-0.33886
117	1.25E-05	-0.33786
118	1.28E-05	-0.33686
119	1.22E-05	-0.33586
120	1.22E-05	-0.33486
121	1.20E-05	-0.33386

122	1.16E-05	-0.33286	163	5.72E-06	-0.29186	204	2.36E-06	-0.25086
123	1.18E-05	-0.33186	164	5.99E-06	-0.29086	205	2.49E-06	-0.24986
124	1.13E-05	-0.33086	165	5.55E-06	-0.28986	206	2.25E-06	-0.24886
125	1.13E-05	-0.32986	166	5.78E-06	-0.28886	207	2.47E-06	-0.24786
126	1.13E-05	-0.32886	167	5.34E-06	-0.28786	208	2.03E-06	-0.24686
127	1.07E-05	-0.32786	168	5.56E-06	-0.28686	209	2.42E-06	-0.24586
128	1.10E-05	-0.32686	169	5.24E-06	-0.28586	210	1.89E-06	-0.24486
129	1.04E-05	-0.32586	170	5.25E-06	-0.28486	211	2.24E-06	-0.24386
130	1.05E-05	-0.32486	171	5.13E-06	-0.28386	212	1.80E-06	-0.24286
131	1.02E-05	-0.32386	172	5.05E-06	-0.28286	213	2.13E-06	-0.24186
132	1.02E-05	-0.32286	173	4.86E-06	-0.28186	214	1.70E-06	-0.24086
133	9.85E-06	-0.32186	174	4.79E-06	-0.28086	215	1.96E-06	-0.23986
134	9.87E-06	-0.32086	175	4.71E-06	-0.27986	216	1.52E-06	-0.23886
135	9.49E-06	-0.31986	176	4.67E-06	-0.27886	217	1.83E-06	-0.23786
136	9.46E-06	-0.31886	177	4.56E-06	-0.27786	218	1.33E-06	-0.23686
137	9.31E-06	-0.31786	178	4.51E-06	-0.27686	219	1.69E-06	-0.23586
138	9.14E-06	-0.31686	179	4.24E-06	-0.27586	220	1.41E-06	-0.23486
139	9.01E-06	-0.31586	180	4.47E-06	-0.27486	221	1.55E-06	-0.23386
140	8.93E-06	-0.31486	181	4.04E-06	-0.27386	222	1.44E-06	-0.23286
141	8.64E-06	-0.31386	182	4.29E-06	-0.27286	223	1.43E-06	-0.23186
142	8.57E-06	-0.31286	183	3.83E-06	-0.27186	224	1.42E-06	-0.23086
143	8.49E-06	-0.31186	184	4.17E-06	-0.27086	225	1.30E-06	-0.22986
144	8.20E-06	-0.31086	185	3.65E-06	-0.26986	226	1.27E-06	-0.22886
145	8.34E-06	-0.30986	186	3.99E-06	-0.26886	227	1.10E-06	-0.22786
146	7.84E-06	-0.30886	187	3.47E-06	-0.26786	228	1.33E-06	-0.22686
147	8.09E-06	-0.30786	188	3.76E-06	-0.26686	229	8.43E-07	-0.22586
148	7.44E-06	-0.30686	189	3.39E-06	-0.26586	230	9.45E-07	-0.22386
149	7.79E-06	-0.30586	190	3.59E-06	-0.26486	231	9.55E-07	-0.22186
150	7.37E-06	-0.30486	191	3.37E-06	-0.26386	232	9.10E-07	-0.21986
151	7.46E-06	-0.30386	192	3.31E-06	-0.26286	233	7.93E-07	-0.21786
152	7.23E-06	-0.30286	193	3.29E-06	-0.26186	234	7.73E-07	-0.21586
153	7.05E-06	-0.30186	194	2.99E-06	-0.26086	235	4.91E-07	-0.21486
154	7.07E-06	-0.30086	195	3.20E-06	-0.25986	236	7.32E-07	-0.21386
155	6.71E-06	-0.29986	196	2.76E-06	-0.25886	237	5.96E-07	-0.21186
156	6.97E-06	-0.29886	197	3.14E-06	-0.25786	238	4.70E-07	-0.20986
157	6.40E-06	-0.29786	198	2.65E-06	-0.25686	239	4.29E-07	-0.20886
158	6.78E-06	-0.29686	199	3.03E-06	-0.25586	240	4.23E-07	-0.20686
159	6.22E-06	-0.29586	200	2.39E-06	-0.25486	241	2.62E-07	-0.20586
160	6.46E-06	-0.29486	201	2.89E-06	-0.25386	242	4.87E-07	-0.20486
161	5.99E-06	-0.29386	202	2.38E-06	-0.25286	243	7.23E-08	-0.20386
162	6.22E-06	-0.29286	203	2.74E-06	-0.25186	244	6.97E-08	-0.20186

245	1.45E-07	-0.19986	286	-1.44E-06	-0.14286	327	-1.90E-06	-0.10186
246	1.19E-07	-0.19886	287	-1.20E-06	-0.14186	328	-2.00E-06	-0.10086
247	1.08E-07	-0.19786	288	-1.33E-06	-0.14086	329	-1.86E-06	-0.09986
248	-5.33E-08	-0.19686	289	-1.35E-06	-0.13986	330	-2.10E-06	-0.09886
249	-1.63E-07	-0.19486	290	-1.36E-06	-0.13886	331	-1.83E-06	-0.09786
250	1.54E-07	-0.19386	291	-1.37E-06	-0.13786	332	-2.09E-06	-0.09686
251	-2.51E-07	-0.19286	292	-1.39E-06	-0.13686	333	-1.88E-06	-0.09586
252	6.91E-08	-0.19186	293	-1.41E-06	-0.13586	334	-2.11E-06	-0.09486
253	-2.22E-08	-0.18986	294	-1.49E-06	-0.13486	335	-1.88E-06	-0.09386
254	-1.69E-07	-0.18786	295	-1.48E-06	-0.13386	336	-2.12E-06	-0.09286
255	-1.84E-07	-0.18686	296	-1.48E-06	-0.13286	337	-2.00E-06	-0.09186
256	-4.80E-07	-0.18586	297	-1.51E-06	-0.13186	338	-2.20E-06	-0.09086
257	-2.28E-08	-0.18486	298	-1.48E-06	-0.13086	339	-1.89E-06	-0.08986
258	-1.18E-07	-0.18286	299	-1.36E-06	-0.12986	340	-2.20E-06	-0.08886
259	-5.37E-07	-0.18186	300	-1.67E-06	-0.12886	341	-2.06E-06	-0.08786
260	-2.88E-07	-0.18086	301	-1.51E-06	-0.12786	342	-2.09E-06	-0.08686
261	-5.51E-07	-0.17986	302	-1.54E-06	-0.12686	343	-2.13E-06	-0.08586
262	-3.36E-07	-0.17886	303	-1.60E-06	-0.12586	344	-2.09E-06	-0.08486
263	-6.33E-07	-0.17786	304	-1.48E-06	-0.12486	345	-2.07E-06	-0.08386
264	-3.53E-07	-0.17686	305	-1.76E-06	-0.12386	346	-2.22E-06	-0.08286
265	-6.59E-07	-0.17586	306	-1.43E-06	-0.12286	347	-2.08E-06	-0.08186
266	-4.95E-07	-0.17486	307	-1.78E-06	-0.12186	348	-2.26E-06	-0.08086
267	-5.53E-07	-0.17386	308	-1.58E-06	-0.12086	349	-2.12E-06	-0.07986
268	-4.05E-07	-0.17186	309	-1.59E-06	-0.11986	350	-2.22E-06	-0.07886
269	-4.83E-07	-0.16986	310	-1.68E-06	-0.11886	351	-2.15E-06	-0.07786
270	-4.84E-07	-0.16786	311	-1.53E-06	-0.11786	352	-2.32E-06	-0.07686
271	-7.85E-07	-0.16586	312	-1.93E-06	-0.11686	353	-1.99E-06	-0.07586
272	-9.00E-07	-0.16386	313	-1.56E-06	-0.11586	354	-2.43E-06	-0.07486
273	-9.47E-07	-0.16186	314	-1.84E-06	-0.11486	355	-2.00E-06	-0.07386
274	-1.11E-06	-0.15986	315	-1.63E-06	-0.11386	356	-2.28E-06	-0.07286
275	-7.17E-07	-0.15886	316	-1.84E-06	-0.11286	357	-2.28E-06	-0.07186
276	-7.75E-07	-0.15686	317	-1.72E-06	-0.11186	358	-2.18E-06	-0.07086
277	-8.55E-07	-0.15486	318	-1.68E-06	-0.11086	359	-2.47E-06	-0.06986
278	-1.06E-06	-0.15286	319	-2.02E-06	-0.10986	360	-2.07E-06	-0.06886
279	-1.10E-06	-0.15186	320	-1.66E-06	-0.10886	361	-2.53E-06	-0.06786
280	-1.25E-06	-0.15086	321	-2.06E-06	-0.10786	362	-2.21E-06	-0.06686
281	-1.05E-06	-0.14986	322	-1.65E-06	-0.10686	363	-2.31E-06	-0.06586
282	-1.32E-06	-0.14886	323	-2.04E-06	-0.10586	364	-2.57E-06	-0.06486
283	-9.86E-07	-0.14786	324	-1.75E-06	-0.10486	365	-2.15E-06	-0.06386
284	-1.01E-06	-0.14586	325	-2.03E-06	-0.10386	366	-2.46E-06	-0.06286
285	-1.04E-06	-0.14386	326	-1.81E-06	-0.10286	367	-2.30E-06	-0.06186

368	-2.39E-06	-0.06086		409	-2.57E-06	-0.01986		450	-3.05E-06	0.021143
369	-2.36E-06	-0.05986		410	-2.98E-06	-0.01886		451	-3.20E-06	0.022143
370	-2.35E-06	-0.05886		411	-2.51E-06	-0.01786		452	-3.01E-06	0.023143
371	-2.63E-06	-0.05786		412	-2.99E-06	-0.01686		453	-3.24E-06	0.024143
372	-2.18E-06	-0.05686		413	-2.67E-06	-0.01586		454	-2.93E-06	0.025143
373	-2.68E-06	-0.05586		414	-2.75E-06	-0.01486		455	-2.93E-06	0.026143
374	-2.38E-06	-0.05486		415	-3.06E-06	-0.01386		456	-3.30E-06	0.027143
375	-2.45E-06	-0.05386		416	-2.59E-06	-0.01286		457	-2.91E-06	0.028143
376	-2.63E-06	-0.05286		417	-2.82E-06	-0.01186		458	-3.07E-06	0.029143
377	-2.22E-06	-0.05186		418	-2.98E-06	-0.01086		459	-3.35E-06	0.030143
378	-2.56E-06	-0.05086		419	-2.55E-06	-0.00986		460	-2.89E-06	0.031143
379	-2.41E-06	-0.04986		420	-2.95E-06	-0.00886		461	-3.26E-06	0.032143
380	-2.53E-06	-0.04886		421	-2.84E-06	-0.00786		462	-2.99E-06	0.033143
381	-2.53E-06	-0.04786		422	-2.84E-06	-0.00686		463	-3.26E-06	0.034143
382	-2.48E-06	-0.04686		423	-2.94E-06	-0.00586		464	-3.09E-06	0.035143
383	-2.69E-06	-0.04586		424	-2.77E-06	-0.00486		465	-3.02E-06	0.036143
384	-2.25E-06	-0.04486		425	-3.05E-06	-0.00386		466	-3.36E-06	0.037143
385	-2.68E-06	-0.04386		426	-2.63E-06	-0.00286		467	-3.02E-06	0.038143
386	-2.50E-06	-0.04286		427	-3.06E-06	-0.00186		468	-3.11E-06	0.039143
387	-2.56E-06	-0.04186		428	-2.83E-06	-0.00086		469	-3.31E-06	0.040143
388	-2.82E-06	-0.04086		429	-2.86E-06	0.000143		470	-2.98E-06	0.041143
389	-2.36E-06	-0.03986		430	-3.11E-06	0.001143		471	-3.36E-06	0.042143
390	-2.72E-06	-0.03886		431	-2.70E-06	0.002143		472	-2.97E-06	0.043143
391	-2.61E-06	-0.03786		432	-2.97E-06	0.003143		473	-3.26E-06	0.044143
392	-2.53E-06	-0.03686		433	-2.97E-06	0.004143		474	-3.24E-06	0.045143
393	-2.79E-06	-0.03586		434	-2.89E-06	0.005143		475	-2.95E-06	0.046143
394	-2.43E-06	-0.03486		435	-3.03E-06	0.006143		476	-3.31E-06	0.047143
395	-2.92E-06	-0.03386		436	-2.89E-06	0.007143		477	-3.22E-06	0.048143
396	-2.58E-06	-0.03286		437	-3.04E-06	0.008143		478	-2.98E-06	0.049143
397	-2.72E-06	-0.03186		438	-2.80E-06	0.009143		479	-3.31E-06	0.050143
398	-2.75E-06	-0.03086		439	-3.18E-06	0.010143		480	-3.20E-06	0.051143
399	-2.57E-06	-0.02986		440	-2.73E-06	0.011143		481	-3.03E-06	0.052143
400	-2.91E-06	-0.02886		441	-3.19E-06	0.012143		482	-3.41E-06	0.053143
401	-2.41E-06	-0.02786		442	-2.77E-06	0.013143		483	-3.29E-06	0.054143
402	-2.83E-06	-0.02686		443	-3.09E-06	0.014143		484	-3.03E-06	0.055143
403	-2.53E-06	-0.02586		444	-2.99E-06	0.015143		485	-3.50E-06	0.056143
404	-2.67E-06	-0.02486		445	-2.81E-06	0.016143		486	-3.12E-06	0.057143
405	-2.97E-06	-0.02386		446	-3.26E-06	0.017143		487	-3.15E-06	0.058143
406	-2.51E-06	-0.02286		447	-2.80E-06	0.018143		488	-3.39E-06	0.059143
407	-2.73E-06	-0.02186		448	-3.08E-06	0.019143		489	-3.24E-06	0.060143
408	-2.76E-06	-0.02086		449	-3.03E-06	0.020143		490	-3.33E-06	0.061143

491	-3.29E-06	0.062143	532	-3.49E-06	0.10314	573	-3.58E-06	0.14414
492	-3.14E-06	0.063143	533	-3.70E-06	0.10414	574	-3.94E-06	0.14514
493	-3.46E-06	0.064143	534	-3.30E-06	0.10514	575	-3.48E-06	0.14614
494	-3.17E-06	0.065143	535	-3.76E-06	0.10614	576	-3.79E-06	0.14714
495	-3.47E-06	0.066143	536	-3.56E-06	0.10714	577	-3.70E-06	0.14814
496	-3.18E-06	0.067143	537	-3.41E-06	0.10814	578	-3.62E-06	0.14914
497	-3.51E-06	0.068143	538	-3.68E-06	0.10914	579	-3.94E-06	0.15014
498	-3.13E-06	0.069143	539	-3.33E-06	0.11014	580	-3.59E-06	0.15114
499	-3.42E-06	0.070143	540	-3.76E-06	0.11114	581	-3.81E-06	0.15214
500	-3.21E-06	0.071143	541	-3.32E-06	0.11214	582	-3.75E-06	0.15314
501	-3.49E-06	0.072143	542	-3.72E-06	0.11314	583	-3.69E-06	0.15414
502	-3.17E-06	0.073143	543	-3.39E-06	0.11414	584	-3.96E-06	0.15514
503	-3.62E-06	0.074143	544	-3.63E-06	0.11514	585	-3.59E-06	0.15614
504	-3.16E-06	0.075143	545	-3.57E-06	0.11614	586	-3.94E-06	0.15714
505	-3.56E-06	0.076143	546	-3.58E-06	0.11714	587	-3.57E-06	0.15814
506	-3.22E-06	0.077143	547	-3.69E-06	0.11814	588	-3.82E-06	0.15914
507	-3.57E-06	0.078143	548	-3.53E-06	0.11914	589	-3.75E-06	0.16014
508	-3.32E-06	0.079143	549	-3.88E-06	0.12014	590	-3.81E-06	0.16114
509	-3.25E-06	0.080143	550	-3.55E-06	0.12114	591	-3.99E-06	0.16214
510	-3.59E-06	0.081143	551	-3.85E-06	0.12214	592	-3.61E-06	0.16314
511	-3.28E-06	0.082143	552	-3.50E-06	0.12314	593	-3.87E-06	0.16414
512	-3.51E-06	0.083143	553	-3.63E-06	0.12414	594	-3.84E-06	0.16514
513	-3.38E-06	0.084143	554	-3.71E-06	0.12514	595	-3.81E-06	0.16614
514	-3.35E-06	0.085143	555	-3.32E-06	0.12614	596	-4.03E-06	0.16714
515	-3.64E-06	0.086143	556	-3.77E-06	0.12714	597	-3.67E-06	0.16814
516	-3.26E-06	0.087143	557	-3.57E-06	0.12814	598	-3.95E-06	0.16914
517	-3.61E-06	0.088143	558	-3.49E-06	0.12914	599	-3.69E-06	0.17014
518	-3.44E-06	0.089143	559	-3.80E-06	0.13014	600	-3.90E-06	0.17114
519	-3.50E-06	0.090143	560	-3.39E-06	0.13114	601	-3.81E-06	0.17214
520	-3.71E-06	0.091143	561	-3.74E-06	0.13214	602	-3.85E-06	0.17314
521	-3.29E-06	0.092143	562	-3.50E-06	0.13314	603	-3.89E-06	0.17414
522	-3.64E-06	0.093143	563	-3.75E-06	0.13414	604	-3.80E-06	0.17514
523	-3.42E-06	0.094143	564	-3.52E-06	0.13514	605	-3.87E-06	0.17614
524	-3.43E-06	0.095143	565	-3.81E-06	0.13614	606	-3.76E-06	0.17714
525	-3.58E-06	0.096143	566	-3.68E-06	0.13714	607	-4.00E-06	0.17814
526	-3.29E-06	0.097143	567	-3.70E-06	0.13814	608	-3.68E-06	0.17914
527	-3.67E-06	0.098143	568	-3.72E-06	0.13914	609	-4.03E-06	0.18014
528	-3.42E-06	0.099143	569	-3.56E-06	0.14014	610	-3.71E-06	0.18114
529	-3.39E-06	0.10014	570	-3.79E-06	0.14114	611	-4.04E-06	0.18214
530	-3.73E-06	0.10114	571	-3.53E-06	0.14214	612	-3.84E-06	0.18314
531	-3.46E-06	0.10214	572	-3.89E-06	0.14314	613	-4.06E-06	0.18414

614	-3.71E-06	0.18514	655	-4.19E-06	0.22614	696	-4.30E-06	0.26714
615	-4.04E-06	0.18614	656	-4.45E-06	0.22714	697	-4.37E-06	0.26814
616	-3.69E-06	0.18714	657	-4.16E-06	0.22814	698	-4.53E-06	0.26914
617	-4.08E-06	0.18814	658	-4.56E-06	0.22914	699	-4.79E-06	0.27014
618	-3.75E-06	0.18914	659	-4.29E-06	0.23014	700	-4.65E-06	0.27114
619	-3.99E-06	0.19014	660	-4.49E-06	0.23114	701	-4.46E-06	0.27214
620	-3.74E-06	0.19114	661	-4.19E-06	0.23214	702	-4.44E-06	0.27314
621	-4.07E-06	0.19214	662	-4.44E-06	0.23314	703	-4.45E-06	0.27414
622	-3.76E-06	0.19314	663	-4.19E-06	0.23414	704	-4.47E-06	0.27514
623	-4.04E-06	0.19414	664	-4.49E-06	0.23514	705	-4.39E-06	0.27614
624	-3.88E-06	0.19514	665	-4.22E-06	0.23614	706	-4.58E-06	0.27714
625	-3.97E-06	0.19614	666	-4.64E-06	0.23714	707	-4.32E-06	0.27814
626	-3.91E-06	0.19714	667	-4.44E-06	0.23814	708	-4.52E-06	0.27914
627	-4.05E-06	0.19814	668	-4.87E-06	0.23914	709	-4.40E-06	0.28014
628	-3.80E-06	0.19914	669	-4.67E-06	0.24014	710	-5.18E-06	0.28114
629	-4.16E-06	0.20014	670	-4.54E-06	0.24114	711	-5.28E-06	0.28214
630	-3.84E-06	0.20114	671	-4.28E-06	0.24214	712	-4.55E-06	0.28314
631	-4.25E-06	0.20214	672	-4.36E-06	0.24314	713	-4.38E-06	0.28414
632	-4.01E-06	0.20314	673	-3.95E-06	0.24414	714	-4.54E-06	0.28514
633	-4.18E-06	0.20414	674	-4.33E-06	0.24514	715	-4.63E-06	0.28614
634	-3.90E-06	0.20514	675	-4.03E-06	0.24614	716	-4.36E-06	0.28714
635	-4.20E-06	0.20614	676	-4.17E-06	0.24714	717	-4.73E-06	0.28814
636	-3.91E-06	0.20714	677	-4.04E-06	0.24814	718	-4.36E-06	0.28914
637	-4.34E-06	0.20814	678	-4.17E-06	0.24914	719	-4.44E-06	0.29014
638	-3.98E-06	0.20914	679	-4.23E-06	0.25014	720	-4.24E-06	0.29114
639	-4.33E-06	0.21014	680	-4.17E-06	0.25114	721	-4.56E-06	0.29214
640	-4.04E-06	0.21114	681	-4.27E-06	0.25214	722	-4.26E-06	0.29314
641	-4.37E-06	0.21214	682	-4.19E-06	0.25314	723	-4.52E-06	0.29414
642	-4.13E-06	0.21314	683	-4.37E-06	0.25414	724	-4.72E-06	0.29514
643	-4.42E-06	0.21414	684	-4.30E-06	0.25514	725	-4.76E-06	0.29614
644	-4.18E-06	0.21514	685	-4.34E-06	0.25614	726	-4.72E-06	0.29714
645	-4.20E-06	0.21614	686	-4.29E-06	0.25714	727	-4.69E-06	0.29814
646	-4.23E-06	0.21714	687	-4.54E-06	0.25814	728	-4.64E-06	0.29914
647	-4.33E-06	0.21814	688	-4.48E-06	0.25914	729	-4.69E-06	0.30014
648	-4.30E-06	0.21914	689	-4.44E-06	0.26014	730	-4.63E-06	0.30114
649	-4.35E-06	0.22014	690	-4.10E-06	0.26114	731	-4.87E-06	0.30214
650	-4.40E-06	0.22114	691	-4.37E-06	0.26214	732	-4.51E-06	0.30314
651	-4.35E-06	0.22214	692	-4.26E-06	0.26314	733	-4.61E-06	0.30414
652	-4.65E-06	0.22314	693	-4.17E-06	0.26414	734	-4.58E-06	0.30514
653	-4.49E-06	0.22414	694	-4.25E-06	0.26514	735	-4.56E-06	0.30614
654	-4.72E-06	0.22514	695	-4.23E-06	0.26614	736	-4.66E-06	0.30714

737	-4.64E-06	0.30814	778	-7.47E-06	0.34914	819	-1.10E-05	0.39014
738	-4.88E-06	0.30914	779	-5.92E-06	0.35014	820	-1.02E-05	0.39114
739	-5.63E-06	0.31014	780	-6.71E-06	0.35114	821	-1.14E-05	0.39214
740	-5.92E-06	0.31114	781	-6.87E-06	0.35214	822	-1.09E-05	0.39314
741	-5.75E-06	0.31214	782	-6.74E-06	0.35314	823	-9.22E-06	0.39414
742	-5.55E-06	0.31314	783	-7.60E-06	0.35414	824	-9.66E-06	0.39514
743	-5.15E-06	0.31414	784	-8.32E-06	0.35514	825	-1.08E-05	0.39614
744	-4.56E-06	0.31514	785	-8.47E-06	0.35614	826	-8.73E-06	0.39714
745	-4.57E-06	0.31614	786	-8.37E-06	0.35714	827	-7.86E-06	0.39814
746	-4.64E-06	0.31714	787	-9.07E-06	0.35814	828	-8.41E-06	0.39914
747	-5.10E-06	0.31814	788	-9.75E-06	0.35914	829	-9.49E-06	0.40014
748	-5.49E-06	0.31914	789	-8.90E-06	0.36014	830	-8.74E-06	0.40114
749	-5.79E-06	0.32014	790	-8.33E-06	0.36114	831	-9.38E-06	0.40214
750	-6.12E-06	0.32114	791	-7.30E-06	0.36214	832	-8.66E-06	0.40314
751	-5.60E-06	0.32214	792	-6.92E-06	0.36314	833	-1.09E-05	0.40414
752	-5.48E-06	0.32314	793	-8.27E-06	0.36414	834	-8.85E-06	0.40514
753	-5.78E-06	0.32414	794	-9.20E-06	0.36514	835	-9.40E-06	0.40614
754	-6.10E-06	0.32514	795	-1.08E-05	0.36614	836	-8.27E-06	0.40714
755	-6.23E-06	0.32614	796	-1.21E-05	0.36714	837	-1.03E-05	0.40814
756	-5.57E-06	0.32714	797	-1.64E-05	0.36814	838	-1.07E-05	0.40914
757	-5.86E-06	0.32814	798	-9.04E-06	0.36914	839	-1.11E-05	0.41014
758	-6.55E-06	0.32914	799	-8.72E-06	0.37014	840	-1.09E-05	0.41114
759	-6.07E-06	0.33014	800	-7.25E-06	0.37114	841	-1.07E-05	0.41214
760	-6.59E-06	0.33114	801	-7.42E-06	0.37214	842	-1.03E-05	0.41314
761	-7.22E-06	0.33214	802	-8.07E-06	0.37314	843	-8.42E-06	0.41414
762	-6.37E-06	0.33314	803	-8.23E-06	0.37414	844	-1.10E-05	0.41514
763	-6.75E-06	0.33414	804	-8.78E-06	0.37514	845	-1.16E-05	0.41614
764	-7.11E-06	0.33514	805	-7.30E-06	0.37614	846	-1.21E-05	0.41714
765	-7.22E-06	0.33614	806	-7.40E-06	0.37714	847	-1.31E-05	0.41814
766	-6.57E-06	0.33714	807	-8.39E-06	0.37814	848	-1.22E-05	0.41914
767	-7.04E-06	0.33814	808	-7.51E-06	0.37914	849	-1.13E-05	0.42014
768	-5.70E-06	0.33914	809	-8.50E-06	0.38014	850	-1.18E-05	0.42114
769	-5.15E-06	0.34014	810	-8.94E-06	0.38114	851	-1.36E-05	0.42214
770	-5.28E-06	0.34114	811	-8.93E-06	0.38214	852	-1.64E-05	0.42314
771	-6.00E-06	0.34214	812	-8.55E-06	0.38314	853	-1.85E-05	0.42414
772	-6.02E-06	0.34314	813	-8.12E-06	0.38414	854	-1.83E-05	0.42514
773	-7.12E-06	0.34414	814	-9.02E-06	0.38514	855	-1.74E-05	0.42614
774	-7.65E-06	0.34514	815	-1.05E-05	0.38614	856	-1.96E-05	0.42714
775	-8.63E-06	0.34614	816	-1.19E-05	0.38714	857	-1.98E-05	0.42814
776	-7.45E-06	0.34714	817	-1.21E-05	0.38814	858	-2.01E-05	0.42914
777	-7.34E-06	0.34814	818	-1.27E-05	0.38914	859	-2.31E-05	0.43014

860	-2.46E-05	0.43114	901	-4.79E-05	0.47214	942	-5.39E-05	0.51314
861	-2.53E-05	0.43214	902	-4.56E-05	0.47314	943	-5.82E-05	0.51414
862	-2.81E-05	0.43314	903	-4.43E-05	0.47414	944	-6.12E-05	0.51514
863	-3.13E-05	0.43414	904	-4.16E-05	0.47514	945	-7.00E-05	0.51614
864	-2.87E-05	0.43514	905	-4.23E-05	0.47614	946	-5.60E-05	0.51714
865	-2.86E-05	0.43614	906	-4.07E-05	0.47714	947	-5.46E-05	0.51814
866	-2.92E-05	0.43714	907	-3.87E-05	0.47814	948	-5.49E-05	0.51914
867	-3.14E-05	0.43814	908	-3.48E-05	0.47914	949	-5.17E-05	0.52014
868	-3.50E-05	0.43914	909	-3.28E-05	0.48014	950	-5.12E-05	0.52114
869	-3.50E-05	0.44014	910	-4.04E-05	0.48114	951	-5.55E-05	0.52214
870	-3.48E-05	0.44114	911	-4.95E-05	0.48214	952	-5.54E-05	0.52314
871	-3.46E-05	0.44214	912	-4.94E-05	0.48314	953	-5.74E-05	0.52414
872	-3.56E-05	0.44314	913	-4.49E-05	0.48414	954	-6.11E-05	0.52514
873	-3.32E-05	0.44414	914	-3.72E-05	0.48514	955	-5.70E-05	0.52614
874	-3.40E-05	0.44514	915	-3.90E-05	0.48614	956	-6.62E-05	0.52714
875	-3.25E-05	0.44614	916	-3.76E-05	0.48714	957	-6.70E-05	0.52814
876	-3.17E-05	0.44714	917	-3.81E-05	0.48814	958	-6.03E-05	0.52914
877	-3.27E-05	0.44814	918	-4.02E-05	0.48914	959	-6.00E-05	0.53014
878	-3.41E-05	0.44914	919	-4.17E-05	0.49014	960	-6.44E-05	0.53114
879	-3.50E-05	0.45014	920	-4.31E-05	0.49114	961	-6.88E-05	0.53214
880	-3.63E-05	0.45114	921	-4.27E-05	0.49214	962	-6.06E-05	0.53314
881	-3.46E-05	0.45214	922	-4.45E-05	0.49314	963	-5.83E-05	0.53414
882	-3.63E-05	0.45314	923	-4.82E-05	0.49414	964	-6.38E-05	0.53514
883	-3.63E-05	0.45414	924	-4.92E-05	0.49514	965	-6.67E-05	0.53614
884	-3.27E-05	0.45514	925	-5.27E-05	0.49614	966	-6.84E-05	0.53714
885	-3.58E-05	0.45614	926	-5.55E-05	0.49714	967	-7.26E-05	0.53814
886	-4.04E-05	0.45714	927	-5.49E-05	0.49814	968	-7.17E-05	0.53914
887	-4.07E-05	0.45814	928	-5.36E-05	0.49914	969	-7.53E-05	0.54014
888	-4.35E-05	0.45914	929	-5.00E-05	0.50014	970	-7.91E-05	0.54114
889	-4.43E-05	0.46014	930	-4.21E-05	0.50114	971	-8.90E-05	0.54214
890	-4.19E-05	0.46114	931	-4.89E-05	0.50214	972	-8.94E-05	0.54314
891	-4.34E-05	0.46214	932	-5.95E-05	0.50314	973	-9.83E-05	0.54414
892	-4.04E-05	0.46314	933	-3.57E-05	0.50414	974	-0.0001	0.54514
893	-4.05E-05	0.46414	934	-3.83E-05	0.50514	975	-9.76E-05	0.54614
894	-3.80E-05	0.46514	935	-3.97E-05	0.50614	976	-0.00011	0.54714
895	-3.98E-05	0.46614	936	-4.50E-05	0.50714	977	-0.00011	0.54814
896	-3.90E-05	0.46714	937	-4.48E-05	0.50814	978	-0.00011	0.54914
897	-4.18E-05	0.46814	938	-4.84E-05	0.50914	979	-0.00011	0.55014
898	-4.75E-05	0.46914	939	-5.40E-05	0.51014	980	-0.00011	0.55114
899	-5.09E-05	0.47014	940	-5.27E-05	0.51114	981	-0.00012	0.55214
900	-5.09E-05	0.47114	941	-5.69E-05	0.51214	982	-0.00013	0.55314

983	-0.00014	0.55414	1024	-0.00022	0.59514
984	-0.00013	0.55514	1025	-0.00023	0.59614
985	-0.00012	0.55614	1026	-0.00024	0.59714
986	-0.00013	0.55714	1027	-0.00026	0.59814
987	-0.00013	0.55814	1028	-0.00027	0.59914
988	-0.00013	0.55914	1029	-0.00028	0.60014
989	-0.00014	0.56014	1030	-0.00029	0.60114
990	-0.00015	0.56114	1031	-0.0003	0.60214
991	-0.00014	0.56214	1032	-0.0003	0.60314
992	-0.0001	0.56314	1033	-0.0003	0.60414
993	-0.00011	0.56414	1034	-0.00031	0.60514
994	-0.00011	0.56514	1035	-0.00032	0.60614
995	-0.0001	0.56614			
996	-0.00011	0.56714			
997	-0.00011	0.56814			
998	-0.00012	0.56914			
999	-0.00012	0.57014			
1000	-0.00013	0.57114			
1001	-0.00013	0.57214			
1002	-0.00013	0.57314			
1003	-0.00013	0.57414			
1004	-0.00013	0.57514			
1005	-0.00014	0.57614			
1006	-0.00014	0.57714			
1007	-0.00015	0.57814			
1008	-0.00015	0.57914			
1009	-0.00015	0.58014			
1010	-0.00016	0.58114			
1011	-0.00016	0.58214			
1012	-0.00017	0.58314			
1013	-0.00018	0.58414			
1014	-0.00017	0.58514			
1015	-0.00019	0.58614			
1016	-0.00019	0.58714			
1017	-0.00019	0.58814			
1018	-0.0002	0.58914			
1019	-0.00021	0.59014			
1020	-0.00022	0.59114			
1021	-0.00022	0.59214			
1022	-0.00022	0.59314			
1023	-0.00022	0.59414			

AISI 316 in 0.35% NaCl Solution		
	Current(A)	Potential (V)
1	-6.15E-05	-0.41998
2	1.41E-05	-0.41898
3	1.80E-05	-0.41798
4	1.94E-05	-0.41698
5	1.66E-05	-0.41598
6	1.64E-05	-0.41498
7	1.61E-05	-0.41398
8	1.40E-05	-0.41298
9	1.55E-05	-0.41198
10	1.30E-05	-0.41098
11	1.49E-05	-0.40998
12	1.30E-05	-0.40898
13	1.43E-05	-0.40798
14	1.20E-05	-0.40698
15	1.30E-05	-0.40598
16	1.19E-05	-0.40498
17	1.26E-05	-0.40398
18	1.18E-05	-0.40298
19	1.05E-05	-0.40198
20	1.28E-05	-0.40098
21	9.87E-06	-0.39998
22	1.16E-05	-0.39898
23	1.21E-05	-0.39798
24	9.97E-06	-0.39698
25	1.21E-05	-0.39598
26	1.00E-05	-0.39498
27	9.58E-06	-0.39398
28	1.10E-05	-0.39298
29	9.17E-06	-0.39198
30	1.01E-05	-0.39098
31	1.05E-05	-0.38998

32	8.77E-06	-0.38898
33	9.54E-06	-0.38798
34	9.43E-06	-0.38698
35	8.41E-06	-0.38598
36	9.36E-06	-0.38498
37	7.42E-06	-0.38398
38	9.17E-06	-0.38298
39	7.48E-06	-0.38198
40	7.88E-06	-0.38098
41	9.03E-06	-0.37998
42	7.35E-06	-0.37898
43	8.94E-06	-0.37798
44	7.12E-06	-0.37698
45	8.56E-06	-0.37598
46	6.69E-06	-0.37498
47	8.35E-06	-0.37398
48	6.56E-06	-0.37298
49	8.20E-06	-0.37198
50	6.32E-06	-0.37098
51	7.67E-06	-0.36998
52	5.97E-06	-0.36898
53	7.74E-06	-0.36798
54	6.12E-06	-0.36698
55	6.88E-06	-0.36598
56	6.03E-06	-0.36498
57	6.76E-06	-0.36398
58	5.29E-06	-0.36298
59	7.15E-06	-0.36198
60	5.43E-06	-0.36098
61	6.22E-06	-0.35998
62	6.62E-06	-0.35898
63	4.78E-06	-0.35798
64	6.48E-06	-0.35698

65	5.11E-06	-0.35598
66	6.37E-06	-0.35498
67	5.08E-06	-0.35398
68	4.52E-06	-0.35298
69	5.56E-06	-0.35198
70	3.94E-06	-0.35098
71	5.68E-06	-0.34998
72	4.40E-06	-0.34898
73	5.67E-06	-0.34798
74	3.54E-06	-0.34698
75	4.81E-06	-0.34598
76	4.47E-06	-0.34498
77	4.19E-06	-0.34398
78	5.09E-06	-0.34298
79	3.90E-06	-0.34198
80	4.56E-06	-0.34098
81	3.27E-06	-0.33998
82	4.97E-06	-0.33898
83	3.95E-06	-0.33798
84	4.34E-06	-0.33698
85	2.97E-06	-0.33598
86	4.22E-06	-0.33498
87	3.27E-06	-0.33398
88	3.69E-06	-0.33298
89	4.10E-06	-0.33198
90	3.17E-06	-0.33098
91	4.31E-06	-0.32998
92	2.44E-06	-0.32898
93	3.83E-06	-0.32798
94	4.13E-06	-0.32698
95	3.32E-06	-0.32598
96	3.40E-06	-0.32498
97	2.88E-06	-0.32398

98	2.27E-06	-0.32298	131	1.55E-06	-0.28998	164	7.05E-08	-0.23998
99	3.49E-06	-0.32198	132	1.53E-06	-0.28898	165	-6.06E-08	-0.23798
100	2.38E-06	-0.32098	133	1.71E-06	-0.28798	166	2.85E-08	-0.23598
101	3.74E-06	-0.31998	134	1.93E-06	-0.28698	167	3.81E-07	-0.23398
102	2.13E-06	-0.31898	135	1.00E-06	-0.28598	168	7.56E-07	-0.23198
103	2.94E-06	-0.31798	136	2.10E-06	-0.28498	169	4.66E-07	-0.22998
104	3.02E-06	-0.31698	137	9.47E-07	-0.28398	170	-2.57E-08	-0.22798
105	2.89E-06	-0.31598	138	1.23E-06	-0.28198	171	3.46E-07	-0.22598
106	2.63E-06	-0.31498	139	1.57E-06	-0.28098	172	6.34E-07	-0.22398
107	2.33E-06	-0.31398	140	1.66E-06	-0.27998	173	1.03E-06	-0.22198
108	3.50E-06	-0.31298	141	8.03E-07	-0.27898	174	1.17E-07	-0.22098
109	1.90E-06	-0.31198	142	1.27E-06	-0.27698	175	1.76E-07	-0.21898
110	2.98E-06	-0.31098	143	1.91E-06	-0.27598	176	-1.37E-07	-0.21698
111	1.99E-06	-0.30998	144	7.02E-07	-0.27498	177	-9.44E-08	-0.21498
112	2.84E-06	-0.30898	145	7.31E-07	-0.27298	178	-1.48E-07	-0.21298
113	1.38E-06	-0.30798	146	1.14E-06	-0.27098	179	-3.58E-07	-0.21098
114	2.68E-06	-0.30698	147	7.57E-07	-0.26998	180	-2.22E-07	-0.20898
115	2.15E-06	-0.30598	148	1.08E-06	-0.26798	181	-6.34E-07	-0.20698
116	1.67E-06	-0.30498	149	1.18E-06	-0.26698	182	-1.38E-07	-0.20498
117	2.75E-06	-0.30398	150	8.47E-07	-0.26598	183	-1.03E-07	-0.20298
118	1.63E-06	-0.30298	151	6.04E-08	-0.26398	184	-3.45E-07	-0.20098
119	2.93E-06	-0.30198	152	2.18E-07	-0.26198	185	-2.89E-07	-0.19898
120	1.87E-06	-0.30098	153	2.64E-07	-0.25998	186	-1.48E-07	-0.19698
121	2.65E-06	-0.29998	154	1.54E-06	-0.25798	187	-3.49E-08	-0.19498
122	1.51E-06	-0.29898	155	1.27E-07	-0.25698	188	3.32E-07	-0.19298
123	1.89E-06	-0.29798	156	-3.11E-09	-0.25498	189	5.07E-07	-0.19098
124	2.59E-06	-0.29698	157	1.22E-07	-0.25298	190	9.64E-08	-0.18898
125	2.02E-06	-0.29598	158	3.84E-07	-0.25098	191	-6.08E-08	-0.18698
126	2.12E-06	-0.29498	159	2.28E-07	-0.24898	192	1.48E-07	-0.18498
127	1.55E-06	-0.29398	160	4.12E-07	-0.24698	193	-2.27E-07	-0.18298
128	2.10E-06	-0.29298	161	1.99E-07	-0.24498	194	9.80E-08	-0.18098
129	1.57E-06	-0.29198	162	-5.41E-08	-0.24298	195	-1.97E-07	-0.17898
130	2.05E-06	-0.29098	163	1.39E-06	-0.24098	196	-7.12E-07	-0.17698

197	-2.21E-07	-0.17498		230	-2.59E-07	-0.10898		263	-5.57E-07	-0.042983
198	-9.16E-07	-0.17298		231	-6.91E-07	-0.10698		264	-7.67E-07	-0.040983
199	6.76E-07	-0.17098		232	-7.31E-07	-0.10498		265	-6.23E-07	-0.038983
200	4.34E-07	-0.16898		233	-6.07E-08	-0.10298		266	9.04E-09	-0.036983
201	5.11E-07	-0.16698		234	3.15E-07	-0.10098		267	-2.25E-07	-0.034983
202	5.30E-07	-0.16498		235	2.16E-07	-0.098983		268	-2.22E-07	-0.032983
203	2.87E-07	-0.16298		236	-2.58E-07	-0.096983		269	-6.34E-07	-0.030983
204	5.91E-07	-0.16098		237	4.74E-08	-0.094983		270	-8.45E-07	-0.028983
205	2.61E-07	-0.15898		238	-8.95E-09	-0.092983		271	-5.13E-07	-0.026983
206	3.31E-07	-0.15698		239	2.47E-07	-0.090983		272	-5.42E-07	-0.024983
207	2.90E-07	-0.15498		240	9.92E-08	-0.088983		273	-7.80E-08	-0.022983
208	5.83E-07	-0.15298		241	-1.33E-07	-0.086983		274	-1.37E-07	-0.020983
209	6.11E-07	-0.15098		242	-1.41E-07	-0.084983		275	-1.22E-07	-0.018983
210	1.29E-07	-0.14898		243	-3.52E-07	-0.082983		276	-2.11E-07	-0.016983
211	-3.94E-07	-0.14698		244	1.13E-07	-0.080983		277	-3.63E-07	-0.014983
212	-4.88E-07	-0.14498		245	2.30E-07	-0.078983		278	-2.07E-07	-0.012983
213	-3.90E-07	-0.14298		246	-2.54E-07	-0.076983		279	-3.06E-07	-0.010983
214	-7.58E-07	-0.14098		247	-5.02E-07	-0.074983		280	-2.89E-07	-0.008983
215	-4.06E-07	-0.13898		248	-9.86E-07	-0.072983		281	-1.63E-07	-0.006983
216	-7.61E-07	-0.13698		249	-5.56E-07	-0.070983		282	-7.99E-08	-0.004983
217	-8.90E-07	-0.13498		250	-6.88E-07	-0.068983		283	-6.48E-07	-0.002983
218	-5.97E-07	-0.13298		251	-6.15E-07	-0.066983		284	-4.84E-07	-0.000983
219	-4.92E-07	-0.13098		252	1.08E-07	-0.064983		285	-8.62E-07	0.001017
220	-2.91E-07	-0.12898		253	-2.88E-07	-0.062983		286	-9.21E-07	0.003017
221	-6.18E-08	-0.12698		254	1.08E-07	-0.060983		287	-7.96E-07	0.005017
222	2.96E-07	-0.12498		255	-2.58E-07	-0.058983		288	-6.81E-07	0.007017
223	3.97E-07	-0.12298		256	-8.28E-07	-0.056983		289	-2.28E-07	0.009017
224	-3.60E-07	-0.12098		257	-8.78E-07	-0.054983		290	-1.40E-07	0.011017
225	-6.37E-07	-0.11898		258	-7.17E-07	-0.052983		291	-4.29E-07	0.013017
226	-4.55E-07	-0.11698		259	-4.29E-07	-0.050983		292	-4.49E-07	0.015017
227	-7.45E-07	-0.11498		260	-9.33E-07	-0.048983		293	-7.83E-07	0.017017
228	-7.72E-07	-0.11298		261	-4.63E-07	-0.046983		294	-1.12E-06	0.019017
229	-4.84E-07	-0.11098		262	-5.20E-07	-0.044983		295	-3.85E-07	0.020017

296	-1.39E-07	0.022017	329	-6.87E-07	0.087017	362	-7.67E-07	0.14902
297	-2.29E-07	0.024017	330	-8.11E-07	0.089017	363	-5.87E-07	0.15102
298	-7.22E-07	0.026017	331	-8.82E-07	0.091017	364	-1.01E-06	0.15302
299	-8.27E-07	0.028017	332	-2.78E-07	0.093017	365	-1.27E-06	0.15502
300	-7.07E-07	0.030017	333	-4.22E-07	0.095017	366	-3.65E-07	0.15602
301	-8.49E-07	0.032017	334	-3.48E-07	0.097017	367	-6.51E-07	0.15802
302	-6.60E-07	0.034017	335	-8.97E-07	0.099017	368	-1.04E-06	0.16002
303	-4.37E-09	0.036017	336	-4.22E-07	0.10102	369	-1.02E-06	0.16102
304	-4.13E-07	0.038017	337	-5.22E-07	0.10302	370	-8.00E-07	0.16302
305	-8.24E-07	0.040017	338	-5.24E-07	0.10502	371	-5.09E-07	0.16502
306	-9.28E-07	0.042017	339	-6.19E-07	0.10702	372	-7.77E-07	0.16702
307	-7.31E-07	0.044017	340	-8.02E-07	0.10902	373	-8.97E-07	0.16902
308	-1.31E-07	0.046017	341	-1.25E-06	0.11102	374	-3.86E-07	0.17102
309	-5.68E-07	0.048017	342	-7.50E-07	0.11202	375	-7.94E-07	0.17302
310	-6.29E-07	0.050017	343	-8.81E-07	0.11402	376	-4.73E-07	0.17502
311	-1.02E-06	0.052017	344	-3.19E-07	0.11602	377	-4.36E-07	0.17702
312	7.13E-08	0.054017	345	-8.36E-07	0.11802	378	-5.89E-07	0.17902
313	-3.04E-07	0.056017	346	-6.85E-07	0.12002	379	-8.36E-07	0.18102
314	-3.53E-07	0.058017	347	-7.12E-07	0.12202	380	-9.32E-07	0.18302
315	-1.10E-06	0.060017	348	-7.65E-07	0.12402	381	-4.63E-07	0.18502
316	-3.68E-07	0.061017	349	-1.09E-06	0.12602	382	-4.93E-07	0.18702
317	-6.11E-07	0.063017	350	-4.74E-07	0.12702	383	-9.86E-07	0.18902
318	-5.95E-07	0.065017	351	-2.52E-07	0.12902	384	-7.45E-07	0.19102
319	-5.65E-07	0.067017	352	-1.11E-06	0.13102	385	-7.46E-07	0.19302
320	-5.33E-07	0.069017	353	-3.74E-07	0.13202	386	-8.27E-07	0.19502
321	-2.95E-07	0.071017	354	-7.42E-07	0.13402	387	-1.54E-07	0.19702
322	-4.33E-07	0.073017	355	-8.47E-07	0.13602	388	-6.20E-07	0.19902
323	-8.75E-07	0.075017	356	-7.43E-07	0.13802	389	-6.42E-07	0.20102
324	-6.18E-07	0.077017	357	-4.92E-08	0.14002	390	-8.89E-07	0.20302
325	-7.70E-07	0.079017	358	-7.33E-07	0.14202	391	-5.88E-07	0.20502
326	-5.50E-07	0.081017	359	-6.21E-07	0.14402	392	-9.74E-07	0.20702
327	-3.68E-07	0.083017	360	-6.16E-07	0.14602	393	-5.18E-07	0.20902
328	-1.02E-06	0.085017	361	-1.08E-06	0.14802	394	-6.05E-07	0.21102

395	-6.12E-07	0.21302	428	-1.64E-05	0.25102	461	-6.36E-05	0.28402
396	-7.21E-07	0.21502	429	-1.72E-05	0.25202	462	-6.54E-05	0.28502
397	-1.27E-06	0.21702	430	-1.75E-05	0.25302	463	-6.71E-05	0.28602
398	-7.00E-07	0.21802	431	-1.84E-05	0.25402	464	-7.04E-05	0.28702
399	-8.51E-07	0.22002	432	-1.96E-05	0.25502	465	-7.31E-05	0.28802
400	-8.24E-07	0.22202	433	-2.00E-05	0.25602	466	-7.67E-05	0.28902
401	-1.22E-06	0.22402	434	-2.11E-05	0.25702	467	-8.00E-05	0.29002
402	-1.33E-06	0.22502	435	-2.11E-05	0.25802	468	-8.48E-05	0.29102
403	-1.72E-06	0.22602	436	-2.15E-05	0.25902	469	-9.11E-05	0.29202
404	-1.68E-06	0.22702	437	-2.26E-05	0.26002	470	-9.85E-05	0.29302
405	-1.46E-06	0.22802	438	-2.29E-05	0.26102	471	-0.0001055	0.29402
406	-1.91E-06	0.22902	439	-2.35E-05	0.26202	472	-0.0001132	0.29502
407	-1.71E-06	0.23002	440	-2.38E-05	0.26302	473	-0.0001229	0.29602
408	-1.65E-06	0.23102	441	-2.49E-05	0.26402	474	-0.0001301	0.29702
409	-2.16E-06	0.23202	442	-2.58E-05	0.26502	475	-0.0001395	0.29802
410	-2.40E-06	0.23302	443	-2.68E-05	0.26602	476	-0.00015	0.29902
411	-2.09E-06	0.23402	444	-2.81E-05	0.26702	477	-0.0001626	0.30002
412	-2.93E-06	0.23502	445	-3.03E-05	0.26802	478	-0.0001737	0.30102
413	-3.67E-06	0.23602	446	-3.17E-05	0.26902	479	-0.0001839	0.30202
414	-4.72E-06	0.23702	447	-3.36E-05	0.27002	480	-0.0001952	0.30302
415	-5.16E-06	0.23802	448	-3.54E-05	0.27102	481	-0.0002085	0.30402
416	-5.99E-06	0.23902	449	-3.72E-05	0.27202	482	-0.000223	0.30502
417	-6.85E-06	0.24002	450	-3.86E-05	0.27302	483	-0.0002352	0.30602
418	-7.73E-06	0.24102	451	-4.17E-05	0.27402	484	-0.0002367	0.30702
419	-8.94E-06	0.24202	452	-4.36E-05	0.27502	485	-0.0002479	0.30802
420	-9.68E-06	0.24302	453	-4.61E-05	0.27602	486	-0.0002605	0.30902
421	-9.58E-06	0.24402	454	-4.85E-05	0.27702	487	-0.0002761	0.31002
422	-1.11E-05	0.24502	455	-5.01E-05	0.27802	488	-0.0002913	0.31102
423	-1.20E-05	0.24602	456	-5.25E-05	0.27902	489	-0.0003036	0.31202
424	-1.26E-05	0.24702	457	-5.54E-05	0.28002	490	-0.0003016	0.31302
425	-1.36E-05	0.24802	458	-5.71E-05	0.28102	491	-0.0002784	0.31402
426	-1.48E-05	0.24902	459	-5.99E-05	0.28202	492	-0.0002744	0.31502
427	-1.52E-05	0.25002	460	-6.16E-05	0.28302	493	-0.0002892	0.31602

494	-0.0003091	0.31702	527	-0.0015271	0.35002	560	-0.0044634	0.38302
495	-0.0003165	0.31802	528	-0.001597	0.35102	561	-0.0045597	0.38402
496	-0.0003408	0.31902	529	-0.0016982	0.35202	562	-0.0046423	0.38502
497	-0.0003628	0.32002	530	-0.0018027	0.35302	563	-0.0047269	0.38602
498	-0.0003831	0.32102	531	-0.0019181	0.35402	564	-0.0048099	0.38702
499	-0.0004105	0.32202	532	-0.0020319	0.35502	565	-0.0049109	0.38802
500	-0.0004369	0.32302	533	-0.0021215	0.35602	566	-0.0050133	0.38902
501	-0.0004652	0.32402	534	-0.002235	0.35702	567	-0.0051237	0.39002
502	-0.0004959	0.32502	535	-0.0023534	0.35802	568	-0.005232	0.39102
503	-0.0005276	0.32602	536	-0.0024679	0.35902	569	-0.0053249	0.39202
504	-0.0005523	0.32702	537	-0.0025612	0.36002	570	-0.0053912	0.39302
505	-0.0005837	0.32802	538	-0.002647	0.36102	571	-0.0054208	0.39402
506	-0.0006142	0.32902	539	-0.0027212	0.36202	572	-0.0055365	0.39502
507	-0.0006311	0.33002	540	-0.0028145	0.36302	573	-0.0057061	0.39602
508	-0.0006799	0.33102	541	-0.0028713	0.36402	574	-0.0058976	0.39702
509	-0.0007135	0.33202	542	-0.0027962	0.36502	575	-0.0060609	0.39802
510	-0.0007574	0.33302	543	-0.0028437	0.36602	576	-0.0061784	0.39902
511	-0.0008017	0.33402	544	-0.0029096	0.36702	577	-0.0062644	0.40002
512	-0.0008459	0.33502	545	-0.0030128	0.36802	578	-0.006402	0.40102
513	-0.0008958	0.33602	546	-0.0031193	0.36902	579	-0.0065234	0.40202
514	-0.0009064	0.33702	547	-0.0032148	0.37002	580	-0.00661	0.40302
515	-0.0009657	0.33802	548	-0.0033141	0.37102	581	-0.0067457	0.40402
516	-0.001002	0.33902	549	-0.0034048	0.37202	582	-0.0068854	0.40502
517	-0.0010658	0.34002	550	-0.0035014	0.37302	583	-0.0070214	0.40602
518	-0.0011343	0.34102	551	-0.0035919	0.37402	584	-0.0071845	0.40702
519	-0.0011928	0.34202	552	-0.0036951	0.37502	585	-0.0073136	0.40802
520	-0.0012578	0.34302	553	-0.0037983	0.37602	586	-0.0074525	0.40902
521	-0.0013635	0.34402	554	-0.0039027	0.37702	587	-0.0076131	0.41002
522	-0.0014676	0.34502	555	-0.0039947	0.37802	588	-0.0077364	0.41102
523	-0.0015438	0.34602	556	-0.0040734	0.37902	589	-0.0078831	0.41202
524	-0.0015485	0.34702	557	-0.0041791	0.38002	590	-0.0080067	0.41302
525	-0.0014817	0.34802	558	-0.0042895	0.38102	591	-0.0081318	0.41402
526	-0.0014983	0.34902	559	-0.0043803	0.38202	592	-0.0081992	0.41502

593	-0.008302	0.41602	626	-0.010352	0.44902	659	-0.011239	0.48202
594	-0.0084277	0.41702	627	-0.010377	0.45002	660	-0.011267	0.48302
595	-0.0086171	0.41802	628	-0.010371	0.45102	661	-0.011286	0.48402
596	-0.0087629	0.41902	629	-0.010381	0.45202	662	-0.011306	0.48502
597	-0.0089257	0.42002	630	-0.010422	0.45302	663	-0.011346	0.48602
598	-0.0090639	0.42102	631	-0.010451	0.45402	664	-0.011341	0.48702
599	-0.0091776	0.42202	632	-0.010571	0.45502	665	-0.011416	0.48802
600	-0.0092674	0.42302	633	-0.010592	0.45602	666	-0.011431	0.48902
601	-0.009293	0.42402	634	-0.010588	0.45702	667	-0.01147	0.49002
602	-0.0093382	0.42502	635	-0.010664	0.45802	668	-0.011499	0.49102
603	-0.0094352	0.42602	636	-0.010766	0.45902	669	-0.0115	0.49202
604	-0.0096526	0.42702	637	-0.010739	0.46002	670	-0.011423	0.49302
605	-0.0096011	0.42802	638	-0.010785	0.46102	671	-0.011475	0.49402
606	-0.0095397	0.42902	639	-0.010777	0.46202	672	-0.011519	0.49502
607	-0.0096406	0.43002	640	-0.010814	0.46302	673	-0.011511	0.49602
608	-0.0097293	0.43102	641	-0.010875	0.46402	674	-0.011496	0.49702
609	-0.009802	0.43202	642	-0.010899	0.46502	675	-0.011516	0.49802
610	-0.009875	0.43302	643	-0.010944	0.46602	676	-0.011591	0.49902
611	-0.0099296	0.43402	644	-0.01098	0.46702	677	-0.01175	0.50002
612	-0.0099724	0.43502	645	-0.010967	0.46802	678	-0.011858	0.50102
613	-0.010055	0.43602	646	-0.010987	0.46902	679	-0.011997	0.50202
614	-0.010139	0.43702	647	-0.011039	0.47002	680	-0.012172	0.50302
615	-0.010222	0.43802	648	-0.011037	0.47102	681	-0.012307	0.50402
616	-0.010267	0.43902	649	-0.01109	0.47202	682	-0.012425	0.50502
617	-0.010244	0.44002	650	-0.011138	0.47302	683	-0.012436	0.50602
618	-0.01029	0.44102	651	-0.011237	0.47402	684	-0.012511	0.50702
619	-0.010295	0.44202	652	-0.011177	0.47502	685	-0.012591	0.50802
620	-0.010298	0.44302	653	-0.01121	0.47602	686	-0.012653	0.50902
621	-0.010266	0.44402	654	-0.011234	0.47702	687	-0.012755	0.51002
622	-0.010235	0.44502	655	-0.011243	0.47802	688	-0.012795	0.51102
623	-0.0103	0.44602	656	-0.011247	0.47902	689	-0.012863	0.51202
624	-0.010309	0.44702	657	-0.011219	0.48002	690	-0.012963	0.51302
625	-0.010355	0.44802	658	-0.011198	0.48102	691	-0.01301	0.51402

692	-0.013097	0.51502
693	-0.013105	0.51602
694	-0.012807	0.51702
695	-0.012386	0.51802
696	-0.012536	0.51902
697	-0.012593	0.52002
698	-0.012567	0.52102
699	-0.012625	0.52202
700	-0.012647	0.52302
701	-0.012419	0.52402
702	-0.012211	0.52502
703	-0.012071	0.52602
704	-0.011973	0.52702
705	-0.011792	0.52802
706	-0.01145	0.52902

	AISI 316 in PBS								
	Current(A)	Potential (V)		32	1.64E-05	-0.40455	65	1.26E-05	-0.37155
1	-9.22E-06	-0.43555		33	1.67E-05	-0.40355	66	1.21E-05	-0.37055
2	4.55E-05	-0.43455		34	1.64E-05	-0.40255	67	1.28E-05	-0.36955
3	4.67E-05	-0.43355		35	1.54E-05	-0.40155	68	1.20E-05	-0.36855
4	4.20E-05	-0.43255		36	1.58E-05	-0.40055	69	1.20E-05	-0.36755
5	3.83E-05	-0.43155		37	1.56E-05	-0.39955	70	1.26E-05	-0.36655
6	3.64E-05	-0.43055		38	1.47E-05	-0.39855	71	1.18E-05	-0.36555
7	3.44E-05	-0.42955		39	1.50E-05	-0.39755	72	1.19E-05	-0.36455
8	3.15E-05	-0.42855		40	1.49E-05	-0.39655	73	1.26E-05	-0.36355
9	3.00E-05	-0.42755		41	1.42E-05	-0.39555	74	1.16E-05	-0.36255
10	2.91E-05	-0.42655		42	1.47E-05	-0.39455	75	1.16E-05	-0.36155
11	2.79E-05	-0.42555		43	1.44E-05	-0.39355	76	1.23E-05	-0.36055
12	2.57E-05	-0.42455		44	1.39E-05	-0.39255	77	1.14E-05	-0.35955
13	2.52E-05	-0.42355		45	1.42E-05	-0.39155	78	1.09E-05	-0.35855
14	2.52E-05	-0.42255		46	1.37E-05	-0.39055	79	1.19E-05	-0.35755
15	2.43E-05	-0.42155		47	1.36E-05	-0.38955	80	1.12E-05	-0.35655
16	2.29E-05	-0.42055		48	1.37E-05	-0.38855	81	1.12E-05	-0.35555
17	2.20E-05	-0.41955		49	1.27E-05	-0.38755	82	1.16E-05	-0.35455
18	2.23E-05	-0.41855		50	1.38E-05	-0.38655	83	1.09E-05	-0.35355
19	2.16E-05	-0.41755		51	1.32E-05	-0.38555	84	1.12E-05	-0.35255
20	2.08E-05	-0.41655		52	1.31E-05	-0.38455	85	1.11E-05	-0.35155
21	2.07E-05	-0.41555		53	1.28E-05	-0.38355	86	1.09E-05	-0.35055
22	2.05E-05	-0.41455		54	1.29E-05	-0.38255	87	1.14E-05	-0.34955
23	1.94E-05	-0.41355		55	1.33E-05	-0.38155	88	1.04E-05	-0.34855
24	1.96E-05	-0.41255		56	1.24E-05	-0.38055	89	1.06E-05	-0.34755
25	1.96E-05	-0.41155		57	1.34E-05	-0.37955	90	1.04E-05	-0.34655
26	1.83E-05	-0.41055		58	1.23E-05	-0.37855	91	9.98E-06	-0.34555
27	1.83E-05	-0.40955		59	1.29E-05	-0.37755	92	1.08E-05	-0.34455
28	1.83E-05	-0.40855		60	1.29E-05	-0.37655	93	1.03E-05	-0.34355
29	1.71E-05	-0.40755		61	1.23E-05	-0.37555	94	9.41E-06	-0.34255
30	1.78E-05	-0.40655		62	1.33E-05	-0.37455	95	1.07E-05	-0.34155
31	1.73E-05	-0.40555		63	1.23E-05	-0.37355	96	1.04E-05	-0.34055
				64	1.28E-05	-0.37255	97	9.16E-06	-0.33955

98	9.70E-06	-0.33855		131	5.65E-06	-0.30555		164	3.04E-06	-0.27255
99	9.86E-06	-0.33755		132	5.90E-06	-0.30455		165	3.62E-06	-0.27155
100	9.07E-06	-0.33655		133	6.48E-06	-0.30355		166	3.12E-06	-0.27055
101	9.53E-06	-0.33555		134	6.29E-06	-0.30255		167	2.39E-06	-0.26955
102	9.61E-06	-0.33455		135	5.13E-06	-0.30155		168	2.74E-06	-0.26855
103	8.68E-06	-0.33355		136	5.83E-06	-0.30055		169	3.51E-06	-0.26755
104	9.05E-06	-0.33255		137	6.19E-06	-0.29955		170	2.60E-06	-0.26655
105	9.26E-06	-0.33155		138	5.62E-06	-0.29855		171	2.32E-06	-0.26555
106	8.20E-06	-0.33055		139	4.73E-06	-0.29755		172	2.42E-06	-0.26455
107	8.99E-06	-0.32955		140	5.10E-06	-0.29655		173	3.20E-06	-0.26355
108	8.96E-06	-0.32855		141	5.72E-06	-0.29555		174	2.85E-06	-0.26255
109	8.08E-06	-0.32755		142	5.20E-06	-0.29455		175	1.65E-06	-0.26155
110	8.59E-06	-0.32655		143	4.64E-06	-0.29355		176	2.14E-06	-0.26055
111	8.39E-06	-0.32555		144	4.71E-06	-0.29255		177	2.38E-06	-0.25955
112	8.02E-06	-0.32455		145	5.31E-06	-0.29155		178	2.42E-06	-0.25855
113	8.57E-06	-0.32355		146	5.04E-06	-0.29055		179	2.02E-06	-0.25755
114	7.95E-06	-0.32255		147	4.14E-06	-0.28955		180	1.52E-06	-0.25655
115	7.85E-06	-0.32155		148	4.36E-06	-0.28855		181	1.66E-06	-0.25555
116	8.20E-06	-0.32055		149	4.99E-06	-0.28755		182	2.46E-06	-0.25455
117	7.49E-06	-0.31955		150	4.58E-06	-0.28655		183	2.04E-06	-0.25355
118	7.32E-06	-0.31855		151	4.05E-06	-0.28555		184	1.59E-06	-0.25255
119	7.83E-06	-0.31755		152	3.84E-06	-0.28455		185	1.21E-06	-0.25155
120	7.82E-06	-0.31655		153	4.11E-06	-0.28355		186	1.38E-06	-0.25055
121	6.81E-06	-0.31555		154	4.50E-06	-0.28255		187	2.11E-06	-0.24955
122	6.92E-06	-0.31455		155	4.19E-06	-0.28155		188	1.73E-06	-0.24855
123	7.75E-06	-0.31355		156	3.26E-06	-0.28055		189	8.27E-07	-0.24755
124	6.79E-06	-0.31255		157	3.49E-06	-0.27955		190	1.94E-06	-0.24555
125	6.74E-06	-0.31155		158	4.23E-06	-0.27855		191	1.47E-06	-0.24455
126	7.38E-06	-0.31055		159	3.82E-06	-0.27755		192	6.37E-07	-0.24355
127	6.63E-06	-0.30955		160	2.87E-06	-0.27655		193	1.44E-06	-0.24155
128	6.23E-06	-0.30855		161	3.26E-06	-0.27555		194	1.33E-06	-0.24055
129	6.95E-06	-0.30755		162	3.88E-06	-0.27455		195	5.39E-07	-0.23955
130	6.64E-06	-0.30655		163	3.11E-06	-0.27355		196	1.14E-06	-0.23755

197	1.52E-06	-0.23655	230	-1.02E-06	-0.17455	263	-9.86E-07	-0.12455
198	1.31E-06	-0.23555	231	-5.57E-07	-0.17255	264	-1.47E-06	-0.12255
199	6.17E-07	-0.23455	232	-1.01E-06	-0.17055	265	-1.07E-06	-0.12155
200	1.28E-06	-0.23255	233	-9.75E-07	-0.16855	266	-1.21E-06	-0.12055
201	9.05E-07	-0.23155	234	-6.53E-07	-0.16655	267	-1.30E-06	-0.11955
202	3.60E-07	-0.22955	235	-1.17E-06	-0.16455	268	-1.28E-06	-0.11855
203	9.84E-07	-0.22755	236	-4.91E-07	-0.16355	269	-1.08E-06	-0.11755
204	-1.15E-07	-0.22555	237	-7.63E-07	-0.16155	270	-1.59E-06	-0.11655
205	8.79E-07	-0.22355	238	-1.22E-06	-0.15955	271	-1.40E-06	-0.11555
206	-1.54E-07	-0.22155	239	-5.44E-07	-0.15855	272	-1.02E-06	-0.11455
207	7.78E-07	-0.21955	240	-1.10E-06	-0.15655	273	-9.91E-07	-0.11255
208	-3.89E-08	-0.21755	241	-5.55E-07	-0.15555	274	-1.81E-06	-0.11055
209	4.92E-07	-0.21555	242	-1.10E-06	-0.15355	275	-1.05E-06	-0.10955
210	-4.29E-07	-0.21355	243	-6.70E-07	-0.15255	276	-1.40E-06	-0.10855
211	4.46E-07	-0.21155	244	-1.10E-06	-0.15055	277	-1.18E-06	-0.10755
212	-1.55E-07	-0.20955	245	-5.13E-07	-0.14955	278	-1.25E-06	-0.10655
213	1.84E-07	-0.20755	246	-1.31E-06	-0.14755	279	-1.51E-06	-0.10555
214	-2.48E-07	-0.20555	247	-9.39E-07	-0.14655	280	-1.22E-06	-0.10455
215	-1.33E-07	-0.20355	248	-1.56E-06	-0.14455	281	-1.10E-06	-0.10355
216	-5.58E-07	-0.20155	249	-1.02E-06	-0.14355	282	-1.65E-06	-0.10255
217	-2.64E-07	-0.19955	250	-7.89E-07	-0.14255	283	-9.57E-07	-0.10155
218	-2.24E-07	-0.19755	251	-1.26E-06	-0.14055	284	-1.58E-06	-0.099547
219	-6.29E-07	-0.19555	252	-7.28E-07	-0.13955	285	-1.16E-06	-0.098547
220	1.86E-07	-0.19355	253	-1.50E-06	-0.13755	286	-1.70E-06	-0.097547
221	-6.91E-07	-0.19155	254	-1.15E-06	-0.13655	287	-1.07E-06	-0.096547
222	-3.65E-07	-0.18955	255	-8.80E-07	-0.13555	288	-1.41E-06	-0.095547
223	-8.29E-07	-0.18755	256	-1.48E-06	-0.13355	289	-1.31E-06	-0.094547
224	-5.44E-07	-0.18555	257	-1.31E-06	-0.13255	290	-1.58E-06	-0.093547
225	-4.82E-07	-0.18355	258	-5.88E-07	-0.13155	291	-1.07E-06	-0.092547
226	-9.20E-07	-0.18155	259	-1.68E-06	-0.12955	292	-1.32E-06	-0.091547
227	-3.17E-07	-0.17955	260	-1.29E-06	-0.12855	293	-1.29E-06	-0.090547
228	-1.12E-06	-0.17755	261	-6.99E-07	-0.12755	294	-1.13E-06	-0.089547
229	-6.45E-07	-0.17655	262	-1.45E-06	-0.12555	295	-1.76E-06	-0.088547

296	-1.19E-06	-0.087547	329	-1.32E-06	-0.053547	362	-1.63E-06	-0.020547
297	-1.57E-06	-0.086547	330	-1.27E-06	-0.052547	363	-1.77E-06	-0.019547
298	-1.57E-06	-0.085547	331	-1.24E-06	-0.051547	364	-1.37E-06	-0.018547
299	-1.13E-06	-0.084547	332	-1.66E-06	-0.050547	365	-1.41E-06	-0.017547
300	-1.60E-06	-0.083547	333	-1.40E-06	-0.049547	366	-1.81E-06	-0.016547
301	-1.37E-06	-0.082547	334	-1.32E-06	-0.048547	367	-1.67E-06	-0.015547
302	-1.47E-06	-0.081547	335	-1.74E-06	-0.047547	368	-1.33E-06	-0.014547
303	-1.59E-06	-0.080547	336	-1.34E-06	-0.046547	369	-1.47E-06	-0.013547
304	-1.14E-06	-0.079547	337	-1.18E-06	-0.045547	370	-1.75E-06	-0.012547
305	-1.60E-06	-0.078547	338	-1.74E-06	-0.044547	371	-1.56E-06	-0.011547
306	-1.62E-06	-0.077547	339	-1.50E-06	-0.043547	372	-1.29E-06	-0.010547
307	-1.12E-06	-0.076547	340	-1.31E-06	-0.042547	373	-1.80E-06	-0.009547
308	-1.26E-06	-0.075547	341	-1.71E-06	-0.041547	374	-1.76E-06	-0.008547
309	-1.49E-06	-0.074547	342	-1.62E-06	-0.040547	375	-1.31E-06	-0.007547
310	-1.08E-06	-0.073547	343	-1.34E-06	-0.039547	376	-1.52E-06	-0.006547
311	-1.30E-06	-0.072547	344	-1.51E-06	-0.038547	377	-1.93E-06	-0.005547
312	-1.52E-06	-0.071547	345	-1.73E-06	-0.037547	378	-1.71E-06	-0.004547
313	-1.57E-06	-0.070547	346	-1.44E-06	-0.036547	379	-1.07E-06	-0.003547
314	-1.10E-06	-0.069547	347	-1.33E-06	-0.035547	380	-1.38E-06	-0.002547
315	-1.75E-06	-0.068547	348	-1.67E-06	-0.034547	381	-1.61E-06	-0.001547
316	-1.44E-06	-0.067547	349	-1.41E-06	-0.033547	382	-1.99E-06	-0.000547
317	-1.40E-06	-0.066547	350	-1.39E-06	-0.032547	383	-1.67E-06	0.000453
318	-1.79E-06	-0.065547	351	-1.52E-06	-0.031547	384	-1.41E-06	0.001453
319	-1.60E-06	-0.064547	352	-1.23E-06	-0.030547	385	-1.62E-06	0.002453
320	-8.54E-07	-0.063547	353	-1.33E-06	-0.029547	386	-1.66E-06	0.003453
321	-1.56E-06	-0.061547	354	-1.55E-06	-0.028547	387	-1.82E-06	0.004453
322	-1.27E-06	-0.060547	355	-1.42E-06	-0.027547	388	-1.37E-06	0.005453
323	-1.52E-06	-0.059547	356	-1.78E-06	-0.026547	389	-1.33E-06	0.006453
324	-1.38E-06	-0.058547	357	-1.54E-06	-0.025547	390	-1.80E-06	0.007453
325	-1.16E-06	-0.057547	358	-1.23E-06	-0.024547	391	-1.77E-06	0.008453
326	-1.84E-06	-0.056547	359	-1.81E-06	-0.023547	392	-1.77E-06	0.009453
327	-1.27E-06	-0.055547	360	-1.51E-06	-0.022547	393	-1.30E-06	0.010453
328	-1.66E-06	-0.054547	361	-1.33E-06	-0.021547	394	-1.44E-06	0.011453

395	-1.77E-06	0.012453	428	-1.67E-06	0.045453	461	-1.52E-06	0.078453
396	-1.73E-06	0.013453	429	-2.05E-06	0.046453	462	-1.76E-06	0.079453
397	-1.69E-06	0.014453	430	-1.84E-06	0.047453	463	-2.03E-06	0.080453
398	-1.38E-06	0.015453	431	-1.71E-06	0.048453	464	-1.73E-06	0.081453
399	-1.42E-06	0.016453	432	-1.37E-06	0.049453	465	-1.40E-06	0.082453
400	-1.80E-06	0.017453	433	-1.32E-06	0.050453	466	-1.72E-06	0.083453
401	-1.76E-06	0.018453	434	-1.36E-06	0.051453	467	-1.72E-06	0.084453
402	-1.41E-06	0.019453	435	-2.13E-06	0.052453	468	-2.22E-06	0.085453
403	-1.36E-06	0.020453	436	-1.73E-06	0.053453	469	-1.70E-06	0.086453
404	-1.46E-06	0.021453	437	-1.46E-06	0.054453	470	-1.91E-06	0.087453
405	-1.87E-06	0.022453	438	-1.65E-06	0.055453	471	-1.50E-06	0.088453
406	-1.83E-06	0.023453	439	-2.00E-06	0.056453	472	-1.67E-06	0.089453
407	-1.47E-06	0.024453	440	-1.80E-06	0.057453	473	-1.60E-06	0.090453
408	-1.31E-06	0.025453	441	-1.61E-06	0.058453	474	-1.92E-06	0.091453
409	-1.79E-06	0.026453	442	-1.47E-06	0.059453	475	-1.91E-06	0.092453
410	-1.70E-06	0.027453	443	-1.70E-06	0.060453	476	-1.84E-06	0.093453
411	-1.52E-06	0.028453	444	-2.08E-06	0.061453	477	-1.56E-06	0.094453
412	-1.53E-06	0.029453	445	-1.96E-06	0.062453	478	-1.56E-06	0.095453
413	-1.77E-06	0.030453	446	-1.82E-06	0.063453	479	-1.70E-06	0.096453
414	-1.77E-06	0.031453	447	-1.26E-06	0.064453	480	-2.18E-06	0.097453
415	-1.68E-06	0.032453	448	-1.50E-06	0.065453	481	-1.84E-06	0.098453
416	-1.34E-06	0.033453	449	-1.62E-06	0.066453	482	-1.70E-06	0.099453
417	-1.63E-06	0.034453	450	-1.92E-06	0.067453	483	-1.61E-06	0.10045
418	-2.07E-06	0.035453	451	-1.77E-06	0.068453	484	-1.67E-06	0.10145
419	-1.72E-06	0.036453	452	-1.94E-06	0.069453	485	-1.78E-06	0.10245
420	-1.47E-06	0.037453	453	-1.72E-06	0.070453	486	-1.70E-06	0.10345
421	-1.68E-06	0.038453	454	-1.37E-06	0.071453	487	-2.00E-06	0.10445
422	-1.51E-06	0.039453	455	-1.63E-06	0.072453	488	-1.51E-06	0.10545
423	-2.02E-06	0.040453	456	-1.67E-06	0.073453	489	-1.47E-06	0.10645
424	-1.70E-06	0.041453	457	-2.02E-06	0.074453	490	-1.73E-06	0.10745
425	-1.60E-06	0.042453	458	-1.81E-06	0.075453	491	-1.53E-06	0.10845
426	-1.38E-06	0.043453	459	-1.61E-06	0.076453	492	-1.74E-06	0.10945
427	-1.71E-06	0.044453	460	-1.33E-06	0.077453	493	-1.89E-06	0.11045

494	-1.77E-06	0.11145	527	-1.82E-06	0.14445	560	-1.63E-06	0.17745
495	-1.71E-06	0.11245	528	-1.77E-06	0.14545	561	-1.95E-06	0.17845
496	-1.50E-06	0.11345	529	-2.12E-06	0.14645	562	-1.87E-06	0.17945
497	-1.49E-06	0.11445	530	-2.01E-06	0.14745	563	-1.63E-06	0.18045
498	-1.75E-06	0.11545	531	-1.69E-06	0.14845	564	-1.64E-06	0.18145
499	-1.87E-06	0.11645	532	-1.84E-06	0.14945	565	-2.06E-06	0.18245
500	-1.93E-06	0.11745	533	-2.12E-06	0.15045	566	-2.05E-06	0.18345
501	-1.88E-06	0.11845	534	-1.76E-06	0.15145	567	-1.97E-06	0.18445
502	-1.53E-06	0.11945	535	-1.70E-06	0.15245	568	-1.75E-06	0.18545
503	-1.79E-06	0.12045	536	-1.95E-06	0.15345	569	-1.88E-06	0.18645
504	-1.83E-06	0.12145	537	-1.86E-06	0.15445	570	-1.90E-06	0.18745
505	-1.87E-06	0.12245	538	-1.84E-06	0.15545	571	-1.75E-06	0.18845
506	-1.81E-06	0.12345	539	-1.75E-06	0.15645	572	-1.88E-06	0.18945
507	-1.50E-06	0.12445	540	-1.66E-06	0.15745	573	-2.12E-06	0.19045
508	-1.88E-06	0.12545	541	-1.99E-06	0.15845	574	-1.98E-06	0.19145
509	-1.91E-06	0.12645	542	-1.88E-06	0.15945	575	-1.72E-06	0.19245
510	-1.86E-06	0.12745	543	-1.59E-06	0.16045	576	-1.84E-06	0.19345
511	-1.69E-06	0.12845	544	-1.73E-06	0.16145	577	-1.87E-06	0.19445
512	-1.72E-06	0.12945	545	-1.96E-06	0.16245	578	-1.77E-06	0.19545
513	-1.90E-06	0.13045	546	-1.95E-06	0.16345	579	-2.04E-06	0.19645
514	-1.88E-06	0.13145	547	-1.71E-06	0.16445	580	-1.94E-06	0.19745
515	-1.69E-06	0.13245	548	-2.09E-06	0.16545	581	-1.89E-06	0.19845
516	-1.51E-06	0.13345	549	-1.92E-06	0.16645	582	-1.89E-06	0.19945
517	-2.10E-06	0.13445	550	-1.81E-06	0.16745	583	-2.06E-06	0.20045
518	-1.74E-06	0.13545	551	-1.54E-06	0.16845	584	-1.60E-06	0.20145
519	-1.66E-06	0.13645	552	-1.84E-06	0.16945	585	-1.96E-06	0.20245
520	-1.70E-06	0.13745	553	-2.04E-06	0.17045	586	-2.02E-06	0.20345
521	-1.87E-06	0.13845	554	-2.02E-06	0.17145	587	-1.82E-06	0.20445
522	-2.00E-06	0.13945	555	-1.68E-06	0.17245	588	-2.02E-06	0.20545
523	-1.97E-06	0.14045	556	-1.83E-06	0.17345	589	-2.13E-06	0.20645
524	-1.72E-06	0.14145	557	-1.96E-06	0.17445	590	-1.69E-06	0.20745
525	-1.68E-06	0.14245	558	-1.98E-06	0.17545	591	-2.04E-06	0.20845
526	-1.88E-06	0.14345	559	-1.89E-06	0.17645	592	-2.11E-06	0.20945

593	-2.01E-06	0.21045	626	-2.29E-06	0.24345	659	-2.24E-06	0.27645
594	-2.09E-06	0.21145	627	-2.06E-06	0.24445	660	-2.47E-06	0.27745
595	-1.81E-06	0.21245	628	-2.47E-06	0.24545	661	-2.33E-06	0.27845
596	-1.80E-06	0.21345	629	-2.30E-06	0.24645	662	-2.61E-06	0.27945
597	-2.21E-06	0.21445	630	-2.27E-06	0.24745	663	-2.24E-06	0.28045
598	-1.60E-06	0.21545	631	-2.30E-06	0.24845	664	-2.58E-06	0.28145
599	-2.26E-06	0.21645	632	-2.23E-06	0.24945	665	-2.68E-06	0.28245
600	-2.16E-06	0.21745	633	-2.31E-06	0.25045	666	-2.71E-06	0.28345
601	-1.78E-06	0.21845	634	-2.11E-06	0.25145	667	-2.10E-06	0.28445
602	-2.23E-06	0.21945	635	-2.33E-06	0.25245	668	-2.59E-06	0.28545
603	-1.93E-06	0.22045	636	-2.53E-06	0.25345	669	-2.57E-06	0.28645
604	-1.94E-06	0.22145	637	-2.07E-06	0.25445	670	-2.71E-06	0.28745
605	-2.16E-06	0.22245	638	-2.24E-06	0.25545	671	-2.59E-06	0.28845
606	-1.74E-06	0.22345	639	-2.38E-06	0.25645	672	-2.28E-06	0.28945
607	-1.88E-06	0.22445	640	-2.48E-06	0.25745	673	-2.43E-06	0.29045
608	-1.73E-06	0.22545	641	-2.48E-06	0.25845	674	-2.78E-06	0.29145
609	-2.10E-06	0.22645	642	-2.38E-06	0.25945	675	-2.15E-06	0.29245
610	-2.08E-06	0.22745	643	-2.33E-06	0.26045	676	-2.60E-06	0.29345
611	-2.02E-06	0.22845	644	-2.30E-06	0.26145	677	-2.54E-06	0.29445
612	-2.09E-06	0.22945	645	-2.36E-06	0.26245	678	-2.48E-06	0.29545
613	-2.42E-06	0.23045	646	-2.31E-06	0.26345	679	-3.03E-06	0.29645
614	-2.11E-06	0.23145	647	-2.18E-06	0.26445	680	-2.60E-06	0.29745
615	-2.24E-06	0.23245	648	-2.32E-06	0.26545	681	-2.66E-06	0.29845
616	-2.38E-06	0.23345	649	-2.35E-06	0.26645	682	-2.58E-06	0.29945
617	-2.01E-06	0.23445	650	-2.48E-06	0.26745	683	-2.30E-06	0.30045
618	-2.17E-06	0.23545	651	-2.54E-06	0.26845	684	-2.76E-06	0.30145
619	-2.39E-06	0.23645	652	-2.67E-06	0.26945	685	-2.27E-06	0.30245
620	-2.11E-06	0.23745	653	-2.46E-06	0.27045	686	-2.51E-06	0.30345
621	-2.11E-06	0.23845	654	-2.25E-06	0.27145	687	-2.74E-06	0.30445
622	-2.33E-06	0.23945	655	-2.50E-06	0.27245	688	-2.83E-06	0.30545
623	-2.23E-06	0.24045	656	-2.24E-06	0.27345	689	-3.47E-06	0.30645
624	-2.55E-06	0.24145	657	-2.44E-06	0.27445	690	-5.04E-06	0.30745
625	-2.29E-06	0.24245	658	-2.48E-06	0.27545	691	-8.24E-06	0.30845

692	-1.29E-05	0.30945
693	-1.79E-05	0.31045
694	-2.57E-05	0.31145
695	-3.29E-05	0.31245
696	-4.05E-05	0.31345
697	-5.08E-05	0.31445
698	-5.59E-05	0.31545
699	-6.18E-05	0.31645
700	-7.01E-05	0.31745
701	-7.88E-05	0.31845
702	-8.80E-05	0.31945
703	-9.70E-05	0.32045
704	-0.0001067	0.32145
705	-0.0001187	0.32245
706	-0.0001306	0.32345
707	-0.0001388	0.32445
708	-0.0001474	0.32545
709	-0.0001608	0.32645
710	-0.0001707	0.32745
711	-0.0001812	0.32845
712	-0.0001899	0.32945
713	-0.0002003	0.33045
714	-0.0002086	0.33145
715	-0.0002165	0.33245
716	-0.0002261	0.33345
717	-0.0002372	0.33445
718	-0.0002478	0.33545

AISI 316 in BPS		
	Current(A)	Potential (V)
1	2.55E-06	-0.49231
2	8.14E-06	-0.49131
3	1.09E-05	-0.49031
4	2.31E-05	-0.48931
5	2.29E-05	-0.48831
6	2.14E-05	-0.48731
7	2.02E-05	-0.48631
8	1.92E-05	-0.48531
9	1.87E-05	-0.48431
10	1.78E-05	-0.48331
11	1.77E-05	-0.48231
12	1.69E-05	-0.48131
13	1.70E-05	-0.48031
14	1.62E-05	-0.47931
15	1.64E-05	-0.47831
16	1.55E-05	-0.47731
17	1.60E-05	-0.47631
18	1.52E-05	-0.47531
19	1.54E-05	-0.47431
20	1.48E-05	-0.47331
21	1.48E-05	-0.47231
22	1.43E-05	-0.47131
23	1.41E-05	-0.47031
24	1.39E-05	-0.46931
25	1.37E-05	-0.46831
26	1.39E-05	-0.46731
27	1.33E-05	-0.46631
28	1.36E-05	-0.46531
29	1.30E-05	-0.46431
30	1.33E-05	-0.46331
31	1.26E-05	-0.46231
32	1.28E-05	-0.46131
33	1.24E-05	-0.46031
34	1.23E-05	-0.45931
35	1.21E-05	-0.45831
36	1.18E-05	-0.45731
37	1.18E-05	-0.45631
38	1.14E-05	-0.45531
39	1.16E-05	-0.45431
40	1.09E-05	-0.45331
41	1.14E-05	-0.45231
42	1.08E-05	-0.45131
43	1.12E-05	-0.45031
44	1.05E-05	-0.44931
45	1.09E-05	-0.44831
46	1.03E-05	-0.44731
47	1.06E-05	-0.44631
48	9.99E-06	-0.44531
49	1.04E-05	-0.44431
50	9.87E-06	-0.44331
51	1.01E-05	-0.44231
52	9.53E-06	-0.44131
53	9.93E-06	-0.44031
54	9.18E-06	-0.43931
55	9.64E-06	-0.43831
56	9.08E-06	-0.43731
57	9.37E-06	-0.43631
58	8.71E-06	-0.43531
59	9.22E-06	-0.43431
60	8.57E-06	-0.43331
61	8.97E-06	-0.43231
62	8.36E-06	-0.43131
63	8.76E-06	-0.43031
64	8.22E-06	-0.42931
65	8.65E-06	-0.42831
66	8.01E-06	-0.42731
67	8.43E-06	-0.42631
68	8.03E-06	-0.42531
69	8.05E-06	-0.42431
70	7.70E-06	-0.42331
71	7.75E-06	-0.42231
72	7.75E-06	-0.42131
73	7.40E-06	-0.42031
74	7.74E-06	-0.41931
75	7.19E-06	-0.41831
76	7.59E-06	-0.41731
77	6.99E-06	-0.41631
78	7.18E-06	-0.41531
79	6.94E-06	-0.41431
80	6.78E-06	-0.41331
81	6.73E-06	-0.41231
82	6.61E-06	-0.41131
83	6.71E-06	-0.41031
84	6.50E-06	-0.40931
85	6.54E-06	-0.40831
86	6.58E-06	-0.40731
87	6.45E-06	-0.40631
88	6.39E-06	-0.40531
89	6.36E-06	-0.40431
90	6.24E-06	-0.40331
91	6.15E-06	-0.40231
92	6.09E-06	-0.40131
93	5.91E-06	-0.40031
94	6.04E-06	-0.39931

95	5.94E-06	-0.39831	127	3.85E-06	-0.36631	159	2.14E-06	-0.33331
96	5.60E-06	-0.39731	128	4.03E-06	-0.36531	160	2.38E-06	-0.33231
97	5.91E-06	-0.39631	129	3.68E-06	-0.36431	161	2.17E-06	-0.33131
98	5.57E-06	-0.39531	130	3.72E-06	-0.36331	162	2.47E-06	-0.33031
99	5.49E-06	-0.39431	131	3.67E-06	-0.36231	163	2.21E-06	-0.32931
100	5.38E-06	-0.39331	132	3.60E-06	-0.36131	164	2.24E-06	-0.32831
101	5.49E-06	-0.39231	133	3.44E-06	-0.36031	165	2.24E-06	-0.32731
102	5.17E-06	-0.39131	134	3.65E-06	-0.35931	166	2.15E-06	-0.32631
103	5.10E-06	-0.39031	135	3.49E-06	-0.35831	167	2.22E-06	-0.32531
104	4.98E-06	-0.38931	136	3.46E-06	-0.35731	168	2.13E-06	-0.32431
105	4.93E-06	-0.38831	137	3.34E-06	-0.35631	169	2.24E-06	-0.32331
106	4.50E-06	-0.38731	138	3.30E-06	-0.35531	170	2.14E-06	-0.32231
107	4.90E-06	-0.38631	139	3.43E-06	-0.35431	171	2.26E-06	-0.32131
108	4.64E-06	-0.38531	140	3.01E-06	-0.35331	172	1.88E-06	-0.32031
109	4.59E-06	-0.38431	141	3.34E-06	-0.35231	173	1.65E-06	-0.31931
110	4.62E-06	-0.38331	142	3.14E-06	-0.35131	174	1.24E-06	-0.31831
111	4.86E-06	-0.38231	143	3.17E-06	-0.35031	175	9.64E-07	-0.31631
112	4.36E-06	-0.38131	144	3.15E-06	-0.34931	176	4.72E-07	-0.31431
113	4.66E-06	-0.38031	145	2.99E-06	-0.34831	177	2.72E-07	-0.31231
114	4.65E-06	-0.37931	146	3.18E-06	-0.34731	178	2.54E-07	-0.31031
115	4.57E-06	-0.37831	147	2.75E-06	-0.34631	179	2.30E-07	-0.30831
116	4.38E-06	-0.37731	148	3.24E-06	-0.34531	180	2.46E-07	-0.30631
117	4.56E-06	-0.37631	149	2.77E-06	-0.34431	181	5.31E-07	-0.30431
118	4.47E-06	-0.37531	150	3.00E-06	-0.34331	182	8.09E-07	-0.30231
119	4.40E-06	-0.37431	151	2.85E-06	-0.34231	183	1.05E-06	-0.30031
120	4.28E-06	-0.37331	152	2.74E-06	-0.34131	184	1.35E-06	-0.29931
121	4.34E-06	-0.37231	153	2.84E-06	-0.34031	185	1.35E-06	-0.29831
122	4.40E-06	-0.37131	154	2.39E-06	-0.33931	186	1.13E-06	-0.29731
123	3.96E-06	-0.37031	155	2.18E-06	-0.33831	187	1.08E-06	-0.29631
124	3.78E-06	-0.36931	156	2.11E-06	-0.33731	188	8.72E-07	-0.29431
125	4.29E-06	-0.36831	157	2.08E-06	-0.33531	189	4.85E-07	-0.29231
126	3.70E-06	-0.36731	158	1.87E-06	-0.33431	190	4.51E-07	-0.29131

191	7.68E-07	-0.28931		223	3.01E-07	-0.23131		255	-5.07E-07	-0.18031
192	4.92E-07	-0.28731		224	5.53E-08	-0.22931		256	-4.38E-07	-0.17831
193	2.57E-07	-0.28531		225	7.91E-09	-0.22731		257	-4.16E-07	-0.17731
194	2.76E-07	-0.28431		226	6.93E-08	-0.22531		258	-4.63E-07	-0.17531
195	2.43E-07	-0.28231		227	1.08E-07	-0.22431		259	-3.45E-07	-0.17431
196	-4.56E-08	-0.28031		228	1.58E-07	-0.22331		260	-6.72E-07	-0.17231
197	1.30E-07	-0.27831		229	6.55E-07	-0.22131		261	-2.64E-07	-0.17031
198	2.38E-07	-0.27631		230	1.24E-07	-0.21931		262	-2.09E-07	-0.16831
199	1.36E-07	-0.27431		231	4.94E-07	-0.21731		263	3.52E-08	-0.16731
200	6.89E-10	-0.27231		232	1.86E-07	-0.21631		264	2.31E-07	-0.16531
201	-3.51E-08	-0.27031		233	9.87E-08	-0.21531		265	4.54E-07	-0.16331
202	1.90E-07	-0.26831		234	5.72E-08	-0.21431		266	2.98E-09	-0.16131
203	4.16E-08	-0.26631		235	1.18E-08	-0.21231		267	-6.87E-08	-0.15931
204	7.06E-08	-0.26431		236	-2.73E-08	-0.21031		268	-2.81E-07	-0.15731
205	2.93E-07	-0.26331		237	-2.91E-08	-0.20931		269	-6.69E-07	-0.15631
206	4.67E-07	-0.26131		238	4.57E-08	-0.20831		270	-5.24E-07	-0.15431
207	-2.80E-08	-0.25931		239	-2.71E-07	-0.20731		271	-3.89E-07	-0.15231
208	2.80E-07	-0.25731		240	-1.11E-07	-0.20631		272	-7.42E-07	-0.15131
209	7.60E-07	-0.25631		241	-3.59E-07	-0.20431		273	-4.73E-07	-0.14931
210	5.83E-07	-0.25431		242	2.97E-08	-0.20231		274	-3.96E-07	-0.14731
211	4.63E-07	-0.25231		243	-8.45E-08	-0.20031		275	-4.55E-07	-0.14631
212	8.19E-07	-0.25131		244	-2.19E-07	-0.19831		276	-1.35E-07	-0.14431
213	5.69E-07	-0.24931		245	8.36E-08	-0.19631		277	2.67E-07	-0.14331
214	6.27E-08	-0.24731		246	-1.13E-07	-0.19431		278	-8.33E-09	-0.14131
215	3.03E-07	-0.24631		247	-1.23E-07	-0.19331		279	-1.50E-07	-0.13931
216	2.27E-07	-0.24431		248	-1.04E-07	-0.19131		280	-1.12E-07	-0.13731
217	-1.26E-07	-0.24231		249	-1.02E-07	-0.19031		281	-5.10E-07	-0.13531
218	-1.81E-07	-0.24031		250	-1.56E-07	-0.18831		282	-5.43E-07	-0.13431
219	-8.39E-08	-0.23831		251	-2.26E-07	-0.18631		283	-2.01E-07	-0.13231
220	7.10E-09	-0.23631		252	-3.15E-07	-0.18531		284	1.52E-07	-0.13131
221	-2.27E-07	-0.23431		253	-5.40E-07	-0.18331		285	-2.33E-07	-0.12931
222	-1.72E-08	-0.23231		254	-5.36E-07	-0.18231		286	5.42E-08	-0.12731

287	-9.10E-08	-0.12531		319	-2.10E-07	-0.06631		351	3.09E-07	-0.01031
288	-5.78E-07	-0.12431		320	-2.37E-07	-0.06431		352	5.44E-08	-0.00831
289	-3.61E-07	-0.12231		321	4.07E-08	-0.06231		353	-2.93E-07	-0.00631
290	-8.65E-09	-0.12031		322	-8.81E-08	-0.06131		354	-2.84E-07	-0.00431
291	-1.49E-07	-0.11931		323	3.61E-08	-0.05931		355	-5.22E-07	-0.00231
292	-4.30E-07	-0.11731		324	4.31E-07	-0.05731		356	-8.72E-07	-0.00131
293	-7.65E-08	-0.11531		325	1.46E-07	-0.05531		357	-7.24E-07	0.00069
294	-1.73E-07	-0.11331		326	-1.73E-07	-0.05331		358	-3.87E-07	0.00269
295	-7.46E-08	-0.11231		327	-1.69E-07	-0.05131		359	-4.98E-07	0.00369
296	6.03E-08	-0.11031		328	-4.62E-07	-0.04931		360	-4.28E-07	0.00569
297	3.61E-07	-0.10831		329	-1.02E-06	-0.04831		361	-2.22E-07	0.00769
298	2.80E-07	-0.10631		330	-9.73E-07	-0.04631		362	-1.63E-07	0.00969
299	1.59E-07	-0.10431		331	-1.03E-06	-0.04431		363	-1.46E-07	0.01169
300	-1.57E-08	-0.10231		332	-1.31E-06	-0.04331		364	-4.46E-08	0.01369
301	-9.57E-08	-0.10031		333	-1.08E-06	-0.04131		365	-3.22E-08	0.01569
302	-9.39E-08	-0.09831		334	-7.57E-07	-0.04031		366	-2.11E-08	0.01769
303	-1.25E-07	-0.09631		335	-1.02E-06	-0.03931		367	-2.35E-07	0.01969
304	-1.80E-07	-0.09431		336	-5.53E-07	-0.03731		368	-4.86E-07	0.02169
305	-2.51E-07	-0.09231		337	-4.37E-07	-0.03531		369	-5.98E-07	0.02369
306	-6.49E-08	-0.09031		338	-8.27E-07	-0.03431		370	-5.58E-07	0.02569
307	3.42E-08	-0.08831		339	-7.72E-07	-0.03231		371	-5.97E-07	0.02669
308	4.25E-08	-0.08631		340	-5.78E-07	-0.03031		372	-6.86E-07	0.02869
309	1.19E-08	-0.08431		341	-6.28E-07	-0.02931		373	-5.03E-07	0.03069
310	-1.86E-07	-0.08231		342	-4.66E-07	-0.02731		374	-6.20E-07	0.03269
311	-2.64E-07	-0.08031		343	-7.97E-08	-0.02631		375	-8.62E-07	0.03369
312	-3.53E-07	-0.07831		344	-7.85E-08	-0.02431		376	-8.54E-07	0.03569
313	-1.92E-07	-0.07731		345	1.60E-07	-0.02231		377	-7.74E-07	0.03769
314	-5.32E-08	-0.07531		346	1.32E-07	-0.02031		378	-9.44E-07	0.03869
315	3.14E-07	-0.07331		347	1.39E-07	-0.01831		379	-7.88E-07	0.04069
316	-5.62E-08	-0.07131		348	9.08E-08	-0.01631		380	-7.00E-07	0.04269
317	1.46E-07	-0.06931		349	1.38E-07	-0.01431		381	-9.05E-07	0.04369
318	4.28E-08	-0.06731		350	2.14E-07	-0.01231		382	-8.22E-07	0.04569

383	-7.48E-07	0.04769		415	-9.05E-07	0.09769		447	-8.67E-07	0.14869
384	-9.53E-07	0.04869		416	-9.83E-07	0.09869		448	-9.48E-07	0.15069
385	-8.20E-07	0.05069		417	-1.11E-06	0.10069		449	-8.27E-07	0.15269
386	-6.19E-07	0.05269		418	-9.29E-07	0.10269		450	-8.98E-07	0.15369
387	-7.29E-07	0.05369		419	-1.06E-06	0.10369		451	-9.71E-07	0.15469
388	-7.31E-07	0.05569		420	-9.85E-07	0.10469		452	-8.60E-07	0.15669
389	-7.42E-07	0.05769		421	-9.22E-07	0.10669		453	-8.25E-07	0.15869
390	-8.29E-07	0.05869		422	-7.08E-07	0.10769		454	-9.12E-07	0.15969
391	-9.65E-07	0.06069		423	-7.80E-07	0.10969		455	-7.67E-07	0.16169
392	-8.54E-07	0.06169		424	-7.16E-07	0.11169		456	-7.16E-07	0.16269
393	-9.22E-07	0.06369		425	-7.62E-07	0.11369		457	-8.72E-07	0.16369
394	-7.79E-07	0.06469		426	-7.78E-07	0.11569		458	-8.01E-07	0.16569
395	-9.45E-07	0.06669		427	-8.32E-07	0.11669		459	-8.70E-07	0.16769
396	-8.82E-07	0.06769		428	-9.71E-07	0.11869		460	-1.03E-06	0.16869
397	-1.09E-06	0.06969		429	-8.08E-07	0.11969		461	-1.06E-06	0.17069
398	-1.04E-06	0.07069		430	-8.99E-07	0.12169		462	-8.50E-07	0.17169
399	-1.13E-06	0.07269		431	-8.64E-07	0.12269		463	-1.03E-06	0.17369
400	-1.08E-06	0.07369		432	-9.43E-07	0.12469		464	-9.27E-07	0.17569
401	-1.21E-06	0.07569		433	-7.49E-07	0.12569		465	-9.93E-07	0.17769
402	-1.04E-06	0.07769		434	-9.58E-07	0.12769		466	-1.06E-06	0.17869
403	-1.10E-06	0.07869		435	-8.47E-07	0.12969		467	-1.20E-06	0.18069
404	-1.05E-06	0.07969		436	-9.20E-07	0.13169		468	-1.14E-06	0.18169
405	-1.08E-06	0.08169		437	-8.33E-07	0.13269		469	-1.23E-06	0.18269
406	-9.15E-07	0.08269		438	-9.76E-07	0.13469		470	-1.12E-06	0.18369
407	-1.03E-06	0.08469		439	-8.82E-07	0.13569		471	-9.62E-07	0.18469
408	-9.75E-07	0.08569		440	-8.62E-07	0.13769		472	-1.02E-06	0.18569
409	-1.11E-06	0.08769		441	-7.87E-07	0.13869		473	-9.44E-07	0.18769
410	-9.99E-07	0.08869		442	-9.15E-07	0.14069		474	-9.44E-07	0.18969
411	-1.06E-06	0.09069		443	-8.20E-07	0.14269		475	-9.36E-07	0.19069
412	-9.23E-07	0.09169		444	-8.91E-07	0.14469		476	-1.08E-06	0.19269
413	-1.03E-06	0.09369		445	-8.88E-07	0.14569		477	-9.79E-07	0.19369
414	-8.99E-07	0.09569		446	-8.53E-07	0.14769		478	-1.03E-06	0.19569

479	-9.33E-07	0.19669	511	-1.09E-06	0.24969	543	-8.31E-07	0.30169
480	-1.11E-06	0.19869	512	-9.29E-07	0.25069	544	-9.55E-07	0.30369
481	-9.13E-07	0.19969	513	-1.01E-06	0.25269	545	-1.01E-06	0.30569
482	-9.59E-07	0.20169	514	-9.34E-07	0.25369	546	-1.06E-06	0.30769
483	-8.88E-07	0.20269	515	-9.34E-07	0.25569	547	-1.10E-06	0.30869
484	-9.34E-07	0.20469	516	-9.98E-07	0.25769	548	-1.14E-06	0.31069
485	-7.72E-07	0.20569	517	-1.02E-06	0.25869	549	-9.51E-07	0.31169
486	-1.02E-06	0.20769	518	-1.10E-06	0.26069	550	-9.82E-07	0.31369
487	-9.28E-07	0.20869	519	-9.79E-07	0.26169	551	-8.95E-07	0.31469
488	-9.20E-07	0.21069	520	-9.78E-07	0.26369	552	-9.58E-07	0.31669
489	-9.10E-07	0.21169	521	-8.99E-07	0.26469	553	-9.64E-07	0.31769
490	-9.39E-07	0.21369	522	-9.18E-07	0.26669	554	-9.85E-07	0.31969
491	-8.19E-07	0.21569	523	-8.76E-07	0.26869	555	-1.01E-06	0.32069
492	-8.15E-07	0.21669	524	-9.32E-07	0.26969	556	-1.05E-06	0.32169
493	-9.02E-07	0.21869	525	-8.78E-07	0.27169	557	-9.93E-07	0.32369
494	-8.67E-07	0.22069	526	-8.50E-07	0.27269	558	-8.30E-07	0.32469
495	-8.33E-07	0.22269	527	-8.81E-07	0.27469	559	-9.43E-07	0.32669
496	-8.58E-07	0.22369	528	-9.32E-07	0.27669	560	-8.88E-07	0.32869
497	-9.20E-07	0.22569	529	-8.96E-07	0.27869	561	-1.00E-06	0.33069
498	-8.87E-07	0.22769	530	-8.70E-07	0.28069	562	-1.05E-06	0.33169
499	-9.86E-07	0.22969	531	-9.62E-07	0.28169	563	-1.16E-06	0.33369
500	-1.04E-06	0.23169	532	-8.73E-07	0.28369	564	-1.09E-06	0.33469
501	-1.09E-06	0.23369	533	-8.47E-07	0.28569	565	-9.99E-07	0.33569
502	-1.01E-06	0.23469	534	-9.54E-07	0.28669	566	-1.02E-06	0.33769
503	-1.08E-06	0.23669	535	-9.60E-07	0.28869	567	-1.01E-06	0.33969
504	-8.76E-07	0.23769	536	-8.68E-07	0.28969	568	-1.03E-06	0.34169
505	-8.77E-07	0.23969	537	-1.04E-06	0.29069	569	-1.12E-06	0.34269
506	-8.07E-07	0.24069	538	-9.28E-07	0.29269	570	-1.24E-06	0.34369
507	-9.65E-07	0.24269	539	-8.58E-07	0.29469	571	-1.09E-06	0.34469
508	-7.93E-07	0.24469	540	-9.06E-07	0.29569	572	-1.02E-06	0.34569
509	-1.05E-06	0.24669	541	-8.78E-07	0.29769	573	-9.30E-07	0.34669
510	-1.04E-06	0.24769	542	-7.53E-07	0.29969	574	-8.13E-07	0.34869

575	-8.88E-07	0.35069	607	-1.09E-06	0.39669	639	-1.11E-06	0.44469
576	-9.73E-07	0.35269	608	-9.09E-07	0.39769	640	-1.06E-06	0.44569
577	-9.93E-07	0.35469	609	-1.03E-06	0.39869	641	-1.20E-06	0.44769
578	-1.05E-06	0.35569	610	-8.65E-07	0.40069	642	-1.17E-06	0.44869
579	-1.12E-06	0.35669	611	-8.58E-07	0.40269	643	-1.13E-06	0.45069
580	-9.56E-07	0.35869	612	-8.74E-07	0.40369	644	-1.05E-06	0.45169
581	-9.87E-07	0.36069	613	-1.01E-06	0.40569	645	-1.10E-06	0.45269
582	-9.50E-07	0.36169	614	-9.43E-07	0.40769	646	-1.06E-06	0.45469
583	-9.56E-07	0.36369	615	-1.11E-06	0.40969	647	-1.10E-06	0.45669
584	-9.49E-07	0.36469	616	-1.08E-06	0.41069	648	-1.28E-06	0.45769
585	-1.06E-06	0.36669	617	-1.20E-06	0.41169	649	-1.32E-06	0.45869
586	-1.02E-06	0.36869	618	-1.17E-06	0.41269	650	-1.35E-06	0.45969
587	-1.08E-06	0.36969	619	-1.18E-06	0.41469	651	-1.38E-06	0.46069
588	-1.13E-06	0.37069	620	-1.14E-06	0.41569	652	-1.32E-06	0.46169
589	-1.18E-06	0.37169	621	-1.15E-06	0.41669	653	-1.18E-06	0.46269
590	-1.14E-06	0.37269	622	-1.14E-06	0.41769	654	-1.16E-06	0.46369
591	-1.10E-06	0.37369	623	-1.12E-06	0.41869	655	-1.12E-06	0.46569
592	-9.44E-07	0.37469	624	-1.05E-06	0.42069	656	-1.08E-06	0.46769
593	-9.07E-07	0.37569	625	-9.76E-07	0.42169	657	-1.09E-06	0.46869
594	-9.32E-07	0.37769	626	-1.06E-06	0.42369	658	-1.14E-06	0.46969
595	-9.34E-07	0.37969	627	-9.89E-07	0.42569	659	-1.18E-06	0.47069
596	-9.08E-07	0.38169	628	-9.99E-07	0.42769	660	-1.13E-06	0.47169
597	-1.04E-06	0.38269	629	-8.83E-07	0.42869	661	-1.25E-06	0.47269
598	-1.07E-06	0.38369	630	-9.86E-07	0.43069	662	-1.33E-06	0.47369
599	-8.97E-07	0.38569	631	-9.18E-07	0.43169	663	-1.20E-06	0.47569
600	-9.22E-07	0.38769	632	-8.33E-07	0.43369	664	-1.09E-06	0.47669
601	-9.82E-07	0.38869	633	-9.08E-07	0.43469	665	-1.16E-06	0.47769
602	-1.02E-06	0.39069	634	-9.59E-07	0.43669	666	-9.87E-07	0.47969
603	-1.10E-06	0.39169	635	-9.40E-07	0.43869	667	-1.01E-06	0.48169
604	-1.16E-06	0.39269	636	-8.90E-07	0.43969	668	-1.14E-06	0.48269
605	-1.17E-06	0.39369	637	-1.03E-06	0.44169	669	-1.20E-06	0.48469
606	-1.18E-06	0.39469	638	-9.42E-07	0.44269	670	-1.25E-06	0.48569

671	-1.33E-06	0.48669	703	-1.08E-06	0.52669	735	-1.44E-06	0.56669
672	-1.32E-06	0.48769	704	-1.13E-06	0.52869	736	-1.44E-06	0.56769
673	-1.30E-06	0.48869	705	-1.17E-06	0.53069	737	-1.41E-06	0.56869
674	-1.22E-06	0.48969	706	-1.33E-06	0.53169	738	-1.32E-06	0.57069
675	-1.10E-06	0.49069	707	-1.40E-06	0.53269	739	-1.27E-06	0.57169
676	-1.19E-06	0.49169	708	-1.36E-06	0.53369	740	-1.48E-06	0.57269
677	-1.14E-06	0.49369	709	-1.45E-06	0.53469	741	-1.43E-06	0.57369
678	-1.14E-06	0.49569	710	-1.37E-06	0.53569	742	-1.34E-06	0.57469
679	-1.33E-06	0.49669	711	-1.32E-06	0.53669	743	-1.28E-06	0.57569
680	-1.39E-06	0.49769	712	-1.40E-06	0.53769	744	-1.41E-06	0.57769
681	-1.30E-06	0.49869	713	-1.37E-06	0.53869	745	-1.24E-06	0.57869
682	-1.31E-06	0.49969	714	-1.46E-06	0.53969	746	-1.43E-06	0.58069
683	-1.36E-06	0.50069	715	-1.52E-06	0.54069	747	-1.36E-06	0.58169
684	-1.26E-06	0.50169	716	-1.31E-06	0.54169	748	-1.53E-06	0.58369
685	-1.24E-06	0.50269	717	-1.25E-06	0.54269	749	-1.46E-06	0.58469
686	-1.18E-06	0.50369	718	-1.15E-06	0.54369	750	-1.57E-06	0.58669
687	-1.23E-06	0.50469	719	-1.04E-06	0.54569	751	-1.44E-06	0.58769
688	-1.19E-06	0.50569	720	-9.98E-07	0.54669	752	-1.57E-06	0.58869
689	-1.33E-06	0.50769	721	-1.17E-06	0.54869	753	-1.48E-06	0.58969
690	-1.25E-06	0.50869	722	-1.13E-06	0.54969	754	-1.41E-06	0.59069
691	-1.33E-06	0.50969	723	-1.31E-06	0.55069	755	-1.49E-06	0.59169
692	-1.21E-06	0.51069	724	-1.22E-06	0.55169	756	-1.38E-06	0.59269
693	-1.28E-06	0.51269	725	-1.10E-06	0.55369	757	-1.28E-06	0.59369
694	-1.11E-06	0.51369	726	-1.22E-06	0.55469	758	-1.17E-06	0.59469
695	-1.21E-06	0.51569	727	-1.19E-06	0.55669	759	-1.27E-06	0.59669
696	-1.10E-06	0.51669	728	-1.07E-06	0.55869	760	-1.32E-06	0.59769
697	-1.16E-06	0.51869	729	-1.16E-06	0.55969	761	-1.49E-06	0.59969
698	-1.08E-06	0.51969	730	-1.38E-06	0.56169	762	-1.61E-06	0.60069
699	-1.07E-06	0.52169	731	-1.25E-06	0.56269	763	-1.78E-06	0.60169
700	-1.08E-06	0.52269	732	-1.46E-06	0.56369	764	-1.68E-06	0.60269
701	-1.10E-06	0.52369	733	-1.59E-06	0.56469	765	-1.57E-06	0.60369
702	-9.99E-07	0.52569	734	-1.61E-06	0.56569	766	-1.58E-06	0.60469

767	-1.50E-06	0.60569	799	-1.35E-06	0.64069	831	-1.60E-06	0.67769
768	-1.41E-06	0.60669	800	-1.27E-06	0.64169	832	-1.55E-06	0.67869
769	-1.39E-06	0.60769	801	-1.19E-06	0.64369	833	-1.65E-06	0.67969
770	-1.47E-06	0.60869	802	-9.14E-07	0.64569	834	-1.55E-06	0.68069
771	-1.32E-06	0.60969	803	-1.15E-06	0.64669	835	-1.54E-06	0.68169
772	-1.48E-06	0.61069	804	-1.28E-06	0.64869	836	-1.52E-06	0.68269
773	-1.45E-06	0.61169	805	-1.42E-06	0.65069	837	-1.63E-06	0.68369
774	-1.57E-06	0.61369	806	-1.41E-06	0.65169	838	-1.66E-06	0.68469
775	-1.48E-06	0.61469	807	-1.63E-06	0.65269	839	-1.77E-06	0.68569
776	-1.54E-06	0.61569	808	-1.60E-06	0.65369	840	-1.77E-06	0.68669
777	-1.34E-06	0.61669	809	-1.66E-06	0.65569	841	-1.77E-06	0.68769
778	-1.47E-06	0.61769	810	-1.58E-06	0.65669	842	-1.76E-06	0.68869
779	-1.39E-06	0.61869	811	-1.72E-06	0.65769	843	-1.65E-06	0.68969
780	-1.36E-06	0.61969	812	-1.58E-06	0.65869	844	-1.60E-06	0.69069
781	-1.41E-06	0.62069	813	-1.61E-06	0.65969	845	-1.57E-06	0.69169
782	-1.35E-06	0.62169	814	-1.48E-06	0.66069	846	-1.62E-06	0.69269
783	-1.36E-06	0.62269	815	-1.56E-06	0.66169	847	-1.53E-06	0.69369
784	-1.45E-06	0.62369	816	-1.55E-06	0.66269	848	-1.62E-06	0.69469
785	-1.50E-06	0.62569	817	-1.66E-06	0.66369	849	-1.58E-06	0.69569
786	-1.48E-06	0.62669	818	-1.51E-06	0.66469	850	-1.72E-06	0.69669
787	-1.69E-06	0.62769	819	-1.69E-06	0.66569	851	-1.58E-06	0.69769
788	-1.54E-06	0.62869	820	-1.67E-06	0.66669	852	-1.70E-06	0.69869
789	-1.54E-06	0.62969	821	-1.61E-06	0.66769	853	-1.61E-06	0.69969
790	-1.43E-06	0.63069	822	-1.65E-06	0.66869	854	-1.76E-06	0.70069
791	-1.52E-06	0.63169	823	-1.70E-06	0.66969	855	-1.68E-06	0.70169
792	-1.33E-06	0.63269	824	-1.59E-06	0.67069	856	-1.79E-06	0.70269
793	-1.38E-06	0.63369	825	-1.67E-06	0.67169	857	-1.68E-06	0.70369
794	-1.25E-06	0.63469	826	-1.66E-06	0.67269	858	-1.80E-06	0.70469
795	-1.33E-06	0.63669	827	-1.59E-06	0.67369	859	-1.79E-06	0.70569
796	-1.25E-06	0.63769	828	-1.57E-06	0.67469	860	-1.82E-06	0.70669
797	-1.48E-06	0.63869	829	-1.62E-06	0.67569	861	-1.90E-06	0.70769
798	-1.37E-06	0.63969	830	-1.46E-06	0.67669	862	-1.93E-06	0.70869

863	-1.95E-06	0.70969	895	-1.67E-06	0.74169	927	-1.92E-06	0.77369
864	-1.91E-06	0.71069	896	-1.73E-06	0.74269	928	-1.88E-06	0.77469
865	-1.87E-06	0.71169	897	-1.54E-06	0.74369	929	-1.97E-06	0.77569
866	-1.82E-06	0.71269	898	-1.46E-06	0.74469	930	-1.87E-06	0.77669
867	-1.82E-06	0.71369	899	-1.64E-06	0.74569	931	-1.96E-06	0.77769
868	-1.70E-06	0.71469	900	-1.59E-06	0.74669	932	-1.86E-06	0.77869
869	-1.70E-06	0.71569	901	-1.67E-06	0.74769	933	-1.91E-06	0.77969
870	-1.75E-06	0.71669	902	-1.81E-06	0.74869	934	-1.82E-06	0.78069
871	-1.69E-06	0.71769	903	-1.95E-06	0.74969	935	-1.85E-06	0.78169
872	-1.73E-06	0.71869	904	-1.88E-06	0.75069	936	-1.76E-06	0.78269
873	-1.81E-06	0.71969	905	-2.04E-06	0.75169	937	-1.78E-06	0.78369
874	-1.74E-06	0.72069	906	-1.90E-06	0.75269	938	-1.73E-06	0.78469
875	-1.84E-06	0.72169	907	-1.87E-06	0.75369	939	-1.64E-06	0.78569
876	-1.87E-06	0.72269	908	-1.79E-06	0.75469	940	-1.74E-06	0.78669
877	-1.92E-06	0.72369	909	-1.86E-06	0.75569	941	-1.75E-06	0.78769
878	-1.82E-06	0.72469	910	-1.69E-06	0.75669	942	-1.79E-06	0.78869
879	-1.88E-06	0.72569	911	-1.73E-06	0.75769	943	-1.83E-06	0.78969
880	-1.74E-06	0.72669	912	-1.78E-06	0.75869	944	-1.82E-06	0.79069
881	-1.77E-06	0.72769	913	-1.77E-06	0.75969	945	-1.76E-06	0.79169
882	-1.75E-06	0.72869	914	-1.79E-06	0.76069	946	-1.76E-06	0.79269
883	-1.78E-06	0.72969	915	-1.96E-06	0.76169	947	-1.75E-06	0.79369
884	-1.69E-06	0.73069	916	-1.87E-06	0.76269	948	-1.84E-06	0.79469
885	-1.73E-06	0.73169	917	-1.84E-06	0.76369	949	-1.95E-06	0.79569
886	-1.69E-06	0.73269	918	-1.91E-06	0.76469	950	-2.01E-06	0.79669
887	-1.66E-06	0.73369	919	-1.85E-06	0.76569	951	-1.99E-06	0.79769
888	-1.73E-06	0.73469	920	-1.80E-06	0.76669	952	-2.04E-06	0.79869
889	-1.79E-06	0.73569	921	-1.89E-06	0.76769	953	-1.78E-06	0.79969
890	-1.87E-06	0.73669	922	-1.87E-06	0.76869	954	-1.91E-06	0.80069
891	-1.84E-06	0.73769	923	-1.90E-06	0.76969	955	-1.85E-06	0.80169
892	-1.94E-06	0.73869	924	-1.88E-06	0.77069	956	-1.92E-06	0.80269
893	-1.88E-06	0.73969	925	-1.90E-06	0.77169	957	-1.91E-06	0.80369
894	-1.80E-06	0.74069	926	-1.85E-06	0.77269	958	-1.98E-06	0.80469

959	-1.81E-06	0.80569	991	-1.56E-06	0.83769	1023	-1.62E-06	0.86969
960	-1.78E-06	0.80669	992	-1.67E-06	0.83869	1024	-1.56E-06	0.87069
961	-1.74E-06	0.80769	993	-1.69E-06	0.83969	1025	-1.64E-06	0.87169
962	-1.73E-06	0.80869	994	-1.62E-06	0.84069	1026	-1.64E-06	0.87269
963	-1.73E-06	0.80969	995	-1.81E-06	0.84169	1027	-1.62E-06	0.87369
964	-1.76E-06	0.81069	996	-1.73E-06	0.84269	1028	-1.58E-06	0.87469
965	-1.81E-06	0.81169	997	-1.82E-06	0.84369	1029	-1.70E-06	0.87569
966	-1.84E-06	0.81269	998	-1.80E-06	0.84469	1030	-1.68E-06	0.87669
967	-1.84E-06	0.81369	999	-1.90E-06	0.84569	1031	-1.67E-06	0.87769
968	-1.87E-06	0.81469	1000	-1.88E-06	0.84669	1032	-1.66E-06	0.87869
969	-1.87E-06	0.81569	1001	-1.86E-06	0.84769	1033	-1.76E-06	0.87969
970	-1.79E-06	0.81669	1002	-1.72E-06	0.84869	1034	-1.78E-06	0.88069
971	-1.76E-06	0.81769	1003	-1.76E-06	0.84969	1035	-1.75E-06	0.88169
972	-1.76E-06	0.81869	1004	-1.76E-06	0.85069	1036	-1.83E-06	0.88269
973	-1.78E-06	0.81969	1005	-1.65E-06	0.85169	1037	-1.85E-06	0.88369
974	-1.79E-06	0.82069	1006	-1.76E-06	0.85269	1038	-1.84E-06	0.88469
975	-1.93E-06	0.82169	1007	-1.76E-06	0.85369	1039	-1.72E-06	0.88569
976	-1.82E-06	0.82269	1008	-1.77E-06	0.85469	1040	-1.74E-06	0.88669
977	-1.87E-06	0.82369	1009	-1.75E-06	0.85569	1041	-1.64E-06	0.88769
978	-1.91E-06	0.82469	1010	-1.82E-06	0.85669	1042	-1.74E-06	0.88869
979	-2.03E-06	0.82569	1011	-1.74E-06	0.85769	1043	-1.73E-06	0.88969
980	-1.86E-06	0.82669	1012	-1.73E-06	0.85869	1044	-1.78E-06	0.89069
981	-1.93E-06	0.82769	1013	-1.64E-06	0.85969	1045	-1.83E-06	0.89169
982	-1.80E-06	0.82869	1014	-1.58E-06	0.86069	1046	-1.85E-06	0.89269
983	-1.77E-06	0.82969	1015	-1.46E-06	0.86169	1047	-1.82E-06	0.89369
984	-1.73E-06	0.83069	1016	-1.59E-06	0.86269	1048	-1.80E-06	0.89469
985	-1.77E-06	0.83169	1017	-1.59E-06	0.86369	1049	-1.80E-06	0.89569
986	-1.86E-06	0.83269	1018	-1.60E-06	0.86469	1050	-1.77E-06	0.89669
987	-1.83E-06	0.83369	1019	-1.67E-06	0.86569	1051	-1.80E-06	0.89769
988	-1.82E-06	0.83469	1020	-1.70E-06	0.86669	1052	-1.67E-06	0.89869
989	-1.73E-06	0.83569	1021	-1.62E-06	0.86769	1053	-1.68E-06	0.89969
990	-1.62E-06	0.83669	1022	-1.67E-06	0.86869	1054	-1.64E-06	0.90069

1055	-1.60E-06	0.90169	1087	-1.55E-06	0.93369	1119	-1.78E-06	0.96569
1056	-1.68E-06	0.90269	1088	-1.72E-06	0.93469	1120	-1.81E-06	0.96669
1057	-1.62E-06	0.90369	1089	-1.66E-06	0.93569	1121	-1.86E-06	0.96769
1058	-1.71E-06	0.90469	1090	-1.73E-06	0.93669	1122	-1.79E-06	0.96869
1059	-1.67E-06	0.90569	1091	-1.59E-06	0.93769	1123	-1.82E-06	0.96969
1060	-1.84E-06	0.90669	1092	-1.64E-06	0.93869	1124	-1.81E-06	0.97069
1061	-1.65E-06	0.90769	1093	-1.67E-06	0.93969	1125	-1.75E-06	0.97169
1062	-1.80E-06	0.90869	1094	-1.66E-06	0.94069	1126	-1.66E-06	0.97269
1063	-1.72E-06	0.90969	1095	-1.71E-06	0.94169	1127	-1.71E-06	0.97369
1064	-1.76E-06	0.91069	1096	-1.78E-06	0.94269	1128	-1.70E-06	0.97469
1065	-1.74E-06	0.91169	1097	-1.80E-06	0.94369	1129	-1.60E-06	0.97569
1066	-1.82E-06	0.91269	1098	-1.73E-06	0.94469	1130	-1.64E-06	0.97669
1067	-1.82E-06	0.91369	1099	-1.80E-06	0.94569	1131	-1.57E-06	0.97769
1068	-1.75E-06	0.91469	1100	-1.69E-06	0.94669	1132	-1.67E-06	0.97869
1069	-1.79E-06	0.91569	1101	-1.73E-06	0.94769	1133	-1.54E-06	0.97969
1070	-1.66E-06	0.91669	1102	-1.71E-06	0.94869	1134	-1.69E-06	0.98069
1071	-1.67E-06	0.91769	1103	-1.77E-06	0.94969	1135	-1.63E-06	0.98169
1072	-1.62E-06	0.91869	1104	-1.71E-06	0.95069	1136	-1.75E-06	0.98269
1073	-1.71E-06	0.91969	1105	-1.84E-06	0.95169	1137	-1.62E-06	0.98369
1074	-1.69E-06	0.92069	1106	-1.94E-06	0.95269	1138	-1.69E-06	0.98469
1075	-1.74E-06	0.92169	1107	-2.01E-06	0.95369	1139	-1.58E-06	0.98569
1076	-1.69E-06	0.92269	1108	-1.88E-06	0.95469	1140	-1.65E-06	0.98669
1077	-1.75E-06	0.92369	1109	-2.00E-06	0.95569	1141	-1.58E-06	0.98769
1078	-1.74E-06	0.92469	1110	-1.85E-06	0.95669	1142	-1.74E-06	0.98869
1079	-1.78E-06	0.92569	1111	-1.74E-06	0.95769	1143	-1.76E-06	0.98969
1080	-1.80E-06	0.92669	1112	-1.70E-06	0.95869	1144	-1.92E-06	0.99069
1081	-1.94E-06	0.92769	1113	-1.74E-06	0.95969	1145	-1.90E-06	0.99169
1082	-1.85E-06	0.92869	1114	-1.69E-06	0.96069	1146	-1.89E-06	0.99269
1083	-1.74E-06	0.92969	1115	-1.74E-06	0.96169	1147	-1.80E-06	0.99369
1084	-1.73E-06	0.93069	1116	-1.81E-06	0.96269	1148	-1.91E-06	0.99469
1085	-1.62E-06	0.93169	1117	-1.77E-06	0.96369	1149	-1.74E-06	0.99569
1086	-1.59E-06	0.93269	1118	-1.81E-06	0.96469	1150	-1.76E-06	0.99669

1151	-1.70E-06	0.99769	1183	-1.92E-06	1.0297	1215	-1.79E-06	1.0617
1152	-1.73E-06	0.99869	1184	-1.81E-06	1.0307	1216	-1.64E-06	1.0627
1153	-1.63E-06	0.99969	1185	-1.85E-06	1.0317	1217	-1.68E-06	1.0637
1154	-1.73E-06	1.0007	1186	-1.78E-06	1.0327	1218	-1.69E-06	1.0647
1155	-1.73E-06	1.0017	1187	-1.82E-06	1.0337	1219	-1.58E-06	1.0657
1156	-1.79E-06	1.0027	1188	-1.82E-06	1.0347	1220	-1.74E-06	1.0667
1157	-1.78E-06	1.0037	1189	-1.83E-06	1.0357	1221	-1.88E-06	1.0677
1158	-1.71E-06	1.0047	1190	-1.88E-06	1.0367	1222	-1.91E-06	1.0687
1159	-1.78E-06	1.0057	1191	-1.92E-06	1.0377	1223	-1.94E-06	1.0697
1160	-1.70E-06	1.0067	1192	-1.94E-06	1.0387	1224	-1.91E-06	1.0707
1161	-1.74E-06	1.0077	1193	-1.85E-06	1.0397	1225	-1.95E-06	1.0717
1162	-1.85E-06	1.0087	1194	-1.80E-06	1.0407	1226	-1.87E-06	1.0727
1163	-1.82E-06	1.0097	1195	-1.72E-06	1.0417	1227	-1.81E-06	1.0737
1164	-1.71E-06	1.0107	1196	-1.73E-06	1.0427	1228	-1.81E-06	1.0747
1165	-1.79E-06	1.0117	1197	-1.77E-06	1.0437	1229	-1.94E-06	1.0757
1166	-1.76E-06	1.0127	1198	-1.91E-06	1.0447	1230	-1.93E-06	1.0767
1167	-1.69E-06	1.0137	1199	-2.05E-06	1.0457	1231	-1.96E-06	1.0777
1168	-1.66E-06	1.0147	1200	-2.09E-06	1.0467	1232	-2.04E-06	1.0787
1169	-1.64E-06	1.0157	1201	-1.99E-06	1.0477	1233	-2.10E-06	1.0797
1170	-1.65E-06	1.0167	1202	-2.01E-06	1.0487	1234	-2.00E-06	1.0807
1171	-1.57E-06	1.0177	1203	-1.84E-06	1.0497	1235	-1.93E-06	1.0817
1172	-1.55E-06	1.0187	1204	-1.76E-06	1.0507	1236	-1.97E-06	1.0827
1173	-1.61E-06	1.0197	1205	-1.68E-06	1.0517	1237	-2.07E-06	1.0837
1174	-1.67E-06	1.0207	1206	-1.69E-06	1.0527	1238	-2.01E-06	1.0847
1175	-1.61E-06	1.0217	1207	-1.54E-06	1.0537	1239	-2.22E-06	1.0857
1176	-1.72E-06	1.0227	1208	-1.48E-06	1.0547	1240	-2.20E-06	1.0867
1177	-1.68E-06	1.0237	1209	-1.63E-06	1.0557	1241	-2.12E-06	1.0877
1178	-1.74E-06	1.0247	1210	-1.68E-06	1.0567	1242	-2.06E-06	1.0887
1179	-1.77E-06	1.0257	1211	-1.81E-06	1.0577	1243	-2.05E-06	1.0897
1180	-1.80E-06	1.0267	1212	-1.81E-06	1.0587	1244	-1.96E-06	1.0907
1181	-1.85E-06	1.0277	1213	-1.90E-06	1.0597	1245	-1.86E-06	1.0917
1182	-1.84E-06	1.0287	1214	-1.87E-06	1.0607	1246	-1.94E-06	1.0927

1247	-1.89E-06	1.0937		1279	-2.59E-06	1.1257		1311	-4.21E-06	1.1577
1248	-1.98E-06	1.0947		1280	-2.54E-06	1.1267		1312	-4.15E-06	1.1587
1249	-1.97E-06	1.0957		1281	-2.60E-06	1.1277		1313	-4.35E-06	1.1597
1250	-2.15E-06	1.0967		1282	-2.52E-06	1.1287		1314	-4.47E-06	1.1607
1251	-2.08E-06	1.0977		1283	-2.67E-06	1.1297		1315	-4.59E-06	1.1617
1252	-2.13E-06	1.0987		1284	-2.78E-06	1.1307		1316	-4.74E-06	1.1627
1253	-2.02E-06	1.0997		1285	-2.86E-06	1.1317		1317	-4.99E-06	1.1637
1254	-2.03E-06	1.1007		1286	-2.97E-06	1.1327		1318	-5.14E-06	1.1647
1255	-1.94E-06	1.1017		1287	-3.02E-06	1.1337		1319	-5.32E-06	1.1657
1256	-2.05E-06	1.1027		1288	-2.96E-06	1.1347		1320	-5.33E-06	1.1667
1257	-2.00E-06	1.1037		1289	-2.87E-06	1.1357		1321	-5.57E-06	1.1677
1258	-2.01E-06	1.1047		1290	-2.88E-06	1.1367		1322	-5.54E-06	1.1687
1259	-2.13E-06	1.1057		1291	-2.88E-06	1.1377		1323	-5.72E-06	1.1697
1260	-2.17E-06	1.1067		1292	-2.94E-06	1.1387		1324	-5.76E-06	1.1707
1261	-2.21E-06	1.1077		1293	-3.01E-06	1.1397		1325	-6.04E-06	1.1717
1262	-2.24E-06	1.1087		1294	-3.07E-06	1.1407		1326	-6.05E-06	1.1727
1263	-2.37E-06	1.1097		1295	-3.21E-06	1.1417		1327	-6.37E-06	1.1737
1264	-2.28E-06	1.1107		1296	-3.21E-06	1.1427		1328	-6.42E-06	1.1747
1265	-2.32E-06	1.1117		1297	-3.27E-06	1.1437		1329	-6.72E-06	1.1757
1266	-2.31E-06	1.1127		1298	-3.25E-06	1.1447		1330	-6.85E-06	1.1767
1267	-2.31E-06	1.1137		1299	-3.28E-06	1.1457		1331	-7.08E-06	1.1777
1268	-2.38E-06	1.1147		1300	-3.23E-06	1.1467		1332	-7.19E-06	1.1787
1269	-2.38E-06	1.1157		1301	-3.27E-06	1.1477		1333	-7.50E-06	1.1797
1270	-2.38E-06	1.1167		1302	-3.38E-06	1.1487		1334	-7.59E-06	1.1807
1271	-2.31E-06	1.1177		1303	-3.37E-06	1.1497		1335	-8.02E-06	1.1817
1272	-2.44E-06	1.1187		1304	-3.47E-06	1.1507		1336	-8.26E-06	1.1827
1273	-2.35E-06	1.1197		1305	-3.57E-06	1.1517		1337	-8.53E-06	1.1837
1274	-2.27E-06	1.1207		1306	-3.64E-06	1.1527		1338	-8.86E-06	1.1847
1275	-2.33E-06	1.1217		1307	-3.80E-06	1.1537		1339	-9.07E-06	1.1857
1276	-2.41E-06	1.1227		1308	-3.91E-06	1.1547		1340	-9.28E-06	1.1867
1277	-2.43E-06	1.1237		1309	-4.02E-06	1.1557		1341	-9.49E-06	1.1877
1278	-2.45E-06	1.1247		1310	-4.13E-06	1.1567		1342	-9.91E-06	1.1887

1343	-1.02E-05	1.1897	1375	-3.24E-05	1.2227	1407	-0.0001181	1.2547
1344	-1.06E-05	1.1907	1376	-3.38E-05	1.2237	1408	-0.0001196	1.2557
1345	-1.09E-05	1.1917	1377	-3.50E-05	1.2247	1409	-0.000121	1.2567
1346	-1.13E-05	1.1927	1378	-3.66E-05	1.2257			
1347	-1.17E-05	1.1937	1379	-3.78E-05	1.2267			
1348	-1.20E-05	1.1947	1380	-3.95E-05	1.2277			
1349	-1.24E-05	1.1957	1381	-4.11E-05	1.2287			
1350	-1.28E-05	1.1967	1382	-4.29E-05	1.2297			
1351	-1.34E-05	1.1977	1383	-4.45E-05	1.2307			
1352	-1.37E-05	1.1987	1384	-4.65E-05	1.2317			
1353	-1.43E-05	1.1997	1385	-4.84E-05	1.2327			
1354	-1.49E-05	1.2007	1386	-5.05E-05	1.2337			
1355	-1.56E-05	1.2017	1387	-5.26E-05	1.2347			
1356	-1.62E-05	1.2037	1388	-5.49E-05	1.2357			
1357	-1.69E-05	1.2047	1389	-5.72E-05	1.2367			
1358	-1.76E-05	1.2057	1390	-5.97E-05	1.2377			
1359	-1.82E-05	1.2067	1391	-6.22E-05	1.2387			
1360	-1.87E-05	1.2077	1392	-6.50E-05	1.2397			
1361	-1.94E-05	1.2087	1393	-6.78E-05	1.2407			
1362	-2.00E-05	1.2097	1394	-7.09E-05	1.2417			
1363	-2.08E-05	1.2107	1395	-7.38E-05	1.2427			
1364	-2.15E-05	1.2117	1396	-7.72E-05	1.2437			
1365	-2.24E-05	1.2127	1397	-8.03E-05	1.2447			
1366	-2.32E-05	1.2137	1398	-8.39E-05	1.2457			
1367	-2.40E-05	1.2147	1399	-8.74E-05	1.2467			
1368	-2.49E-05	1.2157	1400	-9.11E-05	1.2477			
1369	-2.58E-05	1.2167	1401	-9.50E-05	1.2487			
1370	-2.67E-05	1.2177	1402	-9.89E-05	1.2497			
1371	-2.77E-05	1.2187	1403	-0.0001031	1.2507			
1372	-2.89E-05	1.2197	1404	-0.0001072	1.2517			
1373	-2.99E-05	1.2207	1405	-0.0001117	1.2527			
1374	-3.13E-05	1.2217	1406	-0.000116	1.2537			

AISI 316 Welded in PBS		
	Current(A)	Potential (V)
1	2.46E-06	-0.30599
2	1.50E-05	-0.30499
3	1.17E-05	-0.30399
4	1.37E-05	-0.30299
5	1.11E-05	-0.30199
6	1.21E-05	-0.30099
7	9.98E-06	-0.29999
8	1.22E-05	-0.29899
9	9.38E-06	-0.29799
10	9.48E-06	-0.29699
11	1.02E-05	-0.29499
12	7.73E-06	-0.29399
13	7.89E-06	-0.29199
14	7.27E-06	-0.28999
15	7.15E-06	-0.28799
16	6.14E-06	-0.28599
17	6.36E-06	-0.28399
18	7.52E-06	-0.28199
19	5.74E-06	-0.28099
20	7.59E-06	-0.27999
21	6.41E-06	-0.27799
22	5.21E-06	-0.27699
23	7.16E-06	-0.27599
24	4.22E-06	-0.27499
25	4.35E-06	-0.27299
26	6.15E-06	-0.27199
27	4.36E-06	-0.27099
28	5.17E-06	-0.26999
29	5.40E-06	-0.26899
30	4.18E-06	-0.26799
31	5.70E-06	-0.26699
32	3.59E-06	-0.26599
33	5.58E-06	-0.26499
34	3.50E-06	-0.26399
35	5.56E-06	-0.26299
36	2.75E-06	-0.26199
37	4.89E-06	-0.26099
38	3.29E-06	-0.25999
39	4.56E-06	-0.25899
40	2.68E-06	-0.25799
41	4.48E-06	-0.25699
42	2.17E-06	-0.25599
43	3.35E-06	-0.25499
44	4.00E-06	-0.25399
45	2.27E-06	-0.25299
46	3.77E-06	-0.25199
47	2.53E-06	-0.25099
48	3.70E-06	-0.24999
49	2.42E-06	-0.24899
50	3.47E-06	-0.24799
51	2.82E-06	-0.24699
52	3.35E-06	-0.24599
53	1.91E-06	-0.24499
54	3.88E-06	-0.24399
55	1.45E-06	-0.24299
56	2.01E-06	-0.24199
57	2.71E-06	-0.24099
58	1.26E-06	-0.23999
59	3.02E-06	-0.23899
60	9.34E-07	-0.23799
61	1.72E-06	-0.23599
62	2.45E-06	-0.23499
63	1.07E-06	-0.23399
64	2.62E-06	-0.23299
65	1.54E-06	-0.23199
66	5.70E-07	-0.23099
67	2.89E-08	-0.22899
68	3.25E-07	-0.22699
69	-1.68E-07	-0.22499
70	1.84E-06	-0.22299
71	3.70E-07	-0.22199
72	1.25E-06	-0.21999
73	9.15E-08	-0.21899
74	-1.92E-07	-0.21699
75	6.77E-07	-0.21499
76	6.64E-07	-0.21299
77	1.01E-06	-0.21099
78	-8.07E-07	-0.20999
79	5.32E-07	-0.20799
80	-1.32E-06	-0.20599
81	5.72E-08	-0.20499
82	-1.24E-06	-0.20299
83	-3.93E-07	-0.20199
84	-1.95E-06	-0.19999
85	-2.97E-07	-0.19899
86	-1.67E-06	-0.19699
87	-5.66E-07	-0.19599
88	-5.01E-07	-0.19399
89	-3.91E-07	-0.19199
90	-1.52E-06	-0.18999
91	-2.99E-07	-0.18899
92	-1.64E-06	-0.18699
93	-3.43E-07	-0.18599
94	-2.18E-06	-0.18399

95	-9.02E-07	-0.18299	127	-3.87E-06	-0.14999	159	-7.85E-06	-0.11799
96	-1.04E-06	-0.18099	128	-5.02E-06	-0.14899	160	-7.38E-06	-0.11699
97	-3.02E-06	-0.17999	129	-3.72E-06	-0.14799	161	-9.10E-06	-0.11599
98	-1.94E-06	-0.17899	130	-5.37E-06	-0.14699	162	-7.55E-06	-0.11499
99	-1.79E-06	-0.17799	131	-4.50E-06	-0.14599	163	-9.07E-06	-0.11399
100	-2.99E-06	-0.17699	132	-5.00E-06	-0.14499	164	-8.24E-06	-0.11299
101	-1.65E-06	-0.17599	133	-4.35E-06	-0.14399	165	-9.00E-06	-0.11199
102	-3.05E-06	-0.17499	134	-6.01E-06	-0.14299	166	-8.57E-06	-0.11099
103	-2.10E-06	-0.17399	135	-5.66E-06	-0.14199	167	-9.99E-06	-0.10999
104	-2.49E-06	-0.17299	136	-5.03E-06	-0.14099	168	-8.66E-06	-0.10899
105	-3.31E-06	-0.17199	137	-5.78E-06	-0.13999	169	-9.38E-06	-0.10799
106	-2.19E-06	-0.17099	138	-5.72E-06	-0.13899	170	-8.86E-06	-0.10699
107	-3.37E-06	-0.16999	139	-5.77E-06	-0.13799	171	-9.25E-06	-0.10599
108	-2.98E-06	-0.16899	140	-5.64E-06	-0.13699	172	-8.73E-06	-0.10499
109	-2.32E-06	-0.16799	141	-6.47E-06	-0.13599	173	-9.78E-06	-0.10399
110	-3.69E-06	-0.16699	142	-5.29E-06	-0.13499	174	-8.27E-06	-0.10299
111	-2.02E-06	-0.16599	143	-6.82E-06	-0.13399	175	-8.37E-06	-0.10199
112	-3.95E-06	-0.16499	144	-5.46E-06	-0.13299	176	-9.86E-06	-0.10099
113	-3.40E-06	-0.16399	145	-6.37E-06	-0.13199	177	-7.68E-06	-0.099994
114	-2.85E-06	-0.16299	146	-5.93E-06	-0.13099	178	-9.76E-06	-0.098994
115	-3.96E-06	-0.16199	147	-6.82E-06	-0.12999	179	-8.81E-06	-0.097994
116	-2.58E-06	-0.16099	148	-5.66E-06	-0.12899	180	-9.68E-06	-0.096994
117	-4.27E-06	-0.15999	149	-6.36E-06	-0.12799	181	-1.03E-05	-0.094994
118	-3.91E-06	-0.15899	150	-7.11E-06	-0.12699	182	-1.09E-05	-0.093994
119	-2.95E-06	-0.15799	151	-6.43E-06	-0.12599	183	-9.56E-06	-0.092994
120	-4.18E-06	-0.15699	152	-7.55E-06	-0.12499	184	-1.15E-05	-0.091994
121	-4.05E-06	-0.15599	153	-6.86E-06	-0.12399	185	-1.06E-05	-0.090994
122	-2.50E-06	-0.15499	154	-8.27E-06	-0.12299	186	-1.11E-05	-0.088994
123	-4.09E-06	-0.15399	155	-7.07E-06	-0.12199	187	-1.01E-05	-0.087994
124	-2.99E-06	-0.15299	156	-8.29E-06	-0.12099	188	-1.13E-05	-0.085994
125	-4.99E-06	-0.15199	157	-7.50E-06	-0.11999	189	-1.21E-05	-0.084994
126	-3.78E-06	-0.15099	158	-7.69E-06	-0.11899	190	-1.21E-05	-0.083994

191	-1.11E-05	-0.082994	223	-1.21E-05	-0.048994	255	-3.01E-05	-0.016994
192	-1.22E-05	-0.081994	224	-1.17E-05	-0.047994	256	-3.18E-05	-0.015994
193	-1.10E-05	-0.080994	225	-1.42E-05	-0.046994	257	-3.28E-05	-0.014994
194	-1.00E-05	-0.079994	226	-1.25E-05	-0.045994	258	-3.29E-05	-0.013994
195	-1.06E-05	-0.077994	227	-1.33E-05	-0.044994	259	-3.39E-05	-0.012994
196	-1.07E-05	-0.076994	228	-1.23E-05	-0.043994	260	-3.42E-05	-0.011994
197	-1.10E-05	-0.075994	229	-1.38E-05	-0.042994	261	-3.67E-05	-0.010994
198	-1.08E-05	-0.074994	230	-1.34E-05	-0.041994	262	-3.61E-05	-0.0099937
199	-1.08E-05	-0.073994	231	-1.55E-05	-0.040994	263	-3.70E-05	-0.0089937
200	-1.14E-05	-0.072994	232	-1.51E-05	-0.039994	264	-3.76E-05	-0.0079937
201	-1.08E-05	-0.071994	233	-1.67E-05	-0.038994	265	-4.12E-05	-0.0069937
202	-1.22E-05	-0.070994	234	-1.46E-05	-0.037994	266	-4.21E-05	-0.0059937
203	-1.09E-05	-0.069994	235	-1.61E-05	-0.036994	267	-4.32E-05	-0.0049937
204	-1.12E-05	-0.068994	236	-1.70E-05	-0.035994	268	-4.45E-05	-0.0039937
205	-1.05E-05	-0.067994	237	-1.70E-05	-0.034994	269	-4.67E-05	-0.0029937
206	-1.21E-05	-0.066994	238	-1.92E-05	-0.033994	270	-4.80E-05	-0.0019937
207	-9.75E-06	-0.065994	239	-1.89E-05	-0.032994	271	-4.78E-05	-0.0009937
208	-1.10E-05	-0.064994	240	-2.02E-05	-0.031994	272	-4.71E-05	6.35E-06
209	-9.74E-06	-0.063994	241	-2.07E-05	-0.030994	273	-4.79E-05	0.0010063
210	-1.06E-05	-0.062994	242	-2.31E-05	-0.029994	274	-4.85E-05	0.0020063
211	-9.98E-06	-0.061994	243	-2.37E-05	-0.028994	275	-4.78E-05	0.0030063
212	-9.70E-06	-0.060994	244	-2.46E-05	-0.027994	276	-4.86E-05	0.0040063
213	-8.97E-06	-0.059994	245	-2.31E-05	-0.026994	277	-5.03E-05	0.0050063
214	-1.07E-05	-0.058994	246	-2.48E-05	-0.025994	278	-5.24E-05	0.0060063
215	-9.08E-06	-0.057994	247	-2.47E-05	-0.024994	279	-5.21E-05	0.0070063
216	-1.04E-05	-0.056994	248	-2.33E-05	-0.023994	280	-5.61E-05	0.0080063
217	-9.61E-06	-0.055994	249	-2.58E-05	-0.022994	281	-5.52E-05	0.0090063
218	-1.01E-05	-0.054994	250	-2.66E-05	-0.021994	282	-5.54E-05	0.010006
219	-9.99E-06	-0.053994	251	-2.85E-05	-0.020994	283	-5.84E-05	0.011006
220	-1.07E-05	-0.051994	252	-2.90E-05	-0.019994	284	-5.86E-05	0.012006
221	-1.12E-05	-0.050994	253	-3.05E-05	-0.018994	285	-5.76E-05	0.013006
222	-1.09E-05	-0.049994	254	-3.06E-05	-0.017994	286	-5.70E-05	0.014006

287	-5.52E-05	0.015006	319	-5.24E-05	0.047006	351	-1.06E-04	0.079006
288	-5.38E-05	0.016006	320	-5.63E-05	0.048006	352	-1.10E-04	0.080006
289	-4.91E-05	0.017006	321	-5.73E-05	0.049006	353	-1.12E-04	0.081006
290	-4.79E-05	0.018006	322	-6.16E-05	0.050006	354	-1.12E-04	0.082006
291	-4.55E-05	0.019006	323	-6.45E-05	0.051006	355	-1.13E-04	0.083006
292	-4.53E-05	0.020006	324	-6.67E-05	0.052006	356	-1.17E-04	0.084006
293	-4.37E-05	0.021006	325	-6.98E-05	0.053006	357	-1.20E-04	0.085006
294	-4.05E-05	0.022006	326	-7.30E-05	0.054006	358	-1.21E-04	0.086006
295	-4.01E-05	0.023006	327	-7.12E-05	0.055006	359	-1.24E-04	0.087006
296	-4.04E-05	0.024006	328	-7.03E-05	0.056006	360	-1.25E-04	0.088006
297	-4.12E-05	0.025006	329	-7.23E-05	0.057006	361	-1.23E-04	0.089006
298	-4.02E-05	0.026006	330	-7.11E-05	0.058006	362	-1.28E-04	0.090006
299	-3.91E-05	0.027006	331	-7.13E-05	0.059006	363	-1.30E-04	0.091006
300	-4.01E-05	0.028006	332	-7.71E-05	0.060006	364	-1.34E-04	0.092006
301	-3.91E-05	0.029006	333	-7.90E-05	0.061006	365	-1.37E-04	0.093006
302	-4.12E-05	0.030006	334	-7.60E-05	0.062006	366	-1.47E-04	0.094006
303	-3.93E-05	0.031006	335	-7.72E-05	0.063006	367	-1.51E-04	0.095006
304	-3.78E-05	0.032006	336	-7.88E-05	0.064006	368	-1.58E-04	0.096006
305	-4.05E-05	0.033006	337	-8.02E-05	0.065006	369	-1.67E-04	0.097006
306	-4.19E-05	0.034006	338	-7.82E-05	0.066006	370	-1.73E-04	0.098006
307	-4.29E-05	0.035006	339	-7.74E-05	0.067006	371	-1.71E-04	0.099006
308	-4.17E-05	0.036006	340	-7.98E-05	0.068006	372	-1.71E-04	0.10001
309	-4.16E-05	0.037006	341	-8.08E-05	0.069006	373	-1.74E-04	0.10101
310	-4.30E-05	0.038006	342	-8.51E-05	0.070006	374	-1.74E-04	0.10201
311	-4.37E-05	0.039006	343	-8.79E-05	0.071006	375	-1.76E-04	0.10301
312	-4.52E-05	0.040006	344	-8.87E-05	0.072006	376	-1.82E-04	0.10401
313	-4.53E-05	0.041006	345	-9.07E-05	0.073006	377	-1.86E-04	0.10501
314	-4.62E-05	0.042006	346	-9.37E-05	0.074006	378	-1.87E-04	0.10601
315	-4.58E-05	0.043006	347	-9.43E-05	0.075006	379	-1.93E-04	0.10701
316	-4.76E-05	0.044006	348	-1.01E-04	0.076006	380	-1.99E-04	0.10801
317	-4.66E-05	0.045006	349	-1.03E-04	0.077006	381	-1.99E-04	0.10901
318	-5.05E-05	0.046006	350	-1.05E-04	0.078006	382	-2.05E-04	0.11001

383	-2.09E-04	0.11101	415	-5.91E-04	0.14301	447	-3.33E-03	0.17501
384	-2.10E-04	0.11201	416	-6.19E-04	0.14401	448	-3.52E-03	0.17601
385	-2.14E-04	0.11301	417	-6.47E-04	0.14501	449	-3.81E-03	0.17701
386	-2.15E-04	0.11401	418	-6.77E-04	0.14601	450	-4.09E-03	0.17801
387	-2.21E-04	0.11501	419	-7.17E-04	0.14701	451	-4.47E-03	0.17901
388	-2.30E-04	0.11601	420	-7.43E-04	0.14801	452	-4.91E-03	0.18001
389	-2.38E-04	0.11701	421	-7.75E-04	0.14901			
390	-2.46E-04	0.11801	422	-8.32E-04	0.15001			
391	-2.54E-04	0.11901	423	-9.01E-04	0.15101			
392	-2.47E-04	0.12001	424	-9.51E-04	0.15201			
393	-2.56E-04	0.12101	425	-1.01E-03	0.15301			
394	-2.70E-04	0.12201	426	-1.08E-03	0.15401			
395	-2.83E-04	0.12301	427	-1.17E-03	0.15501			
396	-2.96E-04	0.12401	428	-1.23E-03	0.15601			
397	-3.08E-04	0.12501	429	-1.30E-03	0.15701			
398	-3.25E-04	0.12601	430	-1.38E-03	0.15801			
399	-3.40E-04	0.12701	431	-1.41E-03	0.15901			
400	-3.44E-04	0.12801	432	-1.38E-03	0.16001			
401	-3.53E-04	0.12901	433	-1.38E-03	0.16101			
402	-3.70E-04	0.13001	434	-1.42E-03	0.16201			
403	-3.83E-04	0.13101	435	-1.50E-03	0.16301			
404	-3.95E-04	0.13201	436	-1.55E-03	0.16401			
405	-4.07E-04	0.13301	437	-1.61E-03	0.16501			
406	-4.25E-04	0.13401	438	-1.68E-03	0.16601			
407	-4.53E-04	0.13501	439	-1.85E-03	0.16701			
408	-4.65E-04	0.13601	440	-2.00E-03	0.16801			
409	-4.86E-04	0.13701	441	-2.09E-03	0.16901			
410	-4.89E-04	0.13801	442	-2.23E-03	0.17001			
411	-5.08E-04	0.13901	443	-2.43E-03	0.17101			
412	-5.18E-04	0.14001	444	-2.61E-03	0.17201			
413	-5.27E-04	0.14101	445	-2.83E-03	0.17301			
414	-5.56E-04	0.14201	446	-3.09E-03	0.17401			

Ti6Al4V in 3.5% NaCl Solution		
	Current(A)	Potential (V)
1	-8.61E-05	-0.52023
2	-7.38E-06	-0.51923
3	2.37E-06	-0.51823
4	3.45E-06	-0.51723
5	3.41E-06	-0.51623
6	3.62E-06	-0.51523
7	3.30E-06	-0.51423
8	3.48E-06	-0.51323
9	3.05E-06	-0.51223
10	3.34E-06	-0.51123
11	3.14E-06	-0.51023
12	3.21E-06	-0.50923
13	3.04E-06	-0.50823
14	3.03E-06	-0.50723
15	2.83E-06	-0.50623
16	3.07E-06	-0.50523
17	2.80E-06	-0.50423
18	2.87E-06	-0.50323
19	3.18E-06	-0.50223
20	2.50E-06	-0.50123
21	2.98E-06	-0.50023
22	2.54E-06	-0.49923
23	2.79E-06	-0.49823
24	2.91E-06	-0.49723
25	2.75E-06	-0.49623
26	2.55E-06	-0.49523
27	2.64E-06	-0.49423
28	2.64E-06	-0.49323
29	2.58E-06	-0.49223
30	2.36E-06	-0.49123

31	2.48E-06	-0.49023
32	2.52E-06	-0.48923
33	2.34E-06	-0.48823
34	2.38E-06	-0.48723
35	2.52E-06	-0.48623
36	2.43E-06	-0.48523
37	2.21E-06	-0.48423
38	2.30E-06	-0.48323
39	2.31E-06	-0.48223
40	2.10E-06	-0.48123
41	2.10E-06	-0.48023
42	2.09E-06	-0.47923
43	1.80E-06	-0.47823
44	1.93E-06	-0.47723
45	2.00E-06	-0.47623
46	1.94E-06	-0.47523
47	2.20E-06	-0.47423
48	1.74E-06	-0.47323
49	2.00E-06	-0.47223
50	1.95E-06	-0.47123
51	1.38E-06	-0.47023
52	1.67E-06	-0.46923
53	1.86E-06	-0.46823
54	1.52E-06	-0.46723
55	1.44E-06	-0.46623
56	1.54E-06	-0.46523
57	1.35E-06	-0.46423
58	1.52E-06	-0.46323
59	1.74E-06	-0.46223
60	1.33E-06	-0.46123
61	1.73E-06	-0.46023
62	1.53E-06	-0.45923

63	1.21E-06	-0.45823
64	1.59E-06	-0.45723
65	1.18E-06	-0.45623
66	1.24E-06	-0.45523
67	1.59E-06	-0.45423
68	1.60E-06	-0.45323
69	1.23E-06	-0.45223
70	1.11E-06	-0.45123
71	1.36E-06	-0.45023
72	1.03E-06	-0.44923
73	1.18E-06	-0.44823
74	1.14E-06	-0.44723
75	1.18E-06	-0.44623
76	1.02E-06	-0.44523
77	1.14E-06	-0.44423
78	1.18E-06	-0.44323
79	1.17E-06	-0.44223
80	1.06E-06	-0.44123
81	9.89E-07	-0.44023
82	1.04E-06	-0.43823
83	1.29E-06	-0.43723
84	8.70E-07	-0.43623
85	6.44E-07	-0.43423
86	7.38E-07	-0.43223
87	6.38E-07	-0.43023
88	1.07E-06	-0.42823
89	6.37E-07	-0.42723
90	7.33E-07	-0.42523
91	5.48E-07	-0.42323
92	6.17E-07	-0.42123
93	6.89E-07	-0.41923
94	5.72E-07	-0.41723

95	2.64E-07	-0.41523		127	-4.37E-07	-0.35123		159	-6.63E-07	-0.29323
96	7.28E-07	-0.41323		128	-2.76E-07	-0.34923		160	-1.05E-06	-0.29123
97	3.03E-07	-0.41123		129	-3.96E-07	-0.34723		161	-8.92E-07	-0.29023
98	3.13E-08	-0.40923		130	-5.41E-07	-0.34523		162	-8.80E-07	-0.28823
99	3.73E-07	-0.40723		131	-4.82E-07	-0.34323		163	-7.48E-07	-0.28623
100	1.38E-07	-0.40523		132	-6.22E-07	-0.34123		164	-8.50E-07	-0.28423
101	2.02E-07	-0.40323		133	-6.03E-07	-0.33923		165	-1.24E-06	-0.28223
102	-1.58E-07	-0.40123		134	-6.36E-07	-0.33723		166	-1.20E-06	-0.28123
103	1.91E-07	-0.39923		135	-4.16E-07	-0.33523		167	-1.29E-06	-0.28023
104	1.59E-07	-0.39723		136	-8.93E-07	-0.33323		168	-1.04E-06	-0.27923
105	-1.22E-07	-0.39523		137	-7.08E-07	-0.33123		169	-9.46E-07	-0.27823
106	-8.07E-08	-0.39323		138	-9.64E-07	-0.32923		170	-1.10E-06	-0.27623
107	-1.06E-07	-0.39123		139	-7.63E-07	-0.32723		171	-9.62E-07	-0.27523
108	7.10E-08	-0.38923		140	-8.88E-07	-0.32523		172	-1.03E-06	-0.27323
109	-2.20E-07	-0.38723		141	-9.60E-07	-0.32323		173	-8.61E-07	-0.27223
110	-3.77E-07	-0.38523		142	-1.27E-06	-0.32123		174	-8.12E-07	-0.27023
111	-1.95E-07	-0.38323		143	-7.89E-07	-0.32023		175	-8.90E-07	-0.26823
112	3.60E-08	-0.38123		144	-6.32E-07	-0.31823		176	-9.12E-07	-0.26623
113	1.22E-08	-0.37923		145	-8.15E-07	-0.31623		177	-8.57E-07	-0.26423
114	-9.65E-09	-0.37723		146	-7.32E-07	-0.31423		178	-6.69E-07	-0.26223
115	-2.05E-07	-0.37523		147	-7.67E-07	-0.31223		179	-8.13E-07	-0.26023
116	-5.33E-07	-0.37323		148	-3.61E-07	-0.31023		180	-1.17E-06	-0.25823
117	-2.20E-07	-0.37123		149	-5.63E-07	-0.30823		181	-1.24E-06	-0.25723
118	-2.95E-07	-0.36923		150	-6.66E-07	-0.30623		182	-1.11E-06	-0.25623
119	-6.37E-07	-0.36723		151	-1.16E-06	-0.30423		183	-1.09E-06	-0.25523
120	-1.07E-07	-0.36523		152	-6.17E-07	-0.30323		184	-1.17E-06	-0.25423
121	-7.96E-07	-0.36323		153	-1.13E-06	-0.30123		185	-9.87E-07	-0.25323
122	-3.89E-07	-0.36123		154	-1.31E-06	-0.30023		186	-8.36E-07	-0.25123
123	-3.93E-07	-0.35923		155	-8.03E-07	-0.29923		187	-1.14E-06	-0.24923
124	-4.77E-07	-0.35723		156	-1.09E-06	-0.29723		188	-1.24E-06	-0.24823
125	-6.19E-07	-0.35523		157	-8.96E-07	-0.29623		189	-1.03E-06	-0.24723
126	-5.71E-07	-0.35323		158	-1.21E-06	-0.29423		190	-1.56E-06	-0.24623

191	-8.77E-07	-0.24523	223	-1.37E-06	-0.21223	255	-1.27E-06	-0.18023
192	-1.16E-06	-0.24323	224	-1.62E-06	-0.21123	256	-1.32E-06	-0.17923
193	-1.29E-06	-0.24223	225	-1.44E-06	-0.21023	257	-1.37E-06	-0.17823
194	-1.51E-06	-0.24123	226	-1.31E-06	-0.20923	258	-1.38E-06	-0.17723
195	-1.36E-06	-0.24023	227	-1.12E-06	-0.20823	259	-1.49E-06	-0.17623
196	-1.47E-06	-0.23923	228	-1.25E-06	-0.20723	260	-1.47E-06	-0.17523
197	-1.18E-06	-0.23823	229	-1.33E-06	-0.20623	261	-1.37E-06	-0.17423
198	-1.37E-06	-0.23723	230	-1.41E-06	-0.20523	262	-1.64E-06	-0.17323
199	-1.22E-06	-0.23623	231	-1.25E-06	-0.20423	263	-1.35E-06	-0.17223
200	-1.41E-06	-0.23523	232	-1.13E-06	-0.20323	264	-1.43E-06	-0.17123
201	-1.19E-06	-0.23423	233	-1.59E-06	-0.20223	265	-1.53E-06	-0.17023
202	-1.52E-06	-0.23323	234	-1.30E-06	-0.20123	266	-1.41E-06	-0.16923
203	-1.36E-06	-0.23223	235	-1.46E-06	-0.20023	267	-1.55E-06	-0.16823
204	-1.03E-06	-0.23123	236	-1.48E-06	-0.19923	268	-1.99E-06	-0.16723
205	-1.14E-06	-0.23023	237	-1.52E-06	-0.19823	269	-1.34E-06	-0.16623
206	-1.29E-06	-0.22923	238	-1.65E-06	-0.19723	270	-1.52E-06	-0.16523
207	-1.12E-06	-0.22823	239	-1.65E-06	-0.19623	271	-1.76E-06	-0.16423
208	-1.18E-06	-0.22723	240	-1.60E-06	-0.19523	272	-1.61E-06	-1.63E-01
209	-1.57E-06	-0.22623	241	-1.39E-06	-0.19423	273	-1.68E-06	-0.16223
210	-1.28E-06	-0.22523	242	-1.50E-06	-0.19323	274	-1.33E-06	-0.16123
211	-1.68E-06	-0.22423	243	-1.56E-06	-0.19223	275	-1.45E-06	-0.16023
212	-1.31E-06	-0.22323	244	-1.37E-06	-0.19123	276	-1.62E-06	-0.15923
213	-1.31E-06	-0.22223	245	-1.48E-06	-0.19023	277	-1.48E-06	-0.15823
214	-1.17E-06	-0.22123	246	-1.56E-06	-0.18923	278	-1.77E-06	-0.15723
215	-1.28E-06	-0.22023	247	-1.49E-06	-0.18823	279	-1.27E-06	-0.15623
216	-1.40E-06	-0.21923	248	-1.74E-06	-0.18723	280	-1.66E-06	-0.15523
217	-1.45E-06	-0.21823	249	-1.22E-06	-0.18623	281	-1.69E-06	-0.15423
218	-1.25E-06	-0.21723	250	-1.36E-06	-0.18523	282	-1.54E-06	-0.15323
219	-1.19E-06	-0.21623	251	-1.56E-06	-0.18423	283	-1.95E-06	-0.15223
220	-1.25E-06	-0.21523	252	-1.46E-06	-0.18323	284	-1.70E-06	-0.15123
221	-1.42E-06	-0.21423	253	-1.19E-06	-0.18223	285	-1.83E-06	-0.15023
222	-1.27E-06	-0.21323	254	-1.43E-06	-0.18123	286	-2.19E-06	-0.14923

287	-1.65E-06	-0.14823	319	-1.54E-06	-0.11623	351	-2.08E-06	-0.084227
288	-1.69E-06	-0.14723	320	-1.96E-06	-0.11523	352	-2.04E-06	-0.083227
289	-1.98E-06	-0.14623	321	-1.89E-06	-0.11423	353	-1.98E-06	-0.082227
290	-1.42E-06	-0.14523	322	-2.10E-06	-0.11323	354	-1.88E-06	-0.081227
291	-1.92E-06	-0.14423	323	-1.67E-06	-0.11223	355	-2.14E-06	-0.080227
292	-1.40E-06	-0.14323	324	-2.14E-06	-0.11123	356	-1.93E-06	-0.079227
293	-1.79E-06	-0.14223	325	-1.68E-06	-0.11023	357	-2.18E-06	-0.078227
294	-1.69E-06	-0.14123	326	-2.12E-06	-0.10923	358	-1.80E-06	-0.077227
295	-1.79E-06	-0.14023	327	-1.75E-06	-0.10823	359	-2.32E-06	-0.076227
296	-1.61E-06	-0.13923	328	-1.69E-06	-0.10723	360	-1.96E-06	-0.075227
297	-1.71E-06	-0.13823	329	-1.84E-06	-0.10623	361	-2.22E-06	-0.074227
298	-1.59E-06	-0.13723	330	-1.99E-06	-0.10523	362	-1.96E-06	-0.073227
299	-1.69E-06	-0.13623	331	-1.81E-06	-0.10423	363	-2.12E-06	-0.072227
300	-1.63E-06	-0.13523	332	-1.88E-06	-0.10323	364	-1.75E-06	-0.071227
301	-1.39E-06	-0.13423	333	-1.93E-06	-0.10223	365	-2.09E-06	-0.070227
302	-1.98E-06	-0.13323	334	-1.60E-06	-0.10123	366	-2.03E-06	-0.069227
303	-1.38E-06	-0.13223	335	-2.02E-06	-0.10023	367	-2.27E-06	-0.068227
304	-1.92E-06	-0.13123	336	-1.96E-06	-0.099227	368	-2.07E-06	-0.067227
305	-1.36E-06	-0.13023	337	-1.64E-06	-0.098227	369	-2.27E-06	-0.066227
306	-2.04E-06	-0.12923	338	-2.14E-06	-0.097227	370	-1.89E-06	-0.065227
307	-1.75E-06	-0.12823	339	-1.77E-06	-0.096227	371	-2.39E-06	-0.064227
308	-1.76E-06	-0.12723	340	-2.00E-06	-0.095227	372	-2.08E-06	-0.063227
309	-1.63E-06	-0.12623	341	-1.93E-06	-0.094227	373	-2.19E-06	-0.062227
310	-1.65E-06	-0.12523	342	-2.10E-06	-0.093227	374	-2.23E-06	-0.061227
311	-1.72E-06	-0.12423	343	-2.04E-06	-0.092227	375	-2.42E-06	-0.060227
312	-1.71E-06	-0.12323	344	-2.02E-06	-0.091227	376	-2.16E-06	-0.059227
313	-1.85E-06	-0.12223	345	-2.03E-06	-0.090227	377	-2.05E-06	-0.058227
314	-1.85E-06	-0.12123	346	-1.95E-06	-0.089227	378	-2.20E-06	-0.057227
315	-1.74E-06	-0.12023	347	-2.04E-06	-0.088227	379	-2.12E-06	-0.056227
316	-1.83E-06	-0.11923	348	-1.95E-06	-0.087227	380	-2.02E-06	-0.055227
317	-1.96E-06	-0.11823	349	-2.19E-06	-0.086227	381	-2.30E-06	-0.054227
318	-1.96E-06	-0.11723	350	-1.89E-06	-0.085227	382	-2.10E-06	-0.053227

383	-2.31E-06	-0.052227	415	-2.29E-06	-0.020227	447	-2.42E-06	0.011773
384	-1.87E-06	-0.051227	416	-2.33E-06	-0.019227	448	-2.32E-06	0.012773
385	-1.87E-06	-0.050227	417	-2.18E-06	-0.018227	449	-2.40E-06	0.013773
386	-2.14E-06	-0.049227	418	-2.17E-06	-0.017227	450	-2.42E-06	0.014773
387	-2.23E-06	-0.048227	419	-2.65E-06	-0.016227	451	-2.24E-06	0.015773
388	-2.26E-06	-0.047227	420	-2.25E-06	-0.015227	452	-2.41E-06	0.016773
389	-2.36E-06	-0.046227	421	-2.55E-06	-0.014227	453	-2.54E-06	0.017773
390	-2.03E-06	-0.045227	422	-2.24E-06	-0.013227	454	-2.47E-06	0.018773
391	-2.31E-06	-0.044227	423	-2.52E-06	-0.012227	455	-2.54E-06	0.019773
392	-2.36E-06	-0.043227	424	-2.09E-06	-0.011227	456	-2.63E-06	0.020773
393	-2.42E-06	-0.042227	425	-2.16E-06	-0.010227	457	-2.29E-06	0.021773
394	-2.17E-06	-0.041227	426	-2.21E-06	-0.0092271	458	-2.82E-06	0.022773
395	-2.12E-06	-0.040227	427	-2.35E-06	-0.0082271	459	-2.46E-06	0.023773
396	-2.33E-06	-0.039227	428	-2.36E-06	-0.0072271	460	-2.71E-06	0.024773
397	-2.27E-06	-0.038227	429	-2.31E-06	-0.0062271	461	-2.22E-06	0.025773
398	-2.59E-06	-0.037227	430	-2.13E-06	-0.0052271	462	-2.51E-06	0.026773
399	-2.04E-06	-0.036227	431	-2.29E-06	-0.0042271	463	-2.28E-06	0.027773
400	-2.43E-06	-0.035227	432	-2.16E-06	-0.0032271	464	-2.65E-06	0.028773
401	-2.11E-06	-0.034227	433	-2.29E-06	-0.0022271	465	-2.43E-06	0.029773
402	-2.23E-06	-0.033227	434	-2.58E-06	-0.0012271	466	-2.69E-06	0.030773
403	-2.26E-06	-0.032227	435	-2.06E-06	-0.0002271	467	-2.49E-06	0.031773
404	-2.42E-06	-0.031227	436	-2.61E-06	0.000773	468	-2.63E-06	0.032773
405	-2.29E-06	-0.030227	437	-2.33E-06	0.0017729	469	-2.34E-06	0.033773
406	-2.17E-06	-0.029227	438	-2.38E-06	0.0027729	470	-2.71E-06	0.034773
407	-2.44E-06	-0.028227	439	-2.40E-06	0.0037729	471	-2.58E-06	0.035773
408	-2.05E-06	-0.027227	440	-2.54E-06	0.0047729	472	-2.64E-06	0.036773
409	-2.30E-06	-0.026227	441	-2.33E-06	0.0057729	473	-2.64E-06	0.037773
410	-2.33E-06	-0.025227	442	-2.67E-06	0.0067729	474	-2.59E-06	0.038773
411	-2.20E-06	-0.024227	443	-2.48E-06	0.0077729	475	-2.64E-06	0.039773
412	-2.49E-06	-0.023227	444	-2.36E-06	0.0087729	476	-2.76E-06	0.040773
413	-2.10E-06	-0.022227	445	-2.41E-06	0.0097729	477	-2.46E-06	0.041773
414	-2.26E-06	-0.021227	446	-2.28E-06	0.010773	478	-2.43E-06	0.042773

479	-2.72E-06	0.043773	511	-2.75E-06	0.075773	543	-2.70E-06	0.10777
480	-2.48E-06	0.044773	512	-2.85E-06	0.076773	544	-2.76E-06	0.10877
481	-2.62E-06	0.045773	513	-2.38E-06	0.077773	545	-2.98E-06	0.10977
482	-2.67E-06	0.046773	514	-2.97E-06	0.078773	546	-2.83E-06	0.11077
483	-2.68E-06	0.047773	515	-2.32E-06	0.079773	547	-2.76E-06	0.11177
484	-3.04E-06	0.048773	516	-2.96E-06	0.080773	548	-2.69E-06	0.11277
485	-2.21E-06	0.049773	517	-2.69E-06	0.081773	549	-2.70E-06	0.11377
486	-2.69E-06	0.050773	518	-2.94E-06	0.082773	550	-2.97E-06	0.11477
487	-2.40E-06	0.051773	519	-2.60E-06	0.083773	551	-2.62E-06	0.11577
488	-2.57E-06	0.052773	520	-2.95E-06	0.084773	552	-2.66E-06	0.11677
489	-2.76E-06	0.053773	521	-2.85E-06	0.085773	553	-3.01E-06	0.11777
490	-2.53E-06	0.054773	522	-2.56E-06	0.086773	554	-2.86E-06	0.11877
491	-2.36E-06	0.055773	523	-2.83E-06	0.087773	555	-3.04E-06	0.11977
492	-2.33E-06	0.056773	524	-2.49E-06	0.088773	556	-2.91E-06	0.12077
493	-2.76E-06	0.057773	525	-2.81E-06	0.089773	557	-2.68E-06	0.12177
494	-2.46E-06	0.058773	526	-2.78E-06	0.090773	558	-2.57E-06	0.12277
495	-2.71E-06	0.059773	527	-2.87E-06	0.091773	559	-2.94E-06	0.12377
496	-2.67E-06	0.060773	528	-3.01E-06	0.092773	560	-2.67E-06	0.12477
497	-2.53E-06	0.061773	529	-2.64E-06	0.093773	561	-2.87E-06	0.12577
498	-2.63E-06	0.062773	530	-2.57E-06	0.094773	562	-2.95E-06	0.12677
499	-2.89E-06	0.063773	531	-2.83E-06	0.095773	563	-2.73E-06	0.12777
500	-2.58E-06	0.064773	532	-2.91E-06	0.096773	564	-3.08E-06	0.12877
501	-2.72E-06	0.065773	533	-2.72E-06	0.097773	565	-2.65E-06	0.12977
502	-2.54E-06	0.066773	534	-2.75E-06	0.098773	566	-2.84E-06	0.13077
503	-2.63E-06	0.067773	535	-2.72E-06	0.099773	567	-2.85E-06	0.13177
504	-2.86E-06	0.068773	536	-2.87E-06	0.10077	568	-2.84E-06	0.13277
505	-2.81E-06	0.069773	537	-2.74E-06	0.10177	569	-2.81E-06	0.13377
506	-2.87E-06	0.070773	538	-2.80E-06	0.10277	570	-2.98E-06	0.13477
507	-2.61E-06	0.071773	539	-2.78E-06	0.10377	571	-2.58E-06	0.13577
508	-2.61E-06	0.072773	540	-2.71E-06	0.10477	572	-2.95E-06	0.13677
509	-2.67E-06	0.073773	541	-2.66E-06	0.10577	573	-2.84E-06	0.13777
510	-2.56E-06	0.074773	542	-3.02E-06	0.10677	574	-2.97E-06	0.13877

575	-2.63E-06	0.13977	607	-2.81E-06	0.17177	639	-3.14E-06	0.20377
576	-2.78E-06	0.14077	608	-3.05E-06	0.17277	640	-2.70E-06	0.20477
577	-2.58E-06	0.14177	609	-2.49E-06	0.17377	641	-2.93E-06	0.20577
578	-2.92E-06	0.14277	610	-3.03E-06	0.17477	642	-2.72E-06	0.20677
579	-3.11E-06	0.14377	611	-2.84E-06	0.17577	643	-3.10E-06	0.20777
580	-2.95E-06	0.14477	612	-3.07E-06	0.17677	644	-2.89E-06	0.20877
581	-2.94E-06	0.14577	613	-2.74E-06	0.17777	645	-3.08E-06	0.20977
582	-3.19E-06	0.14677	614	-2.98E-06	0.17877	646	-2.77E-06	0.21077
583	-2.87E-06	0.14777	615	-2.93E-06	0.17977	647	-3.03E-06	0.21177
584	-2.78E-06	0.14877	616	-3.11E-06	0.18077	648	-2.91E-06	0.21277
585	-2.68E-06	0.14977	617	-2.90E-06	0.18177	649	-2.76E-06	0.21377
586	-2.83E-06	0.15077	618	-2.93E-06	0.18277	650	-3.06E-06	0.21477
587	-2.97E-06	0.15177	619	-2.48E-06	0.18377	651	-3.15E-06	0.21577
588	-2.63E-06	0.15277	620	-3.03E-06	0.18477	652	-2.87E-06	0.21677
589	-3.04E-06	0.15377	621	-2.80E-06	0.18577	653	-2.96E-06	0.21777
590	-2.90E-06	0.15477	622	-2.74E-06	0.18677	654	-3.01E-06	0.21877
591	-2.72E-06	0.15577	623	-2.96E-06	0.18777	655	-2.87E-06	0.21977
592	-2.96E-06	0.15677	624	-3.00E-06	0.18877	656	-2.99E-06	0.22077
593	-3.10E-06	0.15777	625	-2.78E-06	0.18977	657	-2.57E-06	0.22177
594	-2.74E-06	0.15877	626	-3.18E-06	0.19077	658	-3.07E-06	0.22277
595	-3.03E-06	0.15977	627	-2.60E-06	0.19177	659	-2.79E-06	0.22377
596	-2.92E-06	0.16077	628	-2.99E-06	0.19277	660	-2.93E-06	0.22477
597	-2.83E-06	0.16177	629	-2.90E-06	0.19377	661	-2.80E-06	0.22577
598	-2.76E-06	0.16277	630	-3.10E-06	0.19477	662	-3.08E-06	0.22677
599	-2.86E-06	0.16377	631	-2.75E-06	0.19577	663	-2.80E-06	0.22777
600	-2.89E-06	0.16477	632	-2.61E-06	0.19677	664	-2.91E-06	0.22877
601	-3.09E-06	0.16577	633	-3.06E-06	0.19777	665	-3.15E-06	0.22977
602	-3.08E-06	0.16677	634	-2.88E-06	0.19877	666	-2.95E-06	0.23077
603	-3.22E-06	0.16777	635	-3.18E-06	0.19977	667	-2.88E-06	0.23177
604	-2.74E-06	0.16877	636	-2.79E-06	0.20077	668	-3.02E-06	0.23277
605	-2.72E-06	0.16977	637	-3.20E-06	0.20177	669	-3.01E-06	0.23377
606	-3.05E-06	0.17077	638	-2.86E-06	0.20277	670	-2.91E-06	0.23477

671	-3.09E-06	0.23577		703	-3.12E-06	0.26777		735	-3.21E-06	0.29977
672	-2.95E-06	0.23677		704	-3.34E-06	0.26877		736	-3.05E-06	0.30077
673	-2.99E-06	0.23777		705	-3.14E-06	0.26977		737	-3.22E-06	0.30177
674	-2.99E-06	0.23877		706	-3.04E-06	0.27077		738	-3.23E-06	0.30277
675	-2.75E-06	0.23977		707	-3.09E-06	0.27177		739	-2.98E-06	0.30377
676	-3.04E-06	0.24077		708	-2.99E-06	0.27277		740	-3.25E-06	0.30477
677	-3.06E-06	0.24177		709	-3.05E-06	0.27377		741	-2.88E-06	0.30577
678	-3.13E-06	0.24277		710	-3.26E-06	0.27477		742	-3.29E-06	0.30677
679	-3.26E-06	0.24377		711	-2.86E-06	0.27577		743	-2.91E-06	0.30777
680	-2.95E-06	0.24477		712	-2.78E-06	0.27677		744	-3.30E-06	0.30877
681	-3.39E-06	0.24577		713	-3.10E-06	0.27777		745	-2.98E-06	0.30977
682	-3.11E-06	0.24677		714	-2.99E-06	0.27877		746	-2.97E-06	0.31077
683	-2.89E-06	0.24777		715	-3.19E-06	0.27977		747	-2.96E-06	0.31177
684	-2.99E-06	0.24877		716	-2.89E-06	0.28077		748	-3.04E-06	0.31277
685	-2.75E-06	0.24977		717	-2.95E-06	0.28177		749	-3.45E-06	0.31377
686	-3.03E-06	0.25077		718	-3.10E-06	0.28277		750	-3.13E-06	0.31477
687	-3.07E-06	0.25177		719	-3.20E-06	0.28377		751	-3.32E-06	0.31577
688	-2.94E-06	0.25277		720	-3.03E-06	0.28477		752	-2.98E-06	0.31677
689	-3.14E-06	0.25377		721	-3.02E-06	0.28577		753	-3.10E-06	0.31777
690	-2.97E-06	0.25477		722	-2.96E-06	0.28677		754	-3.12E-06	0.31877
691	-2.88E-06	0.25577		723	-2.95E-06	0.28777		755	-3.06E-06	0.31977
692	-3.22E-06	0.25677		724	-3.24E-06	0.28877		756	-3.23E-06	0.32077
693	-2.91E-06	0.25777		725	-3.05E-06	0.28977		757	-3.11E-06	0.32177
694	-3.00E-06	0.25877		726	-3.04E-06	0.29077		758	-3.07E-06	0.32277
695	-3.17E-06	0.25977		727	-3.23E-06	0.29177		759	-3.01E-06	0.32377
696	-3.02E-06	0.26077		728	-2.88E-06	0.29277		760	-3.35E-06	0.32477
697	-3.04E-06	0.26177		729	-3.12E-06	0.29377		761	-2.83E-06	0.32577
698	-3.21E-06	0.26277		730	-2.78E-06	0.29477		762	-3.16E-06	0.32677
699	-2.77E-06	0.26377		731	-3.10E-06	0.29577		763	-3.25E-06	0.32777
700	-3.21E-06	0.26477		732	-3.26E-06	0.29677		764	-3.13E-06	0.32877
701	-3.27E-06	0.26577		733	-2.94E-06	0.29777		765	-3.41E-06	0.32977
702	-3.11E-06	0.26677		734	-3.00E-06	0.29877		766	-3.28E-06	0.33077

767	-3.16E-06	0.33177		799	-3.42E-06	0.36377		831	-3.27E-06	0.39577
768	-3.01E-06	0.33277		800	-3.15E-06	0.36477		832	-3.16E-06	0.39677
769	-3.10E-06	0.33377		801	-3.13E-06	0.36577		833	-3.28E-06	0.39777
770	-2.96E-06	0.33477		802	-3.41E-06	0.36677		834	-3.19E-06	0.39877
771	-3.24E-06	0.33577		803	-3.21E-06	0.36777		835	-3.24E-06	0.39977
772	-3.24E-06	0.33677		804	-3.30E-06	0.36877		836	-3.19E-06	0.40077
773	-3.27E-06	0.33777		805	-3.13E-06	0.36977		837	-3.31E-06	0.40177
774	-3.21E-06	0.33877		806	-3.02E-06	0.37077		838	-3.42E-06	0.40277
775	-3.10E-06	0.33977		807	-3.37E-06	0.37177		839	-3.40E-06	0.40377
776	-3.27E-06	0.34077		808	-3.24E-06	0.37277		840	-3.27E-06	0.40477
777	-3.28E-06	0.34177		809	-3.29E-06	0.37377		841	-3.25E-06	0.40577
778	-3.14E-06	0.34277		810	-3.19E-06	0.37477		842	-3.16E-06	0.40677
779	-3.11E-06	0.34377		811	-2.95E-06	0.37577		843	-3.31E-06	0.40777
780	-3.24E-06	0.34477		812	-3.32E-06	0.37677		844	-3.43E-06	0.40877
781	-3.23E-06	0.34577		813	-3.01E-06	0.37777		845	-3.14E-06	0.40977
782	-3.16E-06	0.34677		814	-3.28E-06	0.37877		846	-3.52E-06	0.41077
783	-3.31E-06	0.34777		815	-3.10E-06	0.37977		847	-3.19E-06	0.41177
784	-3.17E-06	0.34877		816	-3.39E-06	0.38077		848	-3.36E-06	0.41277
785	-3.38E-06	0.34977		817	-3.26E-06	0.38177		849	-3.25E-06	0.41377
786	-3.11E-06	0.35077		818	-3.12E-06	0.38277		850	-3.46E-06	0.41477
787	-3.20E-06	0.35177		819	-3.49E-06	0.38377		851	-3.28E-06	0.41577
788	-3.07E-06	0.35277		820	-3.32E-06	0.38477		852	-3.41E-06	0.41677
789	-3.24E-06	0.35377		821	-3.41E-06	0.38577		853	-3.04E-06	0.41777
790	-3.32E-06	0.35477		822	-3.18E-06	0.38677		854	-3.22E-06	0.41877
791	-3.30E-06	0.35577		823	-3.37E-06	0.38777		855	-3.49E-06	0.41977
792	-3.54E-06	0.35677		824	-3.09E-06	0.38877		856	-3.43E-06	0.42077
793	-3.21E-06	0.35777		825	-3.30E-06	0.38977		857	-3.43E-06	0.42177
794	-3.04E-06	0.35877		826	-3.20E-06	0.39077		858	-3.24E-06	0.42277
795	-3.42E-06	0.35977		827	-3.27E-06	0.39177		859	-3.40E-06	0.42377
796	-3.23E-06	0.36077		828	-3.48E-06	0.39277		860	-3.55E-06	0.42477
797	-2.74E-06	0.36177		829	-3.39E-06	0.39377		861	-3.16E-06	0.42577
798	-3.17E-06	0.36277		830	-3.36E-06	0.39477		862	-3.48E-06	0.42677

863	-3.20E-06	0.42777	895	-3.19E-06	0.45977	927	-3.41E-06	0.49177
864	-3.38E-06	0.42877	896	-3.39E-06	0.46077	928	-3.39E-06	0.49277
865	-3.62E-06	0.42977	897	-3.34E-06	0.46177	929	-3.78E-06	0.49377
866	-3.22E-06	0.43077	898	-3.48E-06	0.46277	930	-3.79E-06	0.49477
867	-3.52E-06	0.43177	899	-3.23E-06	0.46377	931	-3.19E-06	0.49577
868	-3.29E-06	0.43277	900	-3.29E-06	0.46477	932	-3.64E-06	0.49677
869	-3.43E-06	0.43377	901	-3.31E-06	0.46577	933	-3.54E-06	0.49777
870	-3.42E-06	0.43477	902	-3.54E-06	0.46677	934	-3.44E-06	0.49877
871	-3.27E-06	0.43577	903	-3.26E-06	0.46777	935	-3.50E-06	0.49977
872	-3.43E-06	0.43677	904	-3.75E-06	0.46877	936	-3.76E-06	0.50077
873	-3.36E-06	0.43777	905	-3.07E-06	0.46977	937	-3.71E-06	0.50177
874	-3.01E-06	0.43877	906	-3.17E-06	0.47077	938	-3.49E-06	0.50277
875	-3.29E-06	0.43977	907	-3.49E-06	0.47177	939	-3.50E-06	0.50377
876	-3.74E-06	0.44077	908	-3.51E-06	0.47277	940	-3.87E-06	0.50477
877	-3.10E-06	0.44177	909	-3.28E-06	0.47377	941	-3.29E-06	0.50577
878	-3.30E-06	0.44277	910	-3.36E-06	0.47477	942	-3.76E-06	0.50677
879	-3.33E-06	0.44377	911	-3.60E-06	0.47577	943	-3.75E-06	0.50777
880	-3.41E-06	0.44477	912	-3.52E-06	0.47677	944	-3.53E-06	0.50877
881	-3.46E-06	0.44577	913	-3.86E-06	0.47777	945	-3.84E-06	0.50977
882	-3.59E-06	0.44677	914	-3.22E-06	0.47877	946	-3.47E-06	0.51077
883	-3.38E-06	0.44777	915	-3.37E-06	0.47977	947	-3.34E-06	0.51177
884	-3.38E-06	0.44877	916	-3.24E-06	0.48077	948	-3.76E-06	0.51277
885	-3.53E-06	0.44977	917	-3.48E-06	0.48177	949	-3.27E-06	0.51377
886	-3.49E-06	0.45077	918	-3.39E-06	0.48277	950	-3.52E-06	0.51477
887	-3.42E-06	0.45177	919	-3.57E-06	0.48377	951	-3.37E-06	0.51577
888	-3.56E-06	0.45277	920	-3.43E-06	0.48477	952	-3.86E-06	0.51677
889	-3.18E-06	0.45377	921	-3.15E-06	0.48577	953	-4.01E-06	0.51777
890	-3.18E-06	0.45477	922	-3.36E-06	0.48677	954	-3.61E-06	0.51877
891	-3.36E-06	0.45577	923	-3.30E-06	0.48777	955	-3.55E-06	0.51977
892	-3.29E-06	0.45677	924	-3.58E-06	0.48877	956	-3.65E-06	0.52077
893	-3.25E-06	0.45777	925	-3.54E-06	0.48977	957	-3.53E-06	0.52177
894	-3.60E-06	0.45877	926	-3.49E-06	0.49077	958	-3.76E-06	0.52277

959	-3.79E-06	0.52377	991	-3.95E-06	0.55577	1023	-3.78E-06	0.58777
960	-3.46E-06	0.52477	992	-3.54E-06	0.55677	1024	-3.80E-06	0.58877
961	-3.66E-06	0.52577	993	-3.93E-06	0.55777	1025	-3.77E-06	0.58977
962	-3.81E-06	0.52677	994	-3.87E-06	0.55877	1026	-3.82E-06	0.59077
963	-3.31E-06	0.52777	995	-3.92E-06	0.55977	1027	-3.73E-06	0.59177
964	-3.60E-06	0.52877	996	-3.79E-06	0.56077	1028	-3.91E-06	0.59277
965	-3.58E-06	0.52977	997	-3.58E-06	0.56177	1029	-3.94E-06	0.59377
966	-3.68E-06	0.53077	998	-3.95E-06	0.56277	1030	-3.68E-06	0.59477
967	-3.46E-06	0.53177	999	-3.47E-06	0.56377	1031	-3.79E-06	0.59577
968	-3.52E-06	0.53277	1000	-3.85E-06	0.56477	1032	-3.81E-06	0.59677
969	-3.94E-06	0.53377	1001	-3.69E-06	0.56577	1033	-3.69E-06	0.59777
970	-3.54E-06	0.53477	1002	-3.83E-06	0.56677	1034	-3.69E-06	0.59877
971	-3.68E-06	0.53577	1003	-3.87E-06	0.56777	1035	-3.72E-06	0.59977
972	-3.46E-06	0.53677	1004	-3.79E-06	0.56877	1036	-3.75E-06	0.60077
973	-3.69E-06	0.53777	1005	-3.75E-06	0.56977	1037	-4.03E-06	0.60177
974	-3.45E-06	0.53877	1006	-3.84E-06	0.57077	1038	-3.91E-06	0.60277
975	-3.93E-06	0.53977	1007	-3.73E-06	0.57177	1039	-3.92E-06	0.60377
976	-3.50E-06	0.54077	1008	-3.85E-06	0.57277	1040	-4.02E-06	0.60477
977	-3.83E-06	0.54177	1009	-3.63E-06	0.57377	1041	-3.89E-06	0.60577
978	-3.45E-06	0.54277	1010	-3.74E-06	0.57477	1042	-3.87E-06	0.60677
979	-3.74E-06	0.54377	1011	-4.04E-06	0.57577	1043	-3.92E-06	0.60777
980	-3.60E-06	0.54477	1012	-3.67E-06	0.57677	1044	-3.83E-06	0.60877
981	-3.77E-06	0.54577	1013	-3.99E-06	0.57777	1045	-3.79E-06	0.60977
982	-3.65E-06	0.54677	1014	-3.65E-06	0.57877	1046	-3.85E-06	0.61077
983	-3.91E-06	0.54777	1015	-3.89E-06	0.57977	1047	-3.98E-06	0.61177
984	-3.55E-06	0.54877	1016	-3.89E-06	0.58077	1048	-3.49E-06	0.61277
985	-3.75E-06	0.54977	1017	-3.83E-06	0.58177	1049	-3.93E-06	0.61377
986	-3.91E-06	0.55077	1018	-3.58E-06	0.58277	1050	-3.95E-06	0.61477
987	-3.69E-06	0.55177	1019	-3.99E-06	0.58377	1051	-3.75E-06	0.61577
988	-3.76E-06	0.55277	1020	-3.79E-06	0.58477	1052	-3.79E-06	0.61677
989	-3.81E-06	0.55377	1021	-3.88E-06	0.58577	1053	-3.72E-06	0.61777
990	-3.85E-06	0.55477	1022	-3.81E-06	0.58667	1054	-4.00E-06	0.61877

1055	-4.08E-06	0.61977	1087	-4.10E-06	0.65177	1119	-4.24E-06	0.68377
1056	-3.91E-06	0.62077	1088	-3.98E-06	0.65277	1120	-4.06E-06	0.68477
1057	-3.87E-06	0.62177	1089	-3.87E-06	0.65377	1121	-4.06E-06	0.68577
1058	-3.75E-06	0.62277	1090	-4.07E-06	0.65477	1122	-4.02E-06	0.68677
1059	-3.76E-06	0.62377	1091	-4.22E-06	0.65577	1123	-4.06E-06	0.68777
1060	-3.86E-06	0.62477	1092	-3.92E-06	0.65677	1124	-4.14E-06	0.68877
1061	-3.98E-06	0.62577	1093	-3.93E-06	0.65777	1125	-4.23E-06	0.68977
1062	-4.09E-06	0.62677	1094	-3.79E-06	0.65877	1126	-3.94E-06	0.69077
1063	-3.87E-06	0.62777	1095	-4.07E-06	0.65977	1127	-4.02E-06	0.69177
1064	-3.98E-06	0.62877	1096	-3.94E-06	0.66077	1128	-3.99E-06	0.69277
1065	-3.90E-06	0.62977	1097	-4.05E-06	0.66177	1129	-4.02E-06	0.69377
1066	-3.83E-06	0.63077	1098	-3.98E-06	0.66277	1130	-4.27E-06	0.69477
1067	-3.85E-06	0.63177	1099	-4.02E-06	0.66377	1131	-4.14E-06	0.69577
1068	-3.89E-06	0.63277	1100	-3.96E-06	0.66477	1132	-4.30E-06	0.69677
1069	-4.08E-06	0.63377	1101	-3.94E-06	0.66577	1133	-4.06E-06	0.69777
1070	-4.07E-06	0.63477	1102	-3.91E-06	0.66677	1134	-4.11E-06	0.69877
1071	-3.83E-06	0.63577	1103	-4.09E-06	0.66777	1135	-4.16E-06	0.69977
1072	-4.15E-06	0.63677	1104	-4.19E-06	0.66877	1136	-4.28E-06	0.70077
1073	-4.02E-06	0.63777	1105	-3.98E-06	0.66977	1137	-4.03E-06	0.70177
1074	-3.98E-06	0.63877	1106	-3.96E-06	0.67077	1138	-4.00E-06	0.70277
1075	-3.97E-06	0.63977	1107	-4.17E-06	0.67177	1139	-3.99E-06	0.70377
1076	-3.96E-06	0.64077	1108	-3.77E-06	0.67277	1140	-3.94E-06	0.70477
1077	-3.89E-06	0.64177	1109	-4.06E-06	0.67377	1141	-3.98E-06	0.70577
1078	-4.06E-06	0.64277	1110	-3.92E-06	0.67477	1142	-4.27E-06	0.70677
1079	-3.94E-06	0.64377	1111	-4.08E-06	0.67577	1143	-4.15E-06	0.70777
1080	-3.92E-06	0.64477	1112	-3.90E-06	0.67677	1144	-4.05E-06	0.70877
1081	-3.74E-06	0.64577	1113	-4.05E-06	0.67777	1145	-4.17E-06	0.70977
1082	-3.92E-06	0.64677	1114	-4.10E-06	0.67877	1146	-3.90E-06	0.71077
1083	-3.77E-06	0.64777	1115	-3.91E-06	0.67977	1147	-4.13E-06	0.71177
1084	-3.97E-06	0.64877	1116	-3.84E-06	0.68077	1148	-4.14E-06	0.71277
1085	-4.02E-06	0.64977	1117	-4.00E-06	0.68177	1149	-4.12E-06	0.71377
1086	-3.82E-06	0.65077	1118	-3.97E-06	0.68277	1150	-4.14E-06	0.71477

1151	-4.10E-06	0.71577	1183	-4.16E-06	0.74777	1215	-4.16E-06	0.77977
1152	-4.01E-06	0.71677	1184	-4.11E-06	0.74877	1216	-4.03E-06	0.78077
1153	-4.04E-06	0.71777	1185	-4.16E-06	0.74977	1217	-3.98E-06	0.78177
1154	-4.06E-06	0.71877	1186	-4.14E-06	0.75077	1218	-4.01E-06	0.78277
1155	-3.91E-06	0.71977	1187	-4.15E-06	0.75177	1219	-4.07E-06	0.78377
1156	-4.09E-06	0.72077	1188	-4.20E-06	0.75277	1220	-4.00E-06	0.78477
1157	-4.04E-06	0.72177	1189	-4.11E-06	0.75377	1221	-4.27E-06	0.78577
1158	-4.13E-06	0.72277	1190	-4.28E-06	0.75477	1222	-4.12E-06	0.78677
1159	-4.10E-06	0.72377	1191	-4.26E-06	0.75577	1223	-4.02E-06	0.78777
1160	-4.09E-06	0.72477	1192	-4.09E-06	0.75677	1224	-4.18E-06	0.78877
1161	-3.84E-06	0.72577	1193	-4.08E-06	0.75777	1225	-4.01E-06	0.78977
1162	-3.96E-06	0.72677	1194	-3.94E-06	0.75877	1226	-4.09E-06	0.79077
1163	-4.37E-06	0.72777	1195	-3.91E-06	0.75977	1227	-4.08E-06	0.79177
1164	-4.32E-06	0.72877	1196	-4.12E-06	0.76077	1228	-3.98E-06	0.79277
1165	-4.21E-06	0.72977	1197	-4.05E-06	0.76177	1229	-3.98E-06	0.79377
1166	-4.07E-06	0.73077	1198	-4.16E-06	0.76277	1230	-4.16E-06	0.79477
1167	-4.18E-06	0.73177	1199	-3.94E-06	0.76377	1231	-4.05E-06	0.79577
1168	-4.18E-06	0.73277	1200	-4.19E-06	0.76477	1232	-3.95E-06	0.79677
1169	-4.07E-06	0.73377	1201	-4.06E-06	0.76577	1233	-4.13E-06	0.79777
1170	-4.34E-06	0.73477	1202	-4.33E-06	0.76677	1234	-4.33E-06	0.79877
1171	-4.09E-06	0.73577	1203	-4.25E-06	0.76777	1235	-3.96E-06	0.79977
1172	-3.82E-06	0.73677	1204	-3.87E-06	0.76877	1236	-4.02E-06	0.80077
1173	-4.11E-06	0.73777	1205	-4.08E-06	0.76977	1237	-4.14E-06	0.80177
1174	-4.26E-06	0.73877	1206	-3.93E-06	0.77077	1238	-4.13E-06	0.80277
1175	-3.85E-06	0.73977	1207	-4.26E-06	0.77177	1239	-4.10E-06	0.80377
1176	-4.15E-06	0.74077	1208	-3.97E-06	0.77277	1240	-4.23E-06	0.80477
1177	-4.10E-06	0.74177	1209	-4.10E-06	0.77377	1241	-4.10E-06	0.80577
1178	-4.05E-06	0.74277	1210	-4.20E-06	0.77477	1242	-4.29E-06	0.80677
1179	-4.14E-06	0.74377	1211	-4.12E-06	0.77577	1243	-4.09E-06	0.80777
1180	-4.17E-06	0.74477	1212	-4.19E-06	0.77677	1244	-4.24E-06	0.80877
1181	-4.00E-06	0.74577	1213	-4.00E-06	0.77777	1245	-4.02E-06	0.80977
1182	-4.23E-06	0.74677	1214	-4.23E-06	0.77877	1246	-3.93E-06	0.81077

1247	-4.29E-06	0.81177	1279	-4.12E-06	0.84377	1311	-4.19E-06	0.87577
1248	-3.98E-06	0.81277	1280	-4.20E-06	0.84477	1312	-4.05E-06	0.87677
1249	-4.24E-06	0.81377	1281	-4.25E-06	0.84577	1313	-4.19E-06	0.87777
1250	-4.18E-06	0.81477	1282	-4.07E-06	0.84677	1314	-4.22E-06	0.87877
1251	-4.34E-06	0.81577	1283	-4.25E-06	0.84777	1315	-4.03E-06	0.87977
1252	-4.10E-06	0.81677	1284	-3.98E-06	0.84877	1316	-4.05E-06	0.88077
1253	-4.07E-06	0.81777	1285	-4.35E-06	0.84977	1317	-4.00E-06	0.88177
1254	-4.18E-06	0.81877	1286	-4.27E-06	0.85077	1318	-4.13E-06	0.88277
1255	-4.10E-06	0.81977	1287	-4.20E-06	0.85177	1319	-4.31E-06	0.88377
1256	-4.03E-06	0.82077	1288	-4.25E-06	0.85277	1320	-4.06E-06	0.88477
1257	-4.02E-06	0.82177	1289	-4.10E-06	0.85377	1321	-3.99E-06	0.88577
1258	-4.18E-06	0.82277	1290	-3.99E-06	0.85477	1322	-4.17E-06	0.88677
1259	-4.10E-06	0.82377	1291	-4.19E-06	0.85577	1323	-4.01E-06	0.88777
1260	-4.06E-06	0.82477	1292	-4.07E-06	0.85677	1324	-4.32E-06	0.88877
1261	-4.03E-06	0.82577	1293	-4.30E-06	0.85777	1325	-4.31E-06	0.88977
1262	-4.00E-06	0.82677	1294	-4.19E-06	0.85877	1326	-4.18E-06	0.89077
1263	-4.27E-06	0.82777	1295	-4.09E-06	0.85977	1327	-4.40E-06	0.89177
1264	-3.97E-06	0.82877	1296	-3.90E-06	0.86077	1328	-4.09E-06	0.89277
1265	-4.12E-06	0.82977	1297	-4.25E-06	0.86177	1329	-4.19E-06	0.89377
1266	-4.17E-06	0.83077	1298	-4.11E-06	0.86277	1330	-4.10E-06	0.89477
1267	-4.22E-06	0.83177	1299	-4.41E-06	0.86377	1331	-4.05E-06	0.89577
1268	-4.02E-06	0.83277	1300	-4.00E-06	0.86477	1332	-4.10E-06	0.89677
1269	-4.24E-06	0.83377	1301	-4.01E-06	0.86577	1333	-4.25E-06	0.89777
1270	-4.20E-06	0.83477	1302	-4.43E-06	0.86677	1334	-4.13E-06	0.89877
1271	-4.20E-06	0.83577	1303	-4.03E-06	0.86777	1335	-4.13E-06	0.89977
1272	-3.99E-06	0.83677	1304	-4.30E-06	0.86877	1336	-4.32E-06	0.90077
1273	-4.12E-06	0.83777	1305	-4.20E-06	0.86977	1337	-4.02E-06	0.90177
1274	-4.17E-06	0.83877	1306	-4.32E-06	0.87077	1338	-4.30E-06	0.90277
1275	-4.21E-06	0.83977	1307	-4.06E-06	0.87177	1339	-3.89E-06	0.90377
1276	-4.25E-06	0.84077	1308	-4.26E-06	0.87277	1340	-4.61E-06	0.90477
1277	-4.11E-06	0.84177	1309	-4.27E-06	0.87377	1341	-4.17E-06	0.90577
1278	-4.09E-06	0.84277	1310	-4.32E-06	0.87477	1342	-4.03E-06	0.90677

1343	-4.28E-06	0.90777	1375	-4.31E-06	0.93977	1407	-4.39E-06	0.97177
1344	-3.95E-06	0.90877	1376	-4.34E-06	0.94077	1408	-4.38E-06	0.97277
1345	-4.34E-06	0.90977	1377	-4.29E-06	0.94177	1409	-4.05E-06	0.97377
1346	-4.27E-06	0.91077	1378	-4.23E-06	0.94277	1410	-4.24E-06	0.97477
1347	-4.29E-06	0.91177	1379	-4.20E-06	0.94377	1411	-4.13E-06	0.97577
1348	-4.43E-06	0.91277	1380	-4.35E-06	0.94477	1412	-4.45E-06	0.97677
1349	-4.12E-06	0.91377	1381	-4.32E-06	0.94577	1413	-4.13E-06	0.97777
1350	-4.09E-06	0.91477	1382	-4.33E-06	0.94677	1414	-4.28E-06	0.97877
1351	-3.98E-06	0.91577	1383	-4.01E-06	0.94777	1415	-4.14E-06	0.97977
1352	-4.37E-06	0.91677	1384	-4.20E-06	0.94877	1416	-4.40E-06	0.98077
1353	-4.14E-06	0.91777	1385	-4.14E-06	0.94977	1417	-4.28E-06	0.98177
1354	-4.33E-06	0.91877	1386	-4.58E-06	0.95077	1418	-4.30E-06	0.98277
1355	-4.08E-06	0.91977	1387	-4.28E-06	0.95177	1419	-4.20E-06	0.98377
1356	-4.59E-06	0.92077	1388	-4.76E-06	0.95277	1420	-4.23E-06	0.98477
1357	-4.10E-06	0.92177	1389	-4.51E-06	0.95377	1421	-4.34E-06	0.98577
1358	-4.22E-06	0.92277	1390	-4.58E-06	0.95477	1422	-4.32E-06	0.98677
1359	-3.96E-06	0.92377	1391	-4.59E-06	0.95577	1423	-4.20E-06	0.98777
1360	-4.14E-06	0.92477	1392	-4.56E-06	0.95677	1424	-4.32E-06	0.98877
1361	-4.36E-06	0.92577	1393	-4.27E-06	0.95777	1425	-4.42E-06	0.98977
1362	-4.19E-06	0.92677	1394	-4.52E-06	0.95877	1426	-4.34E-06	0.99077
1363	-4.17E-06	0.92777	1395	-4.58E-06	0.95977	1427	-4.20E-06	0.99177
1364	-4.25E-06	0.92877	1396	-4.43E-06	0.96077	1428	-4.51E-06	0.99277
1365	-4.39E-06	0.92977	1397	-4.17E-06	0.96177	1429	-4.33E-06	0.99377
1366	-4.45E-06	0.93077	1398	-4.52E-06	0.96277	1430	-4.47E-06	0.99477
1367	-4.14E-06	0.93177	1399	-4.29E-06	0.96377	1431	-4.41E-06	0.99577
1368	-4.09E-06	0.93277	1400	-4.37E-06	0.96477	1432	-4.44E-06	0.99677
1369	-4.06E-06	0.93377	1401	-4.06E-06	0.96577	1433	-4.35E-06	0.99777
1370	-4.09E-06	0.93477	1402	-4.12E-06	0.96677	1434	-4.35E-06	0.99877
1371	-4.20E-06	0.93577	1403	-4.47E-06	0.96777	1435	-4.38E-06	0.99977
1372	-4.18E-06	0.93677	1404	-4.52E-06	0.96877	1436	-4.27E-06	1.0008
1373	-4.28E-06	0.93777	1405	-4.31E-06	0.96977	1437	-4.39E-06	1.0018
1374	-4.21E-06	0.93877	1406	-4.54E-06	0.97077	1438	-4.22E-06	1.0028

1439	-4.22E-06	1.0038		1471	-4.38E-06	1.0358		1503	-4.15E-06	1.0678
1440	-4.38E-06	1.0048		1472	-4.51E-06	1.0368		1504	-4.31E-06	1.0688
1441	-4.48E-06	1.0058		1473	-4.72E-06	1.0378		1505	-4.35E-06	1.0698
1442	-4.31E-06	1.0068		1474	-4.66E-06	1.0388		1506	-4.14E-06	1.0708
1443	-4.26E-06	1.0078		1475	-4.24E-06	1.0398		1507	-4.15E-06	1.0718
1444	-4.41E-06	1.0088		1476	-4.31E-06	1.0408		1508	-4.64E-06	1.0728
1445	-4.40E-06	1.0098		1477	-4.35E-06	1.0418		1509	-4.60E-06	1.0738
1446	-4.31E-06	1.0108		1478	-4.64E-06	1.0428		1510	-4.60E-06	1.0748
1447	-4.54E-06	1.0118		1479	-4.24E-06	1.0438		1511	-4.36E-06	1.0758
1448	-4.42E-06	1.0128		1480	-4.36E-06	1.0448		1512	-4.28E-06	1.0768
1449	-4.37E-06	1.0138		1481	-4.23E-06	1.0458		1513	-4.25E-06	1.0778
1450	-4.47E-06	1.0148		1482	-4.03E-06	1.0468		1514	-4.42E-06	1.0788
1451	-4.38E-06	1.0158		1483	-4.37E-06	1.0478		1515	-4.43E-06	1.0798
1452	-4.23E-06	1.0168		1484	-4.42E-06	1.0488		1516	-4.52E-06	1.0808
1453	-4.73E-06	1.0178		1485	-4.16E-06	1.0498		1517	-4.36E-06	1.0818
1454	-4.18E-06	1.0188		1486	-4.14E-06	1.0508		1518	-4.41E-06	1.0828
1455	-4.29E-06	1.0198		1487	-4.76E-06	1.0518		1519	-4.53E-06	1.0838
1456	-4.41E-06	1.0208		1488	-4.34E-06	1.0528		1520	-4.33E-06	1.0848
1457	-4.29E-06	1.0218		1489	-4.51E-06	1.0538		1521	-4.41E-06	1.0858
1458	-4.29E-06	1.0228		1490	-4.36E-06	1.0548		1522	-4.64E-06	1.0868
1459	-4.18E-06	1.0238		1491	-4.56E-06	1.0558		1523	-4.59E-06	1.0878
1460	-4.29E-06	1.0248		1492	-4.34E-06	1.0568		1524	-4.31E-06	1.0888
1461	-4.41E-06	1.0258		1493	-4.51E-06	1.0578		1525	-4.51E-06	1.0898
1462	-4.01E-06	1.0268		1494	-4.57E-06	1.0588		1526	-4.25E-06	1.0908
1463	-4.27E-06	1.0278		1495	-4.34E-06	1.0598		1527	-4.17E-06	1.0918
1464	-4.55E-06	1.0288		1496	-4.29E-06	1.0608		1528	-4.48E-06	1.0928
1465	-4.43E-06	1.0298		1497	-4.11E-06	1.0618		1529	-4.20E-06	1.0938
1466	-4.08E-06	1.0308		1498	-4.30E-06	1.0628		1530	-4.38E-06	1.0948
1467	-4.29E-06	1.0318		1499	-4.65E-06	1.0638		1531	-4.31E-06	1.0958
1468	-4.39E-06	1.0328		1500	-4.27E-06	1.0648		1532	-4.38E-06	1.0968
1469	-4.43E-06	1.0338		1501	-4.21E-06	1.0658		1533	-4.38E-06	1.0978
1470	-4.33E-06	1.0348		1502	-4.06E-06	1.0668		1534	-4.04E-06	1.0988

1535	-4.61E-06	1.0998		1567	-4.17E-06	1.1318		1599	-4.49E-06	1.1638
1536	-4.40E-06	1.1008		1568	-4.53E-06	1.1328		1600	-4.22E-06	1.1648
1537	-4.29E-06	1.1018		1569	-4.44E-06	1.1338		1601	-4.66E-06	1.1658
1538	-4.47E-06	1.1028		1570	-4.57E-06	1.1348		1602	-4.48E-06	1.1668
1539	-4.39E-06	1.1038		1571	-4.44E-06	1.1358		1603	-4.48E-06	1.1678
1540	-4.66E-06	1.1048		1572	-4.32E-06	1.1368		1604	-4.61E-06	1.1688
1541	-4.19E-06	1.1058		1573	-4.62E-06	1.1378		1605	-4.44E-06	1.1698
1542	-4.37E-06	1.1068		1574	-4.43E-06	1.1388		1606	-4.46E-06	1.1708
1543	-4.53E-06	1.1078		1575	-4.48E-06	1.1398		1607	-4.75E-06	1.1718
1544	-3.95E-06	1.1088		1576	-4.61E-06	1.1408		1608	-4.48E-06	1.1728
1545	-4.59E-06	1.1098		1577	-4.71E-06	1.1418		1609	-4.54E-06	1.1738
1546	-4.46E-06	1.1108		1578	-4.65E-06	1.1428		1610	-4.18E-06	1.1748
1547	-4.29E-06	1.1118		1579	-4.87E-06	1.1438		1611	-4.54E-06	1.1758
1548	-4.22E-06	1.1128		1580	-4.15E-06	1.1448		1612	-4.26E-06	1.1768
1549	-4.23E-06	1.1138		1581	-4.39E-06	1.1458		1613	-4.56E-06	1.1778
1550	-4.51E-06	1.1148		1582	-4.39E-06	1.1468		1614	-4.20E-06	1.1788
1551	-4.30E-06	1.1158		1583	-4.73E-06	1.1478		1615	-4.30E-06	1.1798
1552	-4.40E-06	1.1168		1584	-4.45E-06	1.1488		1616	-4.40E-06	1.1808
1553	-4.96E-06	1.1178		1585	-4.42E-06	1.1498		1617	-4.55E-06	1.1818
1554	-3.97E-06	1.1188		1586	-4.70E-06	1.1508		1618	-4.36E-06	1.1828
1555	-4.76E-06	1.1198		1587	-4.27E-06	1.1518		1619	-4.38E-06	1.1838
1556	-4.46E-06	1.1208		1588	-4.61E-06	1.1528		1620	-4.47E-06	1.1848
1557	-4.36E-06	1.1218		1589	-4.40E-06	1.1538		1621	-4.49E-06	1.1858
1558	-4.74E-06	1.1228		1590	-4.69E-06	1.1548		1622	-4.40E-06	1.1868
1559	-4.46E-06	1.1238		1591	-4.31E-06	1.1558		1623	-4.36E-06	1.1878
1560	-4.29E-06	1.1248		1592	-4.40E-06	1.1568		1624	-4.52E-06	1.1888
1561	-4.55E-06	1.1258		1593	-4.34E-06	1.1578		1625	-4.17E-06	1.1898
1562	-4.69E-06	1.1268		1594	-4.39E-06	1.1588		1626	-4.30E-06	1.1908
1563	-4.71E-06	1.1278		1595	-4.49E-06	1.1598		1627	-4.50E-06	1.1918
1564	-4.36E-06	1.1288		1596	-4.08E-06	1.1608		1628	-4.30E-06	1.1928
1565	-4.46E-06	1.1298		1597	-4.51E-06	1.1618		1629	-4.51E-06	1.1938
1566	-4.43E-06	1.1308		1598	-4.71E-06	1.1628		1630	-4.43E-06	1.1948

1631	-4.36E-06	1.1958		1663	-4.52E-06	1.2278		1695	-4.83E-06	1.2598
1632	-4.44E-06	1.1968		1664	-4.69E-06	1.2288		1696	-4.60E-06	1.2608
1633	-4.48E-06	1.1978		1665	-4.60E-06	1.2298		1697	-4.71E-06	1.2618
1634	-4.58E-06	1.1988		1666	-4.46E-06	1.2308		1698	-4.71E-06	1.2628
1635	-4.47E-06	1.1998		1667	-4.55E-06	1.2318		1699	-4.59E-06	1.2638
1636	-4.52E-06	1.2008		1668	-4.44E-06	1.2328		1700	-4.83E-06	1.2648
1637	-4.55E-06	1.2018		1669	-4.58E-06	1.2338		1701	-4.86E-06	1.2658
1638	-4.57E-06	1.2028		1670	-4.43E-06	1.2348		1702	-4.71E-06	1.2668
1639	-4.24E-06	1.2038		1671	-4.48E-06	1.2358		1703	-4.75E-06	1.2678
1640	-4.43E-06	1.2048		1672	-4.49E-06	1.2368		1704	-4.73E-06	1.2688
1641	-4.37E-06	1.2058		1673	-4.45E-06	1.2378		1705	-4.74E-06	1.2698
1642	-4.61E-06	1.2068		1674	-4.40E-06	1.2388		1706	-4.83E-06	1.2708
1643	-4.41E-06	1.2078		1675	-4.54E-06	1.2398		1707	-4.58E-06	1.2718
1644	-4.51E-06	1.2088		1676	-4.68E-06	1.2408		1708	-4.84E-06	1.2728
1645	-4.47E-06	1.2098		1677	-4.63E-06	1.2418		1709	-4.87E-06	1.2738
1646	-4.33E-06	1.2108		1678	-4.78E-06	1.2428		1710	-4.83E-06	1.2748
1647	-4.56E-06	1.2118		1679	-4.37E-06	1.2438		1711	-4.71E-06	1.2758
1648	-4.66E-06	1.2128		1680	-4.71E-06	1.2448		1712	-4.78E-06	1.2768
1649	-4.43E-06	1.2138		1681	-4.57E-06	1.2458		1713	-4.65E-06	1.2778
1650	-4.54E-06	1.2148		1682	-4.74E-06	1.2468		1714	-5.08E-06	1.2788
1651	-4.66E-06	1.2158		1683	-4.45E-06	1.2478		1715	-4.75E-06	1.2798
1652	-4.71E-06	1.2168		1684	-4.60E-06	1.2488		1716	-5.11E-06	1.2808
1653	-4.54E-06	1.2178		1685	-4.48E-06	1.2498		1717	-5.08E-06	1.2818
1654	-4.61E-06	1.2188		1686	-4.45E-06	1.2508		1718	-4.92E-06	1.2828
1655	-4.54E-06	1.2198		1687	-4.71E-06	1.2518		1719	-4.94E-06	1.2838
1656	-4.59E-06	1.2208		1688	-4.51E-06	1.2528		1720	-5.33E-06	1.2848
1657	-4.40E-06	1.2218		1689	-4.55E-06	1.2538		1721	-5.04E-06	1.2858
1658	-4.45E-06	1.2228		1690	-4.56E-06	1.2548		1722	-4.90E-06	1.2868
1659	-4.69E-06	1.2238		1691	-4.63E-06	1.2558		1723	-4.96E-06	1.2878
1660	-4.55E-06	1.2248		1692	-4.55E-06	1.2568		1724	-4.98E-06	1.2888
1661	-4.47E-06	1.2258		1693	-4.71E-06	1.2578		1725	-4.99E-06	1.2898
1662	-4.55E-06	1.2268		1694	-4.73E-06	1.2588		1726	-5.14E-06	1.2908

1727	-5.03E-06	1.2918		1759	-5.74E-06	1.3238		1791	-6.69E-06	1.3558
1728	-5.12E-06	1.2928		1760	-5.87E-06	1.3248		1792	-6.72E-06	1.3568
1729	-4.94E-06	1.2938		1761	-5.74E-06	1.3258		1793	-6.73E-06	1.3578
1730	-5.16E-06	1.2948		1762	-5.57E-06	1.3268		1794	-6.94E-06	1.3588
1731	-4.91E-06	1.2958		1763	-5.73E-06	1.3278		1795	-6.91E-06	1.3598
1732	-5.07E-06	1.2968		1764	-5.82E-06	1.3288		1796	-7.01E-06	1.3608
1733	-4.90E-06	1.2978		1765	-5.67E-06	1.3298		1797	-7.04E-06	1.3618
1734	-4.86E-06	1.2988		1766	-5.90E-06	1.3308		1798	-7.12E-06	1.3628
1735	-5.08E-06	1.2998		1767	-5.84E-06	1.3318		1799	-7.06E-06	1.3638
1736	-5.08E-06	1.3008		1768	-5.90E-06	1.3328		1800	-7.29E-06	1.3648
1737	-5.19E-06	1.3018		1769	-6.15E-06	1.3338		1801	-7.15E-06	1.3658
1738	-5.12E-06	1.3028		1770	-5.96E-06	1.3348		1802	-7.54E-06	1.3668
1739	-5.21E-06	1.3038		1771	-5.78E-06	1.3358		1803	-7.31E-06	1.3678
1740	-5.30E-06	1.3048		1772	-6.01E-06	1.3368		1804	-7.43E-06	1.3688
1741	-5.22E-06	1.3058		1773	-5.99E-06	1.3378		1805	-7.29E-06	1.3698
1742	-5.18E-06	1.3068		1774	-6.26E-06	1.3388		1806	-7.51E-06	1.3708
1743	-5.63E-06	1.3078		1775	-6.25E-06	1.3398		1807	-7.62E-06	1.3718
1744	-5.29E-06	1.3088		1776	-6.30E-06	1.3408		1808	-7.74E-06	1.3728
1745	-5.44E-06	1.3098		1777	-6.26E-06	1.3418		1809	-7.87E-06	1.3738
1746	-5.23E-06	1.3108		1778	-6.12E-06	1.3428		1810	-7.52E-06	1.3748
1747	-5.53E-06	1.3118		1779	-6.35E-06	1.3438		1811	-8.06E-06	1.3758
1748	-5.43E-06	1.3128		1780	-6.35E-06	1.3448		1812	-7.74E-06	1.3768
1749	-5.35E-06	1.3138		1781	-6.39E-06	1.3458		1813	-8.05E-06	1.3778
1750	-5.35E-06	1.3148		1782	-6.41E-06	1.3468		1814	-8.15E-06	1.3788
1751	-5.47E-06	1.3158		1783	-6.53E-06	1.3478		1815	-8.46E-06	1.3798
1752	-5.30E-06	1.3168		1784	-6.43E-06	1.3488		1816	-8.37E-06	1.3808
1753	-5.51E-06	1.3178		1785	-6.65E-06	1.3498		1817	-8.38E-06	1.3818
1754	-5.30E-06	1.3188		1786	-6.63E-06	1.3508		1818	-8.68E-06	1.3828
1755	-5.79E-06	1.3198		1787	-6.77E-06	1.3518		1819	-8.62E-06	1.3838
1756	-5.56E-06	1.3208		1788	-6.63E-06	1.3528		1820	-8.73E-06	1.3848
1757	-5.48E-06	1.3218		1789	-6.83E-06	1.3538		1821	-8.64E-06	1.3858
1758	-5.74E-06	1.3228		1790	-6.59E-06	1.3548		1822	-8.77E-06	1.3868

1823	-9.01E-06	1.3878		1855	-1.28E-05	1.4198		1887	-1.97E-05	1.4518
1824	-9.01E-06	1.3888		1856	-1.29E-05	1.4208		1888	-2.00E-05	1.4528
1825	-8.92E-06	1.3898		1857	-1.29E-05	1.4218		1889	-1.98E-05	1.4538
1826	-9.31E-06	1.3908		1858	-1.29E-05	1.4228		1890	-2.04E-05	1.4548
1827	-9.37E-06	1.3918		1859	-1.38E-05	1.4238		1891	-2.08E-05	1.4558
1828	-9.24E-06	1.3928		1860	-1.36E-05	1.4248		1892	-2.08E-05	1.4568
1829	-9.32E-06	1.3938		1861	-1.36E-05	1.4258		1893	-2.12E-05	1.4578
1830	-9.48E-06	1.3948		1862	-1.39E-05	1.4268		1894	-2.15E-05	1.4588
1831	-9.47E-06	1.3958		1863	-1.42E-05	1.4278		1895	-2.19E-05	1.4598
1832	-9.48E-06	1.3968		1864	-1.43E-05	1.4288		1896	-2.19E-05	1.4608
1833	-9.82E-06	1.3978		1865	-1.45E-05	1.4298		1897	-2.26E-05	1.4618
1834	-1.01E-05	1.3988		1866	-1.47E-05	1.4308		1898	-2.28E-05	1.4628
1835	-9.76E-06	1.3998		1867	-1.48E-05	1.4318		1899	-2.31E-05	1.4638
1836	-1.04E-05	1.4008		1868	-1.53E-05	1.4328		1900	-2.32E-05	1.4648
1837	-1.04E-05	1.4018		1869	-1.53E-05	1.4338		1901	-2.39E-05	1.4658
1838	-1.04E-05	1.4028		1870	-1.54E-05	1.4348		1902	-2.39E-05	1.4668
1839	-1.06E-05	1.4038		1871	-1.59E-05	1.4358		1903	-2.43E-05	1.4678
1840	-1.04E-05	1.4048		1872	-1.59E-05	1.4368		1904	-2.45E-05	1.4688
1841	-1.07E-05	1.4058		1873	-1.61E-05	1.4378		1905	-2.49E-05	1.4698
1842	-1.07E-05	1.4068		1874	-1.62E-05	1.4388		1906	-2.51E-05	1.4708
1843	-1.09E-05	1.4078		1875	-1.62E-05	1.4398		1907	-2.57E-05	1.4718
1844	-1.09E-05	1.4088		1876	-1.70E-05	1.4408		1908	-2.59E-05	1.4728
1845	-1.12E-05	1.4098		1877	-1.68E-05	1.4418		1909	-2.61E-05	1.4738
1846	-1.13E-05	1.4108		1878	-1.67E-05	1.4428		1910	-2.67E-05	1.4748
1847	-1.17E-05	1.4118		1879	-1.74E-05	1.4438		1911	-2.69E-05	1.4758
1848	-1.17E-05	1.4128		1880	-1.77E-05	1.4448		1912	-2.71E-05	1.4768
1849	-1.18E-05	1.4138		1881	-1.77E-05	1.4458		1913	-2.81E-05	1.4778
1850	-1.20E-05	1.4148		1882	-1.83E-05	1.4468		1914	-2.80E-05	1.4788
1851	-1.19E-05	1.4158		1883	-1.84E-05	1.4478		1915	-2.86E-05	1.4798
1852	-1.21E-05	1.4168		1884	-1.87E-05	1.4488		1916	-2.91E-05	1.4808
1853	-1.24E-05	1.4178		1885	-1.88E-05	1.4498		1917	-2.90E-05	1.4818
1854	-1.26E-05	1.4188		1886	-1.91E-05	1.4508		1918	-2.95E-05	1.4828

1919	-3.02E-05	1.4838	1951	-4.23E-05	1.5158	1983	-5.13E-05	1.5478
1920	-3.01E-05	1.4848	1952	-4.27E-05	1.5168	1984	-5.11E-05	1.5488
1921	-3.06E-05	1.4858	1953	-4.29E-05	1.5178	1985	-5.18E-05	1.5498
1922	-3.09E-05	1.4868	1954	-4.33E-05	1.5188	1986	-5.15E-05	1.5508
1923	-3.17E-05	1.4878	1955	-4.41E-05	1.5198	1987	-5.21E-05	1.5518
1924	-3.19E-05	1.4888	1956	-4.42E-05	1.5208	1988	-5.20E-05	1.5528
1925	-3.22E-05	1.4898	1957	-4.44E-05	1.5218	1989	-5.24E-05	1.5538
1926	-3.24E-05	1.4908	1958	-4.47E-05	1.5228	1990	-5.23E-05	1.5548
1927	-3.28E-05	1.4918	1959	-4.51E-05	1.5238	1991	-5.26E-05	1.5558
1928	-3.37E-05	1.4928	1960	-4.52E-05	1.5248	1992	-5.25E-05	1.5568
1929	-3.41E-05	1.4938	1961	-4.60E-05	1.5258	1993	-5.26E-05	1.5578
1930	-3.41E-05	1.4948	1962	-4.60E-05	1.5268	1994	-5.28E-05	1.5588
1931	-3.47E-05	1.4958	1963	-4.65E-05	1.5278	1995	-5.26E-05	1.5598
1932	-3.48E-05	1.4968	1964	-4.69E-05	1.5288	1996	-5.34E-05	1.5608
1933	-3.55E-05	1.4978	1965	-4.73E-05	1.5298	1997	-5.31E-05	1.5618
1934	-3.56E-05	1.4988	1966	-4.76E-05	1.5308	1998	-5.33E-05	1.5628
1935	-3.62E-05	1.4998	1967	-4.78E-05	1.5318	1999	-5.33E-05	1.5638
1936	-3.68E-05	1.5008	1968	-4.76E-05	1.5328	2000	-5.38E-05	1.5648
1937	-3.71E-05	1.5018	1969	-4.81E-05	1.5338	2001	-5.38E-05	1.5658
1938	-3.73E-05	1.5028	1970	-4.84E-05	1.5348	2002	-5.41E-05	1.5668
1939	-3.75E-05	1.5038	1971	-4.89E-05	1.5358	2003	-5.39E-05	1.5678
1940	-3.80E-05	1.5048	1972	-4.91E-05	1.5368	2004	-5.40E-05	1.5688
1941	-3.84E-05	1.5058	1973	-4.89E-05	1.5378	2005	-5.44E-05	1.5698
1942	-3.94E-05	1.5068	1974	-4.93E-05	1.5388	2006	-5.45E-05	1.5708
1943	-3.95E-05	1.5078	1975	-4.95E-05	1.5398	2007	-5.45E-05	1.5718
1944	-3.96E-05	1.5088	1976	-4.99E-05	1.5408	2008	-5.48E-05	1.5728
1945	-4.03E-05	1.5098	1977	-5.00E-05	1.5418	2009	-5.46E-05	1.5738
1946	-4.08E-05	1.5108	1978	-5.01E-05	1.5428	2010	-5.46E-05	1.5748
1947	-4.08E-05	1.5118	1979	-5.02E-05	1.5438	2011	-5.48E-05	1.5758
1948	-4.07E-05	1.5128	1980	-5.12E-05	1.5448	2012	-5.52E-05	1.5768
1949	-4.17E-05	1.5138	1981	-5.09E-05	1.5458	2013	-5.51E-05	1.5778
1950	-4.21E-05	1.5148	1982	-5.12E-05	1.5468	2014	-5.53E-05	1.5788

2015	-5.54E-05	1.5798	2047	-6.13E-05	1.6118	2079	-0.000128	1.6438
2016	-5.54E-05	1.5808	2048	-6.16E-05	1.6128	2080	-0.000126	1.6448
2017	-5.60E-05	1.5818	2049	-6.19E-05	1.6138	2081	-0.000124	1.6458
2018	-5.57E-05	1.5828	2050	-6.22E-05	1.6148	2082	-0.000122	1.6468
2019	-5.58E-05	1.5838	2051	-6.28E-05	1.6158	2083	-0.000119	1.6478
2020	-5.61E-05	1.5848	2052	-6.33E-05	1.6168	2084	-0.000116	1.6488
2021	-5.60E-05	1.5858	2053	-6.41E-05	1.6178	2085	-0.000113	1.6498
2022	-5.61E-05	1.5868	2054	-6.50E-05	1.6188	2086	-0.000109	1.6508
2023	-5.60E-05	1.5878	2055	-6.60E-05	1.6198	2087	-0.000106	1.6518
2024	-5.67E-05	1.5888	2056	-6.68E-05	1.6208	2088	-0.000102	1.6528
2025	-5.68E-05	1.5898	2057	-6.80E-05	1.6218	2089	-9.86E-05	1.6538
2026	-5.71E-05	1.5908	2058	-6.94E-05	1.6228	2090	-9.53E-05	1.6548
2027	-5.73E-05	1.5918	2059	-7.10E-05	1.6238	2091	-9.19E-05	1.6558
2028	-5.69E-05	1.5928	2060	-7.32E-05	1.6248	2092	-8.92E-05	1.6568
2029	-5.71E-05	1.5938	2061	-7.50E-05	1.6258	2093	-8.67E-05	1.6578
2030	-5.76E-05	1.5948	2062	-7.76E-05	1.6268	2094	-8.41E-05	1.6588
2031	-5.76E-05	1.5958	2063	-8.09E-05	1.6278	2095	-8.21E-05	1.6598
2032	-5.75E-05	1.5968	2064	-8.44E-05	1.6288	2096	-8.02E-05	1.6608
2033	-5.82E-05	1.5978	2065	-8.76E-05	1.6298	2097	-7.83E-05	1.6618
2034	-5.81E-05	1.5988	2066	-9.17E-05	1.6308	2098	-7.68E-05	1.6628
2035	-5.83E-05	1.5998	2067	-9.58E-05	1.6318	2099	-7.51E-05	1.6638
2036	-5.85E-05	1.6008	2068	-0.0001	1.6328	2100	-7.38E-05	1.6648
2037	-5.85E-05	1.6018	2069	-0.000105	1.6338	2101	-7.23E-05	1.6658
2038	-5.89E-05	1.6028	2070	-0.000109	1.6348	2102	-7.11E-05	1.6668
2039	-5.88E-05	1.6038	2071	-0.000114	1.6358	2103	-7.02E-05	1.6678
2040	-5.92E-05	1.6048	2072	-0.000117	1.6368	2104	-6.94E-05	1.6688
2041	-5.94E-05	1.6058	2073	-0.000121	1.6378	2105	-6.82E-05	1.6698
2042	-5.98E-05	1.6068	2074	-0.000124	1.6388	2106	-6.71E-05	1.6708
2043	-5.99E-05	1.6078	2075	-0.000126	1.6398	2107	-6.68E-05	1.6718
2044	-6.02E-05	1.6088	2076	-0.000128	1.6408	2108	-6.63E-05	1.6728
2045	-6.05E-05	1.6098	2077	-0.000129	1.6418	2109	-6.61E-05	1.6738
2046	-6.09E-05	1.6108	2078	-0.000128	1.6428	2110	-6.58E-05	1.6748

2111	-6.50E-05	1.6758	2143	-6.68E-05	1.7078	2175	-8.55E-05	1.7398
2112	-6.45E-05	1.6768	2144	-6.74E-05	1.7088	2176	-8.57E-05	1.7408
2113	-6.40E-05	1.6778	2145	-6.79E-05	1.7098	2177	-8.61E-05	1.7418
2114	-6.37E-05	1.6788	2146	-6.82E-05	1.7108	2178	-8.55E-05	1.7428
2115	-6.35E-05	1.6798	2147	-6.86E-05	1.7118	2179	-8.58E-05	1.7438
2116	-6.33E-05	1.6808	2148	-6.91E-05	1.7128	2180	-8.55E-05	1.7448
2117	-6.30E-05	1.6818	2149	-6.95E-05	1.7138	2181	-8.59E-05	1.7458
2118	-6.32E-05	1.6828	2150	-7.02E-05	1.7148	2182	-8.56E-05	1.7468
2119	-6.30E-05	1.6838	2151	-7.10E-05	1.7158	2183	-8.55E-05	1.7478
2120	-6.28E-05	1.6848	2152	-7.14E-05	1.7168	2184	-8.57E-05	1.7488
2121	-6.31E-05	1.6858	2153	-7.17E-05	1.7178	2185	-8.50E-05	1.7498
2122	-6.29E-05	1.6868	2154	-7.22E-05	1.7188	2186	-8.54E-05	1.7508
2123	-6.27E-05	1.6878	2155	-7.26E-05	1.7198	2187	-8.43E-05	1.7518
2124	-6.32E-05	1.6888	2156	-7.37E-05	1.7208	2188	-8.38E-05	1.7528
2125	-6.30E-05	1.6898	2157	-7.44E-05	1.7218	2189	-8.32E-05	1.7538
2126	-6.32E-05	1.6908	2158	-7.52E-05	1.7228	2190	-8.25E-05	1.7548
2127	-6.31E-05	1.6918	2159	-7.63E-05	1.7238	2191	-8.18E-05	1.7558
2128	-6.33E-05	1.6928	2160	-7.72E-05	1.7248	2192	-8.14E-05	1.7568
2129	-6.38E-05	1.6938	2161	-7.81E-05	1.7258	2193	-8.07E-05	1.7578
2130	-6.34E-05	1.6948	2162	-7.88E-05	1.7268	2194	-8.02E-05	1.7588
2131	-6.39E-05	1.6958	2163	-7.95E-05	1.7278	2195	-7.93E-05	1.7598
2132	-6.38E-05	1.6968	2164	-8.04E-05	1.7288	2196	-7.87E-05	1.7608
2133	-6.40E-05	1.6978	2165	-8.10E-05	1.7298	2197	-7.80E-05	1.7618
2134	-6.45E-05	1.6988	2166	-8.15E-05	1.7308	2198	-7.74E-05	1.7628
2135	-6.47E-05	1.6998	2167	-8.26E-05	1.7318	2199	-7.71E-05	1.7638
2136	-6.47E-05	1.7008	2168	-8.35E-05	1.7328	2200	-7.63E-05	1.7648
2137	-6.50E-05	1.7018	2169	-8.42E-05	1.7338	2201	-7.53E-05	1.7658
2138	-6.56E-05	1.7028	2170	-8.44E-05	1.7348	2202	-7.36E-05	1.7668
2139	-6.56E-05	1.7038	2171	-8.50E-05	1.7358	2203	-7.34E-05	1.7678
2140	-6.58E-05	1.7048	2172	-8.52E-05	1.7368	2204	-7.27E-05	1.7688
2141	-6.63E-05	1.7058	2173	-8.54E-05	1.7378	2205	-7.20E-05	1.7698
2142	-6.68E-05	1.7068	2174	-8.59E-05	1.7388	2206	-7.12E-05	1.7708

2207	-7.08E-05	1.7718		2239	-5.25E-05	1.8038		2271	-3.72E-05	1.7778
2208	-7.05E-05	1.7728		2240	-5.22E-05	1.8048		2272	-3.71E-05	1.7768
2209	-6.98E-05	1.7738		2241	-5.20E-05	1.8058		2273	-3.69E-05	1.7758
2210	-6.97E-05	1.7748		2242	-5.14E-05	1.8068		2274	-3.64E-05	1.7748
2211	-6.88E-05	1.7758		2243	-5.07E-05	1.8058		2275	-3.64E-05	1.7738
2212	-6.84E-05	1.7768		2244	-4.96E-05	1.8048		2276	-3.59E-05	1.7728
2213	-6.82E-05	1.7778		2245	-4.84E-05	1.8038		2277	-3.56E-05	1.7718
2214	-6.76E-05	1.7788		2246	-4.80E-05	1.8028		2278	-3.53E-05	1.7708
2215	-6.72E-05	1.7798		2247	-4.74E-05	1.8018		2279	-3.51E-05	1.7698
2216	-6.72E-05	1.7808		2248	-4.67E-05	1.8008		2280	-3.48E-05	1.7688
2217	-6.62E-05	1.7818		2249	-4.62E-05	1.7998		2281	-3.45E-05	1.7678
2218	-6.56E-05	1.7828		2250	-4.56E-05	1.7988		2282	-3.42E-05	1.7668
2219	-6.51E-05	1.7838		2251	-4.48E-05	1.7978		2283	-3.43E-05	1.7658
2220	-6.42E-05	1.7848		2252	-4.40E-05	1.7968		2284	-3.34E-05	1.7648
2221	-6.38E-05	1.7858		2253	-4.38E-05	1.7958		2285	-3.37E-05	1.7638
2222	-6.33E-05	1.7868		2254	-4.34E-05	1.7948		2286	-3.38E-05	1.7628
2223	-6.27E-05	1.7878		2255	-4.42E-05	1.7938		2287	-3.34E-05	1.7618
2224	-6.21E-05	1.7888		2256	-4.34E-05	1.7928		2288	-3.30E-05	1.7608
2225	-6.16E-05	1.7898		2257	-4.25E-05	1.7918		2289	-3.29E-05	1.7598
2226	-6.11E-05	1.7908		2258	-4.20E-05	1.7908		2290	-3.28E-05	1.7588
2227	-6.05E-05	1.7918		2259	-4.15E-05	1.7898		2291	-3.30E-05	1.7578
2228	-5.98E-05	1.7928		2260	-4.15E-05	1.7888		2292	-3.27E-05	1.7568
2229	-5.96E-05	1.7938		2261	-4.11E-05	1.7878		2293	-3.24E-05	1.7558
2230	-5.88E-05	1.7948		2262	-4.06E-05	1.7868		2294	-3.22E-05	1.7548
2231	-5.80E-05	1.7958		2263	-4.00E-05	1.7858		2295	-3.19E-05	1.7538
2232	-5.77E-05	1.7968		2264	-3.93E-05	1.7848		2296	-3.14E-05	1.7528
2233	-5.60E-05	1.7978		2265	-3.89E-05	1.7838		2297	-3.16E-05	1.7518
2234	-5.50E-05	1.7988		2266	-3.86E-05	1.7828		2298	-3.10E-05	1.7508
2235	-5.45E-05	1.7998		2267	-3.80E-05	1.7818		2299	-3.10E-05	1.7498
2236	-5.37E-05	1.8008		2268	-3.80E-05	1.7808		2300	-3.03E-05	1.7488
2237	-5.33E-05	1.8018		2269	-3.78E-05	1.7798		2301	-3.06E-05	1.7478
2238	-5.32E-05	1.8028		2270	-3.76E-05	1.7788		2302	-3.04E-05	1.7468

2303	-3.02E-05	1.7458		2335	-2.56E-05	1.7138		2367	-2.23E-05	1.6818
2304	-2.99E-05	1.7448		2336	-2.58E-05	1.7128		2368	-2.23E-05	1.6808
2305	-2.96E-05	1.7438		2337	-2.56E-05	1.7118		2369	-2.20E-05	1.6798
2306	-2.95E-05	1.7428		2338	-2.56E-05	1.7108		2370	-2.24E-05	1.6788
2307	-3.01E-05	1.7418		2339	-2.52E-05	1.7098		2371	-2.19E-05	1.6778
2308	-2.97E-05	1.7408		2340	-2.51E-05	1.7088		2372	-2.17E-05	1.6768
2309	-2.96E-05	1.7398		2341	-2.49E-05	1.7078		2373	-2.14E-05	1.6758
2310	-2.93E-05	1.7388		2342	-2.48E-05	1.7068		2374	-2.16E-05	1.6748
2311	-2.92E-05	1.7378		2343	-2.49E-05	1.7058		2375	-2.14E-05	1.6738
2312	-2.88E-05	1.7368		2344	-2.48E-05	1.7048		2376	-2.15E-05	1.6728
2313	-2.86E-05	1.7358		2345	-2.47E-05	1.7038		2377	-2.15E-05	1.6718
2314	-2.86E-05	1.7348		2346	-2.45E-05	1.7028		2378	-2.13E-05	1.6708
2315	-2.83E-05	1.7338		2347	-2.45E-05	1.7018		2379	-2.09E-05	1.6698
2316	-2.80E-05	1.7328		2348	-2.40E-05	1.7008		2380	-2.11E-05	1.6688
2317	-2.78E-05	1.7318		2349	-2.40E-05	1.6998		2381	-2.09E-05	1.6678
2318	-2.77E-05	1.7308		2350	-2.41E-05	1.6988		2382	-2.12E-05	1.6668
2319	-2.82E-05	1.7298		2351	-2.39E-05	1.6978		2383	-2.07E-05	1.6658
2320	-2.80E-05	1.7288		2352	-2.40E-05	1.6968		2384	-2.09E-05	1.6648
2321	-2.75E-05	1.7278		2353	-2.35E-05	1.6958		2385	-2.05E-05	1.6638
2322	-2.74E-05	1.7268		2354	-2.33E-05	1.6948		2386	-2.05E-05	1.6628
2323	-2.74E-05	1.7258		2355	-2.33E-05	1.6938		2387	-2.03E-05	1.6618
2324	-2.69E-05	1.7248		2356	-2.32E-05	1.6928		2388	-2.03E-05	1.6608
2325	-2.69E-05	1.7238		2357	-2.32E-05	1.6918		2389	-2.03E-05	1.6598
2326	-2.71E-05	1.7228		2358	-2.31E-05	1.6908		2390	-1.99E-05	1.6588
2327	-2.67E-05	1.7218		2359	-2.30E-05	1.6898		2391	-1.99E-05	1.6578
2328	-2.65E-05	1.7208		2360	-2.27E-05	1.6888		2392	-1.99E-05	1.6568
2329	-2.67E-05	1.7198		2361	-2.26E-05	1.6878		2393	-1.99E-05	1.6558
2330	-2.60E-05	1.7188		2362	-2.28E-05	1.6868		2394	-1.99E-05	1.6548
2331	-2.64E-05	1.7178		2363	-2.26E-05	1.6858		2395	-1.99E-05	1.6538
2332	-2.64E-05	1.7168		2364	-2.28E-05	1.6848		2396	-1.96E-05	1.6528
2333	-2.62E-05	1.7158		2365	-2.25E-05	1.6838		2397	-1.95E-05	1.6518
2334	-2.57E-05	1.7148		2366	-2.22E-05	1.6828		2398	-1.97E-05	1.6508

2399	-1.92E-05	1.6498		2431	-1.69E-05	1.6178		2463	-1.47E-05	1.5858
2400	-1.94E-05	1.6488		2432	-1.69E-05	1.6168		2464	-1.46E-05	1.5848
2401	-1.90E-05	1.6478		2433	-1.71E-05	1.6158		2465	-1.48E-05	1.5838
2402	-1.88E-05	1.6468		2434	-1.69E-05	1.6148		2466	-1.46E-05	1.5828
2403	-1.91E-05	1.6458		2435	-1.68E-05	1.6138		2467	-1.46E-05	1.5818
2404	-1.89E-05	1.6448		2436	-1.67E-05	1.6128		2468	-1.46E-05	1.5808
2405	-1.86E-05	1.6438		2437	-1.65E-05	1.6118		2469	-1.49E-05	1.5798
2406	-1.88E-05	1.6428		2438	-1.64E-05	1.6108		2470	-1.43E-05	1.5788
2407	-1.86E-05	1.6418		2439	-1.65E-05	1.6098		2471	-1.40E-05	1.5778
2408	-1.87E-05	1.6408		2440	-1.64E-05	1.6088		2472	-1.45E-05	1.5768
2409	-1.85E-05	1.6398		2441	-1.67E-05	1.6078		2473	-1.40E-05	1.5758
2410	-1.85E-05	1.6388		2442	-1.59E-05	1.6068		2474	-1.42E-05	1.5748
2411	-1.83E-05	1.6378		2443	-1.62E-05	1.6058		2475	-1.39E-05	1.5738
2412	-1.83E-05	1.6368		2444	-1.61E-05	1.6048		2476	-1.41E-05	1.5728
2413	-1.82E-05	1.6358		2445	-1.62E-05	1.6038		2477	-1.38E-05	1.5718
2414	-1.80E-05	1.6348		2446	-1.58E-05	1.6028		2478	-1.39E-05	1.5708
2415	-1.80E-05	1.6338		2447	-1.54E-05	1.6018		2479	-1.39E-05	1.5698
2416	-1.81E-05	1.6328		2448	-1.59E-05	1.6008		2480	-1.36E-05	1.5688
2417	-1.78E-05	1.6318		2449	-1.59E-05	1.5998		2481	-1.37E-05	1.5678
2418	-1.78E-05	1.6308		2450	-1.58E-05	1.5988		2482	-1.38E-05	1.5668
2419	-1.75E-05	1.6298		2451	-1.56E-05	1.5978		2483	-1.37E-05	1.5658
2420	-1.76E-05	1.6288		2452	-1.55E-05	1.5968		2484	-1.35E-05	1.5648
2421	-1.78E-05	1.6278		2453	-1.55E-05	1.5958		2485	-1.32E-05	1.5638
2422	-1.74E-05	1.6268		2454	-1.52E-05	1.5948		2486	-1.34E-05	1.5628
2423	-1.73E-05	1.6258		2455	-1.55E-05	1.5938		2487	-1.34E-05	1.5618
2424	-1.74E-05	1.6248		2456	-1.53E-05	1.5928		2488	-1.33E-05	1.5608
2425	-1.73E-05	1.6238		2457	-1.51E-05	1.5918		2489	-1.30E-05	1.5598
2426	-1.74E-05	1.6228		2458	-1.51E-05	1.5908		2490	-1.32E-05	1.5588
2427	-1.71E-05	1.6218		2459	-1.48E-05	1.5898		2491	-1.33E-05	1.5578
2428	-1.73E-05	1.6208		2460	-1.50E-05	1.5888		2492	-1.31E-05	1.5568
2429	-1.68E-05	1.6198		2461	-1.49E-05	1.5878		2493	-1.28E-05	1.5558
2430	-1.71E-05	1.6188		2462	-1.47E-05	1.5868		2494	-1.30E-05	1.5548

2495	-1.30E-05	1.5538	2527	-1.10E-05	1.5218	2559	-9.16E-06	1.4898
2496	-1.28E-05	1.5528	2528	-1.08E-05	1.5208	2560	-9.33E-06	1.4888
2497	-1.31E-05	1.5518	2529	-1.07E-05	1.5198	2561	-9.25E-06	1.4878
2498	-1.28E-05	1.5508	2530	-1.10E-05	1.5188	2562	-8.91E-06	1.4868
2499	-1.27E-05	1.5498	2531	-1.07E-05	1.5178	2563	-9.09E-06	1.4858
2500	-1.24E-05	1.5488	2532	-1.08E-05	1.5168	2564	-8.99E-06	1.4848
2501	-1.26E-05	1.5478	2533	-1.08E-05	1.5158	2565	-8.79E-06	1.4838
2502	-1.25E-05	1.5468	2534	-1.08E-05	1.5148	2566	-8.87E-06	1.4828
2503	-1.23E-05	1.5458	2535	-1.07E-05	1.5138	2567	-8.78E-06	1.4818
2504	-1.24E-05	1.5448	2536	-1.08E-05	1.5128	2568	-8.66E-06	1.4808
2505	-1.25E-05	1.5438	2537	-1.03E-05	1.5118	2569	-8.74E-06	1.4798
2506	-1.21E-05	1.5428	2538	-1.04E-05	1.5108	2570	-8.94E-06	1.4788
2507	-1.22E-05	1.5418	2539	-1.01E-05	1.5098	2571	-8.53E-06	1.4778
2508	-1.23E-05	1.5408	2540	-1.02E-05	1.5088	2572	-8.63E-06	1.4768
2509	-1.21E-05	1.5398	2541	-1.06E-05	1.5078	2573	-8.56E-06	1.4758
2510	-1.22E-05	1.5388	2542	-1.01E-05	1.5068	2574	-8.61E-06	1.4748
2511	-1.18E-05	1.5378	2543	-1.02E-05	1.5058	2575	-8.49E-06	1.4738
2512	-1.19E-05	1.5368	2544	-1.00E-05	1.5048	2576	-8.56E-06	1.4728
2513	-1.20E-05	1.5358	2545	-9.79E-06	1.5038	2577	-8.40E-06	1.4718
2514	-1.18E-05	1.5348	2546	-9.97E-06	1.5028	2578	-8.34E-06	1.4708
2515	-1.15E-05	1.5338	2547	-9.98E-06	1.5018	2579	-8.42E-06	1.4698
2516	-1.17E-05	1.5328	2548	-9.94E-06	1.5008	2580	-8.32E-06	1.4688
2517	-1.15E-05	1.5318	2549	-1.01E-05	1.4998	2581	-8.17E-06	1.4678
2518	-1.16E-05	1.5308	2550	-9.83E-06	1.4988	2582	-8.09E-06	1.4668
2519	-1.15E-05	1.5298	2551	-9.79E-06	1.4978	2583	-8.03E-06	1.4658
2520	-1.17E-05	1.5288	2552	-9.72E-06	1.4968	2584	-7.88E-06	1.4648
2521	-1.15E-05	1.5278	2553	-9.53E-06	1.4958	2585	-7.89E-06	1.4638
2522	-1.14E-05	1.5268	2554	-9.60E-06	1.4948	2586	-7.90E-06	1.4628
2523	-1.13E-05	1.5258	2555	-9.46E-06	1.4938	2587	-7.81E-06	1.4618
2524	-1.12E-05	1.5248	2556	-9.31E-06	1.4928	2588	-7.87E-06	1.4608
2525	-1.09E-05	1.5238	2557	-9.29E-06	1.4918	2589	-7.60E-06	1.4598
2526	-1.09E-05	1.5228	2558	-9.24E-06	1.4908	2590	-7.57E-06	1.4588

2591	-7.44E-06	1.4578		2623	-6.16E-06	1.4258		2655	-4.66E-06	1.3938
2592	-7.66E-06	1.4568		2624	-5.91E-06	1.4248		2656	-4.74E-06	1.3928
2593	-7.56E-06	1.4558		2625	-6.14E-06	1.4238		2657	-4.42E-06	1.3918
2594	-7.48E-06	1.4548		2626	-6.03E-06	1.4228		2658	-4.54E-06	1.3908
2595	-7.46E-06	1.4538		2627	-5.92E-06	1.4218		2659	-4.37E-06	1.3898
2596	-7.27E-06	1.4528		2628	-5.88E-06	1.4208		2660	-4.48E-06	1.3888
2597	-7.24E-06	1.4518		2629	-5.70E-06	1.4198		2661	-4.70E-06	1.3878
2598	-7.28E-06	1.4508		2630	-5.85E-06	1.4188		2662	-4.42E-06	1.3868
2599	-7.14E-06	1.4498		2631	-5.66E-06	1.4178		2663	-4.36E-06	1.3858
2600	-7.02E-06	1.4488		2632	-5.54E-06	1.4168		2664	-4.32E-06	1.3848
2601	-7.06E-06	1.4478		2633	-5.61E-06	1.4158		2665	-4.17E-06	1.3838
2602	-7.09E-06	1.4468		2634	-5.65E-06	1.4148		2666	-4.41E-06	1.3828
2603	-7.19E-06	1.4458		2635	-5.52E-06	1.4138		2667	-4.11E-06	1.3818
2604	-7.05E-06	1.4448		2636	-5.62E-06	1.4128		2668	-4.21E-06	1.3808
2605	-7.05E-06	1.4438		2637	-5.55E-06	1.4118		2669	-4.22E-06	1.3798
2606	-6.86E-06	1.4428		2638	-5.52E-06	1.4108		2670	-4.03E-06	1.3788
2607	-6.86E-06	1.4418		2639	-5.28E-06	1.4098		2671	-4.22E-06	1.3778
2608	-6.67E-06	1.4408		2640	-5.37E-06	1.4088		2672	-3.97E-06	1.3768
2609	-6.65E-06	1.4398		2641	-5.12E-06	1.4078		2673	-4.01E-06	1.3758
2610	-6.76E-06	1.4388		2642	-5.22E-06	1.4068		2674	-4.09E-06	1.3748
2611	-6.52E-06	1.4378		2643	-5.02E-06	1.4058		2675	-3.94E-06	1.3738
2612	-6.82E-06	1.4368		2644	-5.09E-06	1.4048		2676	-3.79E-06	1.3728
2613	-6.41E-06	1.4358		2645	-5.08E-06	1.4038		2677	-3.93E-06	1.3718
2614	-6.60E-06	1.4348		2646	-5.11E-06	1.4028		2678	-3.75E-06	1.3708
2615	-6.37E-06	1.4338		2647	-5.04E-06	1.4018		2679	-3.75E-06	1.3698
2616	-6.34E-06	1.4328		2648	-5.06E-06	1.4008		2680	-3.85E-06	1.3688
2617	-6.31E-06	1.4318		2649	-4.93E-06	1.3998		2681	-3.72E-06	1.3678
2618	-6.21E-06	1.4308		2650	-4.80E-06	1.3988		2682	-3.50E-06	1.3668
2619	-6.54E-06	1.4298		2651	-4.90E-06	1.3978		2683	-3.41E-06	1.3658
2620	-6.09E-06	1.4288		2652	-5.06E-06	1.3968		2684	-3.79E-06	1.3648
2621	-6.23E-06	1.4278		2653	-4.44E-06	1.3958		2685	-3.69E-06	1.3638
2622	-6.11E-06	1.4268		2654	-4.64E-06	1.3948		2686	-3.60E-06	1.3628

2687	-3.42E-06	1.3618		2719	-2.55E-06	1.3298		2751	-2.18E-06	1.2978
2688	-3.67E-06	1.3608		2720	-2.53E-06	1.3288		2752	-1.88E-06	1.2968
2689	-3.32E-06	1.3598		2721	-2.61E-06	1.3278		2753	-1.83E-06	1.2958
2690	-3.58E-06	1.3588		2722	-2.58E-06	1.3268		2754	-1.67E-06	1.2948
2691	-3.58E-06	1.3578		2723	-2.49E-06	1.3258		2755	-1.96E-06	1.2938
2692	-3.62E-06	1.3568		2724	-2.47E-06	1.3248		2756	-1.95E-06	1.2928
2693	-3.18E-06	1.3558		2725	-2.49E-06	1.3238		2757	-1.81E-06	1.2918
2694	-3.07E-06	1.3548		2726	-2.24E-06	1.3228		2758	-2.03E-06	1.2908
2695	-3.29E-06	1.3538		2727	-2.34E-06	1.3218		2759	-1.66E-06	1.2898
2696	-3.18E-06	1.3528		2728	-2.38E-06	1.3208		2760	-1.77E-06	1.2888
2697	-3.27E-06	1.3518		2729	-2.40E-06	1.3198		2761	-1.71E-06	1.2878
2698	-3.28E-06	1.3508		2730	-2.47E-06	1.3188		2762	-1.59E-06	1.2868
2699	-3.27E-06	1.3498		2731	-2.45E-06	1.3178		2763	-1.61E-06	1.2858
2700	-3.17E-06	1.3488		2732	-2.43E-06	1.3168		2764	-1.87E-06	1.2848
2701	-3.23E-06	1.3478		2733	-2.38E-06	1.3158		2765	-1.62E-06	1.2838
2702	-3.00E-06	1.3468		2734	-2.48E-06	1.3148		2766	-1.61E-06	1.2828
2703	-3.00E-06	1.3458		2735	-2.28E-06	1.3138		2767	-1.76E-06	1.2818
2704	-3.21E-06	1.3448		2736	-2.29E-06	1.3128		2768	-1.69E-06	1.2808
2705	-3.07E-06	1.3438		2737	-2.01E-06	1.3118		2769	-1.59E-06	1.2798
2706	-3.03E-06	1.3428		2738	-2.12E-06	1.3108		2770	-1.57E-06	1.2788
2707	-2.89E-06	1.3418		2739	-2.23E-06	1.3098		2771	-1.41E-06	1.2778
2708	-3.00E-06	1.3408		2740	-2.16E-06	1.3088		2772	-1.66E-06	1.2768
2709	-2.81E-06	1.3398		2741	-2.03E-06	1.3078		2773	-1.59E-06	1.2758
2710	-2.53E-06	1.3388		2742	-2.25E-06	1.3068		2774	-1.40E-06	1.2748
2711	-2.76E-06	1.3378		2743	-2.12E-06	1.3058		2775	-1.58E-06	1.2738
2712	-2.96E-06	1.3368		2744	-1.99E-06	1.3048		2776	-1.40E-06	1.2728
2713	-3.01E-06	1.3358		2745	-2.01E-06	1.3038		2777	-1.32E-06	1.2718
2714	-2.69E-06	1.3348		2746	-1.77E-06	1.3028		2778	-1.41E-06	1.2708
2715	-2.51E-06	1.3338		2747	-2.13E-06	1.3018		2779	-1.33E-06	1.2698
2716	-2.89E-06	1.3328		2748	-2.15E-06	1.3008		2780	-1.42E-06	1.2688
2717	-2.69E-06	1.3318		2749	-2.02E-06	1.2998		2781	-1.53E-06	1.2678
2718	-2.69E-06	1.3308		2750	-1.94E-06	1.2988		2782	-1.29E-06	1.2668

2783	-1.43E-06	1.2658		2815	-1.08E-06	1.2278		2847	-6.01E-07	1.1858
2784	-1.07E-06	1.2648		2816	-1.05E-06	1.2268		2848	-5.21E-07	1.1848
2785	-1.37E-06	1.2638		2817	-8.10E-07	1.2258				
2786	-1.30E-06	1.2628		2818	-9.21E-07	1.2248				
2787	-1.28E-06	1.2618		2819	-7.77E-07	1.2228				
2788	-1.19E-06	1.2608		2820	-9.00E-07	1.2208				
2789	-1.21E-06	1.2598		2821	-7.82E-07	1.2188				
2790	-1.31E-06	1.2588		2822	-8.47E-07	1.2178				
2791	-1.13E-06	1.2578		2823	-8.41E-07	1.2168				
2792	-1.26E-06	1.2568		2824	-7.59E-07	1.2158				
2793	-1.21E-06	1.2558		2825	-7.91E-07	1.2138				
2794	-1.12E-06	1.2548		2826	-6.57E-07	1.2118				
2795	-1.12E-06	1.2538		2827	-7.79E-07	1.2108				
2796	-1.14E-06	1.2528		2828	-5.80E-07	1.2088				
2797	-1.21E-06	1.2518		2829	-6.11E-07	1.2068				
2798	-1.09E-06	1.2508		2830	-7.33E-07	1.2058				
2799	-1.20E-06	1.2498		2831	-8.20E-07	1.2048				
2800	-1.25E-06	1.2488		2832	-7.00E-07	1.2038				
2801	-9.92E-07	1.2478		2833	-7.68E-07	1.2028				
2802	-1.13E-06	1.2468		2834	-6.97E-07	1.2008				
2803	-1.21E-06	1.2448		2835	-6.81E-07	1.1998				
2804	-8.58E-07	1.2438		2836	-6.70E-07	1.1988				
2805	-1.19E-06	1.2418		2837	-6.58E-07	1.1968				
2806	-9.18E-07	1.2408		2838	-6.79E-07	1.1958				
2807	-1.00E-06	1.2388		2839	-6.85E-07	1.1948				
2808	-9.81E-07	1.2378		2840	-7.42E-07	1.1938				
2809	-9.97E-07	1.2368		2841	-5.80E-07	1.1928				
2810	-9.83E-07	1.2358		2842	-6.20E-07	1.1918				
2811	-1.13E-06	1.2338		2843	-6.63E-07	1.1908				
2812	-9.57E-07	1.2328		2844	-5.19E-07	1.1888				
2813	-8.24E-07	1.2308		2845	-6.39E-07	1.1878				
2814	-9.97E-07	1.2298		2846	-6.03E-07	1.1868				

Ti6Al4V in 0.35% NaCl Solution							
	Current(A)	Potential (V)					
1	-1.05E-04	-0.39114	31	7.20E-07	-0.35714	63	1.28E-07	-0.29714
2	-7.07E-06	-0.39014	32	6.15E-07	-0.35514	64	-2.31E-07	-0.29514
3	1.97E-06	-0.38914	33	1.22E-06	-0.35314	65	1.51E-07	-0.29314
4	2.97E-06	-0.38814	34	9.00E-07	-0.35214	66	5.34E-07	-0.29114
5	2.77E-06	-0.38714	35	8.62E-07	-0.35014	67	1.89E-07	-0.28914
6	2.36E-06	-0.38614	36	9.78E-07	-0.34814	68	-3.35E-07	-0.28714
7	2.53E-06	-0.38514	37	7.54E-07	-0.34614	69	3.08E-07	-0.28514
8	1.82E-06	-0.38414	38	8.29E-07	-0.34414	70	-7.79E-07	-0.28314
9	2.96E-06	-0.38314	39	1.03E-06	-0.34214	71	1.35E-07	-0.28114
10	1.73E-06	-0.38214	40	6.95E-07	-0.34114	72	2.72E-07	-0.27914
11	2.20E-06	-0.38114	41	1.42E-06	-0.33914	73	-2.64E-07	-0.27714
12	2.27E-06	-0.38014	42	4.86E-07	-0.33814	74	-3.49E-07	-0.27514
13	1.75E-06	-0.37914	43	1.08E-06	-0.33614	75	4.93E-07	-0.27314
14	2.29E-06	-0.37814	44	2.32E-07	-0.33514	76	-6.07E-07	-0.27114
15	1.55E-06	-0.37714	45	6.29E-07	-0.33314	77	-2.43E-07	-0.26914
16	1.87E-06	-0.37614	46	6.56E-07	-0.33114	78	5.11E-07	-0.26714
17	1.87E-06	-0.37514	47	9.46E-07	-0.32914	79	-2.15E-07	-0.26514
18	1.31E-06	-0.37414	48	3.01E-07	-0.32714	80	4.05E-07	-0.26314
19	1.92E-06	-0.37314	49	-2.23E-08	-0.32514	81	-2.23E-07	-0.26114
20	1.01E-06	-0.37214	50	-7.27E-08	-0.32314	82	-5.74E-07	-0.25914
21	2.01E-06	-0.37114	51	3.73E-07	-0.32114	83	-4.84E-07	-0.25714
22	1.13E-06	-0.37014	52	7.11E-07	-0.31914	84	1.43E-07	-0.25514
23	1.17E-06	-0.36914	53	2.68E-07	-0.31714	85	1.45E-07	-0.25314
24	1.62E-06	-0.36814	54	-2.85E-07	-0.31514	86	-5.91E-07	-0.25114
25	7.29E-07	-0.36714	55	8.32E-07	-0.31314	87	4.23E-07	-0.24914
26	1.11E-06	-0.36514	56	-3.08E-07	-0.31114	88	-1.14E-07	-0.24714
27	9.48E-07	-0.36414	57	-7.45E-08	-0.30914	89	-7.59E-07	-0.24514
28	7.45E-07	-0.36214	58	3.29E-07	-0.30714	90	5.53E-10	-0.24314
29	1.18E-06	-0.36014	59	-1.86E-08	-0.30514	91	-1.21E-06	-0.24114
30	9.11E-07	-0.35914	60	2.00E-07	-0.30314	92	-2.41E-07	-0.24014
			61	7.72E-07	-0.30114	93	-6.98E-07	-0.23814
			62	5.88E-07	-0.29914	94	3.64E-08	-0.23614

95	-9.46E-07	-0.23414	127	-3.68E-07	-0.17514	159	-7.92E-07	-0.11714
96	-5.61E-07	-0.23214	128	-1.37E-06	-0.17314	160	-1.19E-06	-0.11514
97	2.95E-08	-0.23014	129	-4.04E-07	-0.17214	161	-7.10E-07	-0.11414
98	1.25E-07	-0.22814	130	-1.04E-06	-0.17014	162	-6.35E-07	-0.11214
99	-4.12E-07	-0.22614	131	-1.24E-07	-0.16914	163	-1.41E-06	-0.11014
100	-1.08E-06	-0.22414	132	-5.74E-07	-0.16714	164	-7.28E-07	-0.10914
101	-6.06E-07	-0.22314	133	-7.29E-07	-0.16514	165	-1.01E-06	-0.10714
102	-7.89E-07	-0.22114	134	-9.54E-07	-0.16314	166	-1.13E-06	-0.10514
103	-1.24E-07	-0.21914	135	-7.45E-07	-0.16114	167	-5.53E-07	-0.10414
104	-6.59E-07	-0.21714	136	-5.73E-07	-0.15914	168	-7.99E-07	-0.10214
105	-4.54E-07	-0.21514	137	-8.96E-07	-0.15714	169	-1.10E-06	-0.10014
106	-2.57E-07	-0.21314	138	-5.48E-07	-0.15514	170	-5.50E-07	-0.099138
107	-6.51E-07	-0.21114	139	-4.26E-07	-0.15314	171	-6.72E-07	-0.097138
108	-1.35E-08	-0.20914	140	-9.77E-07	-0.15114	172	-1.11E-06	-0.095138
109	-1.74E-07	-0.20714	141	-5.59E-07	-0.14914	173	-4.89E-07	-0.094138
110	-3.06E-07	-0.20514	142	1.57E-07	-0.14714	174	-8.11E-07	-0.092138
111	8.83E-08	-0.20314	143	-1.26E-06	-0.14514	175	-6.86E-07	-0.090138
112	-1.47E-06	-0.20114	144	-3.93E-08	-0.14414	176	-5.51E-07	-0.088138
113	-7.25E-07	-0.20014	145	-6.96E-07	-0.14214	177	-1.47E-06	-0.086138
114	-1.12E-06	-0.19814	146	-1.37E-06	-0.14014	178	-7.69E-07	-0.085138
115	-8.94E-07	-0.19714	147	-4.37E-07	-0.13914	179	-7.30E-07	-0.083138
116	-7.85E-07	-0.19514	148	-1.41E-06	-0.13714	180	-1.24E-06	-0.081138
117	2.80E-07	-0.19314	149	-4.66E-07	-0.13614	181	-4.87E-07	-0.080138
118	-1.13E-06	-0.19114	150	-4.45E-07	-0.13414	182	-1.76E-06	-0.078138
119	5.93E-08	-0.19014	151	-9.19E-07	-0.13214	183	-4.63E-07	-0.077138
120	-7.10E-07	-0.18814	152	-9.69E-07	-0.13014	184	-1.66E-06	-0.075138
121	-3.92E-07	-0.18614	153	-8.54E-07	-0.12814	185	-6.42E-07	-0.074138
122	-1.13E-06	-0.18414	154	-4.43E-07	-0.12614	186	-6.30E-07	-0.072138
123	-3.76E-07	-0.18314	155	-1.50E-06	-0.12414	187	-1.28E-06	-0.070138
124	-8.50E-07	-0.18114	156	-3.68E-07	-0.12314	188	-8.45E-07	-0.069138
125	-9.42E-08	-0.17914	157	-2.53E-07	-0.12114	189	-9.31E-07	-0.067138
126	2.66E-07	-0.17714	158	-9.54E-07	-0.11914	190	-1.32E-06	-0.065138

191	-1.45E-06	-0.064138	223	-9.78E-07	-0.017138	255	-4.82E-07	0.019862
192	-1.06E-06	-0.063138	224	-1.62E-06	-0.015138	256	-1.43E-06	0.021862
193	-1.17E-06	-0.062138	225	-8.92E-07	-0.014138	257	-1.39E-06	0.022862
194	-7.63E-07	-0.061138	226	-8.37E-07	-0.012138	258	-1.68E-06	0.023862
195	-1.70E-06	-0.059138	227	-1.28E-06	-0.010138	259	-8.94E-07	0.024862
196	-5.51E-07	-0.058138	228	-1.56E-06	-0.0091377	260	-8.39E-07	0.026862
197	-8.44E-07	-0.056138	229	-1.30E-06	-0.0081377	261	-1.14E-06	0.028862
198	-1.39E-06	-0.054138	230	-1.46E-06	-0.0071377	262	-1.13E-06	0.029862
199	-1.26E-06	-0.053138	231	-1.14E-06	-0.0061377	263	-1.75E-06	0.030862
200	-1.15E-06	-0.052138	232	-1.63E-06	-0.0051377	264	-1.30E-06	0.031862
201	-9.03E-07	-0.051138	233	-1.63E-06	-0.0041377	265	-1.49E-06	0.032862
202	-1.31E-06	-0.049138	234	-1.21E-06	-0.0031377	266	-1.41E-06	0.033862
203	-1.31E-06	-0.048138	235	-1.07E-06	-0.0021377	267	-1.64E-06	0.034862
204	-8.30E-07	-0.047138	236	-1.55E-06	-0.0011377	268	-1.41E-06	0.035862
205	-1.29E-06	-0.045138	237	-8.65E-07	-0.0001377	269	-1.20E-06	0.036862
206	-8.45E-07	-0.044138	238	-1.46E-06	0.0018623	270	-1.27E-06	0.037862
207	-8.60E-07	-0.042138	239	-1.10E-06	0.0028623	271	-1.12E-06	0.038862
208	-1.17E-06	-0.040138	240	-1.31E-06	0.0038623	272	-1.39E-06	3.99E-02
209	-8.52E-07	-0.039138	241	-9.51E-07	0.0048623	273	-1.18E-06	0.040862
210	-1.69E-06	-0.037138	242	-1.09E-06	0.0068623	274	-1.93E-06	0.041862
211	-7.80E-07	-0.036138	243	-1.52E-06	0.0078623	275	-1.37E-06	0.042862
212	-9.90E-07	-0.034138	244	-1.19E-06	0.0088623	276	-1.39E-06	0.043862
213	-7.41E-07	-0.032138	245	-1.28E-06	0.0098623	277	-1.91E-06	0.044862
214	-1.54E-06	-0.030138	246	-1.26E-06	0.010862	278	-1.59E-06	0.045862
215	-6.73E-07	-0.029138	247	-1.16E-06	0.011862	279	-1.11E-06	0.046862
216	-8.24E-07	-0.027138	248	-1.50E-06	0.012862	280	-1.28E-06	0.047862
217	-1.01E-06	-0.025138	249	-1.33E-06	0.013862	281	-1.70E-06	0.048862
218	-8.06E-07	-0.023138	250	-1.21E-06	0.014862	282	-9.61E-07	0.049862
219	-1.31E-06	-0.021138	251	-1.60E-06	0.015862	283	-8.35E-07	0.051862
220	-1.07E-06	-0.020138	252	-1.47E-06	0.016862	284	-1.01E-06	0.053862
221	-1.28E-06	-0.019138	253	-1.15E-06	0.017862	285	-1.34E-06	0.055862
222	-1.08E-06	-0.018138	254	-1.63E-06	0.018862	286	-1.38E-06	0.056862

287	-1.43E-06	0.057862		319	-1.47E-06	0.092862		351	-2.50E-06	0.12786
288	-1.50E-06	0.058862		320	-1.91E-06	0.093862		352	-1.65E-06	0.12886
289	-1.04E-06	0.059862		321	-8.35E-07	0.094862		353	-1.34E-06	0.12986
290	-1.74E-06	0.060862		322	-1.41E-06	0.096862		354	-1.26E-06	0.13086
291	-1.59E-06	0.061862		323	-1.68E-06	0.097862		355	-1.79E-06	0.13186
292	-1.34E-06	0.062862		324	-8.44E-07	0.098862		356	-1.88E-06	0.13286
293	-1.67E-06	0.063862		325	-1.66E-06	0.10086		357	-1.60E-06	0.13386
294	-8.67E-07	0.064862		326	-1.67E-06	0.10186		358	-1.86E-06	0.13486
295	-1.43E-06	0.066862		327	-2.34E-06	0.10286		359	-1.36E-06	0.13586
296	-1.97E-06	0.067862		328	-1.98E-06	0.10386		360	-2.09E-06	0.13686
297	-1.52E-06	0.068862		329	-2.05E-06	0.10486		361	-1.88E-06	0.13786
298	-8.59E-07	0.069862		330	-1.95E-06	0.10586		362	-1.82E-06	0.13886
299	-1.78E-06	0.071862		331	-1.50E-06	0.10686		363	-1.71E-06	0.13986
300	-1.20E-06	0.072862		332	-2.26E-06	0.10786		364	-2.02E-06	0.14086
301	-1.12E-06	0.073862		333	-1.25E-06	0.10886		365	-1.11E-06	0.14186
302	-1.50E-06	0.074862		334	-2.01E-06	0.10986		366	-1.61E-06	0.14286
303	-1.30E-06	0.075862		335	-1.37E-06	0.11086		367	-2.07E-06	0.14386
304	-1.17E-06	0.076862		336	-1.39E-06	0.11186		368	-1.32E-06	0.14486
305	-1.53E-06	0.077862		337	-8.71E-07	0.11286		369	-1.74E-06	0.14586
306	-1.76E-06	0.078862		338	-1.20E-06	0.11486		370	-1.37E-06	0.14686
307	-1.32E-06	0.079862		339	-1.09E-06	0.11586		371	-1.84E-06	0.14786
308	-9.05E-07	0.080862		340	-2.00E-06	0.11686		372	-1.56E-06	0.14886
309	-1.51E-06	0.082862		341	-1.38E-06	0.11786		373	-2.13E-06	0.14986
310	-1.31E-06	0.083862		342	-1.23E-06	0.11886		374	-1.70E-06	0.15086
311	-1.43E-06	0.084862		343	-1.38E-06	0.11986		375	-1.71E-06	0.15186
312	-1.54E-06	0.085862		344	-1.31E-06	0.12086		376	-1.84E-06	0.15286
313	-1.58E-06	0.086862		345	-1.41E-06	0.12186		377	-1.35E-06	0.15386
314	-1.74E-06	0.087862		346	-1.83E-06	0.12286		378	-2.51E-06	0.15486
315	-1.11E-06	0.088862		347	-1.55E-06	0.12386		379	-1.91E-06	0.15586
316	-1.90E-06	0.089862		348	-1.79E-06	0.12486		380	-1.66E-06	0.15686
317	-1.65E-06	0.090862		349	-1.24E-06	0.12586		381	-2.11E-06	0.15786
318	-1.75E-06	0.091862		350	-2.09E-06	0.12686		382	-1.58E-06	0.15886

383	-1.47E-06	0.15986		415	-2.56E-06	0.19186		447	-1.94E-06	0.22386
384	-2.01E-06	0.16086		416	-1.68E-06	0.19286		448	-1.85E-06	0.22486
385	-1.58E-06	0.16186		417	-1.71E-06	0.19386		449	-2.01E-06	0.22586
386	-1.31E-06	0.16286		418	-1.55E-06	0.19486		450	-1.59E-06	0.22686
387	-1.95E-06	0.16386		419	-1.79E-06	0.19586		451	-1.97E-06	0.22786
388	-1.38E-06	0.16486		420	-1.70E-06	0.19686		452	-1.74E-06	0.22886
389	-2.04E-06	0.16586		421	-1.99E-06	0.19786		453	-1.87E-06	0.22986
390	-1.63E-06	0.16686		422	-1.66E-06	0.19886		454	-2.42E-06	0.23086
391	-2.08E-06	0.16786		423	-1.56E-06	0.19986		455	-1.32E-06	0.23186
392	-1.73E-06	0.16886		424	-1.49E-06	0.20086		456	-1.79E-06	0.23286
393	-2.02E-06	0.16986		425	-2.27E-06	0.20186		457	-1.53E-06	0.23386
394	-2.11E-06	0.17086		426	-1.77E-06	0.20286		458	-1.74E-06	0.23486
395	-2.01E-06	0.17186		427	-2.06E-06	0.20386		459	-1.86E-06	0.23586
396	-1.21E-06	0.17286		428	-1.71E-06	0.20486		460	-1.52E-06	0.23686
397	-2.36E-06	0.17386		429	-1.53E-06	0.20586		461	-2.21E-06	0.23786
398	-1.81E-06	0.17486		430	-1.29E-06	0.20686		462	-1.23E-06	0.23886
399	-1.41E-06	0.17586		431	-1.72E-06	0.20786		463	-1.82E-06	0.23986
400	-1.79E-06	0.17686		432	-2.12E-06	0.20886		464	-1.84E-06	0.24086
401	-1.75E-06	0.17786		433	-1.53E-06	0.20986		465	-1.69E-06	0.24186
402	-1.86E-06	0.17886		434	-2.14E-06	0.21086		466	-1.54E-06	0.24286
403	-1.19E-06	0.17986		435	-1.19E-06	0.21186		467	-1.71E-06	0.24386
404	-1.40E-06	0.18086		436	-1.54E-06	0.21286		468	-1.50E-06	0.24486
405	-1.39E-06	0.18186		437	-1.50E-06	0.21386		469	-1.73E-06	0.24586
406	-2.23E-06	0.18286		438	-2.11E-06	0.21486		470	-1.57E-06	0.24686
407	-2.50E-06	0.18386		439	-1.35E-06	0.21586		471	-1.94E-06	0.24786
408	-2.12E-06	0.18486		440	-2.03E-06	0.21686		472	-2.20E-06	0.24886
409	-1.80E-06	0.18586		441	-1.74E-06	0.21786		473	-1.64E-06	0.24986
410	-1.54E-06	0.18686		442	-1.86E-06	0.21886		474	-1.95E-06	0.25086
411	-1.97E-06	0.18786		443	-1.82E-06	0.21986		475	-1.40E-06	0.25186
412	-1.64E-06	0.18886		444	-1.85E-06	0.22086		476	-1.90E-06	0.25286
413	-1.45E-06	0.18986		445	-1.99E-06	0.22186		477	-1.75E-06	0.25386
414	-1.68E-06	0.19086		446	-1.56E-06	0.22286		478	-2.05E-06	0.25486

479	-1.59E-06	0.25586	511	-1.74E-06	0.28786	543	-1.92E-06	0.31986
480	-2.59E-06	0.25686	512	-2.02E-06	0.28886	544	-1.73E-06	0.32086
481	-1.84E-06	0.25786	513	-1.79E-06	0.28986	545	-1.77E-06	0.32186
482	-2.02E-06	0.25886	514	-1.52E-06	0.29086	546	-1.89E-06	0.32286
483	-2.10E-06	0.25986	515	-1.30E-06	0.29186	547	-9.56E-07	0.32386
484	-1.52E-06	0.26086	516	-1.76E-06	0.29286	548	-1.63E-06	0.32586
485	-1.33E-06	0.26186	517	-2.01E-06	0.29386	549	-1.96E-06	0.32686
486	-2.19E-06	0.26286	518	-2.04E-06	0.29486	550	-2.00E-06	0.32786
487	-1.67E-06	0.26386	519	-1.86E-06	0.29586	551	-1.94E-06	0.32886
488	-1.78E-06	0.26486	520	-2.03E-06	0.29686	552	-1.58E-06	0.32986
489	-1.90E-06	0.26586	521	-1.41E-06	0.29786	553	-1.36E-06	0.33086
490	-1.88E-06	0.26686	522	-1.51E-06	0.29886	554	-1.67E-06	0.33186
491	-1.42E-06	0.26786	523	-1.83E-06	0.29986	555	-1.87E-06	0.33286
492	-1.74E-06	0.26886	524	-2.20E-06	0.30086	556	-1.98E-06	0.33386
493	-2.01E-06	0.26986	525	-2.04E-06	0.30186	557	-1.30E-06	0.33486
494	-1.61E-06	0.27086	526	-1.84E-06	0.30286	558	-1.48E-06	0.33586
495	-1.70E-06	0.27186	527	-1.70E-06	0.30386	559	-1.29E-06	0.33686
496	-2.04E-06	0.27286	528	-1.32E-06	0.30486	560	-2.21E-06	0.33786
497	-2.13E-06	0.27386	529	-1.83E-06	0.30586	561	-2.27E-06	0.33886
498	-1.51E-06	0.27486	530	-1.85E-06	0.30686	562	-1.64E-06	0.33986
499	-1.30E-06	0.27586	531	-2.33E-06	0.30786	563	-1.47E-06	0.34086
500	-2.45E-06	0.27686	532	-1.90E-06	0.30886	564	-1.51E-06	0.34186
501	-1.73E-06	0.27786	533	-2.07E-06	0.30986	565	-2.13E-06	0.34286
502	-1.76E-06	0.27886	534	-2.03E-06	0.31086	566	-2.50E-06	0.34386
503	-1.57E-06	0.27986	535	-1.65E-06	0.31186	567	-1.94E-06	0.34486
504	-1.68E-06	0.28086	536	-1.72E-06	0.31286	568	-1.77E-06	0.34586
505	-1.77E-06	0.28186	537	-2.34E-06	0.31386	569	-1.36E-06	0.34686
506	-2.19E-06	0.28286	538	-2.27E-06	0.31486	570	-2.16E-06	0.34786
507	-2.18E-06	0.28386	539	-1.59E-06	0.31586	571	-1.84E-06	0.34886
508	-1.48E-06	0.28486	540	-2.20E-06	0.31686	572	-2.17E-06	0.34986
509	-1.50E-06	0.28586	541	-1.46E-06	0.31786	573	-1.85E-06	0.35086
510	-1.12E-06	0.28686	542	-1.52E-06	0.31886	574	-1.92E-06	0.35186

575	-2.15E-06	0.35286	607	-1.94E-06	0.38486	639	-1.26E-06	0.41686
576	-2.24E-06	0.35386	608	-1.98E-06	0.38586	640	-1.82E-06	0.41786
577	-1.31E-06	0.35486	609	-1.81E-06	0.38686	641	-2.10E-06	0.41886
578	-1.70E-06	0.35586	610	-1.53E-06	0.38786	642	-1.87E-06	0.41986
579	-1.77E-06	0.35686	611	-1.94E-06	0.38886	643	-1.92E-06	0.42086
580	-1.94E-06	0.35786	612	-1.65E-06	0.38986	644	-1.87E-06	0.42186
581	-1.65E-06	0.35886	613	-2.22E-06	0.39086	645	-2.58E-06	0.42286
582	-1.51E-06	0.35986	614	-2.14E-06	0.39186	646	-1.91E-06	0.42386
583	-1.95E-06	0.36086	615	-2.32E-06	0.39286	647	-2.60E-06	0.42486
584	-1.88E-06	0.36186	616	-2.00E-06	0.39386	648	-1.62E-06	0.42586
585	-2.20E-06	0.36286	617	-1.98E-06	0.39486	649	-1.58E-06	0.42686
586	-1.48E-06	0.36386	618	-1.94E-06	0.39586	650	-1.44E-06	0.42786
587	-1.73E-06	0.36486	619	-1.89E-06	0.39686	651	-1.91E-06	0.42886
588	-1.93E-06	0.36586	620	-1.76E-06	0.39786	652	-2.40E-06	0.42986
589	-1.87E-06	0.36686	621	-2.00E-06	0.39886	653	-2.30E-06	0.43086
590	-1.74E-06	0.36786	622	-1.82E-06	0.39986	654	-1.79E-06	0.43186
591	-1.48E-06	0.36886	623	-1.86E-06	0.40086	655	-2.28E-06	0.43286
592	-1.89E-06	0.36986	624	-2.09E-06	0.40186	656	-1.55E-06	0.43386
593	-2.03E-06	0.37086	625	-1.54E-06	0.40286	657	-1.97E-06	0.43486
594	-1.95E-06	0.37186	626	-2.14E-06	0.40386	658	-2.20E-06	0.43586
595	-1.92E-06	0.37286	627	-1.85E-06	0.40486	659	-1.41E-06	0.43686
596	-1.71E-06	0.37386	628	-1.78E-06	0.40586	660	-1.61E-06	0.43786
597	-1.57E-06	0.37486	629	-1.68E-06	0.40686	661	-2.18E-06	0.43886
598	-2.17E-06	0.37586	630	-1.69E-06	0.40786	662	-1.81E-06	0.43986
599	-2.27E-06	0.37686	631	-2.00E-06	0.40886	663	-2.32E-06	0.44086
600	-1.39E-06	0.37786	632	-1.67E-06	0.40986	664	-1.89E-06	0.44186
601	-2.36E-06	0.37886	633	-2.02E-06	0.41086	665	-1.95E-06	0.44286
602	-1.56E-06	0.37986	634	-2.15E-06	0.41186	666	-2.15E-06	0.44386
603	-1.95E-06	0.38086	635	-2.66E-06	0.41286	667	-1.44E-06	0.44486
604	-2.19E-06	0.38186	636	-1.71E-06	0.41386	668	-2.47E-06	0.44586
605	-1.62E-06	0.38286	637	-1.87E-06	0.41486	669	-1.76E-06	0.44686
606	-1.88E-06	0.38386	638	-1.30E-06	0.41586	670	-1.68E-06	0.44786

671	-2.01E-06	0.44886	703	-2.21E-06	0.48086	735	-1.63E-06	0.51286
672	-1.41E-06	0.44986	704	-2.07E-06	0.48186	736	-2.18E-06	0.51386
673	-1.80E-06	0.45086	705	-2.25E-06	0.48286	737	-1.41E-06	0.51486
674	-1.80E-06	0.45186	706	-1.87E-06	0.48386	738	-1.90E-06	0.51586
675	-1.94E-06	0.45286	707	-1.28E-06	0.48486	739	-1.64E-06	0.51686
676	-2.40E-06	0.45386	708	-1.79E-06	0.48586	740	-2.40E-06	0.51786
677	-2.35E-06	0.45486	709	-1.56E-06	0.48686	741	-1.92E-06	0.51886
678	-1.94E-06	0.45586	710	-1.22E-06	0.48786	742	-1.92E-06	0.51986
679	-1.42E-06	0.45686	711	-1.96E-06	0.48886	743	-1.65E-06	0.52086
680	-2.04E-06	0.45786	712	-1.69E-06	0.48986	744	-1.41E-06	0.52186
681	-1.98E-06	0.45886	713	-2.18E-06	0.49086	745	-2.27E-06	0.52286
682	-2.46E-06	0.45986	714	-1.81E-06	0.49186	746	-1.98E-06	0.52386
683	-2.58E-06	0.46086	715	-1.72E-06	0.49286	747	-2.00E-06	0.52486
684	-1.66E-06	0.46186	716	-1.94E-06	0.49386	748	-1.66E-06	0.52586
685	-2.21E-06	0.46286	717	-2.42E-06	0.49486	749	-2.04E-06	0.52686
686	-1.30E-06	0.46386	718	-1.84E-06	0.49586	750	-1.76E-06	0.52786
687	-2.81E-06	0.46486	719	-2.04E-06	0.49686	751	-1.61E-06	0.52886
688	-1.42E-06	0.46586	720	-2.12E-06	0.49786	752	-1.68E-06	0.52986
689	-2.00E-06	0.46686	721	-1.90E-06	0.49886	753	-1.83E-06	0.53086
690	-1.95E-06	0.46786	722	-2.02E-06	0.49986	754	-1.65E-06	0.53186
691	-2.27E-06	0.46886	723	-1.75E-06	0.50086	755	-2.19E-06	0.53286
692	-1.90E-06	0.46986	724	-2.07E-06	0.50186	756	-1.50E-06	0.53386
693	-1.81E-06	0.47086	725	-1.40E-06	0.50286	757	-2.13E-06	0.53486
694	-2.18E-06	0.47186	726	-2.24E-06	0.50386	758	-2.05E-06	0.53586
695	-2.08E-06	0.47286	727	-1.63E-06	0.50486	759	-2.49E-06	0.53686
696	-2.06E-06	0.47386	728	-1.68E-06	0.50586	760	-1.33E-06	0.53786
697	-1.81E-06	0.47486	729	-2.24E-06	0.50686	761	-1.68E-06	0.53886
698	-1.49E-06	0.47586	730	-1.56E-06	0.50786	762	-2.17E-06	0.53986
699	-2.48E-06	0.47686	731	-1.86E-06	0.50886	763	-2.29E-06	0.54086
700	-1.36E-06	0.47786	732	-1.84E-06	0.50986	764	-1.74E-06	0.54186
701	-2.18E-06	0.47886	733	-1.66E-06	0.51086	765	-2.13E-06	0.54286
702	-2.16E-06	0.47986	734	-2.06E-06	0.51186	766	-2.03E-06	0.54386

767	-1.49E-06	0.54486	799	-1.96E-06	0.57686	831	-2.16E-06	0.60886
768	-2.38E-06	0.54586	800	-1.48E-06	0.57786	832	-1.88E-06	0.60986
769	-2.07E-06	0.54686	801	-1.62E-06	0.57886	833	-2.17E-06	0.61086
770	-2.18E-06	0.54786	802	-1.75E-06	0.57986	834	-1.94E-06	0.61186
771	-2.46E-06	0.54886	803	-2.06E-06	0.58086	835	-2.11E-06	0.61286
772	-2.19E-06	0.54986	804	-1.67E-06	0.58186	836	-1.89E-06	0.61386
773	-2.42E-06	0.55086	805	-2.16E-06	0.58286	837	-2.23E-06	0.61486
774	-1.60E-06	0.55186	806	-2.10E-06	0.58386	838	-1.78E-06	0.61586
775	-2.14E-06	0.55286	807	-1.77E-06	0.58486	839	-1.86E-06	0.61686
776	-1.61E-06	0.55386	808	-1.73E-06	0.58586	840	-1.83E-06	0.61786
777	-1.94E-06	0.55486	809	-2.16E-06	0.58686	841	-2.44E-06	0.61886
778	-1.39E-06	0.55586	810	-1.92E-06	0.58786	842	-1.86E-06	0.61986
779	-2.51E-06	0.55686	811	-2.02E-06	0.58886	843	-2.17E-06	0.62086
780	-2.33E-06	0.55786	812	-2.34E-06	0.58986	844	-2.16E-06	0.62186
781	-2.30E-06	0.55886	813	-1.93E-06	0.59086	845	-2.39E-06	0.62286
782	-1.27E-06	0.55986	814	-1.89E-06	0.59186	846	-1.48E-06	0.62386
783	-2.12E-06	0.56086	815	-2.06E-06	0.59286	847	-1.87E-06	0.62486
784	-2.29E-06	0.56186	816	-2.09E-06	0.59386	848	-2.10E-06	0.62586
785	-1.53E-06	0.56286	817	-2.16E-06	0.59486	849	-2.24E-06	0.62686
786	-2.53E-06	0.56386	818	-2.10E-06	0.59586	850	-1.91E-06	0.62786
787	-2.43E-06	0.56486	819	-2.05E-06	0.59686	851	-1.87E-06	0.62886
788	-1.62E-06	0.56586	820	-2.08E-06	0.59786	852	-2.13E-06	0.62986
789	-1.91E-06	0.56686	821	-1.98E-06	0.59886	853	-1.90E-06	0.63086
790	-1.76E-06	0.56786	822	-2.04E-06	0.59986	854	-2.06E-06	0.63186
791	-1.89E-06	0.56886	823	-1.90E-06	0.60086	855	-1.92E-06	0.63286
792	-1.73E-06	0.56986	824	-1.53E-06	0.60186	856	-2.22E-06	0.63386
793	-2.40E-06	0.57086	825	-2.27E-06	0.60286	857	-1.86E-06	0.63486
794	-2.06E-06	0.57186	826	-1.89E-06	0.60386	858	-2.10E-06	0.63586
795	-1.65E-06	0.57286	827	-2.06E-06	0.60486	859	-2.11E-06	0.63686
796	-2.62E-06	0.57386	828	-1.85E-06	0.60586	860	-2.43E-06	0.63786
797	-2.15E-06	0.57486	829	-2.07E-06	0.60686	861	-1.90E-06	0.63886
798	-1.84E-06	0.57586	830	-1.91E-06	0.60786	862	-2.05E-06	0.63986

863	-2.09E-06	0.64086	895	-2.00E-06	0.67286	927	-1.72E-06	0.70486
864	-2.15E-06	0.64186	896	-2.39E-06	0.67386	928	-1.63E-06	0.70586
865	-1.97E-06	0.64286	897	-1.75E-06	0.67486	929	-1.68E-06	0.70686
866	-2.26E-06	0.64386	898	-1.81E-06	0.67586	930	-1.90E-06	0.70786
867	-1.86E-06	0.64486	899	-2.15E-06	0.67686	931	-2.09E-06	0.70886
868	-1.59E-06	0.64586	900	-2.08E-06	0.67786	932	-2.04E-06	0.70986
869	-1.86E-06	0.64686	901	-2.40E-06	0.67886	933	-2.28E-06	0.71086
870	-2.49E-06	0.64786	902	-2.51E-06	0.67986	934	-2.33E-06	0.71186
871	-2.24E-06	0.64886	903	-2.18E-06	0.68086	935	-1.89E-06	0.71286
872	-2.48E-06	0.64986	904	-1.90E-06	0.68186	936	-2.07E-06	0.71386
873	-1.76E-06	0.65086	905	-2.19E-06	0.68286	937	-1.94E-06	0.71486
874	-1.70E-06	0.65186	906	-2.35E-06	0.68386	938	-2.43E-06	0.71586
875	-1.59E-06	0.65286	907	-1.71E-06	0.68486	939	-2.17E-06	0.71686
876	-1.77E-06	0.65386	908	-2.47E-06	0.68586	940	-2.16E-06	0.71786
877	-2.00E-06	0.65486	909	-1.83E-06	0.68686	941	-2.07E-06	0.71886
878	-2.15E-06	0.65586	910	-2.28E-06	0.68786	942	-2.02E-06	0.71986
879	-2.18E-06	0.65686	911	-2.66E-06	0.68886	943	-2.23E-06	0.72086
880	-1.59E-06	0.65786	912	-2.02E-06	0.68986	944	-2.63E-06	0.72186
881	-2.07E-06	0.65886	913	-2.37E-06	0.69086	945	-2.09E-06	0.72286
882	-1.95E-06	0.65986	914	-1.60E-06	0.69186	946	-2.19E-06	0.72386
883	-2.26E-06	0.66086	915	-2.39E-06	0.69286	947	-2.66E-06	0.72486
884	-2.75E-06	0.66186	916	-1.88E-06	0.69386	948	-2.10E-06	0.72586
885	-1.78E-06	0.66286	917	-2.10E-06	0.69486	949	-2.12E-06	0.72686
886	-2.35E-06	0.66386	918	-2.42E-06	0.69586	950	-2.33E-06	0.72786
887	-1.76E-06	0.66486	919	-2.53E-06	0.69686	951	-2.38E-06	0.72886
888	-2.61E-06	0.66586	920	-2.12E-06	0.69786	952	-2.04E-06	0.72986
889	-2.34E-06	0.66686	921	-2.14E-06	0.69886	953	-1.89E-06	0.73086
890	-2.44E-06	0.66786	922	-1.87E-06	0.69986	954	-2.26E-06	0.73186
891	-2.68E-06	0.66886	923	-2.27E-06	0.70086	955	-2.14E-06	0.73286
892	-1.91E-06	0.66986	924	-2.79E-06	0.70186	956	-1.97E-06	0.73386
893	-2.27E-06	0.67086	925	-2.63E-06	0.70286	957	-2.11E-06	0.73486
894	-1.96E-06	0.67186	926	-2.29E-06	0.70386	958	-2.21E-06	0.73586

959	-2.65E-06	0.73686	991	-1.67E-06	0.76886	1023	-2.20E-06	0.80086
960	-2.58E-06	0.73786	992	-1.74E-06	0.76986	1024	-1.74E-06	0.80186
961	-2.29E-06	0.73886	993	-1.59E-06	0.77086	1025	-1.73E-06	0.80286
962	-1.93E-06	0.73986	994	-2.57E-06	0.77186	1026	-2.93E-06	0.80386
963	-1.62E-06	0.74086	995	-2.08E-06	0.77286	1027	-2.61E-06	0.80486
964	-2.05E-06	0.74186	996	-2.47E-06	0.77386	1028	-1.92E-06	0.80586
965	-1.77E-06	0.74286	997	-2.41E-06	0.77486	1029	-2.38E-06	0.80686
966	-2.14E-06	0.74386	998	-2.15E-06	0.77586	1030	-3.02E-06	0.80786
967	-1.72E-06	0.74486	999	-1.93E-06	0.77686	1031	-2.51E-06	0.80886
968	-2.45E-06	0.74586	1000	-3.03E-06	0.77786	1032	-1.93E-06	0.80986
969	-2.01E-06	0.74686	1001	-1.79E-06	0.77886	1033	-1.82E-06	0.81086
970	-1.85E-06	0.74786	1002	-1.92E-06	0.77986	1034	-2.30E-06	0.81186
971	-2.84E-06	0.74886	1003	-2.55E-06	0.78086	1035	-1.98E-06	0.81286
972	-2.39E-06	0.74986	1004	-2.38E-06	0.78186	1036	-2.29E-06	0.81386
973	-2.14E-06	0.75086	1005	-1.98E-06	0.78286	1037	-1.81E-06	0.81486
974	-1.72E-06	0.75186	1006	-2.01E-06	0.78386	1038	-2.44E-06	0.81586
975	-1.78E-06	0.75286	1007	-2.17E-06	0.78486	1039	-1.89E-06	0.81686
976	-2.34E-06	0.75386	1008	-2.31E-06	0.78586	1040	-1.80E-06	0.81786
977	-1.96E-06	0.75486	1009	-2.31E-06	0.78686	1041	-1.40E-06	0.81886
978	-1.88E-06	0.75586	1010	-2.22E-06	0.78786	1042	-1.59E-06	0.81986
979	-1.47E-06	0.75686	1011	-2.10E-06	0.78886	1043	-2.27E-06	0.82086
980	-2.55E-06	0.75786	1012	-2.51E-06	0.78986	1044	-2.63E-06	0.82186
981	-2.18E-06	0.75886	1013	-2.29E-06	0.79086	1045	-2.05E-06	0.82286
982	-1.83E-06	0.75986	1014	-2.92E-06	0.79186	1046	-1.92E-06	0.82386
983	-1.71E-06	0.76086	1015	-1.96E-06	0.79286	1047	-2.50E-06	0.82486
984	-2.26E-06	0.76186	1016	-2.07E-06	0.79386	1048	-1.76E-06	0.82586
985	-2.04E-06	0.76286	1017	-2.09E-06	0.79486	1049	-1.73E-06	0.82686
986	-2.04E-06	0.76386	1018	-1.81E-06	0.79586	1050	-2.13E-06	0.82786
987	-1.62E-06	0.76486	1019	-1.72E-06	0.79686	1051	-2.32E-06	0.82886
988	-2.63E-06	0.76586	1020	-2.49E-06	0.79786	1052	-2.19E-06	0.82986
989	-1.71E-06	0.76686	1021	-2.18E-06	0.79886	1053	-1.88E-06	0.83086
990	-1.74E-06	0.76786	1022	-2.57E-06	0.79986	1054	-2.48E-06	0.83186

1055	-2.12E-06	0.83286	1087	-2.52E-06	0.86486	1119	-2.02E-06	0.89686
1056	-2.31E-06	0.83386	1088	-2.34E-06	0.86586	1120	-2.77E-06	0.89786
1057	-2.25E-06	0.83486	1089	-2.24E-06	0.86686	1121	-2.35E-06	0.89886
1058	-2.20E-06	0.83586	1090	-2.23E-06	0.86786	1122	-2.62E-06	0.89986
1059	-1.92E-06	0.83686	1091	-2.10E-06	0.86886	1123	-2.21E-06	0.90086
1060	-2.12E-06	0.83786	1092	-2.08E-06	0.86986	1124	-2.32E-06	0.90186
1061	-2.41E-06	0.83886	1093	-2.20E-06	0.87086	1125	-2.23E-06	0.90286
1062	-2.28E-06	0.83986	1094	-2.42E-06	0.87186	1126	-2.30E-06	0.90386
1063	-1.96E-06	0.84086	1095	-2.15E-06	0.87286	1127	-2.26E-06	0.90486
1064	-2.33E-06	0.84186	1096	-2.26E-06	0.87386	1128	-1.59E-06	0.90586
1065	-2.17E-06	0.84286	1097	-2.22E-06	0.87486	1129	-2.37E-06	0.90686
1066	-2.08E-06	0.84386	1098	-2.28E-06	0.87586	1130	-2.21E-06	0.90786
1067	-2.07E-06	0.84486	1099	-2.05E-06	0.87686	1131	-2.15E-06	0.90886
1068	-2.37E-06	0.84586	1100	-2.25E-06	0.87786	1132	-2.33E-06	0.90986
1069	-2.43E-06	0.84686	1101	-2.41E-06	0.87886	1133	-2.07E-06	0.91086
1070	-2.48E-06	0.84786	1102	-2.68E-06	0.87986	1134	-2.67E-06	0.91186
1071	-2.30E-06	0.84886	1103	-2.58E-06	0.88086	1135	-2.02E-06	0.91286
1072	-2.13E-06	0.84986	1104	-2.08E-06	0.88186	1136	-2.36E-06	0.91386
1073	-2.20E-06	0.85086	1105	-1.76E-06	0.88286	1137	-2.35E-06	0.91486
1074	-2.05E-06	0.85186	1106	-2.66E-06	0.88386	1138	-2.17E-06	0.91586
1075	-2.20E-06	0.85286	1107	-1.78E-06	0.88486	1139	-2.19E-06	0.91686
1076	-2.33E-06	0.85386	1108	-2.01E-06	0.88586	1140	-1.73E-06	0.91786
1077	-2.25E-06	0.85486	1109	-2.43E-06	0.88686	1141	-2.50E-06	0.91886
1078	-2.20E-06	0.85586	1110	-2.07E-06	0.88786	1142	-2.10E-06	0.91986
1079	-2.56E-06	0.85686	1111	-2.04E-06	0.88886	1143	-2.37E-06	0.92086
1080	-2.17E-06	0.85786	1112	-2.00E-06	0.88986	1144	-2.18E-06	0.92186
1081	-2.58E-06	0.85886	1113	-2.24E-06	0.89086	1145	-2.00E-06	0.92286
1082	-2.10E-06	0.85986	1114	-2.34E-06	0.89186	1146	-2.29E-06	0.92386
1083	-2.32E-06	0.86086	1115	-2.09E-06	0.89286	1147	-2.48E-06	0.92486
1084	-2.28E-06	0.86186	1116	-2.48E-06	0.89386	1148	-2.23E-06	0.92586
1085	-2.54E-06	0.86286	1117	-2.18E-06	0.89486	1149	-2.12E-06	0.92686
1086	-2.06E-06	0.86386	1118	-2.51E-06	0.89586	1150	-2.38E-06	0.92786

1151	-2.33E-06	0.92886	1183	-2.36E-06	0.96086	1215	-2.68E-06	0.99286
1152	-2.37E-06	0.92986	1184	-2.16E-06	0.96186	1216	-2.16E-06	0.99386
1153	-2.34E-06	0.93086	1185	-2.27E-06	0.96286	1217	-2.34E-06	0.99486
1154	-2.43E-06	0.93186	1186	-2.27E-06	0.96386	1218	-2.58E-06	0.99586
1155	-1.81E-06	0.93286	1187	-2.17E-06	0.96486	1219	-2.65E-06	0.99686
1156	-2.19E-06	0.93386	1188	-2.15E-06	0.96586	1220	-1.93E-06	0.99786
1157	-2.00E-06	0.93486	1189	-2.30E-06	0.96686	1221	-1.61E-06	0.99886
1158	-2.13E-06	0.93586	1190	-1.88E-06	0.96786	1222	-2.54E-06	0.99986
1159	-2.20E-06	0.93686	1191	-2.31E-06	0.96886	1223	-1.99E-06	1.0009
1160	-2.22E-06	0.93786	1192	-2.11E-06	0.96986	1224	-2.53E-06	1.0019
1161	-2.35E-06	0.93886	1193	-2.24E-06	0.97086	1225	-2.15E-06	1.0029
1162	-2.37E-06	0.93986	1194	-2.35E-06	0.97186	1226	-2.14E-06	1.0039
1163	-2.29E-06	0.94086	1195	-2.15E-06	0.97286	1227	-2.43E-06	1.0049
1164	-2.44E-06	0.94186	1196	-2.36E-06	0.97386	1228	-2.23E-06	1.0059
1165	-2.18E-06	0.94286	1197	-2.43E-06	0.97486	1229	-2.49E-06	1.0069
1166	-2.53E-06	0.94386	1198	-2.20E-06	0.97586	1230	-2.52E-06	1.0079
1167	-2.25E-06	0.94486	1199	-2.61E-06	0.97686	1231	-2.16E-06	1.0089
1168	-2.59E-06	0.94586	1200	-2.58E-06	0.97786	1232	-2.50E-06	1.0099
1169	-2.34E-06	0.94686	1201	-1.79E-06	0.97886	1233	-2.33E-06	1.0109
1170	-2.44E-06	0.94786	1202	-2.92E-06	0.97986	1234	-2.44E-06	1.0119
1171	-2.34E-06	0.94886	1203	-2.22E-06	0.98086	1235	-2.24E-06	1.0129
1172	-2.36E-06	0.94986	1204	-2.28E-06	0.98186	1236	-2.64E-06	1.0139
1173	-2.18E-06	0.95086	1205	-2.35E-06	0.98286	1237	-2.09E-06	1.0149
1174	-2.43E-06	0.95186	1206	-2.21E-06	0.98386	1238	-2.92E-06	1.0159
1175	-2.50E-06	0.95286	1207	-2.33E-06	0.98486	1239	-1.92E-06	1.0169
1176	-2.33E-06	0.95386	1208	-2.58E-06	0.98586	1240	-2.84E-06	1.0179
1177	-2.71E-06	0.95486	1209	-1.82E-06	0.98686	1241	-2.29E-06	1.0189
1178	-2.61E-06	0.95586	1210	-3.22E-06	0.98786	1242	-2.75E-06	1.0199
1179	-1.74E-06	0.95686	1211	-2.14E-06	0.98886	1243	-2.49E-06	1.0209
1180	-1.67E-06	0.95786	1212	-2.93E-06	0.98986	1244	-2.60E-06	1.0219
1181	-2.99E-06	0.95886	1213	-2.66E-06	0.99086	1245	-2.63E-06	1.0229
1182	-1.90E-06	0.95986	1214	-2.27E-06	0.99186	1246	-2.64E-06	1.0239

1247	-2.73E-06	1.0249	1279	-2.82E-06	1.0569	1311	-2.30E-06	1.0889
1248	-2.29E-06	1.0259	1280	-2.08E-06	1.0579	1312	-2.67E-06	1.0899
1249	-2.41E-06	1.0269	1281	-2.31E-06	1.0589	1313	-1.97E-06	1.0909
1250	-2.21E-06	1.0279	1282	-2.39E-06	1.0599	1314	-2.36E-06	1.0919
1251	-2.32E-06	1.0289	1283	-2.09E-06	1.0609	1315	-2.62E-06	1.0929
1252	-2.31E-06	1.0299	1284	-2.03E-06	1.0619	1316	-2.61E-06	1.0939
1253	-2.22E-06	1.0309	1285	-2.26E-06	1.0629	1317	-2.17E-06	1.0949
1254	-2.36E-06	1.0319	1286	-2.42E-06	1.0639	1318	-2.35E-06	1.0959
1255	-2.44E-06	1.0329	1287	-2.15E-06	1.0649	1319	-2.61E-06	1.0969
1256	-2.14E-06	1.0339	1288	-2.49E-06	1.0659	1320	-2.26E-06	1.0979
1257	-2.44E-06	1.0349	1289	-2.37E-06	1.0669	1321	-2.19E-06	1.0989
1258	-2.43E-06	1.0359	1290	-2.12E-06	1.0679	1322	-2.18E-06	1.0999
1259	-2.30E-06	1.0369	1291	-2.41E-06	1.0689	1323	-2.54E-06	1.1009
1260	-2.13E-06	1.0379	1292	-2.40E-06	1.0699	1324	-2.32E-06	1.1019
1261	-2.23E-06	1.0389	1293	-2.35E-06	1.0709	1325	-2.69E-06	1.1029
1262	-2.43E-06	1.0399	1294	-2.90E-06	1.0719	1326	-1.86E-06	1.1039
1263	-2.30E-06	1.0409	1295	-2.05E-06	1.0729	1327	-2.61E-06	1.1049
1264	-2.00E-06	1.0419	1296	-2.44E-06	1.0739	1328	-2.60E-06	1.1059
1265	-2.54E-06	1.0429	1297	-2.07E-06	1.0749	1329	-2.14E-06	1.1069
1266	-2.82E-06	1.0439	1298	-2.29E-06	1.0759	1330	-2.61E-06	1.1079
1267	-2.34E-06	1.0449	1299	-2.30E-06	1.0769	1331	-2.54E-06	1.1089
1268	-2.05E-06	1.0459	1300	-2.13E-06	1.0779	1332	-2.33E-06	1.1099
1269	-2.98E-06	1.0469	1301	-2.06E-06	1.0789	1333	-1.87E-06	1.1109
1270	-2.14E-06	1.0479	1302	-2.10E-06	1.0799	1334	-2.45E-06	1.1119
1271	-2.27E-06	1.0489	1303	-2.56E-06	1.0809	1335	-2.05E-06	1.1129
1272	-2.30E-06	1.0499	1304	-2.50E-06	1.0819	1336	-2.47E-06	1.1139
1273	-2.42E-06	1.0509	1305	-2.43E-06	1.0829	1337	-2.15E-06	1.1149
1274	-2.94E-06	1.0519	1306	-2.60E-06	1.0839	1338	-2.53E-06	1.1159
1275	-2.67E-06	1.0529	1307	-2.46E-06	1.0849	1339	-2.82E-06	1.1169
1276	-2.72E-06	1.0539	1308	-2.32E-06	1.0859	1340	-2.17E-06	1.1179
1277	-2.13E-06	1.0549	1309	-2.28E-06	1.0869	1341	-2.52E-06	1.1189
1278	-2.65E-06	1.0559	1310	-2.46E-06	1.0879	1342	-2.30E-06	1.1199

1343	-2.63E-06	1.1209	1375	-2.66E-06	1.1529	1407	-2.47E-06	1.1849
1344	-2.40E-06	1.1219	1376	-2.62E-06	1.1539	1408	-2.31E-06	1.1859
1345	-2.43E-06	1.1229	1377	-1.99E-06	1.1549	1409	-2.31E-06	1.1869
1346	-2.40E-06	1.1239	1378	-2.95E-06	1.1559	1410	-2.31E-06	1.1879
1347	-2.16E-06	1.1249	1379	-2.58E-06	1.1569	1411	-2.52E-06	1.1889
1348	-2.50E-06	1.1259	1380	-2.44E-06	1.1579	1412	-2.49E-06	1.1899
1349	-2.75E-06	1.1269	1381	-2.26E-06	1.1589	1413	-2.71E-06	1.1909
1350	-2.43E-06	1.1279	1382	-2.68E-06	1.1599	1414	-2.68E-06	1.1919
1351	-2.26E-06	1.1289	1383	-2.52E-06	1.1609	1415	-2.55E-06	1.1929
1352	-2.56E-06	1.1299	1384	-2.74E-06	1.1619	1416	-2.72E-06	1.1939
1353	-2.27E-06	1.1309	1385	-2.81E-06	1.1629	1417	-2.69E-06	1.1949
1354	-2.41E-06	1.1319	1386	-2.39E-06	1.1639	1418	-2.65E-06	1.1959
1355	-2.14E-06	1.1329	1387	-2.69E-06	1.1649	1419	-2.74E-06	1.1969
1356	-2.60E-06	1.1339	1388	-2.35E-06	1.1659	1420	-2.51E-06	1.1979
1357	-2.47E-06	1.1349	1389	-2.36E-06	1.1669	1421	-2.77E-06	1.1989
1358	-2.33E-06	1.1359	1390	-2.51E-06	1.1679	1422	-2.49E-06	1.1999
1359	-2.37E-06	1.1369	1391	-2.38E-06	1.1689	1423	-2.26E-06	1.2009
1360	-2.48E-06	1.1379	1392	-2.69E-06	1.1699	1424	-3.01E-06	1.2019
1361	-2.61E-06	1.1389	1393	-2.51E-06	1.1709	1425	-2.26E-06	1.2029
1362	-2.86E-06	1.1399	1394	-2.10E-06	1.1719	1426	-2.42E-06	1.2039
1363	-2.64E-06	1.1409	1395	-2.89E-06	1.1729	1427	-3.08E-06	1.2049
1364	-2.26E-06	1.1419	1396	-2.18E-06	1.1739	1428	-2.58E-06	1.2059
1365	-2.20E-06	1.1429	1397	-2.28E-06	1.1749	1429	-2.58E-06	1.2069
1366	-1.91E-06	1.1439	1398	-2.80E-06	1.1759	1430	-2.54E-06	1.2079
1367	-2.20E-06	1.1449	1399	-2.43E-06	1.1769	1431	-2.63E-06	1.2089
1368	-2.41E-06	1.1459	1400	-2.84E-06	1.1779	1432	-2.55E-06	1.2099
1369	-2.24E-06	1.1469	1401	-2.72E-06	1.1789	1433	-2.72E-06	1.2109
1370	-2.26E-06	1.1479	1402	-2.44E-06	1.1799	1434	-2.78E-06	1.2119
1371	-2.75E-06	1.1489	1403	-2.83E-06	1.1809	1435	-2.70E-06	1.2129
1372	-2.70E-06	1.1499	1404	-2.83E-06	1.1819	1436	-3.01E-06	1.2139
1373	-2.39E-06	1.1509	1405	-1.93E-06	1.1829	1437	-2.60E-06	1.2149
1374	-1.88E-06	1.1519	1406	-2.74E-06	1.1839	1438	-2.49E-06	1.2159

1439	-2.45E-06	1.2169	1471	-3.48E-06	1.2489	1503	-3.94E-06	1.2809
1440	-2.85E-06	1.2179	1472	-2.53E-06	1.2499	1504	-3.76E-06	1.2819
1441	-2.61E-06	1.2189	1473	-3.16E-06	1.2509	1505	-3.63E-06	1.2829
1442	-2.75E-06	1.2199	1474	-3.44E-06	1.2519	1506	-3.97E-06	1.2839
1443	-2.81E-06	1.2209	1475	-2.84E-06	1.2529	1507	-4.18E-06	1.2849
1444	-2.86E-06	1.2219	1476	-3.36E-06	1.2539	1508	-3.73E-06	1.2859
1445	-2.79E-06	1.2229	1477	-2.98E-06	1.2549	1509	-4.01E-06	1.2869
1446	-2.95E-06	1.2239	1478	-3.53E-06	1.2559	1510	-4.15E-06	1.2879
1447	-2.66E-06	1.2249	1479	-3.55E-06	1.2569	1511	-4.20E-06	1.2889
1448	-2.84E-06	1.2259	1480	-3.30E-06	1.2579	1512	-3.96E-06	1.2899
1449	-2.29E-06	1.2269	1481	-3.23E-06	1.2589	1513	-4.04E-06	1.2909
1450	-2.54E-06	1.2279	1482	-3.05E-06	1.2599	1514	-4.02E-06	1.2919
1451	-3.08E-06	1.2289	1483	-3.38E-06	1.2609	1515	-4.15E-06	1.2929
1452	-3.38E-06	1.2299	1484	-3.62E-06	1.2619	1516	-4.20E-06	1.2939
1453	-3.20E-06	1.2309	1485	-2.89E-06	1.2629	1517	-4.73E-06	1.2949
1454	-2.84E-06	1.2319	1486	-3.40E-06	1.2639	1518	-4.68E-06	1.2959
1455	-2.96E-06	1.2329	1487	-3.79E-06	1.2649	1519	-3.85E-06	1.2969
1456	-2.68E-06	1.2339	1488	-3.22E-06	1.2659	1520	-4.59E-06	1.2979
1457	-2.99E-06	1.2349	1489	-3.39E-06	1.2669	1521	-4.32E-06	1.2989
1458	-3.20E-06	1.2359	1490	-3.81E-06	1.2679	1522	-4.15E-06	1.2999
1459	-2.66E-06	1.2369	1491	-3.55E-06	1.2689	1523	-4.47E-06	1.3009
1460	-2.91E-06	1.2379	1492	-3.21E-06	1.2699	1524	-4.62E-06	1.3019
1461	-2.76E-06	1.2389	1493	-3.73E-06	1.2709	1525	-4.60E-06	1.3029
1462	-3.02E-06	1.2399	1494	-3.44E-06	1.2719	1526	-4.58E-06	1.3039
1463	-3.07E-06	1.2409	1495	-3.65E-06	1.2729	1527	-4.52E-06	1.3049
1464	-2.93E-06	1.2419	1496	-3.66E-06	1.2739	1528	-5.02E-06	1.3059
1465	-3.14E-06	1.2429	1497	-3.47E-06	1.2749	1529	-4.68E-06	1.3069
1466	-3.23E-06	1.2439	1498	-3.89E-06	1.2759	1530	-4.89E-06	1.3079
1467	-3.38E-06	1.2449	1499	-3.60E-06	1.2769	1531	-4.42E-06	1.3089
1468	-2.96E-06	1.2459	1500	-4.00E-06	1.2779	1532	-4.69E-06	1.3099
1469	-2.97E-06	1.2469	1501	-3.63E-06	1.2789	1533	-4.87E-06	1.3109
1470	-3.23E-06	1.2479	1502	-3.79E-06	1.2799	1534	-5.42E-06	1.3119

1535	-4.92E-06	1.3129		1567	-7.06E-06	1.3449		1599	-9.38E-06	1.3769
1536	-4.80E-06	1.3139		1568	-6.54E-06	1.3459		1600	-1.00E-05	1.3779
1537	-4.83E-06	1.3149		1569	-6.67E-06	1.3469		1601	-1.02E-05	1.3789
1538	-5.12E-06	1.3159		1570	-6.52E-06	1.3479		1602	-1.05E-05	1.3799
1539	-4.88E-06	1.3169		1571	-7.08E-06	1.3489		1603	-1.04E-05	1.3809
1540	-5.42E-06	1.3179		1572	-6.82E-06	1.3499		1604	-1.02E-05	1.3819
1541	-5.15E-06	1.3189		1573	-7.30E-06	1.3509		1605	-9.98E-06	1.3829
1542	-5.31E-06	1.3199		1574	-7.71E-06	1.3519		1606	-1.05E-05	1.3839
1543	-5.32E-06	1.3209		1575	-6.77E-06	1.3529		1607	-1.06E-05	1.3849
1544	-5.44E-06	1.3219		1576	-7.37E-06	1.3539		1608	-1.08E-05	1.3859
1545	-5.22E-06	1.3229		1577	-7.36E-06	1.3549		1609	-1.08E-05	1.3869
1546	-5.41E-06	1.3239		1578	-7.33E-06	1.3559		1610	-1.11E-05	1.3879
1547	-5.31E-06	1.3249		1579	-7.43E-06	1.3569		1611	-1.12E-05	1.3889
1548	-5.65E-06	1.3259		1580	-7.66E-06	1.3579		1612	-1.15E-05	1.3899
1549	-5.53E-06	1.3269		1581	-7.98E-06	1.3589		1613	-1.15E-05	1.3909
1550	-5.49E-06	1.3279		1582	-8.05E-06	1.3599		1614	-1.16E-05	1.3919
1551	-5.79E-06	1.3289		1583	-8.29E-06	1.3609		1615	-1.18E-05	1.3929
1552	-5.85E-06	1.3299		1584	-7.97E-06	1.3619		1616	-1.21E-05	1.3939
1553	-5.71E-06	1.3309		1585	-8.04E-06	1.3629		1617	-1.23E-05	1.3949
1554	-6.12E-06	1.3319		1586	-8.69E-06	1.3639		1618	-1.23E-05	1.3959
1555	-6.21E-06	1.3329		1587	-8.47E-06	1.3649		1619	-1.28E-05	1.3969
1556	-6.13E-06	1.3339		1588	-8.10E-06	1.3659		1620	-1.32E-05	1.3979
1557	-5.82E-06	1.3349		1589	-8.45E-06	1.3669		1621	-1.28E-05	1.3989
1558	-5.95E-06	1.3359		1590	-8.94E-06	1.3679		1622	-1.34E-05	1.3999
1559	-6.15E-06	1.3369		1591	-9.11E-06	1.3689		1623	-1.32E-05	1.4009
1560	-6.36E-06	1.3379		1592	-8.44E-06	1.3699		1624	-1.36E-05	1.4019
1561	-6.17E-06	1.3389		1593	-9.22E-06	1.3709		1625	-1.38E-05	1.4029
1562	-6.05E-06	1.3399		1594	-8.82E-06	1.3719		1626	-1.43E-05	1.4039
1563	-6.20E-06	1.3409		1595	-9.34E-06	1.3729		1627	-1.44E-05	1.4049
1564	-6.64E-06	1.3419		1596	-9.62E-06	1.3739		1628	-1.44E-05	1.4059
1565	-6.33E-06	1.3429		1597	-9.79E-06	1.3749		1629	-1.46E-05	1.4069
1566	-6.62E-06	1.3439		1598	-9.81E-06	1.3759		1630	-1.48E-05	1.4079

1631	-1.51E-05	1.4099	1663	-2.74E-05	1.4419	1695	-5.20E-05	1.4739
1632	-1.53E-05	1.4109	1664	-2.76E-05	1.4429	1696	-5.27E-05	1.4749
1633	-1.59E-05	1.4119	1665	-2.82E-05	1.4439	1697	-5.42E-05	1.4759
1634	-1.54E-05	1.4129	1666	-2.90E-05	1.4449	1698	-5.53E-05	1.4769
1635	-1.62E-05	1.4139	1667	-2.98E-05	1.4459	1699	-5.85E-05	1.4779
1636	-1.67E-05	1.4149	1668	-3.05E-05	1.4469	1700	-6.04E-05	1.4789
1637	-1.69E-05	1.4159	1669	-3.10E-05	1.4479	1701	-6.16E-05	1.4799
1638	-1.77E-05	1.4169	1670	-3.13E-05	1.4489	1702	-6.14E-05	1.4809
1639	-1.81E-05	1.4179	1671	-3.19E-05	1.4499	1703	-6.28E-05	1.4819
1640	-1.79E-05	1.4189	1672	-3.26E-05	1.4509	1704	-6.36E-05	1.4829
1641	-1.77E-05	1.4199	1673	-3.37E-05	1.4519	1705	-6.43E-05	1.4839
1642	-1.87E-05	1.4209	1674	-3.42E-05	1.4529	1706	-6.64E-05	1.4849
1643	-1.89E-05	1.4219	1675	-3.48E-05	1.4539	1707	-6.75E-05	1.4859
1644	-1.92E-05	1.4229	1676	-3.50E-05	1.4549	1708	-6.85E-05	1.4869
1645	-1.94E-05	1.4239	1677	-3.66E-05	1.4559	1709	-7.03E-05	1.4879
1646	-2.02E-05	1.4249	1678	-3.66E-05	1.4569	1710	-7.19E-05	1.4889
1647	-2.00E-05	1.4259	1679	-3.75E-05	1.4579	1711	-7.27E-05	1.4899
1648	-2.06E-05	1.4269	1680	-3.86E-05	1.4589	1712	-7.46E-05	1.4909
1649	-2.09E-05	1.4279	1681	-3.93E-05	1.4599	1713	-7.58E-05	1.4919
1650	-2.16E-05	1.4289	1682	-3.96E-05	1.4609	1714	-7.68E-05	1.4929
1651	-2.17E-05	1.4299	1683	-4.07E-05	1.4619	1715	-7.91E-05	1.4939
1652	-2.26E-05	1.4309	1684	-4.14E-05	1.4629	1716	-7.97E-05	1.4949
1653	-2.30E-05	1.4319	1685	-4.28E-05	1.4639	1717	-8.22E-05	1.4959
1654	-2.28E-05	1.4329	1686	-4.27E-05	1.4649	1718	-8.37E-05	1.4969
1655	-2.27E-05	1.4339	1687	-4.47E-05	1.4659	1719	-8.49E-05	1.4979
1656	-2.46E-05	1.4349	1688	-4.51E-05	1.4669	1720	-8.76E-05	1.4989
1657	-2.40E-05	1.4359	1689	-4.63E-05	1.4679	1721	-8.85E-05	1.4999
1658	-2.49E-05	1.4369	1690	-4.64E-05	1.4689	1722	-9.07E-05	1.5009
1659	-2.55E-05	1.4379	1691	-4.81E-05	1.4699	1723	-9.27E-05	1.5019
1660	-2.64E-05	1.4389	1692	-4.90E-05	1.4709	1724	-9.46E-05	1.5029
1661	-2.68E-05	1.4399	1693	-5.00E-05	1.4719	1725	-9.75E-05	1.5039
1662	-2.66E-05	1.4409	1694	-5.09E-05	1.4729	1726	-9.92E-05	1.5049

1727	-1.01E-04	1.5059		1759	-1.84E-04	1.5379		1791	-1.47E-04	1.5199
1728	-1.03E-04	1.5069		1760	-1.88E-04	1.5389		1792	-1.45E-04	1.5189
1729	-1.05E-04	1.5079		1761	-1.91E-04	1.5399		1793	-1.43E-04	1.5179
1730	-1.07E-04	1.5089		1762	-1.94E-04	1.5409		1794	-1.42E-04	1.5169
1731	-1.09E-04	1.5099		1763	-1.98E-04	1.5419		1795	-1.40E-04	1.5159
1732	-1.11E-04	1.5109		1764	-2.00E-04	1.5429		1796	-1.38E-04	1.5149
1733	-1.14E-04	1.5119		1765	-2.04E-04	1.5439		1797	-1.37E-04	1.5139
1734	-1.15E-04	1.5129		1766	-2.08E-04	1.5449		1798	-1.35E-04	1.5129
1735	-1.18E-04	1.5139		1767	-2.04E-04	1.5439		1799	-1.34E-04	1.5119
1736	-1.20E-04	1.5149		1768	-2.01E-04	1.5429		1800	-1.32E-04	1.5109
1737	-1.22E-04	1.5159		1769	-1.98E-04	1.5419		1801	-1.30E-04	1.5099
1738	-1.25E-04	1.5169		1770	-1.94E-04	1.5409		1802	-1.29E-04	1.5089
1739	-1.27E-04	1.5179		1771	-1.92E-04	1.5399		1803	-1.28E-04	1.5079
1740	-1.30E-04	1.5189		1772	-1.88E-04	1.5389		1804	-1.27E-04	1.5069
1741	-1.32E-04	1.5199		1773	-1.86E-04	1.5379		1805	-1.24E-04	1.5059
1742	-1.34E-04	1.5209		1774	-1.84E-04	1.5369		1806	-1.23E-04	1.5049
1743	-1.38E-04	1.5219		1775	-1.81E-04	1.5359		1807	-1.22E-04	1.5039
1744	-1.40E-04	1.5229		1776	-1.79E-04	1.5349		1808	-1.20E-04	1.5029
1745	-1.43E-04	1.5239		1777	-1.76E-04	1.5339		1809	-1.19E-04	1.5019
1746	-1.46E-04	1.5249		1778	-1.74E-04	1.5329		1810	-1.17E-04	1.5009
1747	-1.48E-04	1.5259		1779	-1.71E-04	1.5319		1811	-1.16E-04	1.4999
1748	-1.51E-04	1.5269		1780	-1.68E-04	1.5309		1812	-1.14E-04	1.4989
1749	-1.54E-04	1.5279		1781	-1.66E-04	1.5299		1813	-1.14E-04	1.4979
1750	-1.57E-04	1.5289		1782	-1.64E-04	1.5289		1814	-1.12E-04	1.4969
1751	-1.60E-04	1.5299		1783	-1.62E-04	1.5279		1815	-1.11E-04	1.4959
1752	-1.63E-04	1.5309		1784	-1.61E-04	1.5269		1816	-1.10E-04	1.4949
1753	-1.66E-04	1.5319		1785	-1.58E-04	1.5259		1817	-1.08E-04	1.4939
1754	-1.69E-04	1.5329		1786	-1.56E-04	1.5249		1818	-1.07E-04	1.4929
1755	-1.72E-04	1.5339		1787	-1.55E-04	1.5239		1819	-1.06E-04	1.4919
1756	-1.75E-04	1.5349		1788	-1.53E-04	1.5229		1820	-1.05E-04	1.4909
1757	-1.78E-04	1.5359		1789	-1.51E-04	1.5219		1821	-1.03E-04	1.4899
1758	-1.81E-04	1.5369		1790	-1.48E-04	1.5209		1822	-1.02E-04	1.4889

1823	-1.01E-04	1.4879		1855	-6.85E-05	1.4559		1887	-4.64E-05	1.4239
1824	-9.95E-05	1.4869		1856	-6.80E-05	1.4549		1888	-4.55E-05	1.4229
1825	-9.84E-05	1.4859		1857	-6.73E-05	1.4539		1889	-4.55E-05	1.4219
1826	-9.70E-05	1.4849		1858	-6.67E-05	1.4529		1890	-4.44E-05	1.4209
1827	-9.61E-05	1.4839		1859	-6.51E-05	1.4519		1891	-4.33E-05	1.4199
1828	-9.49E-05	1.4829		1860	-6.45E-05	1.4509		1892	-4.30E-05	1.4189
1829	-9.33E-05	1.4819		1861	-6.37E-05	1.4499		1893	-4.25E-05	1.4179
1830	-9.26E-05	1.4809		1862	-6.30E-05	1.4489		1894	-4.22E-05	1.4169
1831	-9.19E-05	1.4799		1863	-6.22E-05	1.4479		1895	-4.15E-05	1.4159
1832	-9.04E-05	1.4789		1864	-6.15E-05	1.4469		1896	-4.12E-05	1.4149
1833	-8.99E-05	1.4779		1865	-6.09E-05	1.4459		1897	-4.01E-05	1.4139
1834	-8.84E-05	1.4769		1866	-6.03E-05	1.4449		1898	-4.02E-05	1.4129
1835	-8.68E-05	1.4759		1867	-5.89E-05	1.4439		1899	-3.89E-05	1.4119
1836	-8.62E-05	1.4749		1868	-5.91E-05	1.4429		1900	-3.87E-05	1.4109
1837	-8.55E-05	1.4739		1869	-5.79E-05	1.4419		1901	-3.85E-05	1.4099
1838	-8.46E-05	1.4729		1870	-5.77E-05	1.4409		1902	-3.79E-05	1.4089
1839	-8.30E-05	1.4719		1871	-5.64E-05	1.4399		1903	-3.76E-05	1.4079
1840	-8.23E-05	1.4709		1872	-5.56E-05	1.4389		1904	-3.72E-05	1.4069
1841	-8.09E-05	1.4699		1873	-5.51E-05	1.4379		1905	-3.65E-05	1.4059
1842	-8.01E-05	1.4689		1874	-5.46E-05	1.4369		1906	-3.59E-05	1.4049
1843	-7.96E-05	1.4679		1875	-5.41E-05	1.4359		1907	-3.51E-05	1.4039
1844	-7.82E-05	1.4669		1876	-5.30E-05	1.4349		1908	-3.50E-05	1.4029
1845	-7.77E-05	1.4659		1877	-5.19E-05	1.4339		1909	-3.47E-05	1.4019
1846	-7.64E-05	1.4649		1878	-5.18E-05	1.4329		1910	-3.43E-05	1.4009
1847	-7.55E-05	1.4639		1879	-5.14E-05	1.4319		1911	-3.38E-05	1.3999
1848	-7.50E-05	1.4629		1880	-4.97E-05	1.4309		1912	-3.31E-05	1.3989
1849	-7.36E-05	1.4619		1881	-5.00E-05	1.4299		1913	-3.24E-05	1.3979
1850	-7.31E-05	1.4609		1882	-4.88E-05	1.4289		1914	-3.23E-05	1.3969
1851	-7.21E-05	1.4599		1883	-4.85E-05	1.4279		1915	-3.20E-05	1.3959
1852	-7.08E-05	1.4589		1884	-4.82E-05	1.4269		1916	-3.13E-05	1.3949
1853	-7.05E-05	1.4579		1885	-4.76E-05	1.4259		1917	-3.16E-05	1.3939
1854	-6.94E-05	1.4569		1886	-4.66E-05	1.4249		1918	-3.02E-05	1.3929

1919	-3.02E-05	1.3919		1951	-1.90E-05	1.3599		1983	-1.20E-05	1.3279
1920	-2.99E-05	1.3909		1952	-1.93E-05	1.3589		1984	-1.22E-05	1.3269
1921	-2.94E-05	1.3899		1953	-1.86E-05	1.3579		1985	-1.19E-05	1.3259
1922	-2.85E-05	1.3889		1954	-1.84E-05	1.3569		1986	-1.18E-05	1.3249
1923	-2.81E-05	1.3879		1955	-1.87E-05	1.3559		1987	-1.17E-05	1.3239
1924	-2.78E-05	1.3869		1956	-1.79E-05	1.3549		1988	-1.11E-05	1.3229
1925	-2.71E-05	1.3859		1957	-1.79E-05	1.3539		1989	-1.12E-05	1.3219
1926	-2.73E-05	1.3849		1958	-1.73E-05	1.3529		1990	-1.16E-05	1.3209
1927	-2.73E-05	1.3839		1959	-1.71E-05	1.3519		1991	-1.11E-05	1.3199
1928	-2.71E-05	1.3829		1960	-1.67E-05	1.3509		1992	-1.13E-05	1.3189
1929	-2.61E-05	1.3819		1961	-1.63E-05	1.3499		1993	-1.07E-05	1.3179
1930	-2.57E-05	1.3809		1962	-1.63E-05	1.3489		1994	-1.09E-05	1.3169
1931	-2.54E-05	1.3799		1963	-1.66E-05	1.3479		1995	-1.04E-05	1.3159
1932	-2.53E-05	1.3789		1964	-1.63E-05	1.3469		1996	-1.01E-05	1.3149
1933	-2.45E-05	1.3779		1965	-1.61E-05	1.3459		1997	-9.94E-06	1.3139
1934	-2.44E-05	1.3769		1966	-1.60E-05	1.3449		1998	-1.02E-05	1.3129
1935	-2.40E-05	1.3759		1967	-1.58E-05	1.3439		1999	-9.92E-06	1.3119
1936	-2.38E-05	1.3749		1968	-1.53E-05	1.3429		2000	-9.62E-06	1.3109
1937	-2.32E-05	1.3739		1969	-1.51E-05	1.3419		2001	-9.23E-06	1.3099
1938	-2.29E-05	1.3729		1970	-1.53E-05	1.3409		2002	-9.41E-06	1.3089
1939	-2.29E-05	1.3719		1971	-1.43E-05	1.3399		2003	-9.17E-06	1.3079
1940	-2.21E-05	1.3709		1972	-1.41E-05	1.3389		2004	-9.16E-06	1.3069
1941	-2.17E-05	1.3699		1973	-1.39E-05	1.3379		2005	-8.80E-06	1.3059
1942	-2.14E-05	1.3689		1974	-1.39E-05	1.3369		2006	-9.00E-06	1.3049
1943	-2.17E-05	1.3679		1975	-1.43E-05	1.3359		2007	-8.26E-06	1.3039
1944	-2.12E-05	1.3669		1976	-1.35E-05	1.3349		2008	-8.84E-06	1.3029
1945	-2.10E-05	1.3659		1977	-1.34E-05	1.3339		2009	-8.55E-06	1.3019
1946	-2.10E-05	1.3649		1978	-1.30E-05	1.3329		2010	-8.36E-06	1.3009
1947	-1.99E-05	1.3639		1979	-1.33E-05	1.3319		2011	-8.63E-06	1.2999
1948	-2.03E-05	1.3629		1980	-1.26E-05	1.3309		2012	-8.02E-06	1.2989
1949	-2.00E-05	1.3619		1981	-1.27E-05	1.3299		2013	-7.83E-06	1.2979
1950	-1.96E-05	1.3609		1982	-1.26E-05	1.3289		2014	-8.09E-06	1.2969

2015	-7.90E-06	1.2959	2047	-5.24E-06	1.2639	2079	-3.81E-06	1.2319
2016	-7.94E-06	1.2949	2048	-5.04E-06	1.2629	2080	-3.26E-06	1.2309
2017	-7.65E-06	1.2939	2049	-5.09E-06	1.2619	2081	-3.49E-06	1.2299
2018	-7.31E-06	1.2929	2050	-4.60E-06	1.2609	2082	-3.31E-06	1.2289
2019	-7.51E-06	1.2919	2051	-4.90E-06	1.2599	2083	-3.48E-06	1.2279
2020	-7.48E-06	1.2909	2052	-4.71E-06	1.2589	2084	-3.32E-06	1.2269
2021	-7.17E-06	1.2899	2053	-4.79E-06	1.2579	2085	-3.34E-06	1.2259
2022	-7.26E-06	1.2889	2054	-4.64E-06	1.2569	2086	-3.00E-06	1.2249
2023	-6.90E-06	1.2879	2055	-4.63E-06	1.2559	2087	-2.73E-06	1.2239
2024	-7.06E-06	1.2869	2056	-4.32E-06	1.2549	2088	-3.44E-06	1.2229
2025	-6.77E-06	1.2859	2057	-4.37E-06	1.2539	2089	-2.84E-06	1.2219
2026	-6.84E-06	1.2849	2058	-4.50E-06	1.2529	2090	-2.98E-06	1.2209
2027	-6.56E-06	1.2839	2059	-4.35E-06	1.2519	2091	-3.06E-06	1.2199
2028	-6.58E-06	1.2829	2060	-4.30E-06	1.2509	2092	-3.08E-06	1.2189
2029	-6.77E-06	1.2819	2061	-4.42E-06	1.2499	2093	-3.04E-06	1.2179
2030	-6.66E-06	1.2809	2062	-4.40E-06	1.2489	2094	-3.08E-06	1.2169
2031	-6.65E-06	1.2799	2063	-4.13E-06	1.2479	2095	-2.55E-06	1.2159
2032	-6.06E-06	1.2789	2064	-4.25E-06	1.2469	2096	-2.55E-06	1.2149
2033	-6.17E-06	1.2779	2065	-4.25E-06	1.2459	2097	-2.92E-06	1.2139
2034	-6.24E-06	1.2769	2066	-4.36E-06	1.2449	2098	-2.75E-06	1.2129
2035	-6.11E-06	1.2759	2067	-3.81E-06	1.2439	2099	-2.97E-06	1.2119
2036	-6.04E-06	1.2749	2068	-4.14E-06	1.2429	2100	-2.42E-06	1.2109
2037	-5.74E-06	1.2739	2069	-3.81E-06	1.2419	2101	-2.83E-06	1.2099
2038	-5.92E-06	1.2729	2070	-3.81E-06	1.2409	2102	-2.97E-06	1.2089
2039	-5.57E-06	1.2719	2071	-4.05E-06	1.2399	2103	-2.78E-06	1.2079
2040	-5.61E-06	1.2709	2072	-3.67E-06	1.2389	2104	-3.08E-06	1.2069
2041	-5.36E-06	1.2699	2073	-3.87E-06	1.2379	2105	-2.53E-06	1.2059
2042	-5.34E-06	1.2689	2074	-3.70E-06	1.2369	2106	-2.17E-06	1.2049
2043	-5.40E-06	1.2679	2075	-3.92E-06	1.2359	2107	-2.47E-06	1.2039
2044	-5.19E-06	1.2669	2076	-3.78E-06	1.2349	2108	-2.53E-06	1.2029
2045	-5.51E-06	1.2659	2077	-3.45E-06	1.2339	2109	-2.18E-06	1.2019
2046	-5.26E-06	1.2649	2078	-3.41E-06	1.2329	2110	-2.58E-06	1.2009

2111	-2.20E-06	1.1999	2143	-1.67E-06	1.1679	2175	-9.86E-07	1.1339
2112	-2.59E-06	1.1989	2144	-1.51E-06	1.1669	2176	-1.02E-06	1.1319
2113	-2.24E-06	1.1979	2145	-1.73E-06	1.1659	2177	-1.11E-06	1.1299
2114	-2.56E-06	1.1969	2146	-1.52E-06	1.1649	2178	-1.17E-06	1.1289
2115	-2.12E-06	1.1959	2147	-1.49E-06	1.1639	2179	-1.10E-06	1.1279
2116	-2.32E-06	1.1949	2148	-1.66E-06	1.1629	2180	-1.21E-06	1.1269
2117	-2.34E-06	1.1939	2149	-1.35E-06	1.1619	2181	-6.64E-07	1.1259
2118	-2.04E-06	1.1929	2150	-1.82E-06	1.1609	2182	-9.71E-07	1.1239
2119	-2.59E-06	1.1919	2151	-1.37E-06	1.1599	2183	-8.10E-07	1.1219
2120	-2.06E-06	1.1909	2152	-1.53E-06	1.1589	2184	-4.71E-07	1.1199
2121	-2.04E-06	1.1899	2153	-1.31E-06	1.1579	2185	-9.76E-07	1.1179
2122	-2.13E-06	1.1889	2154	-1.70E-06	1.1569	2186	-9.16E-07	1.1159
2123	-2.14E-06	1.1879	2155	-1.69E-06	1.1559	2187	-6.89E-07	1.1139
2124	-1.86E-06	1.1869	2156	-1.59E-06	1.1549	2188	-6.83E-07	1.1119
2125	-2.03E-06	1.1859	2157	-1.20E-06	1.1539	2189	-1.04E-06	1.1099
2126	-2.23E-06	1.1849	2158	-1.62E-06	1.1529	2190	-4.20E-07	1.1089
2127	-2.31E-06	1.1839	2159	-1.15E-06	1.1519	2191	-1.02E-06	1.1069
2128	-1.92E-06	1.1829	2160	-1.45E-06	1.1509	2192	-3.28E-07	1.1049
2129	-2.21E-06	1.1819	2161	-1.19E-06	1.1499	2193	-6.40E-08	1.1029
2130	-1.92E-06	1.1809	2162	-1.23E-06	1.1489	2194	-7.64E-07	1.1009
2131	-1.90E-06	1.1799	2163	-1.45E-06	1.1479	2195	-6.41E-07	1.0989
2132	-1.94E-06	1.1789	2164	-1.20E-06	1.1469	2196	-7.66E-07	1.0969
2133	-2.02E-06	1.1779	2165	-1.33E-06	1.1459	2197	-7.35E-07	1.0949
2134	-1.87E-06	1.1769	2166	-1.38E-06	1.1449	2198	-3.81E-07	1.0929
2135	-1.74E-06	1.1759	2167	-9.06E-07	1.1439	2199	-7.69E-07	1.0909
2136	-1.50E-06	1.1749	2168	-1.26E-06	1.1419	2200	-1.59E-07	1.0889
2137	-1.90E-06	1.1739	2169	-1.30E-06	1.1409	2201	-7.31E-07	1.0869
2138	-1.93E-06	1.1729	2170	-1.10E-06	1.1399			
2139	-1.95E-06	1.1719	2171	-1.11E-06	1.1389			
2140	-1.84E-06	1.1709	2172	-1.24E-06	1.1379			
2141	-1.62E-06	1.1699	2173	-1.41E-06	1.1369			
2142	-1.46E-06	1.1689	2174	-8.72E-07	1.1359			

Ti6Al4V in PBS		
	Current(A)	Potential (V)
1	-6.76E-06	-0.48508
2	2.52E-06	-0.48408
3	4.50E-06	-0.48308
4	3.82E-06	-0.48208
5	3.18E-06	-0.48108
6	3.92E-06	-0.48008
7	4.00E-06	-0.47908
8	3.16E-06	-0.47808
9	3.61E-06	-0.47708
10	3.00E-06	-0.47608
11	3.31E-06	-0.47508
12	2.63E-06	-0.47408
13	2.69E-06	-0.47308
14	3.40E-06	-0.47208
15	3.10E-06	-0.47108
16	3.14E-06	-0.47008
17	2.94E-06	-0.46908
18	2.70E-06	-0.46808
19	3.09E-06	-0.46708
20	2.86E-06	-0.46608
21	2.59E-06	-0.46508
22	3.00E-06	-0.46408
23	2.58E-06	-0.46308
24	2.39E-06	-0.46208
25	3.16E-06	-0.46108
26	2.19E-06	-0.46008
27	2.80E-06	-0.45908
28	2.87E-06	-0.45808
29	2.46E-06	-0.45708
30	2.05E-06	-0.45608

31	2.53E-06	-0.45508
32	2.20E-06	-0.45408
33	2.03E-06	-0.45308
34	2.54E-06	-0.45208
35	2.10E-06	-0.45108
36	2.23E-06	-0.45008
37	2.14E-06	-0.44908
38	2.32E-06	-0.44808
39	2.14E-06	-0.44708
40	2.07E-06	-0.44608
41	1.74E-06	-0.44508
42	1.98E-06	-0.44408
43	2.18E-06	-0.44308
44	1.83E-06	-0.44208
45	1.92E-06	-0.44108
46	1.85E-06	-0.44008
47	2.14E-06	-0.43908
48	1.84E-06	-0.43808
49	1.72E-06	-0.43708
50	2.01E-06	-0.43608
51	1.84E-06	-0.43508
52	2.15E-06	-0.43408
53	1.97E-06	-0.43308
54	1.74E-06	-0.43208
55	2.10E-06	-0.43108
56	1.90E-06	-0.43008
57	2.16E-06	-0.42908
58	1.93E-06	-0.42808
59	1.68E-06	-0.42708
60	1.57E-06	-0.42608
61	1.33E-06	-0.42508
62	1.66E-06	-0.42408

63	1.54E-06	-0.42308
64	1.53E-06	-0.42208
65	1.59E-06	-0.42108
66	1.56E-06	-0.42008
67	1.61E-06	-0.41908
68	1.34E-06	-0.41808
69	2.12E-06	-0.41708
70	1.04E-06	-0.41608
71	1.94E-06	-0.41508
72	1.13E-06	-0.41408
73	1.74E-06	-0.41308
74	1.10E-06	-0.41208
75	1.96E-06	-0.41108
76	1.00E-06	-0.41008
77	1.58E-06	-0.40908
78	8.36E-07	-0.40808
79	8.27E-07	-0.40608
80	1.57E-06	-0.40408
81	9.30E-07	-0.40308
82	1.43E-06	-0.40108
83	8.15E-07	-0.40008
84	7.85E-07	-0.39808
85	1.03E-06	-0.39608
86	1.10E-06	-0.39508
87	1.13E-06	-0.39408
88	1.20E-06	-0.39308
89	1.09E-06	-0.39208
90	1.13E-06	-0.39108
91	8.03E-07	-0.39008
92	8.53E-07	-0.38808
93	1.12E-06	-0.38608
94	8.31E-07	-0.38508

162

95	9.34E-07	-0.38308	127	2.18E-07	-0.32508	159	-4.73E-07	-0.26108
96	5.14E-07	-0.38108	128	3.03E-07	-0.32308	160	-3.78E-07	-0.25908
97	1.22E-06	-0.37908	129	3.75E-07	-0.32108	161	-1.95E-07	-0.25708
98	2.24E-07	-0.37808	130	4.80E-07	-0.31908	162	-7.96E-07	-0.25508
99	9.41E-07	-0.37608	131	2.28E-08	-0.31708	163	-7.68E-07	-0.25308
100	1.06E-06	-0.37408	132	1.00E-07	-0.31508	164	-2.63E-07	-0.25108
101	6.83E-07	-0.37308	133	-3.38E-07	-0.31308	165	-7.67E-07	-0.24908
102	9.18E-07	-0.37108	134	1.82E-07	-0.31108	166	-8.93E-07	-0.24708
103	1.11E-06	-0.36908	135	-4.23E-08	-0.30908	167	-8.69E-07	-0.24508
104	7.94E-07	-0.36808	136	4.04E-07	-0.30708	168	-8.03E-07	-0.24308
105	1.02E-06	-0.36608	137	-1.42E-08	-0.30508	169	-8.24E-07	-0.24108
106	1.15E-06	-0.36508	138	2.58E-07	-0.30308	170	-7.10E-07	-0.23908
107	7.07E-07	-0.36408	139	6.33E-07	-0.30108	171	-1.14E-06	-0.23708
108	4.53E-07	-0.36208	140	-7.47E-08	-0.29908	172	-8.45E-07	-0.23608
109	1.12E-06	-0.36008	141	4.17E-07	-0.29708	173	-8.21E-07	-0.23408
110	3.32E-07	-0.35908	142	4.17E-07	-0.29508	174	-1.11E-06	-0.23208
111	9.80E-07	-0.35708	143	-2.48E-07	-0.29308	175	-1.11E-06	-0.23108
112	9.42E-07	-0.35508	144	-5.49E-07	-0.29108	176	-9.41E-07	-0.23008
113	6.25E-07	-0.35308	145	1.19E-07	-0.28908	177	-8.00E-07	-0.22808
114	-6.06E-08	-0.35108	146	-3.31E-07	-0.28708	178	-9.24E-07	-0.22608
115	8.50E-07	-0.34908	147	-6.74E-07	-0.28508	179	-5.08E-07	-0.22408
116	5.56E-07	-0.34708	148	-2.56E-07	-0.28308	180	-5.76E-07	-0.22208
117	9.90E-07	-0.34508	149	-3.96E-07	-0.28108	181	-1.22E-06	-0.22008
118	1.68E-07	-0.34308	150	-4.62E-08	-0.27908	182	-5.91E-07	-0.21908
119	4.65E-07	-0.34108	151	-2.34E-07	-0.27708	183	-9.90E-07	-0.21708
120	4.77E-07	-0.33908	152	-5.09E-07	-0.27508	184	-7.70E-07	-0.21508
121	4.08E-07	-0.33708	153	-6.97E-07	-0.27308	185	-1.25E-06	-0.21308
122	-8.38E-08	-0.33508	154	-6.78E-07	-0.27108	186	-1.24E-06	-0.21208
123	8.03E-07	-0.33308	155	7.02E-08	-0.26908	187	-9.08E-07	-0.21108
124	2.73E-07	-0.33108	156	-4.93E-07	-0.26708	188	-8.85E-07	-0.20908
125	8.19E-07	-0.32908	157	-3.54E-07	-0.26508	189	-9.38E-07	-0.20708
126	3.79E-07	-0.32708	158	-5.83E-07	-0.26308	190	-9.68E-07	-0.20508

191	-1.36E-06	-0.20308		223	-1.28E-06	-0.16708		255	-2.20E-06	-0.13508
192	-5.99E-07	-0.20208		224	-1.77E-06	-0.16608		256	-1.51E-06	-0.13408
193	-1.36E-06	-0.20008		225	-1.34E-06	-0.16508		257	-2.50E-06	-0.13308
194	-1.10E-06	-0.19908		226	-2.00E-06	-0.16408		258	-2.09E-06	-0.13208
195	-1.05E-06	-0.19808		227	-1.63E-06	-0.16308		259	-1.97E-06	-0.13108
196	-1.39E-06	-0.19708		228	-1.93E-06	-0.16208		260	-1.84E-06	-0.13008
197	-1.02E-06	-0.19608		229	-2.14E-06	-0.16108		261	-1.80E-06	-0.12908
198	-9.38E-07	-0.19408		230	-1.46E-06	-0.16008		262	-1.66E-06	-0.12808
199	-1.17E-06	-0.19208		231	-1.95E-06	-0.15908		263	-2.04E-06	-0.12708
200	-1.52E-06	-0.19108		232	-1.45E-06	-0.15808		264	-2.05E-06	-0.12608
201	-1.24E-06	-0.19008		233	-1.66E-06	-0.15708		265	-2.46E-06	-0.12508
202	-1.37E-06	-0.18908		234	-1.53E-06	-0.15608		266	-1.82E-06	-0.12408
203	-1.62E-06	-0.18808		235	-1.51E-06	-0.15508		267	-2.30E-06	-0.12308
204	-1.50E-06	-0.18708		236	-1.82E-06	-0.15408		268	-1.93E-06	-0.12208
205	-1.59E-06	-0.18608		237	-1.43E-06	-0.15308		269	-2.36E-06	-0.12108
206	-1.48E-06	-0.18508		238	-1.82E-06	-0.15208		270	-1.76E-06	-0.12008
207	-1.54E-06	-0.18408		239	-1.45E-06	-0.15108		271	-2.02E-06	-0.11908
208	-1.94E-06	-0.18308		240	-2.14E-06	-0.15008		272	-1.89E-06	-1.18E-01
209	-2.31E-06	-0.18208		241	-1.27E-06	-0.14908		273	-1.74E-06	-0.11708
210	-1.62E-06	-0.18108		242	-1.64E-06	-0.14808		274	-1.87E-06	-0.11608
211	-8.18E-07	-0.18008		243	-2.09E-06	-0.14708		275	-2.10E-06	-0.11508
212	-1.62E-06	-0.17808		244	-1.68E-06	-0.14608		276	-1.78E-06	-0.11408
213	-1.97E-06	-0.17708		245	-1.38E-06	-0.14508		277	-2.16E-06	-0.11308
214	-1.78E-06	-0.17608		246	-1.40E-06	-0.14408		278	-1.35E-06	-0.11208
215	-1.49E-06	-0.17508		247	-1.84E-06	-0.14308		279	-2.07E-06	-0.11108
216	-2.00E-06	-0.17408		248	-2.17E-06	-0.14208		280	-1.89E-06	-0.11008
217	-1.10E-06	-0.17308		249	-1.22E-06	-0.14108		281	-2.22E-06	-0.10908
218	-1.67E-06	-0.17208		250	-2.19E-06	-0.14008		282	-2.21E-06	-0.10808
219	-1.44E-06	-0.17108		251	-1.91E-06	-0.13908		283	-2.14E-06	-0.10708
220	-1.98E-06	-0.17008		252	-2.04E-06	-0.13808		284	-1.74E-06	-0.10608
221	-1.77E-06	-0.16908		253	-1.29E-06	-0.13708		285	-1.90E-06	-0.10508
222	-1.63E-06	-0.16808		254	-1.35E-06	-0.13608		286	-2.35E-06	-0.10408

287	-1.97E-06	-0.10308	319	-1.79E-06	-0.071083	351	-2.76E-06	-0.039083
288	-2.11E-06	-0.10208	320	-2.30E-06	-0.070083	352	-2.02E-06	-0.038083
289	-2.16E-06	-0.10108	321	-1.75E-06	-0.069083	353	-1.92E-06	-0.037083
290	-2.04E-06	-0.10008	322	-2.36E-06	-0.068083	354	-2.22E-06	-0.036083
291	-2.19E-06	-0.099083	323	-1.88E-06	-0.067083	355	-1.80E-06	-0.035083
292	-1.85E-06	-0.098083	324	-1.75E-06	-0.066083	356	-1.85E-06	-0.034083
293	-2.08E-06	-0.097083	325	-2.63E-06	-0.065083	357	-2.18E-06	-0.033083
294	-2.12E-06	-0.096083	326	-1.84E-06	-0.064083	358	-2.38E-06	-0.032083
295	-1.81E-06	-0.095083	327	-2.58E-06	-0.063083	359	-2.56E-06	-0.031083
296	-1.85E-06	-0.094083	328	-2.06E-06	-0.062083	360	-2.99E-06	-0.030083
297	-2.44E-06	-0.093083	329	-2.12E-06	-0.061083	361	-2.07E-06	-0.029083
298	-2.17E-06	-0.092083	330	-1.96E-06	-0.060083	362	-2.32E-06	-0.028083
299	-2.39E-06	-0.091083	331	-2.24E-06	-0.059083	363	-2.06E-06	-0.027083
300	-2.18E-06	-0.090083	332	-2.41E-06	-0.058083	364	-2.44E-06	-0.026083
301	-1.98E-06	-0.089083	333	-1.94E-06	-0.057083	365	-2.48E-06	-0.025083
302	-2.38E-06	-0.088083	334	-2.23E-06	-0.056083	366	-2.51E-06	-0.024083
303	-1.82E-06	-0.087083	335	-2.41E-06	-0.055083	367	-2.15E-06	-0.023083
304	-1.69E-06	-0.086083	336	-1.83E-06	-0.054083	368	-2.56E-06	-0.022083
305	-1.80E-06	-0.085083	337	-2.31E-06	-0.053083	369	-2.87E-06	-0.021083
306	-2.41E-06	-0.084083	338	-1.94E-06	-0.052083	370	-2.08E-06	-0.020083
307	-1.40E-06	-0.083083	339	-2.44E-06	-0.051083	371	-2.30E-06	-0.019083
308	-1.84E-06	-0.082083	340	-2.17E-06	-0.050083	372	-2.62E-06	-0.018083
309	-2.30E-06	-0.081083	341	-2.38E-06	-0.049083	373	-2.22E-06	-0.017083
310	-2.16E-06	-0.080083	342	-2.52E-06	-0.048083	374	-2.42E-06	-0.016083
311	-1.86E-06	-0.079083	343	-1.95E-06	-0.047083	375	-2.27E-06	-0.015083
312	-1.96E-06	-0.078083	344	-2.13E-06	-0.046083	376	-2.30E-06	-0.014083
313	-2.17E-06	-0.077083	345	-2.37E-06	-0.045083	377	-2.20E-06	-0.013083
314	-2.25E-06	-0.076083	346	-1.93E-06	-0.044083	378	-2.25E-06	-0.012083
315	-2.04E-06	-0.075083	347	-2.08E-06	-0.043083	379	-2.41E-06	-0.011083
316	-1.97E-06	-0.074083	348	-1.97E-06	-0.042083	380	-2.65E-06	-0.010083
317	-2.06E-06	-0.073083	349	-2.54E-06	-0.041083	381	-2.71E-06	-0.009083
318	-1.99E-06	-0.072083	350	-2.27E-06	-0.040083	382	-2.19E-06	-0.008083

383	-2.06E-06	-0.007083	415	-2.57E-06	0.024917	447	-2.41E-06	0.056917
384	-2.34E-06	-0.006083	416	-2.40E-06	0.025917	448	-2.15E-06	0.057917
385	-2.42E-06	-0.005083	417	-2.18E-06	0.026917	449	-2.65E-06	0.058917
386	-2.19E-06	-0.004083	418	-2.35E-06	0.027917	450	-2.80E-06	0.059917
387	-2.11E-06	-0.003083	419	-2.25E-06	0.028917	451	-3.01E-06	0.060917
388	-2.88E-06	-0.002083	420	-2.43E-06	0.029917	452	-2.08E-06	0.061917
389	-2.10E-06	-0.001083	421	-2.78E-06	0.030917	453	-2.49E-06	0.062917
390	-2.72E-06	-8.30E-05	422	-2.58E-06	0.031917	454	-2.53E-06	0.063917
391	-1.92E-06	0.000917	423	-2.00E-06	0.032917	455	-2.40E-06	0.064917
392	-2.99E-06	0.001917	424	-2.25E-06	0.033917	456	-2.23E-06	0.065917
393	-2.51E-06	0.002917	425	-2.95E-06	0.034917	457	-2.36E-06	0.066917
394	-1.99E-06	0.003917	426	-2.39E-06	0.035917	458	-2.98E-06	0.067917
395	-2.51E-06	0.004917	427	-2.21E-06	0.036917	459	-2.44E-06	0.068917
396	-2.19E-06	0.005917	428	-2.79E-06	0.037917	460	-2.61E-06	0.069917
397	-2.71E-06	0.006917	429	-2.58E-06	0.038917	461	-2.60E-06	0.070917
398	-2.37E-06	0.007917	430	-2.58E-06	0.039917	462	-2.98E-06	0.071917
399	-2.42E-06	0.008917	431	-2.57E-06	0.040917	463	-2.30E-06	0.072917
400	-2.46E-06	0.009917	432	-2.47E-06	0.041917	464	-2.70E-06	0.073917
401	-2.49E-06	0.010917	433	-2.03E-06	0.042917	465	-2.47E-06	0.074917
402	-2.33E-06	0.011917	434	-2.59E-06	0.043917	466	-2.57E-06	0.075917
403	-3.03E-06	0.012917	435	-2.50E-06	0.044917	467	-3.22E-06	0.076917
404	-2.34E-06	0.013917	436	-2.62E-06	0.045917	468	-2.86E-06	0.077917
405	-2.58E-06	0.014917	437	-2.78E-06	0.046917	469	-2.77E-06	0.078917
406	-2.79E-06	0.015917	438	-2.41E-06	0.047917	470	-2.68E-06	0.079917
407	-2.69E-06	0.016917	439	-2.62E-06	0.048917	471	-2.35E-06	0.080917
408	-2.01E-06	0.017917	440	-2.38E-06	0.049917	472	-2.89E-06	0.081917
409	-2.18E-06	0.018917	441	-2.45E-06	0.050917	473	-2.81E-06	0.082917
410	-2.21E-06	0.019917	442	-2.54E-06	0.051917	474	-2.77E-06	0.083917
411	-2.60E-06	0.020917	443	-2.83E-06	0.052917	475	-2.74E-06	0.084917
412	-2.49E-06	0.021917	444	-2.46E-06	0.053917	476	-2.69E-06	0.085917
413	-2.42E-06	0.022917	445	-2.83E-06	0.054917	477	-2.83E-06	0.086917
414	-2.76E-06	0.023917	446	-2.69E-06	0.055917	478	-2.46E-06	0.087917

479	-2.56E-06	0.088917	511	-2.89E-06	0.12092	543	-2.63E-06	0.15292
480	-2.51E-06	0.089917	512	-2.39E-06	0.12192	544	-2.99E-06	0.15392
481	-2.48E-06	0.090917	513	-2.89E-06	0.12292	545	-2.89E-06	0.15492
482	-2.99E-06	0.091917	514	-2.41E-06	0.12392	546	-2.41E-06	0.15592
483	-2.74E-06	0.092917	515	-3.11E-06	0.12492	547	-2.64E-06	0.15692
484	-2.52E-06	0.093917	516	-2.51E-06	0.12592	548	-2.34E-06	0.15792
485	-2.42E-06	0.094917	517	-2.89E-06	0.12692	549	-2.48E-06	0.15892
486	-2.61E-06	0.095917	518	-2.44E-06	0.12792	550	-2.80E-06	0.15992
487	-2.53E-06	0.096917	519	-2.77E-06	0.12892	551	-3.29E-06	0.16092
488	-2.66E-06	0.097917	520	-2.32E-06	0.12992	552	-2.18E-06	0.16192
489	-2.26E-06	0.098917	521	-2.24E-06	0.13092	553	-2.39E-06	0.16292
490	-2.52E-06	0.099917	522	-2.52E-06	0.13192	554	-2.33E-06	0.16392
491	-2.82E-06	0.10092	523	-2.64E-06	0.13292	555	-3.28E-06	0.16492
492	-2.28E-06	0.10192	524	-2.73E-06	0.13392	556	-2.71E-06	0.16592
493	-2.59E-06	0.10292	525	-2.54E-06	0.13492	557	-2.39E-06	0.16692
494	-2.69E-06	0.10392	526	-3.00E-06	0.13592	558	-2.76E-06	0.16792
495	-3.11E-06	0.10492	527	-2.51E-06	0.13692	559	-3.06E-06	0.16892
496	-2.62E-06	0.10592	528	-2.86E-06	0.13792	560	-2.91E-06	0.16992
497	-2.73E-06	0.10692	529	-3.11E-06	0.13892	561	-3.20E-06	0.17092
498	-2.51E-06	0.10792	530	-2.63E-06	0.13992	562	-2.90E-06	0.17192
499	-2.83E-06	0.10892	531	-2.75E-06	0.14092	563	-2.68E-06	0.17292
500	-2.75E-06	0.10992	532	-3.15E-06	0.14192	564	-2.31E-06	0.17392
501	-2.65E-06	0.11092	533	-2.83E-06	0.14292	565	-2.40E-06	0.17492
502	-3.01E-06	0.11192	534	-2.62E-06	0.14392	566	-2.73E-06	0.17592
503	-2.85E-06	0.11292	535	-3.08E-06	0.14492	567	-2.62E-06	0.17692
504	-2.69E-06	0.11392	536	-3.00E-06	0.14592	568	-2.72E-06	0.17792
505	-2.14E-06	0.11492	537	-2.34E-06	0.14692	569	-2.57E-06	0.17892
506	-2.54E-06	0.11592	538	-2.37E-06	0.14792	570	-3.04E-06	0.17992
507	-2.28E-06	0.11692	539	-2.40E-06	0.14892	571	-2.49E-06	0.18092
508	-2.59E-06	0.11792	540	-2.49E-06	0.14992	572	-2.23E-06	0.18192
509	-2.69E-06	0.11892	541	-2.61E-06	0.15092	573	-2.73E-06	0.18292
510	-2.00E-06	0.11992	542	-3.52E-06	0.15192	574	-2.95E-06	0.18392

575	-2.58E-06	0.18492		607	-2.75E-06	0.21692		639	-2.96E-06	0.24892
576	-2.46E-06	0.18592		608	-2.18E-06	0.21792		640	-3.52E-06	0.24992
577	-2.65E-06	0.18692		609	-2.93E-06	0.21892		641	-3.12E-06	0.25092
578	-2.83E-06	0.18792		610	-3.02E-06	0.21992		642	-3.53E-06	0.25192
579	-2.84E-06	0.18892		611	-2.91E-06	0.22092		643	-3.28E-06	0.25292
580	-3.22E-06	0.18992		612	-3.01E-06	0.22192		644	-2.69E-06	0.25392
581	-3.16E-06	0.19092		613	-3.00E-06	0.22292		645	-3.16E-06	0.25492
582	-3.46E-06	0.19192		614	-3.08E-06	0.22392		646	-3.24E-06	0.25592
583	-2.86E-06	0.19292		615	-3.02E-06	0.22492		647	-3.18E-06	0.25692
584	-2.64E-06	0.19392		616	-3.11E-06	0.22592		648	-3.32E-06	0.25792
585	-2.89E-06	0.19492		617	-3.17E-06	0.22692		649	-2.62E-06	0.25892
586	-2.49E-06	0.19592		618	-3.46E-06	0.22792		650	-3.18E-06	0.25992
587	-3.03E-06	0.19692		619	-2.86E-06	0.22892		651	-3.06E-06	0.26092
588	-3.23E-06	0.19792		620	-3.07E-06	0.22992		652	-3.12E-06	0.26192
589	-3.21E-06	0.19892		621	-2.58E-06	0.23092		653	-2.83E-06	0.26292
590	-2.83E-06	0.19992		622	-2.85E-06	0.23192		654	-2.98E-06	0.26392
591	-2.81E-06	0.20092		623	-2.64E-06	0.23292		655	-3.29E-06	0.26492
592	-2.81E-06	0.20192		624	-3.33E-06	0.23392		656	-3.42E-06	0.26592
593	-2.93E-06	0.20292		625	-2.71E-06	0.23492		657	-3.85E-06	0.26692
594	-3.20E-06	0.20392		626	-2.94E-06	0.23592		658	-2.75E-06	0.26792
595	-2.91E-06	0.20492		627	-3.24E-06	0.23692		659	-3.53E-06	0.26892
596	-3.37E-06	0.20592		628	-3.28E-06	0.23792		660	-3.39E-06	0.26992
597	-2.79E-06	0.20692		629	-3.53E-06	0.23892		661	-2.77E-06	0.27092
598	-2.64E-06	0.20792		630	-3.03E-06	0.23992		662	-3.46E-06	0.27192
599	-2.83E-06	0.20892		631	-3.18E-06	0.24092		663	-2.75E-06	0.27292
600	-3.40E-06	0.20992		632	-3.14E-06	0.24192		664	-2.88E-06	0.27392
601	-2.49E-06	0.21092		633	-3.51E-06	0.24292		665	-3.32E-06	0.27492
602	-2.90E-06	0.21192		634	-2.51E-06	0.24392		666	-2.82E-06	0.27592
603	-3.24E-06	0.21292		635	-2.81E-06	0.24492		667	-2.78E-06	0.27692
604	-2.63E-06	0.21392		636	-2.79E-06	0.24592		668	-3.61E-06	0.27792
605	-2.74E-06	0.21492		637	-3.16E-06	0.24692		669	-3.22E-06	0.27892
606	-2.84E-06	0.21592		638	-3.04E-06	0.24792		670	-3.50E-06	0.27992

671	-2.86E-06	0.28092	703	-3.72E-06	0.31292	735	-3.61E-06	0.34492
672	-3.35E-06	0.28192	704	-4.01E-06	0.31392	736	-3.61E-06	0.34592
673	-2.98E-06	0.28292	705	-3.50E-06	0.31492	737	-3.71E-06	0.34692
674	-3.85E-06	0.28392	706	-3.62E-06	0.31592	738	-3.96E-06	0.34792
675	-3.33E-06	0.28492	707	-3.20E-06	0.31692	739	-3.59E-06	0.34892
676	-3.00E-06	0.28592	708	-3.52E-06	0.31792	740	-3.68E-06	0.34992
677	-3.17E-06	0.28692	709	-3.33E-06	0.31892	741	-3.98E-06	0.35092
678	-3.53E-06	0.28792	710	-3.99E-06	0.31992	742	-3.79E-06	0.35192
679	-3.14E-06	0.28892	711	-3.76E-06	0.32092	743	-3.53E-06	0.35292
680	-3.25E-06	0.28992	712	-3.11E-06	0.32192	744	-3.60E-06	0.35392
681	-3.50E-06	0.29092	713	-3.73E-06	0.32292	745	-4.03E-06	0.35492
682	-3.62E-06	0.29192	714	-3.73E-06	0.32392	746	-3.52E-06	0.35592
683	-3.27E-06	0.29292	715	-3.30E-06	0.32492	747	-4.10E-06	0.35692
684	-3.33E-06	0.29392	716	-3.52E-06	0.32592	748	-3.11E-06	0.35792
685	-3.35E-06	0.29492	717	-3.14E-06	0.32692	749	-3.63E-06	0.35892
686	-4.01E-06	0.29592	718	-3.97E-06	0.32792	750	-4.04E-06	0.35992
687	-3.08E-06	0.29692	719	-3.91E-06	0.32892	751	-3.56E-06	0.36092
688	-3.14E-06	0.29792	720	-3.24E-06	0.32992	752	-3.60E-06	0.36192
689	-3.30E-06	0.29892	721	-3.46E-06	0.33092	753	-4.02E-06	0.36292
690	-3.50E-06	0.29992	722	-3.62E-06	0.33192	754	-3.74E-06	0.36392
691	-3.30E-06	0.30092	723	-3.74E-06	0.33292	755	-3.88E-06	0.36492
692	-3.38E-06	0.30192	724	-3.53E-06	0.33392	756	-3.89E-06	0.36592
693	-3.34E-06	0.30292	725	-4.04E-06	0.33492	757	-3.73E-06	0.36692
694	-3.35E-06	0.30392	726	-3.48E-06	0.33592	758	-3.89E-06	0.36792
695	-3.18E-06	0.30492	727	-3.30E-06	0.33692	759	-3.39E-06	0.36892
696	-3.59E-06	0.30592	728	-3.75E-06	0.33792	760	-4.03E-06	0.36992
697	-3.31E-06	0.30692	729	-3.63E-06	0.33892	761	-3.48E-06	0.37092
698	-3.01E-06	0.30792	730	-3.61E-06	0.33992	762	-4.12E-06	0.37192
699	-3.49E-06	0.30892	731	-3.20E-06	0.34092	763	-3.73E-06	0.37292
700	-3.31E-06	0.30992	732	-3.88E-06	0.34192	764	-3.95E-06	0.37392
701	-3.16E-06	0.31092	733	-3.51E-06	0.34292	765	-3.16E-06	0.37492
702	-3.26E-06	0.31192	734	-3.22E-06	0.34392	766	-3.89E-06	0.37592

767	-3.89E-06	0.37692	799	-3.79E-06	0.40892	831	-4.50E-06	0.44092
768	-4.75E-06	0.37792	800	-3.83E-06	0.40992	832	-4.18E-06	0.44192
769	-4.54E-06	0.37892	801	-3.99E-06	0.41092	833	-4.21E-06	0.44292
770	-3.38E-06	0.37992	802	-4.10E-06	0.41192	834	-4.40E-06	0.44392
771	-4.12E-06	0.38092	803	-4.54E-06	0.41292	835	-4.24E-06	0.44492
772	-4.01E-06	0.38192	804	-3.68E-06	0.41392	836	-4.68E-06	0.44592
773	-4.11E-06	0.38292	805	-3.98E-06	0.41492	837	-4.60E-06	0.44692
774	-3.86E-06	0.38392	806	-3.93E-06	0.41592	838	-4.51E-06	0.44792
775	-3.52E-06	0.38492	807	-4.36E-06	0.41692	839	-4.48E-06	0.44892
776	-3.65E-06	0.38592	808	-4.01E-06	0.41792	840	-4.08E-06	0.44992
777	-3.89E-06	0.38692	809	-4.06E-06	0.41892	841	-4.74E-06	0.45092
778	-3.60E-06	0.38792	810	-4.17E-06	0.41992	842	-4.20E-06	0.45192
779	-3.77E-06	0.38892	811	-4.06E-06	0.42092	843	-4.50E-06	0.45292
780	-3.76E-06	0.38992	812	-4.43E-06	0.42192	844	-4.30E-06	0.45392
781	-3.95E-06	0.39092	813	-4.18E-06	0.42292	845	-4.26E-06	0.45492
782	-3.74E-06	0.39192	814	-4.18E-06	0.42392	846	-4.15E-06	0.45592
783	-3.86E-06	0.39292	815	-4.04E-06	0.42492	847	-4.35E-06	0.45692
784	-4.13E-06	0.39392	816	-4.22E-06	0.42592	848	-4.72E-06	0.45792
785	-3.93E-06	0.39492	817	-3.88E-06	0.42692	849	-4.26E-06	0.45892
786	-3.52E-06	0.39592	818	-4.42E-06	0.42792	850	-3.99E-06	0.45992
787	-3.99E-06	0.39692	819	-5.05E-06	0.42892	851	-4.74E-06	0.46092
788	-4.15E-06	0.39792	820	-4.33E-06	0.42992	852	-4.27E-06	0.46192
789	-3.59E-06	0.39892	821	-4.49E-06	0.43092	853	-4.45E-06	0.46292
790	-3.92E-06	0.39992	822	-4.30E-06	0.43192	854	-4.56E-06	0.46392
791	-4.34E-06	0.40092	823	-4.23E-06	0.43292	855	-4.37E-06	0.46492
792	-3.81E-06	0.40192	824	-4.69E-06	0.43392	856	-4.55E-06	0.46592
793	-3.64E-06	0.40292	825	-3.67E-06	0.43492	857	-4.28E-06	0.46692
794	-4.17E-06	0.40392	826	-4.13E-06	0.43592	858	-4.71E-06	0.46792
795	-4.40E-06	0.40492	827	-4.53E-06	0.43692	859	-4.59E-06	0.46892
796	-3.60E-06	0.40592	828	-4.51E-06	0.43792	860	-4.88E-06	0.46992
797	-3.87E-06	0.40692	829	-4.17E-06	0.43892	861	-4.37E-06	0.47092
798	-3.95E-06	0.40792	830	-3.74E-06	0.43992	862	-4.65E-06	0.47192

863	-4.27E-06	0.47292	895	-4.84E-06	0.50492	927	-4.93E-06	0.53692
864	-4.31E-06	0.47392	896	-4.82E-06	0.50592	928	-4.54E-06	0.53792
865	-4.37E-06	0.47492	897	-5.04E-06	0.50692	929	-4.98E-06	0.53892
866	-4.59E-06	0.47592	898	-4.78E-06	0.50792	930	-5.19E-06	0.53992
867	-4.76E-06	0.47692	899	-4.92E-06	0.50892	931	-4.53E-06	0.54092
868	-4.71E-06	0.47792	900	-4.86E-06	0.50992	932	-4.81E-06	0.54192
869	-4.29E-06	0.47892	901	-4.63E-06	0.51092	933	-5.44E-06	0.54292
870	-5.10E-06	0.47992	902	-4.96E-06	0.51192	934	-4.91E-06	0.54492
871	-4.63E-06	0.48092	903	-5.60E-06	0.51292	935	-4.90E-06	0.54592
872	-4.61E-06	0.48192	904	-5.09E-06	0.51392	936	-4.78E-06	0.54692
873	-4.10E-06	0.48292	905	-4.72E-06	0.51492	937	-4.35E-06	0.54892
874	-4.49E-06	0.48392	906	-4.59E-06	0.51592	938	-4.83E-06	0.54992
875	-4.86E-06	0.48492	907	-4.84E-06	0.51692	939	-4.82E-06	0.55092
876	-4.33E-06	0.48592	908	-4.85E-06	0.51792	940	-5.74E-06	0.55292
877	-4.42E-06	0.48692	909	-4.61E-06	0.51892	941	-4.94E-06	0.55392
878	-5.00E-06	0.48792	910	-4.61E-06	0.51992	942	-4.91E-06	0.55492
879	-4.83E-06	0.48892	911	-4.88E-06	0.52092	943	-5.26E-06	0.55592
880	-4.47E-06	0.48992	912	-4.54E-06	0.52192	944	-5.10E-06	0.55692
881	-4.58E-06	0.49092	913	-4.91E-06	0.52292	945	-4.77E-06	0.55792
882	-4.57E-06	0.49192	914	-5.26E-06	0.52392	946	-5.16E-06	0.55892
883	-4.67E-06	0.49292	915	-4.79E-06	0.52492	947	-5.33E-06	0.56092
884	-4.80E-06	0.49392	916	-4.99E-06	0.52592	948	-5.09E-06	0.56192
885	-4.24E-06	0.49492	917	-4.73E-06	0.52692	949	-4.98E-06	0.56292
886	-4.65E-06	0.49592	918	-5.04E-06	0.52792	950	-5.10E-06	0.56392
887	-4.65E-06	0.49692	919	-4.61E-06	0.52892	951	-6.03E-06	0.56592
888	-4.34E-06	0.49792	920	-5.17E-06	0.52992	952	-5.56E-06	0.56692
889	-5.04E-06	0.49892	921	-5.37E-06	0.53092	953	-5.47E-06	0.56792
890	-4.59E-06	0.49992	922	-5.20E-06	0.53192	954	-5.36E-06	0.56992
891	-4.60E-06	0.50092	923	-5.05E-06	0.53292	955	-5.18E-06	0.57092
892	-4.40E-06	0.50192	924	-4.75E-06	0.53392	956	-4.94E-06	0.57292
893	-4.81E-06	0.50292	925	-4.80E-06	0.53492	957	-5.05E-06	0.57392
894	-4.54E-06	0.50392	926	-4.71E-06	0.53592	958	-4.75E-06	0.57492

959	-4.59E-06	0.57692	991	-5.34E-06	0.61392	1023	-6.04E-06	0.65492
960	-4.82E-06	0.57792	992	-5.38E-06	0.61492	1024	-6.08E-06	0.65592
961	-5.08E-06	0.57992	993	-5.35E-06	0.61592	1025	-5.43E-06	0.65792
962	-5.12E-06	0.58092	994	-5.72E-06	0.61692	1026	-4.97E-06	0.65892
963	-5.30E-06	0.58192	995	-6.17E-06	0.61792	1027	-5.61E-06	0.66092
964	-4.81E-06	0.58392	996	-5.52E-06	0.61892	1028	-5.55E-06	0.66192
965	-5.83E-06	0.58492	997	-5.35E-06	0.61992	1029	-6.23E-06	0.66392
966	-4.99E-06	0.58692	998	-5.27E-06	0.62092	1030	-5.38E-06	0.66492
967	-5.12E-06	0.58792	999	-5.35E-06	0.62192	1031	-6.15E-06	0.66692
968	-5.50E-06	0.58992	1000	-4.93E-06	0.62292	1032	-5.85E-06	0.66792
969	-5.19E-06	0.59092	1001	-5.45E-06	0.62392	1033	-4.61E-06	0.66992
970	-5.95E-06	0.59292	1002	-5.29E-06	0.62492	1034	-5.17E-06	0.67092
971	-4.84E-06	0.59392	1003	-5.36E-06	0.62592	1035	-5.67E-06	0.67292
972	-5.52E-06	0.59492	1004	-5.77E-06	0.62792	1036	-5.13E-06	0.67392
973	-5.69E-06	0.59592	1005	-5.74E-06	0.62892	1037	-5.81E-06	0.67592
974	-5.41E-06	0.59692	1006	-5.36E-06	0.62992	1038	-5.54E-06	0.67692
975	-5.28E-06	0.59792	1007	-5.68E-06	0.63092	1039	-5.75E-06	0.67892
976	-5.18E-06	0.59892	1008	-4.92E-06	0.63192	1040	-5.69E-06	0.67992
977	-5.34E-06	0.59992	1009	-5.56E-06	0.63392	1041	-6.07E-06	0.68192
978	-5.91E-06	0.60092	1010	-5.45E-06	0.63492	1042	-5.62E-06	0.68292
979	-5.17E-06	0.60192	1011	-5.35E-06	0.63692	1043	-5.63E-06	0.68492
980	-5.84E-06	0.60292	1012	-5.37E-06	0.63792	1044	-5.75E-06	0.68592
981	-4.79E-06	0.60392	1013	-5.61E-06	0.63992	1045	-5.42E-06	0.68792
982	-5.17E-06	0.60492	1014	-5.32E-06	0.64092	1046	-5.38E-06	0.68892
983	-5.41E-06	0.60592	1015	-5.19E-06	0.64292	1047	-5.58E-06	0.69092
984	-5.29E-06	0.60692	1016	-6.05E-06	0.64392	1048	-5.90E-06	0.69192
985	-5.55E-06	0.60792	1017	-5.63E-06	0.64592	1049	-5.36E-06	0.69392
986	-5.25E-06	0.60892	1018	-5.43E-06	0.64692	1050	-5.47E-06	0.69492
987	-4.60E-06	0.60992	1019	-6.06E-06	0.64892	1051	-5.46E-06	0.69692
988	-5.43E-06	0.61092	1020	-5.72E-06	0.64992	1052	-5.45E-06	0.69792
989	-5.15E-06	0.61192	1021	-5.58E-06	0.65192	1053	-6.32E-06	0.69992
990	-5.05E-06	0.61292	1022	-6.01E-06	0.65292	1054	-5.21E-06	0.70092

1055	-5.81E-06	0.70292	1087	-4.88E-06	0.75092	1119	-6.21E-06	0.79892
1056	-5.88E-06	0.70392	1088	-5.89E-06	0.75192	1120	-6.03E-06	0.79992
1057	-5.05E-06	0.70592	1089	-5.91E-06	0.75392	1121	-5.55E-06	0.80192
1058	-6.04E-06	0.70692	1090	-5.52E-06	0.75492	1122	-6.25E-06	0.80292
1059	-4.77E-06	0.70892	1091	-6.17E-06	0.75692	1123	-4.95E-06	0.80492
1060	-5.66E-06	0.70992	1092	-5.87E-06	0.75792	1124	-6.43E-06	0.80592
1061	-5.90E-06	0.71192	1093	-6.60E-06	0.75992	1125	-5.37E-06	0.80792
1062	-5.29E-06	0.71292	1094	-6.37E-06	0.76092	1126	-5.90E-06	0.80892
1063	-6.27E-06	0.71492	1095	-4.83E-06	0.76292	1127	-6.04E-06	0.81092
1064	-6.13E-06	0.71592	1096	-5.59E-06	0.76392	1128	-6.16E-06	0.81192
1065	-6.08E-06	0.71792	1097	-5.69E-06	0.76592	1129	-5.37E-06	0.81392
1066	-6.34E-06	0.71892	1098	-6.61E-06	0.76692	1130	-6.30E-06	0.81492
1067	-6.64E-06	0.72092	1099	-5.63E-06	0.76892	1131	-6.53E-06	0.81692
1068	-5.84E-06	0.72192	1100	-6.28E-06	0.76992	1132	-6.55E-06	0.81792
1069	-6.80E-06	0.72392	1101	-5.92E-06	0.77192	1133	-6.49E-06	0.81992
1070	-5.91E-06	0.72492	1102	-6.79E-06	0.77292	1134	-6.00E-06	0.82092
1071	-5.95E-06	0.72692	1103	-4.80E-06	0.77492	1135	-6.74E-06	0.82292
1072	-5.71E-06	0.72792	1104	-5.31E-06	0.77592	1136	-5.86E-06	0.82392
1073	-6.19E-06	0.72992	1105	-5.37E-06	0.77792	1137	-5.50E-06	0.82592
1074	-6.00E-06	0.73092	1106	-6.28E-06	0.77892	1138	-6.77E-06	0.82692
1075	-5.84E-06	0.73292	1107	-5.52E-06	0.78092	1139	-5.77E-06	0.82892
1076	-5.84E-06	0.73392	1108	-5.27E-06	0.78192	1140	-6.42E-06	0.82992
1077	-6.08E-06	0.73592	1109	-6.79E-06	0.78392	1141	-6.80E-06	0.83192
1078	-6.31E-06	0.73692	1110	-6.64E-06	0.78492	1142	-6.07E-06	0.83292
1079	-6.05E-06	0.73892	1111	-5.69E-06	0.78692	1143	-6.20E-06	0.83492
1080	-6.34E-06	0.73992	1112	-5.94E-06	0.78792	1144	-5.91E-06	0.83592
1081	-6.12E-06	0.74192	1113	-6.70E-06	0.78992	1145	-5.30E-06	0.83792
1082	-5.57E-06	0.74292	1114	-6.27E-06	0.79092	1146	-6.35E-06	0.83892
1083	-5.36E-06	0.74492	1115	-5.95E-06	0.79292	1147	-5.93E-06	0.84092
1084	-5.98E-06	0.74592	1116	-5.46E-06	0.79392	1148	-6.25E-06	0.84192
1085	-6.70E-06	0.74792	1117	-6.37E-06	0.79592	1149	-5.80E-06	0.84392
1086	-6.21E-06	0.74892	1118	-5.97E-06	0.79692	1150	-6.03E-06	0.84492

1151	-7.46E-06	0.84692	1183	-6.60E-06	0.89492	1215	-6.60E-06	0.94292
1152	-7.30E-06	0.84792	1184	-6.83E-06	0.89592	1216	-6.26E-06	0.94392
1153	-6.03E-06	0.84992	1185	-7.15E-06	0.89792	1217	-6.29E-06	0.94592
1154	-6.31E-06	0.85092	1186	-5.44E-06	0.89892	1218	-6.67E-06	0.94692
1155	-5.46E-06	0.85292	1187	-6.36E-06	0.90092	1219	-7.04E-06	0.94892
1156	-5.11E-06	0.85392	1188	-6.61E-06	0.90192	1220	-7.36E-06	0.94992
1157	-5.90E-06	0.85592	1189	-7.01E-06	0.90392	1221	-6.32E-06	0.95192
1158	-6.27E-06	0.85692	1190	-6.23E-06	0.90492	1222	-6.45E-06	0.95292
1159	-4.83E-06	0.85892	1191	-6.19E-06	0.90692	1223	-6.87E-06	0.95492
1160	-6.07E-06	0.85992	1192	-6.10E-06	0.90792	1224	-7.07E-06	0.95692
1161	-6.36E-06	0.86192	1193	-7.32E-06	0.90992	1225	-6.31E-06	0.95792
1162	-6.59E-06	0.86292	1194	-5.83E-06	0.91092	1226	-7.24E-06	0.95992
1163	-7.03E-06	0.86492	1195	-6.72E-06	0.91292	1227	-6.61E-06	0.96092
1164	-7.48E-06	0.86592	1196	-6.40E-06	0.91392	1228	-5.84E-06	0.96292
1165	-5.89E-06	0.86792	1197	-6.38E-06	0.91592	1229	-6.62E-06	0.96392
1166	-5.82E-06	0.86892	1198	-6.40E-06	0.91692	1230	-6.90E-06	0.96592
1167	-6.73E-06	0.87092	1199	-6.82E-06	0.91892	1231	-6.58E-06	0.96692
1168	-6.07E-06	0.87192	1200	-6.05E-06	0.91992	1232	-7.29E-06	0.96892
1169	-6.50E-06	0.87392	1201	-5.97E-06	0.92192	1233	-6.79E-06	0.96992
1170	-6.03E-06	0.87492	1202	-6.77E-06	0.92292	1234	-6.01E-06	0.97192
1171	-7.02E-06	0.87692	1203	-6.25E-06	0.92492	1235	-5.90E-06	0.97292
1172	-6.32E-06	0.87792	1204	-6.81E-06	0.92592	1236	-6.33E-06	0.97492
1173	-5.87E-06	0.87992	1205	-6.70E-06	0.92792	1237	-6.96E-06	0.97592
1174	-6.84E-06	0.88092	1206	-6.14E-06	0.92892	1238	-6.42E-06	0.97792
1175	-6.88E-06	0.88292	1207	-7.29E-06	0.93092	1239	-7.47E-06	0.97892
1176	-6.28E-06	0.88392	1208	-6.33E-06	0.93192	1240	-7.01E-06	0.98092
1177	-5.72E-06	0.88592	1209	-6.45E-06	0.93392	1241	-7.43E-06	0.98192
1178	-6.05E-06	0.88692	1210	-7.24E-06	0.93492	1242	-7.00E-06	0.98392
1179	-7.04E-06	0.88892	1211	-5.95E-06	0.93692	1243	-6.78E-06	0.98492
1180	-6.51E-06	0.88992	1212	-6.01E-06	0.93792	1244	-6.07E-06	0.98692
1181	-5.55E-06	0.89192	1213	-6.41E-06	0.93992	1245	-6.83E-06	0.98792
1182	-6.13E-06	0.89292	1214	-5.59E-06	0.94092	1246	-6.85E-06	0.98992

1247	-6.60E-06	0.99092	1279	-5.94E-06	1.0389	1311	-5.53E-06	1.0869
1248	-6.70E-06	0.99292	1280	-8.26E-06	1.0409	1312	-7.11E-06	1.0889
1249	-7.14E-06	0.99392	1281	-6.89E-06	1.0419	1313	-7.55E-06	1.0899
1250	-7.67E-06	0.99592	1282	-7.61E-06	1.0439	1314	-8.04E-06	1.0919
1251	-6.22E-06	0.99692	1283	-6.50E-06	1.0449	1315	-5.47E-06	1.0929
1252	-5.06E-06	0.99892	1284	-5.89E-06	1.0469	1316	-6.34E-06	1.0949
1253	-6.44E-06	0.99992	1285	-6.90E-06	1.0479	1317	-8.48E-06	1.0959
1254	-6.61E-06	1.0019	1286	-6.03E-06	1.0499	1318	-5.49E-06	1.0979
1255	-6.45E-06	1.0029	1287	-7.16E-06	1.0509	1319	-7.48E-06	1.0989
1256	-6.29E-06	1.0049	1288	-6.16E-06	1.0529	1320	-7.34E-06	1.1009
1257	-7.45E-06	1.0059	1289	-7.38E-06	1.0539	1321	-7.42E-06	1.1019
1258	-7.77E-06	1.0079	1290	-6.73E-06	1.0559	1322	-7.35E-06	1.1039
1259	-7.05E-06	1.0089	1291	-7.37E-06	1.0569	1323	-7.67E-06	1.1049
1260	-6.10E-06	1.0109	1292	-6.02E-06	1.0589	1324	-6.81E-06	1.1069
1261	-6.14E-06	1.0119	1293	-5.06E-06	1.0599	1325	-5.58E-06	1.1079
1262	-7.54E-06	1.0139	1294	-8.19E-06	1.0619	1326	-6.87E-06	1.1099
1263	-6.63E-06	1.0149	1295	-6.96E-06	1.0629	1327	-6.12E-06	1.1109
1264	-6.60E-06	1.0169	1296	-6.16E-06	1.0649	1328	-7.34E-06	1.1129
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1266	-7.27E-06	1.0199	1298	-7.25E-06	1.0679	1330	-7.42E-06	1.1159
1267	-6.88E-06	1.0209	1299	-7.24E-06	1.0689	1331	-7.37E-06	1.1169
1268	-7.54E-06	1.0229	1300	-6.23E-06	1.0709	1332	-7.55E-06	1.1189
1269	-6.32E-06	1.0239	1301	-6.42E-06	1.0719	1333	-7.13E-06	1.1199
1270	-5.39E-06	1.0259	1302	-7.31E-06	1.0739	1334	-5.39E-06	1.1219
1271	-7.50E-06	1.0269	1303	-7.10E-06	1.0749	1335	-7.64E-06	1.1229
1272	-6.00E-06	1.0289	1304	-6.69E-06	1.0769	1336	-7.35E-06	1.1249
1273	-6.98E-06	1.0299	1305	-7.88E-06	1.0779	1337	-7.16E-06	1.1259
1274	-7.46E-06	1.0319	1306	-6.15E-06	1.0799	1338	-6.42E-06	1.1279
1275	-6.47E-06	1.0329	1307	-7.35E-06	1.0809	1339	-6.66E-06	1.1289
1276	-6.89E-06	1.0349	1308	-6.38E-06	1.0829	1340	-6.91E-06	1.1309
1277	-5.85E-06	1.0359	1309	-6.93E-06	1.0839	1341	-5.70E-06	1.1319
1278	-7.21E-06	1.0379	1310	-6.65E-06	1.0859	1342	-6.91E-06	1.1339

1343	-5.68E-06	1.1349	1375	-7.33E-06	1.1969	1407	-1.20E-05	1.2469
1344	-7.07E-06	1.1369	1376	-8.55E-06	1.1989	1408	-1.22E-05	1.2479
1345	-6.76E-06	1.1389	1377	-8.01E-06	1.2009	1409	-1.16E-05	1.2489
1346	-6.47E-06	1.1409	1378	-8.57E-06	1.2029	1410	-1.24E-05	1.2499
1347	-6.75E-06	1.1419	1379	-7.39E-06	1.2049	1411	-1.14E-05	1.2509
1348	-7.68E-06	1.1439	1380	-9.36E-06	1.2069	1412	-1.26E-05	1.2519
1349	-6.55E-06	1.1449	1381	-8.10E-06	1.2089	1413	-1.37E-05	1.2529
1350	-7.02E-06	1.1469	1382	-8.56E-06	1.2109	1414	-1.23E-05	1.2539
1351	-8.05E-06	1.1489	1383	-9.76E-06	1.2129	1415	-1.33E-05	1.2549
1352	-6.31E-06	1.1509	1384	-9.42E-06	1.2149	1416	-1.26E-05	1.2559
1353	-5.99E-06	1.1529	1385	-8.77E-06	1.2169	1417	-1.33E-05	1.2569
1354	-8.02E-06	1.1549	1386	-8.83E-06	1.2189	1418	-1.37E-05	1.2579
1355	-7.20E-06	1.1569	1387	-9.51E-06	1.2209	1419	-1.36E-05	1.2589
1356	-6.52E-06	1.1589	1388	-1.05E-05	1.2229	1420	-1.47E-05	1.2599
1357	-6.67E-06	1.1609	1389	-8.97E-06	1.2239	1421	-1.43E-05	1.2609
1358	-7.92E-06	1.1629	1390	-9.84E-06	1.2259	1422	-1.57E-05	1.2619
1359	-7.62E-06	1.1649	1391	-9.71E-06	1.2279	1423	-1.61E-05	1.2629
1360	-8.04E-06	1.1669	1392	-1.06E-05	1.2299	1424	-1.47E-05	1.2639
1361	-8.11E-06	1.1689	1393	-1.05E-05	1.2309	1425	-1.56E-05	1.2649
1362	-8.21E-06	1.1709	1394	-1.12E-05	1.2319	1426	-1.51E-05	1.2659
1363	-8.31E-06	1.1729	1395	-9.89E-06	1.2329	1427	-1.58E-05	1.2669
1364	-6.41E-06	1.1749	1396	-1.06E-05	1.2349	1428	-1.59E-05	1.2679
1365	-7.65E-06	1.1769	1397	-9.54E-06	1.2359	1429	-1.63E-05	1.2689
1366	-7.48E-06	1.1789	1398	-1.05E-05	1.2379	1430	-1.63E-05	1.2699
1367	-7.93E-06	1.1809	1399	-1.10E-05	1.2389	1431	-1.79E-05	1.2709
1368	-8.53E-06	1.1829	1400	-1.15E-05	1.2399	1432	-1.77E-05	1.2719
1369	-7.68E-06	1.1849	1401	-1.10E-05	1.2409	1433	-1.89E-05	1.2729
1370	-7.15E-06	1.1869	1402	-1.10E-05	1.2419	1434	-1.81E-05	1.2739
1371	-9.05E-06	1.1889	1403	-1.16E-05	1.2429	1435	-1.89E-05	1.2749
1372	-7.85E-06	1.1909	1404	-1.18E-05	1.2439	1436	-1.91E-05	1.2759
1373	-8.13E-06	1.1929	1405	-1.14E-05	1.2449	1437	-1.99E-05	1.2769
1374	-8.29E-06	1.1949	1406	-1.27E-05	1.2459	1438	-2.02E-05	1.2779

1439	-2.15E-05	1.2789		1471	-5.68E-05	1.3109		1503	-1.08E-04	1.3429
1440	-2.18E-05	1.2799		1472	-5.89E-05	1.3119		1504	-1.10E-04	1.3439
1441	-2.24E-05	1.2809		1473	-6.00E-05	1.3129		1505	-1.11E-04	1.3449
1442	-2.29E-05	1.2819		1474	-6.12E-05	1.3139		1506	-1.12E-04	1.3459
1443	-2.37E-05	1.2829		1475	-6.35E-05	1.3149		1507	-1.13E-04	1.3469
1444	-2.50E-05	1.2839		1476	-6.53E-05	1.3159		1508	-1.15E-04	1.3479
1445	-2.50E-05	1.2849		1477	-6.65E-05	1.3169		1509	-1.18E-04	1.3489
1446	-2.63E-05	1.2859		1478	-6.75E-05	1.3179		1510	-1.18E-04	1.3499
1447	-2.74E-05	1.2869		1479	-6.85E-05	1.3189		1511	-1.20E-04	1.3509
1448	-2.85E-05	1.2879		1480	-7.21E-05	1.3199		1512	-1.21E-04	1.3519
1449	-2.87E-05	1.2889		1481	-7.35E-05	1.3209		1513	-1.23E-04	1.3529
1450	-3.02E-05	1.2899		1482	-7.38E-05	1.3219		1514	-1.24E-04	1.3539
1451	-3.03E-05	1.2909		1483	-7.60E-05	1.3229		1515	-1.25E-04	1.3549
1452	-3.16E-05	1.2919		1484	-7.83E-05	1.3239		1516	-1.27E-04	1.3559
1453	-3.24E-05	1.2929		1485	-7.95E-05	1.3249		1517	-1.29E-04	1.3569
1454	-3.38E-05	1.2939		1486	-8.13E-05	1.3259		1518	-1.30E-04	1.3579
1455	-3.46E-05	1.2949		1487	-8.33E-05	1.3269		1519	-1.31E-04	1.3589
1456	-3.59E-05	1.2959		1488	-8.52E-05	1.3279		1520	-1.32E-04	1.3599
1457	-3.74E-05	1.2969		1489	-8.56E-05	1.3289		1521	-1.33E-04	1.3609
1458	-3.93E-05	1.2979		1490	-8.77E-05	1.3299		1522	-1.34E-04	1.3619
1459	-3.98E-05	1.2989		1491	-8.92E-05	1.3309		1523	-1.35E-04	1.3629
1460	-4.08E-05	1.2999		1492	-9.04E-05	1.3319		1524	-1.37E-04	1.3639
1461	-4.19E-05	1.3009		1493	-9.26E-05	1.3329		1525	-1.37E-04	1.3649
1462	-4.38E-05	1.3019		1494	-9.49E-05	1.3339		1526	-1.39E-04	1.3659
1463	-4.56E-05	1.3029		1495	-9.57E-05	1.3349		1527	-1.39E-04	1.3669
1464	-4.69E-05	1.3039		1496	-9.81E-05	1.3359		1528	-1.41E-04	1.3679
1465	-4.85E-05	1.3049		1497	-9.93E-05	1.3369		1529	-1.41E-04	1.3689
1466	-4.92E-05	1.3059		1498	-1.00E-04	1.3379		1530	-1.43E-04	1.3699
1467	-5.16E-05	1.3069		1499	-1.02E-04	1.3389		1531	-1.42E-04	1.3709
1468	-5.24E-05	1.3079		1500	-1.03E-04	1.3399		1532	-1.44E-04	1.3719
1469	-5.36E-05	1.3089		1501	-1.05E-04	1.3409		1533	-1.45E-04	1.3729
1470	-5.51E-05	1.3099		1502	-1.06E-04	1.3419		1534	-1.45E-04	1.3739

1535	-1.47E-04	1.3749	1567	-1.74E-04	1.4069	1599	-1.87E-04	1.4389
1536	-1.48E-04	1.3759	1568	-1.75E-04	1.4079	1600	-1.89E-04	1.4399
1537	-1.49E-04	1.3769	1569	-1.76E-04	1.4089	1601	-1.89E-04	1.4409
1538	-1.50E-04	1.3779	1570	-1.76E-04	1.4099	1602	-1.89E-04	1.4419
1539	-1.51E-04	1.3789	1571	-1.76E-04	1.4109	1603	-1.89E-04	1.4429
1540	-1.52E-04	1.3799	1572	-1.76E-04	1.4119	1604	-1.89E-04	1.4439
1541	-1.53E-04	1.3809	1573	-1.77E-04	1.4129	1605	-1.90E-04	1.4449
1542	-1.54E-04	1.3819	1574	-1.77E-04	1.4139	1606	-1.90E-04	1.4459
1543	-1.54E-04	1.3829	1575	-1.77E-04	1.4149	1607	-1.90E-04	1.4469
1544	-1.56E-04	1.3839	1576	-1.79E-04	1.4159	1608	-1.90E-04	1.4479
1545	-1.57E-04	1.3849	1577	-1.80E-04	1.4169	1609	-1.90E-04	1.4489
1546	-1.58E-04	1.3859	1578	-1.80E-04	1.4179	1610	-1.90E-04	1.4499
1547	-1.58E-04	1.3869	1579	-1.79E-04	1.4189	1611	-1.91E-04	1.4509
1548	-1.59E-04	1.3879	1580	-1.80E-04	1.4199	1612	-1.92E-04	1.4519
1549	-1.60E-04	1.3889	1581	-1.80E-04	1.4209	1613	-1.92E-04	1.4529
1550	-1.62E-04	1.3899	1582	-1.81E-04	1.4219	1614	-1.92E-04	1.4539
1551	-1.62E-04	1.3909	1583	-1.82E-04	1.4229	1615	-1.92E-04	1.4549
1552	-1.63E-04	1.3919	1584	-1.84E-04	1.4239	1616	-1.93E-04	1.4559
1553	-1.64E-04	1.3929	1585	-1.84E-04	1.4249	1617	-1.94E-04	1.4569
1554	-1.65E-04	1.3939	1586	-1.84E-04	1.4259	1618	-1.95E-04	1.4579
1555	-1.65E-04	1.3949	1587	-1.84E-04	1.4269	1619	-1.95E-04	1.4589
1556	-1.66E-04	1.3959	1588	-1.85E-04	1.4279	1620	-1.96E-04	1.4599
1557	-1.67E-04	1.3969	1589	-1.85E-04	1.4289	1621	-1.96E-04	1.4609
1558	-1.68E-04	1.3979	1590	-1.85E-04	1.4299	1622	-1.96E-04	1.4619
1559	-1.68E-04	1.3989	1591	-1.84E-04	1.4309	1623	-1.96E-04	1.4629
1560	-1.69E-04	1.3999	1592	-1.85E-04	1.4319	1624	-1.96E-04	1.4639
1561	-1.70E-04	1.4009	1593	-1.84E-04	1.4329	1625	-1.97E-04	1.4649
1562	-1.71E-04	1.4019	1594	-1.85E-04	1.4339	1626	-1.97E-04	1.4659
1563	-1.72E-04	1.4029	1595	-1.85E-04	1.4349	1627	-1.96E-04	1.4669
1564	-1.73E-04	1.4039	1596	-1.87E-04	1.4359	1628	-1.97E-04	1.4679
1565	-1.73E-04	1.4049	1597	-1.87E-04	1.4369	1629	-1.99E-04	1.4689
1566	-1.73E-04	1.4059	1598	-1.87E-04	1.4379	1630	-1.97E-04	1.4699

1631	-1.98E-04	1.4709	1663	-2.14E-04	1.5029	1695	-1.86E-04	1.4749
1632	-1.99E-04	1.4719	1664	-2.15E-04	1.5039	1696	-1.84E-04	1.4739
1633	-1.99E-04	1.4729	1665	-2.15E-04	1.5049	1697	-1.84E-04	1.4729
1634	-2.00E-04	1.4739	1666	-2.13E-04	1.5039	1698	-1.83E-04	1.4719
1635	-2.01E-04	1.4749	1667	-2.10E-04	1.5029	1699	-1.82E-04	1.4709
1636	-2.01E-04	1.4759	1668	-2.09E-04	1.5019	1700	-1.82E-04	1.4699
1637	-2.02E-04	1.4769	1669	-2.08E-04	1.5009	1701	-1.82E-04	1.4689
1638	-2.03E-04	1.4779	1670	-2.06E-04	1.4999	1702	-1.81E-04	1.4679
1639	-2.04E-04	1.4789	1671	-2.05E-04	1.4989	1703	-1.81E-04	1.4669
1640	-2.03E-04	1.4799	1672	-2.04E-04	1.4979	1704	-1.80E-04	1.4659
1641	-2.03E-04	1.4809	1673	-2.04E-04	1.4969	1705	-1.79E-04	1.4649
1642	-2.06E-04	1.4819	1674	-2.02E-04	1.4959	1706	-1.78E-04	1.4639
1643	-2.05E-04	1.4829	1675	-2.01E-04	1.4949	1707	-1.77E-04	1.4629
1644	-2.06E-04	1.4839	1676	-2.00E-04	1.4939	1708	-1.76E-04	1.4619
1645	-2.06E-04	1.4849	1677	-1.98E-04	1.4929	1709	-1.76E-04	1.4609
1646	-2.05E-04	1.4859	1678	-1.98E-04	1.4919	1710	-1.74E-04	1.4599
1647	-2.06E-04	1.4869	1679	-1.97E-04	1.4909	1711	-1.74E-04	1.4589
1648	-2.05E-04	1.4879	1680	-1.97E-04	1.4899	1712	-1.73E-04	1.4579
1649	-2.05E-04	1.4889	1681	-1.96E-04	1.4889	1713	-1.72E-04	1.4569
1650	-2.04E-04	1.4899	1682	-1.96E-04	1.4879	1714	-1.72E-04	1.4559
1651	-2.06E-04	1.4909	1683	-1.95E-04	1.4869	1715	-1.72E-04	1.4549
1652	-2.07E-04	1.4919	1684	-1.95E-04	1.4859	1716	-1.72E-04	1.4539
1653	-2.07E-04	1.4929	1685	-1.93E-04	1.4849	1717	-1.72E-04	1.4529
1654	-2.07E-04	1.4939	1686	-1.92E-04	1.4839	1718	-1.72E-04	1.4519
1655	-2.08E-04	1.4949	1687	-1.92E-04	1.4829	1719	-1.72E-04	1.4509
1656	-2.09E-04	1.4959	1688	-1.90E-04	1.4819	1720	-1.72E-04	1.4499
1657	-2.10E-04	1.4969	1689	-1.89E-04	1.4809	1721	-1.70E-04	1.4489
1658	-2.09E-04	1.4979	1690	-1.89E-04	1.4799	1722	-1.70E-04	1.4479
1659	-2.09E-04	1.4989	1691	-1.89E-04	1.4789	1723	-1.70E-04	1.4469
1660	-2.11E-04	1.4999	1692	-1.89E-04	1.4779	1724	-1.69E-04	1.4459
1661	-2.12E-04	1.5009	1693	-1.88E-04	1.4769	1725	-1.68E-04	1.4449
1662	-2.12E-04	1.5019	1694	-1.86E-04	1.4759	1726	-1.68E-04	1.4439

1727	-1.68E-04	1.4429	1759	-1.51E-04	1.4109	1791	-1.30E-04	1.3789
1728	-1.68E-04	1.4419	1760	-1.50E-04	1.4099	1792	-1.29E-04	1.3779
1729	-1.68E-04	1.4409	1761	-1.49E-04	1.4089	1793	-1.28E-04	1.3769
1730	-1.67E-04	1.4399	1762	-1.49E-04	1.4079	1794	-1.28E-04	1.3759
1731	-1.66E-04	1.4389	1763	-1.49E-04	1.4069	1795	-1.27E-04	1.3749
1732	-1.65E-04	1.4379	1764	-1.48E-04	1.4059	1796	-1.27E-04	1.3739
1733	-1.64E-04	1.4369	1765	-1.47E-04	1.4049	1797	-1.26E-04	1.3729
1734	-1.64E-04	1.4359	1766	-1.46E-04	1.4039	1798	-1.25E-04	1.3719
1735	-1.64E-04	1.4349	1767	-1.46E-04	1.4029	1799	-1.24E-04	1.3709
1736	-1.63E-04	1.4339	1768	-1.46E-04	1.4019	1800	-1.23E-04	1.3699
1737	-1.63E-04	1.4329	1769	-1.45E-04	1.4009	1801	-1.23E-04	1.3689
1738	-1.63E-04	1.4319	1770	-1.45E-04	1.3999	1802	-1.22E-04	1.3679
1739	-1.63E-04	1.4309	1771	-1.44E-04	1.3989	1803	-1.21E-04	1.3669
1740	-1.62E-04	1.4299	1772	-1.43E-04	1.3979	1804	-1.21E-04	1.3659
1741	-1.62E-04	1.4289	1773	-1.42E-04	1.3969	1805	-1.20E-04	1.3649
1742	-1.61E-04	1.4279	1774	-1.42E-04	1.3959	1806	-1.19E-04	1.3639
1743	-1.61E-04	1.4269	1775	-1.41E-04	1.3949	1807	-1.19E-04	1.3629
1744	-1.60E-04	1.4259	1776	-1.40E-04	1.3939	1808	-1.18E-04	1.3619
1745	-1.60E-04	1.4249	1777	-1.39E-04	1.3929	1809	-1.17E-04	1.3609
1746	-1.59E-04	1.4239	1778	-1.38E-04	1.3919	1810	-1.16E-04	1.3599
1747	-1.58E-04	1.4229	1779	-1.38E-04	1.3909	1811	-1.16E-04	1.3589
1748	-1.57E-04	1.4219	1780	-1.37E-04	1.3899	1812	-1.15E-04	1.3579
1749	-1.57E-04	1.4209	1781	-1.37E-04	1.3889	1813	-1.13E-04	1.3569
1750	-1.57E-04	1.4199	1782	-1.35E-04	1.3879	1814	-1.13E-04	1.3559
1751	-1.56E-04	1.4189	1783	-1.35E-04	1.3869	1815	-1.12E-04	1.3549
1752	-1.55E-04	1.4179	1784	-1.35E-04	1.3859	1816	-1.12E-04	1.3539
1753	-1.55E-04	1.4169	1785	-1.34E-04	1.3849	1817	-1.11E-04	1.3529
1754	-1.55E-04	1.4159	1786	-1.33E-04	1.3839	1818	-1.10E-04	1.3519
1755	-1.54E-04	1.4149	1787	-1.33E-04	1.3829	1819	-1.09E-04	1.3509
1756	-1.54E-04	1.4139	1788	-1.32E-04	1.3819	1820	-1.08E-04	1.3499
1757	-1.52E-04	1.4129	1789	-1.31E-04	1.3809	1821	-1.07E-04	1.3489
1758	-1.52E-04	1.4119	1790	-1.31E-04	1.3799	1822	-1.06E-04	1.3479

1823	-1.06E-04	1.3469	1855	-8.30E-05	1.3149	1887	-6.37E-05	1.2829
1824	-1.05E-04	1.3459	1856	-8.28E-05	1.3139	1888	-6.31E-05	1.2819
1825	-1.05E-04	1.3449	1857	-8.23E-05	1.3129	1889	-6.22E-05	1.2809
1826	-1.04E-04	1.3439	1858	-8.10E-05	1.3119	1890	-6.15E-05	1.2799
1827	-1.03E-04	1.3429	1859	-8.08E-05	1.3109	1891	-6.00E-05	1.2789
1828	-1.02E-04	1.3419	1860	-7.99E-05	1.3099	1892	-6.07E-05	1.2779
1829	-1.02E-04	1.3409	1861	-7.89E-05	1.3089	1893	-5.99E-05	1.2769
1830	-1.01E-04	1.3399	1862	-7.88E-05	1.3079	1894	-5.84E-05	1.2759
1831	-1.00E-04	1.3389	1863	-7.77E-05	1.3069	1895	-5.77E-05	1.2749
1832	-9.98E-05	1.3379	1864	-7.76E-05	1.3059	1896	-5.77E-05	1.2739
1833	-9.90E-05	1.3369	1865	-7.62E-05	1.3049	1897	-5.74E-05	1.2729
1834	-9.81E-05	1.3359	1866	-7.63E-05	1.3039	1898	-5.62E-05	1.2719
1835	-9.78E-05	1.3349	1867	-7.49E-05	1.3029	1899	-5.54E-05	1.2709
1836	-9.71E-05	1.3339	1868	-7.46E-05	1.3019	1900	-5.52E-05	1.2699
1837	-9.63E-05	1.3329	1869	-7.41E-05	1.3009	1901	-5.42E-05	1.2689
1838	-9.50E-05	1.3319	1870	-7.44E-05	1.2999	1902	-5.40E-05	1.2679
1839	-9.48E-05	1.3309	1871	-7.33E-05	1.2989	1903	-5.41E-05	1.2669
1840	-9.40E-05	1.3299	1872	-7.16E-05	1.2979	1904	-5.39E-05	1.2659
1841	-9.38E-05	1.3289	1873	-7.09E-05	1.2969	1905	-5.29E-05	1.2649
1842	-9.24E-05	1.3279	1874	-7.05E-05	1.2959	1906	-5.32E-05	1.2639
1843	-9.20E-05	1.3269	1875	-7.00E-05	1.2949	1907	-5.15E-05	1.2629
1844	-9.18E-05	1.3259	1876	-6.97E-05	1.2939	1908	-5.09E-05	1.2619
1845	-9.01E-05	1.3249	1877	-6.81E-05	1.2929	1909	-5.15E-05	1.2609
1846	-8.92E-05	1.3239	1878	-6.83E-05	1.2919	1910	-5.07E-05	1.2599
1847	-8.90E-05	1.3229	1879	-6.71E-05	1.2909	1911	-4.96E-05	1.2589
1848	-8.88E-05	1.3219	1880	-6.69E-05	1.2899	1912	-4.89E-05	1.2579
1849	-8.73E-05	1.3209	1881	-6.62E-05	1.2889	1913	-4.88E-05	1.2569
1850	-8.71E-05	1.3199	1882	-6.56E-05	1.2879	1914	-4.74E-05	1.2559
1851	-8.60E-05	1.3189	1883	-6.58E-05	1.2869	1915	-4.71E-05	1.2549
1852	-8.49E-05	1.3179	1884	-6.48E-05	1.2859	1916	-4.60E-05	1.2539
1853	-8.49E-05	1.3169	1885	-6.33E-05	1.2849	1917	-4.75E-05	1.2529
1854	-8.41E-05	1.3159	1886	-6.28E-05	1.2839	1918	-4.56E-05	1.2519

1919	-4.65E-05	1.2509	1951	-3.15E-05	1.2189	1983	-2.03E-05	1.1869
1920	-4.55E-05	1.2499	1952	-3.16E-05	1.2179	1984	-2.08E-05	1.1859
1921	-4.50E-05	1.2489	1953	-3.10E-05	1.2169	1985	-2.06E-05	1.1849
1922	-4.54E-05	1.2479	1954	-3.06E-05	1.2159	1986	-2.04E-05	1.1839
1923	-4.42E-05	1.2469	1955	-2.97E-05	1.2149	1987	-1.97E-05	1.1829
1924	-4.32E-05	1.2459	1956	-2.98E-05	1.2139	1988	-1.93E-05	1.1819
1925	-4.31E-05	1.2449	1957	-2.91E-05	1.2129	1989	-1.93E-05	1.1809
1926	-4.29E-05	1.2439	1958	-2.85E-05	1.2119	1990	-1.91E-05	1.1799
1927	-4.26E-05	1.2429	1959	-2.85E-05	1.2109	1991	-1.82E-05	1.1789
1928	-4.26E-05	1.2419	1960	-2.86E-05	1.2099	1992	-1.89E-05	1.1779
1929	-4.03E-05	1.2409	1961	-2.88E-05	1.2089	1993	-1.89E-05	1.1769
1930	-4.00E-05	1.2399	1962	-2.74E-05	1.2079	1994	-1.78E-05	1.1759
1931	-4.08E-05	1.2389	1963	-2.62E-05	1.2069	1995	-1.79E-05	1.1749
1932	-3.88E-05	1.2379	1964	-2.73E-05	1.2059	1996	-1.80E-05	1.1739
1933	-4.03E-05	1.2369	1965	-2.70E-05	1.2049	1997	-1.73E-05	1.1729
1934	-3.86E-05	1.2359	1966	-2.60E-05	1.2039	1998	-1.64E-05	1.1719
1935	-3.90E-05	1.2349	1967	-2.53E-05	1.2029	1999	-1.67E-05	1.1709
1936	-3.84E-05	1.2339	1968	-2.55E-05	1.2019	2000	-1.67E-05	1.1699
1937	-3.77E-05	1.2329	1969	-2.52E-05	1.2009	2001	-1.68E-05	1.1689
1938	-3.73E-05	1.2319	1970	-2.48E-05	1.1999	2002	-1.71E-05	1.1679
1939	-3.68E-05	1.2309	1971	-2.57E-05	1.1989	2003	-1.58E-05	1.1669
1940	-3.58E-05	1.2299	1972	-2.51E-05	1.1979	2004	-1.59E-05	1.1659
1941	-3.60E-05	1.2289	1973	-2.37E-05	1.1969	2005	-1.43E-05	1.1649
1942	-3.53E-05	1.2279	1974	-2.34E-05	1.1959	2006	-1.46E-05	1.1639
1943	-3.49E-05	1.2269	1975	-2.30E-05	1.1949	2007	-1.52E-05	1.1629
1944	-3.47E-05	1.2259	1976	-2.24E-05	1.1939	2008	-1.42E-05	1.1619
1945	-3.50E-05	1.2249	1977	-2.28E-05	1.1929	2009	-1.45E-05	1.1609
1946	-3.34E-05	1.2239	1978	-2.26E-05	1.1919	2010	-1.37E-05	1.1599
1947	-3.28E-05	1.2229	1979	-2.17E-05	1.1909	2011	-1.33E-05	1.1589
1948	-3.35E-05	1.2219	1980	-2.23E-05	1.1899	2012	-1.31E-05	1.1579
1949	-3.29E-05	1.2209	1981	-2.22E-05	1.1889	2013	-1.37E-05	1.1569
1950	-3.24E-05	1.2199	1982	-2.10E-05	1.1879	2014	-1.24E-05	1.1559

2015	-1.26E-05	1.1549	2047	-6.14E-06	1.1129	2079	-2.71E-06	1.0549
2016	-1.25E-05	1.1539	2048	-5.49E-06	1.1119	2080	-1.26E-06	1.0529
2017	-1.23E-05	1.1529	2049	-6.01E-06	1.1099	2081	-1.28E-06	1.0509
2018	-1.22E-05	1.1519	2050	-5.95E-06	1.1089	2082	-2.40E-06	1.0489
2019	-1.28E-05	1.1509	2051	-4.86E-06	1.1069	2083	-2.92E-06	1.0469
2020	-1.25E-05	1.1499	2052	-4.67E-06	1.1059	2084	-2.02E-06	1.0449
2021	-1.16E-05	1.1489	2053	-4.62E-06	1.1039	2085	-7.93E-07	1.0429
2022	-1.12E-05	1.1479	2054	-5.12E-06	1.1029	2086	-1.59E-06	1.0409
2023	-1.21E-05	1.1469	2055	-4.97E-06	1.1009	2087	-2.47E-06	1.0389
2024	-1.22E-05	1.1459	2056	-4.15E-06	1.0999	2088	-1.75E-06	1.0369
2025	-9.84E-06	1.1449	2057	-4.97E-06	1.0979	2089	-1.30E-06	1.0349
2026	-1.06E-05	1.1439	2058	-3.15E-06	1.0969	2090	-7.82E-07	1.0329
2027	-1.01E-05	1.1419	2059	-4.16E-06	1.0949	2091	-7.45E-07	1.0309
2028	-1.00E-05	1.1409	2060	-4.55E-06	1.0929	2092	-2.07E-06	1.0289
2029	-1.11E-05	1.1389	2061	-2.93E-06	1.0909	2093	-1.39E-06	1.0269
2030	-1.05E-05	1.1379	2062	-2.82E-06	1.0889	2094	-1.72E-06	1.0249
2031	-8.42E-06	1.1369	2063	-3.10E-06	1.0869	2095	-1.25E-06	1.0229
2032	-8.81E-06	1.1359	2064	-3.42E-06	1.0849	2096	-1.91E-06	1.0209
2033	-8.78E-06	1.1339	2065	-3.58E-06	1.0829	2097	-1.10E-06	1.0189
2034	-8.01E-06	1.1329	2066	-3.69E-06	1.0809	2098	-7.24E-07	1.0169
2035	-9.22E-06	1.1309	2067	-2.98E-06	1.0789	2099	-1.62E-06	1.0149
2036	-9.13E-06	1.1299	2068	-2.62E-06	1.0769	2100	-8.71E-07	1.0129
2037	-8.19E-06	1.1279	2069	-4.03E-06	1.0749	2101	-1.15E-06	1.0109
2038	-7.29E-06	1.1269	2070	-3.04E-06	1.0729	2102	-1.54E-06	1.0089
2039	-7.00E-06	1.1249	2071	-2.01E-06	1.0709	2103	-1.22E-06	1.0069
2040	-8.47E-06	1.1239	2072	-1.47E-06	1.0689	2104	-3.51E-07	1.0049
2041	-6.93E-06	1.1219	2073	-1.69E-06	1.0669	2105	-1.50E-06	1.0029
2042	-7.10E-06	1.1209	2074	-2.36E-06	1.0649	2106	-2.16E-06	1.0009
2043	-6.66E-06	1.1189	2075	-1.64E-06	1.0629	2107	-1.45E-06	0.99892
2044	-7.02E-06	1.1179	2076	-1.34E-06	1.0609	2108	-3.09E-07	0.99692
2045	-6.70E-06	1.1159	2077	-1.74E-06	1.0589	2109	-1.54E-06	0.99492
2046	-6.89E-06	1.1149	2078	-1.83E-06	1.0569	2110	-7.15E-07	0.99292

2111	-1.00E-06	0.99092
2112	-2.73E-07	0.98892
2113	-7.85E-07	0.98692
2114	-1.72E-06	0.98492
2115	-1.43E-06	0.98292
2116	-1.58E-06	0.98092
2117	-2.01E-06	0.97892
2118	-2.03E-06	0.97692
2119	-1.16E-06	0.97492
2120	-1.82E-06	0.97292
2121	-8.56E-07	0.97092

	Current(A)	Potential (V)
	Ti6Al4V in BPS	
1	-6.46E-05	-0.57089
2	-1.01E-05	-0.56989
3	-8.92E-07	-0.56889
4	3.25E-06	-0.56789
5	1.67E-06	-0.56689
6	6.45E-07	-0.56589
7	2.36E-06	-0.56389
8	-1.01E-07	-0.56289
9	3.42E-06	-0.56089
10	1.70E-07	-0.55989
11	3.25E-06	-0.55789
12	-1.85E-07	-0.55689
13	3.39E-06	-0.55489
14	-3.56E-07	-0.55389
15	3.57E-06	-0.55189
16	1.01E-06	-0.55089
17	-2.35E-07	-0.54989
18	1.75E-06	-0.54789
19	-5.22E-07	-0.54689
20	2.67E-06	-0.54489
21	-1.36E-07	-0.54389
22	2.62E-06	-0.54189
23	-1.79E-08	-0.54089
24	1.15E-06	-0.53889
25	-4.37E-07	-0.53789
26	9.83E-07	-0.53589
27	3.07E-06	-0.53389
28	1.22E-06	-0.53289
29	-5.65E-07	-0.53189
30	1.61E-06	-0.52989

31	-6.10E-07	-0.52889
32	-6.11E-07	-0.52689
33	1.91E-06	-0.52489
34	-8.70E-07	-0.52389
35	1.18E-06	-0.52189
36	-4.35E-07	-0.52089
37	-1.58E-07	-0.51889
38	2.60E-06	-0.51689
39	-1.15E-06	-0.51589
40	1.83E-06	-0.51489
41	9.59E-07	-0.51389
42	2.94E-06	-0.51189
43	-1.05E-06	-0.51089
44	1.28E-06	-0.50989
45	1.23E-06	-0.50889
46	-5.30E-07	-0.50789
47	-5.18E-07	-0.50589
48	-6.07E-07	-0.50389
49	6.24E-07	-0.50189
50	2.40E-06	-0.49989
51	-1.14E-06	-0.49889
52	2.13E-06	-0.49789
53	-1.41E-07	-0.49689
54	1.25E-06	-0.49489
55	-3.97E-07	-0.49389
56	-1.11E-06	-0.49189
57	8.00E-07	-0.49089
58	-1.58E-06	-0.48889
59	2.44E-06	-0.48789
60	4.93E-07	-0.48689
61	2.18E-06	-0.48489
62	1.43E-06	-0.48389

63	-8.92E-07	-0.48289
64	-1.44E-06	-0.48089
65	1.12E-06	-0.47989
66	8.78E-07	-0.47889
67	1.99E-06	-0.47689
68	2.43E-07	-0.47589
69	2.53E-06	-0.47389
70	-1.57E-06	-0.47289
71	1.07E-06	-0.47189
72	1.51E-06	-0.47089
73	-1.44E-06	-0.46989
74	1.31E-06	-0.46889
75	1.47E-06	-0.46789
76	-1.63E-06	-0.46689
77	2.03E-06	-0.46589
78	1.82E-07	-0.46489
79	2.14E-06	-0.46289
80	-2.08E-07	-0.46189
81	1.97E-06	-0.45989
82	1.00E-06	-0.45889
83	-1.39E-06	-0.45789
84	4.38E-07	-0.45689
85	-1.68E-06	-0.45489
86	2.07E-06	-0.45389
87	2.60E-07	-0.45289
88	2.38E-06	-0.45089
89	-1.39E-06	-0.44989
90	8.08E-08	-0.44889
91	-1.42E-06	-0.44689
92	1.24E-06	-0.44589
93	4.39E-07	-0.44489
94	1.18E-06	-0.44289

95	-4.73E-07	-0.44189	127	-2.36E-06	-0.39589	159	6.33E-07	-0.34789
96	1.76E-06	-0.43989	128	-1.62E-07	-0.39489	160	4.88E-07	-0.34589
97	-6.85E-07	-0.43889	129	-2.12E-06	-0.39289	161	9.11E-07	-0.34389
98	2.07E-06	-0.43689	130	-7.54E-07	-0.39189	162	6.30E-07	-0.34189
99	-4.33E-07	-0.43589	131	-2.30E-06	-0.38989	163	1.96E-08	-0.33989
100	1.27E-06	-0.43389	132	1.88E-07	-0.38889	164	-1.05E-06	-0.33789
101	-2.00E-06	-0.43289	133	-1.76E-06	-0.38689	165	5.97E-09	-0.33689
102	8.51E-07	-0.43189	134	1.09E-06	-0.38589	166	1.10E-06	-0.33489
103	-1.32E-06	-0.42989	135	-1.94E-06	-0.38489	167	-2.13E-06	-0.33389
104	2.00E-06	-0.42889	136	1.09E-06	-0.38389	168	9.72E-07	-0.33289
105	-1.90E-06	-0.42789	137	-1.14E-06	-0.38289	169	-7.57E-07	-0.33089
106	-1.12E-06	-0.42689	138	-1.06E-06	-0.38189	170	-1.54E-06	-0.32889
107	1.46E-06	-0.42589	139	1.06E-06	-0.38089	171	8.03E-07	-0.32789
108	1.51E-07	-0.42489	140	-1.80E-06	-0.37989	172	2.39E-07	-0.32589
109	1.48E-07	-0.42289	141	9.94E-07	-0.37889	173	7.08E-07	-0.32389
110	-2.22E-06	-0.42089	142	-1.79E-06	-0.37789	174	1.85E-07	-0.32189
111	-9.69E-07	-0.41989	143	9.50E-07	-0.37689	175	-1.54E-06	-0.31989
112	-6.11E-07	-0.41789	144	1.10E-06	-0.37489	176	8.55E-07	-0.31889
113	1.76E-06	-0.41589	145	-1.72E-06	-0.37389	177	5.07E-07	-0.31689
114	4.08E-08	-0.41489	146	-2.50E-07	-0.37289	178	3.25E-07	-0.31489
115	1.56E-06	-0.41289	147	-2.09E-06	-0.37089	179	3.93E-07	-0.31289
116	1.02E-06	-0.41189	148	8.45E-07	-0.36989	180	-3.44E-07	-0.31089
117	-1.72E-06	-0.41089	149	6.66E-07	-0.36789	181	-1.67E-06	-0.30889
118	-1.95E-08	-0.40989	150	3.19E-07	-0.36589	182	1.58E-07	-0.30789
119	-8.06E-07	-0.40789	151	8.66E-07	-0.36389	183	2.79E-07	-0.30589
120	1.34E-06	-0.40589	152	5.79E-07	-0.36189	184	3.35E-07	-0.30389
121	-8.70E-08	-0.40489	153	7.25E-07	-0.35989	185	-9.39E-07	-0.30189
122	1.67E-06	-0.40289	154	6.80E-07	-0.35789	186	-1.97E-06	-0.29989
123	-5.62E-07	-0.40189	155	7.99E-07	-0.35589	187	7.95E-07	-0.29889
124	1.15E-06	-0.39989	156	7.05E-07	-0.35389	188	3.09E-07	-0.29689
125	-1.54E-06	-0.39889	157	7.12E-07	-0.35189	189	-6.05E-07	-0.29489
126	-2.63E-07	-0.39789	158	5.38E-07	-0.34989	190	-1.65E-06	-0.29289

191	4.32E-08	-0.29189	223	-1.12E-06	-0.23389	255	-1.18E-06	-0.18389
192	1.57E-07	-0.28989	224	-7.15E-07	-0.23289	256	-9.14E-07	-0.18289
193	9.97E-08	-0.28789	225	9.87E-08	-0.23089	257	-2.57E-08	-0.18089
194	6.70E-07	-0.28589	226	1.27E-07	-0.22889	258	-8.82E-07	-0.17889
195	-1.47E-06	-0.28389	227	2.01E-07	-0.22689	259	-8.38E-07	-0.17689
196	3.06E-07	-0.28289	228	-9.80E-08	-0.22489	260	-1.59E-07	-0.17489
197	-1.88E-07	-0.28089	229	5.44E-08	-0.22289	261	3.25E-08	-0.17289
198	-2.02E-06	-0.27889	230	7.67E-08	-0.22089	262	-8.64E-07	-0.17089
199	7.02E-07	-0.27789	231	-1.09E-06	-0.21889	263	-2.04E-06	-0.16889
200	-1.05E-06	-0.27589	232	-6.66E-07	-0.21789	264	3.95E-07	-0.16789
201	9.09E-07	-0.27489	233	-6.17E-07	-0.21589	265	-5.82E-07	-0.16589
202	1.58E-07	-0.27289	234	-2.36E-07	-0.21389	266	-1.45E-06	-0.16389
203	-1.33E-06	-0.27089	235	-1.07E-06	-0.21189	267	4.45E-07	-0.16289
204	1.18E-07	-0.26989	236	-1.12E-06	-0.21089	268	-1.27E-08	-0.16089
205	1.26E-08	-0.26789	237	-1.11E-06	-0.20989	269	-5.90E-07	-0.15889
206	-7.29E-07	-0.26589	238	-1.23E-06	-0.20889	270	-5.60E-07	-0.15689
207	-1.53E-06	-0.26389	239	-1.03E-06	-0.20789	271	-3.51E-07	-0.15489
208	6.56E-07	-0.26289	240	-1.83E-06	-0.20689	272	-5.62E-07	-1.53E-01
209	4.09E-07	-0.26089	241	-6.45E-07	-0.20589	273	-6.87E-07	-0.15089
210	-1.37E-06	-0.25889	242	-1.03E-06	-0.20389	274	1.04E-07	-0.14889
211	1.59E-07	-0.25789	243	-1.14E-06	-0.20289	275	-1.03E-06	-0.14689
212	3.47E-08	-0.25589	244	-1.25E-06	-0.20189	276	-3.07E-07	-0.14589
213	2.08E-07	-0.25389	245	-9.56E-07	-0.20089	277	-2.61E-07	-0.14389
214	1.75E-07	-0.25189	246	-1.40E-06	-0.19889	278	-1.14E-06	-0.14189
215	2.33E-07	-0.24989	247	-1.03E-06	-0.19789	279	9.90E-08	-0.14089
216	1.00E-07	-0.24789	248	-1.54E-06	-0.19689	280	-6.40E-07	-0.13889
217	-2.97E-07	-0.24589	249	-3.35E-07	-0.19589	281	-2.69E-06	-0.13689
218	8.01E-08	-0.24389	250	2.22E-07	-0.19389	282	-1.18E-06	-0.13589
219	2.51E-07	-0.24189	251	-1.05E-07	-0.19189	283	-8.52E-07	-0.13489
220	-1.53E-08	-0.23989	252	-1.82E-07	-0.18989	284	7.20E-08	-0.13289
221	-1.92E-07	-0.23789	253	-2.58E-07	-0.18789	285	-2.50E-07	-0.13089
222	-7.64E-07	-0.23589	254	-1.36E-07	-0.18589	286	-1.37E-06	-0.12889

287	-3.07E-07	-0.12789	319	-8.79E-07	-0.077886	351	-1.56E-06	-0.023886
288	1.44E-07	-0.12589	320	-2.36E-07	-0.075886	352	-1.36E-07	-0.022886
289	-1.15E-06	-0.12389	321	-4.28E-07	-0.073886	353	-4.75E-07	-0.020886
290	-4.60E-07	-0.12289	322	-1.20E-07	-0.071886	354	-1.88E-06	-0.018886
291	-3.24E-07	-0.12089	323	-1.08E-06	-0.069886	355	-7.30E-08	-0.017886
292	-9.76E-07	-0.11889	324	-6.19E-07	-0.068886	356	-1.53E-06	-0.015886
293	-2.31E-06	-0.11689	325	-5.71E-07	-0.066886	357	-5.54E-07	-0.014886
294	-1.20E-06	-0.11589	326	-2.06E-06	-0.064886	358	-1.77E-06	-0.012886
295	9.27E-08	-0.11489	327	-5.89E-08	-0.063886	359	-5.40E-07	-0.011886
296	-1.15E-06	-0.11289	328	-9.95E-07	-0.061886	360	-2.24E-06	-0.0098862
297	-1.39E-06	-0.11189	329	-1.27E-06	-0.059886	361	-1.98E-07	-0.0088862
298	-1.06E-06	-0.11089	330	-4.41E-07	-0.058886	362	-1.65E-06	-0.0068862
299	-1.46E-06	-0.10989	331	-4.11E-07	-0.056886	363	-9.06E-07	-0.0058862
300	-9.88E-07	-0.10889	332	-3.05E-07	-0.054886	364	-1.16E-06	-0.0038862
301	-1.42E-06	-0.10689	333	-9.47E-07	-0.052886	365	-1.65E-06	-0.0028862
302	-5.75E-07	-0.10589	334	-1.93E-06	-0.050886	366	-2.05E-06	-0.0018862
303	-4.61E-07	-0.10389	335	5.67E-08	-0.049886	367	-1.85E-07	-0.0008862
304	-4.28E-07	-0.10189	336	-9.60E-07	-0.047886	368	-2.05E-06	0.0011138
305	-1.55E-06	-0.099886	337	-1.82E-06	-0.045886	369	-6.41E-07	0.0021138
306	-1.37E-06	-0.098886	338	-3.32E-07	-0.044886	370	-9.95E-07	0.0041138
307	-1.38E-06	-0.097886	339	-6.35E-07	-0.042886	371	-1.71E-06	0.0061138
308	-4.82E-07	-0.096886	340	-1.78E-06	-0.040886	372	-5.14E-07	0.0071138
309	-2.15E-07	-0.094886	341	-4.07E-08	-0.039886	373	-4.88E-07	0.0091138
310	-2.06E-07	-0.092886	342	-1.14E-06	-0.037886	374	-1.03E-06	0.011114
311	-1.24E-06	-0.090886	343	-6.85E-07	-0.036886	375	-1.25E-06	0.012114
312	-7.80E-07	-0.089886	344	-4.25E-08	-0.034886	376	-2.48E-06	0.013114
313	1.14E-07	-0.087886	345	-1.34E-06	-0.032886	377	-5.17E-07	0.014114
314	-8.83E-07	-0.085886	346	-5.98E-08	-0.031886	378	-1.41E-06	0.016114
315	-2.26E-06	-0.083886	347	-1.63E-06	-0.029886	379	1.56E-07	0.017114
316	-1.80E-07	-0.082886	348	-5.17E-07	-0.028886	380	-1.04E-06	0.019114
317	-4.89E-07	-0.080886	349	-1.14E-06	-0.026886	381	-5.74E-07	0.020114
318	-1.12E-06	-0.078886	350	-2.51E-07	-0.025886	382	-1.16E-06	0.022114

383	-1.93E-07	0.023114	415	-7.42E-07	0.079114	447	-1.86E-06	0.13211
384	-8.73E-07	0.025114	416	-8.57E-07	0.081114	448	-7.62E-07	0.13311
385	-2.11E-06	0.027114	417	-8.13E-07	0.083114	449	-9.06E-07	0.13511
386	-7.26E-07	0.028114	418	-5.56E-07	0.085114	450	-9.12E-07	0.13711
387	-1.42E-06	0.030114	419	-6.63E-07	0.087114	451	-1.01E-06	0.13911
388	-4.60E-07	0.031114	420	-8.36E-07	0.089114	452	-2.47E-06	0.14111
389	-7.35E-07	0.033114	421	-6.08E-07	0.091114	453	-1.03E-06	0.14211
390	-6.21E-07	3.51E-02	422	-5.83E-07	0.093114	454	-1.93E-06	0.14311
391	-6.97E-07	0.037114	423	-8.76E-07	0.095114	455	-2.35E-06	0.14411
392	-1.00E-06	0.039114	424	-1.40E-06	0.097114	456	-1.32E-06	0.14511
393	-1.52E-06	0.041114	425	-1.11E-06	0.098114	457	-1.23E-06	0.14611
394	-6.54E-07	0.042114	426	-1.55E-06	0.099114	458	-2.15E-06	0.14711
395	-7.43E-07	0.044114	427	-1.56E-06	0.10011	459	-2.27E-06	0.14811
396	-5.60E-07	0.046114	428	-7.05E-07	0.10111	460	-1.10E-06	0.14911
397	-5.72E-07	0.048114	429	-9.21E-07	0.10311	461	-1.17E-06	0.15011
398	-6.38E-07	0.050114	430	-7.21E-07	0.10511	462	-2.23E-06	0.15111
399	-5.93E-07	0.052114	431	-9.63E-07	0.10711	463	-2.32E-06	0.15211
400	-9.11E-07	0.054114	432	-7.25E-07	0.10911	464	-1.15E-06	0.15311
401	-1.26E-06	0.056114	433	-3.58E-07	0.11111	465	-9.30E-07	0.15411
402	-1.27E-06	0.057114	434	-7.52E-07	0.11311	466	-1.70E-06	0.15611
403	-1.10E-06	0.058114	435	-1.67E-06	0.11511	467	-9.51E-07	0.15711
404	-9.71E-07	0.059114	436	-1.18E-06	0.11611	468	-2.30E-06	0.15911
405	-8.60E-07	0.061114	437	-1.51E-06	0.11711	469	-3.66E-07	0.16011
406	-7.81E-07	0.063114	438	-1.90E-06	0.11811	470	-1.97E-06	0.16211
407	-6.48E-07	0.065114	439	-1.23E-10	0.11911	471	-1.04E-06	0.16311
408	-1.24E-06	0.067114	440	-1.37E-06	0.12111	472	-6.72E-07	0.16411
409	-7.55E-07	0.068114	441	-8.85E-07	0.12211	473	-2.50E-06	0.16611
410	-5.93E-07	0.070114	442	-6.17E-07	0.12411	474	-1.27E-06	0.16711
411	-5.63E-07	0.072114	443	-7.53E-07	0.12611	475	-9.69E-07	0.16811
412	-6.35E-07	0.074114	444	-8.19E-07	0.12811	476	-2.54E-06	0.17011
413	-1.53E-06	0.076114	445	-1.60E-06	0.13011	477	-1.70E-06	0.17111
414	-6.59E-07	0.077114	446	-1.11E-06	0.13111	478	-6.53E-07	0.17211

479	-2.64E-06	0.17411	511	-2.18E-06	0.21511	543	-2.04E-06	0.25511
480	-1.83E-06	0.17511	512	-2.18E-06	0.21611	544	-1.46E-06	0.25611
481	-9.52E-07	0.17611	513	-1.10E-06	0.21711	545	-2.43E-06	0.25711
482	-1.96E-06	0.17811	514	-9.81E-07	0.21811	546	-8.58E-07	0.25811
483	-2.41E-06	0.17911	515	-2.03E-06	0.22011	547	-2.41E-06	0.26011
484	-1.63E-06	0.18011	516	-1.52E-06	0.22111	548	-4.41E-07	0.26111
485	-8.44E-07	0.18111	517	-5.45E-07	0.22211	549	-1.71E-06	0.26311
486	-1.65E-06	0.18311	518	-2.37E-06	0.22411	550	-4.76E-07	0.26411
487	-1.97E-06	0.18411	519	-2.29E-06	0.22511	551	-1.60E-06	0.26611
488	-2.83E-06	0.18511	520	-1.27E-06	0.22611	552	-2.17E-06	0.26711
489	-2.37E-06	0.18611	521	-9.56E-07	0.22711	553	-2.03E-06	0.26811
490	-1.56E-06	0.18711	522	-2.31E-06	0.22911	554	-1.13E-06	0.26911
491	-7.08E-07	0.18811	523	-1.79E-06	0.23011	555	-1.69E-06	0.27011
492	-2.03E-06	0.19011	524	-8.06E-07	0.23111	556	-1.31E-06	0.27111
493	-2.49E-06	0.19111	525	-1.89E-06	0.23311	557	-1.78E-06	0.27211
494	-1.83E-06	0.19211	526	-2.40E-06	0.23411	558	-1.00E-06	0.27311
495	-1.02E-06	0.19311	527	-1.09E-06	0.23511	559	-1.11E-06	0.27511
496	-2.26E-06	0.19511	528	-9.97E-07	0.23611	560	-1.90E-06	0.27611
497	-2.56E-06	0.19611	529	-2.42E-06	0.23811	561	-1.13E-06	0.27711
498	-2.02E-06	0.19711	530	-1.69E-06	0.23911	562	-1.85E-06	0.27811
499	-8.61E-07	0.19811	531	-8.95E-07	0.24011	563	-1.34E-06	0.27911
500	-9.79E-07	0.20011	532	-2.28E-06	0.24211	564	-2.41E-06	0.28011
501	-2.28E-06	0.20211	533	-1.11E-06	0.24311	565	-1.33E-06	0.28111
502	-1.84E-06	0.20311	534	-8.84E-07	0.24411	566	-1.85E-06	0.28211
503	-1.22E-06	0.20411	535	-1.43E-06	0.24611	567	-1.28E-06	0.28311
504	-5.99E-07	0.20511	536	-1.09E-06	0.24711	568	-2.16E-06	0.28411
505	-2.45E-06	0.20711	537	-2.01E-06	0.24811	569	-1.11E-06	0.28511
506	-1.92E-06	0.20811	538	-1.84E-06	0.24911	570	-1.96E-06	0.28611
507	-7.82E-07	0.20911	539	-8.27E-07	0.25011	571	-7.02E-07	0.28711
508	-2.14E-06	0.21111	540	-2.24E-06	0.25211	572	-1.96E-06	0.28911
509	-1.59E-06	0.21211	541	-1.25E-06	0.25311	573	-8.55E-07	0.29011
510	-1.02E-06	0.21311	542	-1.66E-06	0.25411	574	-7.99E-07	0.29211

575	-1.39E-06	0.29411	607	-1.72E-06	0.32711	639	-8.02E-07	0.36211
576	-7.14E-07	0.29511	608	-1.52E-06	0.32811	640	-1.63E-06	0.36411
577	-1.10E-06	0.29711	609	-1.58E-06	0.32911	641	-1.98E-06	0.36511
578	-1.08E-06	0.29811	610	-1.30E-06	0.33011	642	-1.16E-06	0.36611
579	-1.98E-06	0.29911	611	-1.43E-06	0.33111	643	-1.64E-06	0.36711
580	-1.30E-06	0.30011	612	-1.60E-06	0.33211	644	-1.78E-06	0.36811
581	-1.43E-06	0.30111	613	-1.18E-06	0.33311	645	-1.10E-06	0.36911
582	-1.06E-06	0.30211	614	-1.87E-06	0.33411	646	-1.78E-06	0.37011
583	-2.06E-06	0.30311	615	-1.42E-06	0.33511	647	-1.48E-06	0.37111
584	-1.77E-06	0.30411	616	-1.72E-06	0.33611	648	-1.64E-06	0.37211
585	-1.29E-06	0.30511	617	-1.48E-06	0.33711	649	-1.49E-06	0.37311
586	-1.23E-06	0.30611	618	-2.19E-06	0.33811	650	-1.22E-06	0.37411
587	-1.40E-06	0.30711	619	-1.44E-06	0.33911	651	-1.13E-06	0.37511
588	-1.18E-06	0.30811	620	-1.89E-06	0.34011	652	-2.08E-06	0.37611
589	-1.23E-06	0.30911	621	-1.82E-06	0.34111	653	-1.63E-06	0.37711
590	-1.79E-06	0.31011	622	-2.44E-06	0.34211	654	-2.13E-06	0.37811
591	-1.12E-06	0.31111	623	-1.52E-06	0.34311	655	-2.07E-06	0.37911
592	-1.33E-06	0.31211	624	-8.91E-07	0.34411	656	-1.25E-06	0.38011
593	-1.10E-06	0.31311	625	-1.12E-06	0.34611	657	-2.36E-06	0.38111
594	-2.05E-06	0.31411	626	-1.18E-06	0.34711	658	-1.67E-06	0.38211
595	-1.13E-06	0.31511	627	-2.45E-06	0.34811	659	-1.84E-06	0.38311
596	-1.99E-06	0.31611	628	-1.05E-06	0.34911	660	-1.92E-06	0.38411
597	-1.33E-06	0.31711	629	-1.55E-06	0.35011	661	-1.30E-06	0.38511
598	-2.25E-06	0.31811	630	-9.29E-07	0.35111	662	-1.88E-06	0.38611
599	-1.05E-06	0.31911	631	-2.14E-06	0.35311	663	-1.29E-06	0.38711
600	-1.58E-06	0.32011	632	-1.21E-06	0.35411	664	-1.87E-06	0.38811
601	-1.54E-06	0.32111	633	-1.16E-06	0.35511	665	-1.08E-06	0.38911
602	-1.94E-06	0.32211	634	-2.30E-06	0.35611	666	-1.34E-06	0.39011
603	-1.33E-06	0.32311	635	-1.03E-06	0.35711	667	-2.11E-06	0.39111
604	-1.46E-06	0.32411	636	-1.60E-06	0.35811	668	-1.37E-06	0.39211
605	-1.63E-06	0.32511	637	-8.69E-07	0.35911	669	-1.86E-06	0.39311
606	-1.53E-06	0.32611	638	-1.05E-06	0.36111	670	-1.43E-06	0.39411

671	-1.44E-06	0.39511	703	-1.80E-06	0.42711	735	-2.10E-06	0.46011
672	-1.20E-06	0.39611	704	-1.27E-06	0.42811	736	-1.07E-06	0.46111
673	-1.36E-06	0.39711	705	-1.76E-06	0.42911	737	-1.95E-06	0.46211
674	-1.63E-06	0.39811	706	-1.33E-06	0.43011	738	-1.54E-06	0.46311
675	-1.82E-06	0.39911	707	-1.74E-06	0.43111	739	-1.84E-06	0.46411
676	-1.37E-06	0.40011	708	-1.34E-06	0.43211	740	-1.82E-06	0.46511
677	-1.81E-06	0.40111	709	-1.86E-06	0.43311	741	-1.10E-06	0.46611
678	-1.28E-06	0.40211	710	-1.12E-06	0.43411	742	-1.83E-06	0.46711
679	-1.92E-06	0.40311	711	-2.01E-06	0.43511	743	-1.14E-06	0.46811
680	-1.44E-06	0.40411	712	-1.12E-06	0.43611	744	-1.89E-06	0.46911
681	-1.84E-06	0.40511	713	-1.77E-06	0.43711	745	-1.28E-06	0.47011
682	-1.25E-06	0.40611	714	-1.29E-06	0.43811	746	-1.57E-06	0.47111
683	-1.77E-06	0.40711	715	-1.69E-06	0.43911	747	-1.60E-06	0.47211
684	-1.42E-06	0.40811	716	-1.07E-06	0.44011	748	-1.18E-06	0.47311
685	-1.86E-06	0.40911	717	-2.21E-06	0.44111	749	-1.77E-06	0.47411
686	-1.36E-06	0.41011	718	-1.31E-06	0.44211	750	-1.37E-06	0.47511
687	-2.10E-06	0.41111	719	-1.86E-06	0.44311	751	-1.79E-06	0.47611
688	-1.12E-06	0.41211	720	-1.37E-06	0.44411	752	-1.56E-06	0.47711
689	-1.67E-06	0.41311	721	-1.68E-06	0.44511	753	-1.43E-06	0.47811
690	-1.31E-06	0.41411	722	-1.34E-06	0.44611	754	-1.43E-06	0.47911
691	-2.10E-06	0.41511	723	-2.04E-06	0.44711	755	-1.67E-06	0.48011
692	-1.16E-06	0.41611	724	-1.29E-06	0.44811	756	-1.53E-06	0.48111
693	-1.59E-06	0.41711	725	-1.67E-06	0.44911	757	-1.52E-06	0.48211
694	-1.52E-06	0.41811	726	-1.40E-06	0.45011	758	-1.36E-06	0.48311
695	-1.79E-06	0.41911	727	-1.80E-06	0.45111	759	-1.84E-06	0.48411
696	-1.34E-06	0.42011	728	-1.36E-06	0.45211	760	-1.32E-06	0.48511
697	-1.85E-06	0.42111	729	-1.79E-06	0.45311	761	-1.64E-06	0.48611
698	-1.38E-06	0.42211	730	-1.23E-06	0.45411	762	-1.82E-06	0.48711
699	-1.87E-06	0.42311	731	-1.68E-06	0.45511	763	-1.58E-06	0.48811
700	-1.37E-06	0.42411	732	-1.79E-06	0.45611	764	-1.83E-06	0.48911
701	-1.82E-06	0.42511	733	-9.71E-07	0.45711	765	-1.54E-06	0.49011
702	-1.33E-06	0.42611	734	-1.38E-06	0.45911	766	-1.69E-06	0.49111

767	-1.31E-06	0.49211	799	-1.14E-06	0.52711	831	-1.67E-06	0.56311
768	-1.57E-06	0.49311	800	-1.50E-06	0.52811	832	-1.60E-06	0.56411
769	-1.64E-06	0.49411	801	-2.07E-06	0.52911	833	-1.66E-06	0.56511
770	-1.08E-06	0.49511	802	-1.11E-06	0.53011	834	-1.96E-06	0.56611
771	-1.80E-06	0.49611	803	-1.69E-06	0.53111	835	-1.61E-06	0.56711
772	-1.28E-06	0.49711	804	-1.14E-06	0.53211	836	-1.12E-06	0.56811
773	-1.96E-06	0.49811	805	-9.74E-07	0.53311	837	-2.14E-06	0.56911
774	-1.50E-06	0.49911	806	-1.53E-06	0.53511	838	-1.47E-06	0.57011
775	-9.64E-07	0.50011	807	-1.45E-06	0.53611	839	-1.44E-06	0.57111
776	-9.24E-07	0.50211	808	-1.86E-06	0.53711	840	-1.83E-06	0.57211
777	-1.37E-06	0.50411	809	-1.36E-06	0.53811	841	-1.29E-06	0.57311
778	-1.06E-06	0.50511	810	-1.58E-06	0.53911	842	-1.99E-06	0.57411
779	-1.77E-06	0.50611	811	-7.92E-07	0.54011	843	-1.32E-06	0.57511
780	-1.12E-06	0.50711	812	-1.71E-06	0.54211	844	-1.31E-06	0.57611
781	-1.39E-06	0.50811	813	-1.76E-06	0.54311	845	-1.10E-06	0.57711
782	-1.76E-06	0.50911	814	-1.83E-06	0.54411	846	-1.21E-06	0.57811
783	-1.39E-06	0.51011	815	-1.15E-06	0.54511	847	-1.15E-06	0.57911
784	-1.88E-06	0.51111	816	-7.03E-07	0.54611	848	-1.34E-06	0.58011
785	-1.00E-06	0.51211	817	-1.57E-06	0.54811	849	-2.04E-06	0.58111
786	-1.47E-06	0.51411	818	-1.83E-06	0.54911	850	-1.65E-06	0.58211
787	-1.59E-06	0.51511	819	-1.02E-06	0.55011	851	-9.76E-07	0.58311
788	-1.24E-06	0.51611	820	-6.79E-07	0.55111	852	-1.22E-06	0.58511
789	-1.76E-06	0.51711	821	-1.50E-06	0.55311	853	-6.01E-07	0.58611
790	-1.71E-06	0.51811	822	-1.70E-06	0.55411	854	-1.10E-06	0.58811
791	-1.48E-06	0.51911	823	-1.71E-06	0.55511	855	-1.91E-06	0.58911
792	-1.90E-06	0.52011	824	-1.62E-06	0.55611	856	-1.51E-06	0.59011
793	-1.74E-06	0.52111	825	-1.15E-06	0.55711	857	-1.56E-06	0.59111
794	-1.38E-06	0.52211	826	-1.13E-06	0.55811	858	-1.99E-06	0.59211
795	-2.05E-06	0.52311	827	-1.21E-06	0.55911	859	-2.30E-06	0.59311
796	-1.04E-06	0.52411	828	-1.95E-06	0.56011	860	-1.44E-06	0.59411
797	-1.17E-06	0.52511	829	-1.08E-06	0.56111	861	-1.56E-06	0.59511
798	-1.38E-06	0.52611	830	-1.06E-06	0.56211	862	-1.70E-06	0.59611

863	-2.01E-06	0.59711	895	-1.87E-06	0.63211	927	-1.42E-06	0.66811
864	-1.84E-06	0.59811	896	-9.66E-07	0.63311	928	-1.70E-06	0.66911
865	-1.57E-06	0.59911	897	-1.52E-06	0.63511	929	-1.23E-06	0.67011
866	-2.11E-06	0.60011	898	-1.67E-06	0.63611	930	-1.53E-06	0.67111
867	-1.52E-06	0.60111	899	-1.42E-06	0.63711	931	-1.35E-06	0.67211
868	-1.55E-06	0.60211	900	-1.71E-06	0.63811	932	-1.67E-06	0.67311
869	-1.73E-06	0.60311	901	-1.36E-06	0.63911	933	-1.39E-06	0.67411
870	-1.07E-06	0.60411	902	-1.54E-06	0.64011	934	-1.76E-06	0.67511
871	-2.02E-06	0.60511	903	-1.31E-06	0.64111	935	-1.13E-06	0.67611
872	-1.50E-06	0.60611	904	-1.92E-06	0.64211	936	-1.54E-06	0.67711
873	-1.52E-06	0.60711	905	-1.57E-06	0.64311	937	-1.24E-06	0.67811
874	-1.57E-06	0.60811	906	-1.28E-06	0.64411	938	-1.21E-06	0.67911
875	-1.43E-06	0.60911	907	-1.71E-06	0.64511	939	-2.12E-06	0.68011
876	-1.68E-06	0.61011	908	-1.35E-06	0.64611	940	-2.05E-06	0.68111
877	-1.01E-06	0.61111	909	-1.82E-06	0.64711	941	-1.68E-06	0.68211
878	-2.10E-06	0.61311	910	-9.95E-07	0.64811	942	-1.64E-06	0.68311
879	-1.55E-06	0.61411	911	-2.04E-06	0.65011	943	-1.61E-06	0.68411
880	-6.55E-07	0.61511	912	-1.35E-06	0.65111	944	-1.29E-06	0.68511
881	-1.22E-06	0.61711	913	-1.71E-06	0.65211	945	-1.76E-06	0.68611
882	-1.03E-06	0.61811	914	-1.13E-06	0.65311	946	-1.51E-06	0.68711
883	-1.72E-06	0.61911	915	-1.50E-06	0.65411	947	-1.78E-06	0.68811
884	-9.39E-07	0.62011	916	-1.36E-06	0.65511	948	-1.61E-06	0.68911
885	-1.12E-06	0.62211	917	-1.59E-06	0.65611	949	-1.80E-06	0.69011
886	-1.49E-06	0.62311	918	-1.32E-06	0.65711	950	-1.45E-06	0.69111
887	-1.59E-06	0.62411	919	-1.46E-06	0.65811	951	-9.66E-07	0.69211
888	-1.74E-06	0.62511	920	-8.36E-07	0.65911	952	-1.36E-06	0.69411
889	-1.39E-06	0.62611	921	-2.17E-06	0.66111	953	-1.64E-06	0.69511
890	-1.86E-06	0.62711	922	-1.93E-06	0.66211	954	-1.35E-06	0.69611
891	-1.24E-06	0.62811	923	-1.86E-06	0.66311	955	-1.44E-06	0.69711
892	-1.39E-06	0.62911	924	-9.29E-07	0.66411	956	-1.50E-06	0.69811
893	-1.83E-06	0.63011	925	-1.22E-06	0.66611	957	-1.70E-06	0.69911
894	-1.50E-06	0.63111	926	-1.70E-06	0.66711	958	-1.37E-06	0.70011

959	-1.48E-06	0.70111	991	-1.31E-06	0.73611	1023	-1.11E-06	0.77111
960	-1.30E-06	0.70211	992	-1.80E-06	0.73711	1024	-1.68E-06	0.77211
961	-1.69E-06	0.70311	993	-1.52E-06	0.73811	1025	-1.15E-06	0.77311
962	-1.11E-06	0.70411	994	-9.75E-07	0.73911	1026	-1.88E-06	0.77411
963	-1.82E-06	0.70511	995	-7.67E-07	0.74111	1027	-7.91E-07	0.77511
964	-1.32E-06	0.70611	996	-1.27E-06	0.74311	1028	-1.27E-06	0.77711
965	-1.55E-06	0.70711	997	-1.81E-06	0.74411	1029	-1.36E-06	0.77811
966	-1.59E-06	0.70811	998	-2.02E-06	0.74511	1030	-1.26E-06	0.77911
967	-1.40E-06	0.70911	999	-1.78E-06	0.74611	1031	-1.11E-06	0.78011
968	-1.30E-06	0.71011	1000	-1.77E-06	0.74711	1032	-1.64E-06	0.78111
969	-1.84E-06	0.71111	1001	-2.12E-06	0.74811	1033	-1.29E-06	0.78211
970	-1.06E-06	0.71211	1002	-1.23E-06	0.74911	1034	-1.53E-06	0.78311
971	-1.75E-06	0.71311	1003	-1.91E-06	0.75011	1035	-1.50E-06	0.78411
972	-1.12E-06	0.71411	1004	-1.56E-06	0.75111	1036	-1.62E-06	0.78511
973	-1.08E-06	0.71511	1005	-2.17E-06	0.75211	1037	-7.16E-07	0.78611
974	-7.11E-07	0.71611	1006	-7.59E-07	0.75311	1038	-9.18E-07	0.78811
975	-1.93E-06	0.71811	1007	-1.07E-06	0.75511	1039	-1.09E-06	0.79011
976	-2.18E-06	0.71911	1008	-1.35E-06	0.75611	1040	-1.43E-06	0.79111
977	-1.74E-06	0.72011	1009	-1.67E-06	0.75711	1041	-1.10E-06	0.79211
978	-1.50E-06	0.72111	1010	-1.43E-06	0.75811	1042	-1.43E-06	0.79311
979	-1.57E-06	0.72211	1011	-1.44E-06	0.75911	1043	-1.26E-06	0.79411
980	-1.29E-06	0.72311	1012	-1.26E-06	0.76011	1044	-9.04E-07	0.79511
981	-1.35E-06	0.72411	1013	-1.71E-06	0.76111	1045	-1.20E-06	0.79711
982	-1.52E-06	0.72511	1014	-1.75E-06	0.76211	1046	-1.48E-06	0.79811
983	-1.69E-06	0.72611	1015	-1.28E-06	0.76311	1047	-1.73E-06	0.79911
984	-1.57E-06	0.72711	1016	-1.15E-06	0.76411	1048	-2.22E-06	0.80011
985	-1.14E-06	0.72811	1017	-2.10E-06	0.76511	1049	-1.58E-06	0.80111
986	-1.77E-06	0.72911	1018	-1.19E-06	0.76611	1050	-1.36E-06	0.80211
987	-1.58E-06	0.73011	1019	-1.61E-06	0.76711	1051	-1.03E-06	0.80311
988	-1.43E-06	0.73111	1020	-1.38E-06	0.76811	1052	-1.79E-06	0.80411
989	-7.85E-07	0.73211	1021	-2.09E-06	0.76911	1053	-9.85E-07	0.80511
990	-9.07E-07	0.73411	1022	-1.51E-06	0.77011	1054	-1.01E-06	0.80711

1055	-1.60E-06	0.80911	1087	-1.34E-06	0.84611	1119	-1.53E-06	0.88211
1056	-9.89E-07	0.81011	1088	-1.43E-06	0.84711	1120	-9.72E-07	0.88311
1057	-1.34E-06	0.81211	1089	-1.35E-06	0.84811	1121	-1.26E-06	0.88511
1058	-1.64E-06	0.81311	1090	-1.56E-06	0.84911	1122	-1.41E-06	0.88611
1059	-9.62E-07	0.81411	1091	-1.23E-06	0.85011	1123	-1.23E-06	0.88711
1060	-1.04E-06	0.81611	1092	-1.79E-06	0.85111	1124	-1.41E-06	0.88811
1061	-1.73E-06	0.81711	1093	-1.30E-06	0.85211	1125	-1.11E-06	0.88911
1062	-9.01E-07	0.81811	1094	-1.70E-06	0.85311	1126	-1.24E-06	0.89011
1063	-9.13E-07	0.82011	1095	-1.13E-06	0.85411	1127	-1.31E-06	0.89111
1064	-1.12E-06	0.82211	1096	-1.41E-06	0.85511	1128	-1.37E-06	0.89211
1065	-1.76E-06	0.82311	1097	-1.52E-06	0.85611	1129	-1.12E-06	0.89311
1066	-1.13E-06	0.82411	1098	-1.16E-06	0.85711	1130	-1.62E-06	0.89411
1067	-1.63E-06	0.82511	1099	-1.39E-06	0.85811	1131	-1.39E-06	0.89511
1068	-1.50E-06	0.82611	1100	-1.23E-06	0.85911	1132	-1.28E-06	0.89611
1069	-1.00E-06	0.82711	1101	-1.05E-06	0.86011	1133	-1.22E-06	0.89711
1070	-1.27E-06	0.82911	1102	-9.30E-07	0.86111	1134	-9.47E-07	0.89811
1071	-1.31E-06	0.83011	1103	-1.14E-06	0.86311	1135	-1.46E-06	0.90011
1072	-1.10E-06	0.83111	1104	-8.11E-07	0.86411	1136	-1.51E-06	0.90111
1073	-1.38E-06	0.83211	1105	-1.31E-06	0.86611	1137	-1.21E-06	0.90211
1074	-1.07E-06	0.83311	1106	-9.87E-07	0.86711	1138	-1.57E-06	0.90311
1075	-1.61E-06	0.83411	1107	-1.19E-06	0.86911	1139	-1.33E-06	0.90411
1076	-1.05E-06	0.83511	1108	-1.35E-06	0.87011	1140	-1.32E-06	0.90511
1077	-1.26E-06	0.83611	1109	-1.16E-06	0.87111	1141	-1.16E-06	0.90611
1078	-1.21E-06	0.83711	1110	-1.32E-06	0.87211	1142	-1.72E-06	0.90711
1079	-1.41E-06	0.83811	1111	-1.49E-06	0.87311	1143	-1.76E-06	0.90811
1080	-1.15E-06	0.83911	1112	-1.42E-06	0.87411	1144	-1.26E-06	0.90911
1081	-1.79E-06	0.84011	1113	-8.49E-07	0.87511	1145	-1.40E-06	0.91011
1082	-1.13E-06	0.84111	1114	-1.48E-06	0.87711	1146	-1.63E-06	0.91111
1083	-1.61E-06	0.84211	1115	-1.05E-06	0.87811	1147	-2.00E-06	0.91211
1084	-1.07E-06	0.84311	1116	-1.32E-06	0.87911	1148	-1.33E-06	0.91311
1085	-1.62E-06	0.84411	1117	-1.23E-06	0.88011	1149	-1.55E-06	0.91411
1086	-1.10E-06	0.84511	1118	-1.68E-06	0.88111	1150	-1.32E-06	0.91511

1151	-1.19E-06	0.91611		1183	-1.38E-06	0.95011		1215	-1.01E-06	0.98311
1152	-9.31E-07	0.91711		1184	-1.63E-06	0.95111		1216	-1.01E-06	0.98511
1153	-1.53E-06	0.91911		1185	-1.46E-06	0.95211		1217	-1.20E-06	0.98711
1154	-1.29E-06	0.92011		1186	-1.33E-06	0.95311		1218	-1.61E-06	0.98811
1155	-1.51E-06	0.92111		1187	-1.50E-06	0.95411		1219	-2.04E-06	0.98911
1156	-1.58E-06	0.92211		1188	-1.67E-06	0.95511		1220	-8.11E-07	0.99011
1157	-1.43E-06	0.92311		1189	-1.38E-06	0.95611		1221	-1.65E-06	0.99211
1158	-1.49E-06	0.92411		1190	-2.07E-06	0.95711		1222	-2.09E-06	0.99311
1159	-1.56E-06	0.92511		1191	-1.55E-06	0.95811		1223	-2.07E-06	0.99411
1160	-1.95E-06	0.92611		1192	-1.97E-06	0.95911		1224	-1.78E-06	0.99511
1161	-1.47E-06	0.92711		1193	-1.45E-06	0.96011		1225	-2.04E-06	0.99611
1162	-2.01E-06	0.92811		1194	-1.38E-06	0.96111		1226	-2.02E-06	0.99711
1163	-1.48E-06	0.92911		1195	-1.46E-06	0.96211		1227	-1.29E-06	0.99811
1164	-1.38E-06	0.93011		1196	-1.33E-06	0.96311		1228	-1.62E-06	0.99911
1165	-9.90E-07	0.93111		1197	-1.55E-06	0.96411		1229	-1.38E-06	1.0001
1166	-1.69E-06	0.93311		1198	-1.58E-06	0.96511		1230	-1.58E-06	1.0011
1167	-1.54E-06	0.93411		1199	-1.67E-06	0.96611		1231	-7.90E-07	1.0021
1168	-1.60E-06	0.93511		1200	-9.38E-07	0.96711		1232	-1.58E-06	1.0041
1169	-1.31E-06	0.93611		1201	-2.07E-06	0.96911		1233	-9.87E-07	1.0051
1170	-1.71E-06	0.93711		1202	-2.45E-06	0.97011		1234	-1.65E-06	1.0071
1171	-1.32E-06	0.93811		1203	-1.36E-06	0.97111		1235	-1.19E-06	1.0081
1172	-1.47E-06	0.93911		1204	-1.18E-06	0.97211		1236	-6.42E-07	1.0091
1173	-1.50E-06	0.94011		1205	-1.08E-06	0.97311		1237	-1.38E-06	1.0111
1174	-1.52E-06	0.94111		1206	-1.12E-06	0.97411		1238	-1.33E-06	1.0121
1175	-1.47E-06	0.94211		1207	-1.47E-06	0.97511		1239	-1.70E-06	1.0131
1176	-1.31E-06	0.94311		1208	-1.17E-06	0.97611		1240	-1.83E-06	1.0141
1177	-1.64E-06	0.94411		1209	-2.39E-06	0.97711		1241	-1.03E-06	1.0151
1178	-1.45E-06	0.94511		1210	-1.98E-06	0.97811		1242	-1.51E-06	1.0161
1179	-1.63E-06	0.94611		1211	-1.71E-06	0.97911		1243	-1.37E-06	1.0171
1180	-1.80E-06	0.94711		1212	-1.62E-06	0.98011		1244	-1.71E-06	1.0181
1181	-1.41E-06	0.94811		1213	-1.30E-06	0.98111		1245	-1.25E-06	1.0191
1182	-1.66E-06	0.94911		1214	-1.85E-06	0.98211		1246	-1.48E-06	1.0201

1247	-1.29E-06	1.0211		1279	-1.55E-06	1.0551		1311	-1.38E-06	1.0891
1248	-1.48E-06	1.0221		1280	-1.15E-06	1.0561		1312	-1.42E-06	1.0901
1249	-1.44E-06	1.0231		1281	-1.93E-06	1.0571		1313	-1.47E-06	1.0911
1250	-1.31E-06	1.0241		1282	-9.88E-07	1.0581		1314	-1.42E-06	1.0921
1251	-9.52E-07	1.0251		1283	-1.29E-06	1.0601		1315	-1.35E-06	1.0931
1252	-1.73E-06	1.0271		1284	-1.58E-06	1.0611		1316	-1.15E-06	1.0941
1253	-1.68E-06	1.0281		1285	-1.34E-06	1.0621		1317	-1.72E-06	1.0951
1254	-1.01E-06	1.0291		1286	-1.57E-06	1.0631		1318	-1.41E-06	1.0961
1255	-1.99E-06	1.0311		1287	-1.44E-06	1.0641		1319	-1.57E-06	1.0971
1256	-1.19E-06	1.0321		1288	-9.28E-07	1.0651		1320	-1.34E-06	1.0981
1257	-1.31E-06	1.0331		1289	-1.32E-06	1.0671		1321	-1.52E-06	1.0991
1258	-2.13E-06	1.0341		1290	-1.53E-06	1.0681		1322	-1.60E-06	1.1001
1259	-1.19E-06	1.0351		1291	-1.24E-06	1.0691		1323	-1.61E-06	1.1011
1260	-1.58E-06	1.0361		1292	-1.73E-06	1.0701		1324	-1.02E-06	1.1021
1261	-1.49E-06	1.0371		1293	-1.43E-06	1.0711		1325	-1.44E-06	1.1031
1262	-1.59E-06	1.0381		1294	-1.27E-06	1.0721		1326	-9.78E-07	1.1041
1263	-1.32E-06	1.0391		1295	-1.82E-06	1.0731		1327	-1.52E-06	1.1061
1264	-1.47E-06	1.0401		1296	-1.04E-06	1.0741		1328	-1.52E-06	1.1071
1265	-1.17E-06	1.0411		1297	-1.35E-06	1.0751		1329	-1.48E-06	1.1081
1266	-1.50E-06	1.0421		1298	-1.70E-06	1.0761		1330	-1.62E-06	1.1091
1267	-1.30E-06	1.0431		1299	-1.35E-06	1.0771		1331	-1.45E-06	1.1101
1268	-1.17E-06	1.0441		1300	-1.70E-06	1.0781		1332	-1.13E-06	1.1111
1269	-1.39E-06	1.0451		1301	-1.40E-06	1.0791		1333	-1.50E-06	1.1121
1270	-1.52E-06	1.0461		1302	-1.58E-06	1.0801		1334	-1.41E-06	1.1131
1271	-1.63E-06	1.0471		1303	-1.11E-06	1.0811		1335	-1.78E-06	1.1141
1272	-1.28E-06	1.0481		1304	-1.71E-06	1.0821		1336	-1.28E-06	1.1151
1273	-1.51E-06	1.0491		1305	-1.48E-06	1.0831		1337	-1.69E-06	1.1161
1274	-1.23E-06	1.0501		1306	-1.58E-06	1.0841		1338	-1.28E-06	1.1171
1275	-1.84E-06	1.0511		1307	-1.35E-06	1.0851		1339	-1.74E-06	1.1181
1276	-1.22E-06	1.0521		1308	-1.12E-06	1.0861		1340	-1.14E-06	1.1191
1277	-1.55E-06	1.0531		1309	-1.71E-06	1.0871		1341	-1.62E-06	1.1201
1278	-1.32E-06	1.0541		1310	-1.32E-06	1.0881		1342	-1.25E-06	1.1211

1343	-1.65E-06	1.1221	1375	-1.55E-06	1.1551	1407	-1.97E-06	1.1891
1344	-1.59E-06	1.1231	1376	-1.26E-06	1.1561	1408	-1.39E-06	1.1901
1345	-1.26E-06	1.1241	1377	-1.82E-06	1.1571	1409	-1.87E-06	1.1911
1346	-1.36E-06	1.1251	1378	-1.37E-06	1.1581	1410	-1.75E-06	1.1921
1347	-1.21E-06	1.1261	1379	-1.47E-06	1.1591	1411	-1.58E-06	1.1931
1348	-1.69E-06	1.1271	1380	-2.14E-06	1.1601	1412	-2.00E-06	1.1941
1349	-1.48E-06	1.1281	1381	-9.99E-07	1.1611	1413	-1.69E-06	1.1951
1350	-1.47E-06	1.1291	1382	-1.49E-06	1.1631	1414	-1.68E-06	1.1961
1351	-1.45E-06	1.1301	1383	-1.50E-06	1.1641	1415	-1.59E-06	1.1971
1352	-1.69E-06	1.1311	1384	-1.12E-06	1.1651	1416	-1.59E-06	1.1981
1353	-1.53E-06	1.1321	1385	-1.35E-06	1.1661	1417	-1.78E-06	1.1991
1354	-1.35E-06	1.1331	1386	-1.89E-06	1.1671	1418	-1.67E-06	1.2001
1355	-1.45E-06	1.1341	1387	-1.19E-06	1.1681	1419	-2.08E-06	1.2011
1356	-1.52E-06	1.1351	1388	-1.45E-06	1.1691	1420	-1.91E-06	1.2021
1357	-1.82E-06	1.1361	1389	-1.53E-06	1.1701	1421	-1.30E-06	1.2031
1358	-1.24E-06	1.1371	1390	-1.50E-06	1.1711	1422	-1.58E-06	1.2041
1359	-1.78E-06	1.1381	1391	-1.81E-06	1.1721	1423	-1.25E-06	1.2051
1360	-1.51E-06	1.1391	1392	-1.53E-06	1.1731	1424	-1.70E-06	1.2061
1361	-1.65E-06	1.1401	1393	-1.64E-06	1.1741	1425	-1.37E-06	1.2071
1362	-1.34E-06	1.1411	1394	-1.66E-06	1.1751	1426	-1.39E-06	1.2081
1363	-1.65E-06	1.1421	1395	-1.33E-06	1.1761	1427	-2.26E-06	1.2091
1364	-1.47E-06	1.1431	1396	-1.83E-06	1.1771	1428	-1.80E-06	1.2101
1365	-1.24E-06	1.1441	1397	-1.41E-06	1.1781	1429	-2.04E-06	1.2111
1366	-1.75E-06	1.1451	1398	-2.14E-06	1.1791	1430	-2.24E-06	1.2121
1367	-1.52E-06	1.1461	1399	-1.53E-06	1.1801	1431	-2.05E-06	1.2131
1368	-1.78E-06	1.1471	1400	-1.38E-06	1.1811	1432	-2.09E-06	1.2141
1369	-1.60E-06	1.1481	1401	-1.67E-06	1.1821	1433	-1.73E-06	1.2151
1370	-9.26E-07	1.1491	1402	-1.93E-06	1.1831	1434	-1.92E-06	1.2161
1371	-1.47E-06	1.1511	1403	-2.03E-06	1.1841	1435	-2.25E-06	1.2171
1372	-1.44E-06	1.1521	1404	-1.85E-06	1.1851	1436	-1.77E-06	1.2181
1373	-2.01E-06	1.1531	1405	-9.15E-07	1.1861	1437	-2.11E-06	1.2191
1374	-1.31E-06	1.1541	1406	-1.32E-06	1.1881	1438	-2.07E-06	1.2201

1439	-2.28E-06	1.2211	1471	-2.89E-06	1.2531	1503	-6.48E-06	1.2851
1440	-1.79E-06	1.2221	1472	-3.12E-06	1.2541	1504	-7.11E-06	1.2861
1441	-2.73E-06	1.2231	1473	-2.82E-06	1.2551	1505	-6.68E-06	1.2871
1442	-2.03E-06	1.2241	1474	-2.90E-06	1.2561	1506	-7.83E-06	1.2881
1443	-1.90E-06	1.2251	1475	-2.87E-06	1.2571	1507	-7.97E-06	1.2891
1444	-2.47E-06	1.2261	1476	-3.55E-06	1.2581	1508	-7.93E-06	1.2901
1445	-2.00E-06	1.2271	1477	-3.12E-06	1.2591	1509	-8.48E-06	1.2911
1446	-2.09E-06	1.2281	1478	-3.37E-06	1.2601	1510	-8.53E-06	1.2921
1447	-2.18E-06	1.2291	1479	-3.25E-06	1.2611	1511	-9.24E-06	1.2931
1448	-2.20E-06	1.2301	1480	-3.11E-06	1.2621	1512	-9.25E-06	1.2941
1449	-2.37E-06	1.2311	1481	-3.45E-06	1.2631	1513	-9.99E-06	1.2951
1450	-1.92E-06	1.2321	1482	-3.81E-06	1.2641	1514	-1.02E-05	1.2961
1451	-2.35E-06	1.2331	1483	-3.61E-06	1.2651	1515	-1.08E-05	1.2971
1452	-2.22E-06	1.2341	1484	-3.48E-06	1.2661	1516	-1.13E-05	1.2981
1453	-2.26E-06	1.2351	1485	-4.07E-06	1.2671	1517	-1.15E-05	1.2991
1454	-2.31E-06	1.2361	1486	-3.83E-06	1.2681	1518	-1.25E-05	1.3001
1455	-2.72E-06	1.2371	1487	-3.58E-06	1.2691	1519	-1.29E-05	1.3011
1456	-2.14E-06	1.2381	1488	-3.93E-06	1.2701	1520	-1.40E-05	1.3021
1457	-2.13E-06	1.2391	1489	-4.02E-06	1.2711	1521	-1.45E-05	1.3031
1458	-2.89E-06	1.2401	1490	-4.89E-06	1.2721	1522	-1.47E-05	1.3041
1459	-2.39E-06	1.2411	1491	-4.28E-06	1.2731	1523	-1.60E-05	1.3051
1460	-2.95E-06	1.2421	1492	-4.48E-06	1.2741	1524	-1.65E-05	1.3061
1461	-2.50E-06	1.2431	1493	-4.76E-06	1.2751	1525	-1.73E-05	1.3071
1462	-2.19E-06	1.2441	1494	-4.95E-06	1.2761	1526	-1.76E-05	1.3081
1463	-2.43E-06	1.2451	1495	-5.22E-06	1.2771	1527	-1.90E-05	1.3091
1464	-2.72E-06	1.2461	1496	-5.08E-06	1.2781	1528	-1.93E-05	1.3101
1465	-2.75E-06	1.2471	1497	-5.25E-06	1.2791	1529	-2.02E-05	1.3111
1466	-2.64E-06	1.2481	1498	-5.25E-06	1.2801	1530	-2.11E-05	1.3121
1467	-2.97E-06	1.2491	1499	-5.71E-06	1.2811	1531	-2.25E-05	1.3131
1468	-3.03E-06	1.2501	1500	-5.58E-06	1.2821	1532	-2.30E-05	1.3141
1469	-2.41E-06	1.2511	1501	-6.10E-06	1.2831	1533	-2.42E-05	1.3151
1470	-3.19E-06	1.2521	1502	-6.26E-06	1.2841	1534	-2.47E-05	1.3161

1535	-2.60E-05	1.3171		1567	-6.69E-05	1.3491		1599	-1.22E-04	1.3811
1536	-2.70E-05	1.3181		1568	-6.82E-05	1.3501		1600	-1.24E-04	1.3821
1537	-2.75E-05	1.3191		1569	-6.95E-05	1.3511		1601	-1.26E-04	1.3831
1538	-2.90E-05	1.3201		1570	-7.09E-05	1.3521		1602	-1.28E-04	1.3841
1539	-3.03E-05	1.3211		1571	-7.30E-05	1.3531		1603	-1.30E-04	1.3851
1540	-3.14E-05	1.3221		1572	-7.49E-05	1.3541		1604	-1.31E-04	1.3861
1541	-3.24E-05	1.3231		1573	-7.67E-05	1.3551		1605	-1.33E-04	1.3871
1542	-3.31E-05	1.3241		1574	-7.83E-05	1.3561		1606	-1.35E-04	1.3881
1543	-3.46E-05	1.3251		1575	-7.94E-05	1.3571		1607	-1.37E-04	1.3891
1544	-3.60E-05	1.3261		1576	-8.08E-05	1.3581		1608	-1.38E-04	1.3901
1545	-3.72E-05	1.3271		1577	-8.30E-05	1.3591		1609	-1.40E-04	1.3911
1546	-3.81E-05	1.3281		1578	-8.42E-05	1.3601		1610	-1.42E-04	1.3921
1547	-3.87E-05	1.3291		1579	-8.62E-05	1.3611		1611	-1.44E-04	1.3931
1548	-4.08E-05	1.3301		1580	-8.83E-05	1.3621		1612	-1.46E-04	1.3941
1549	-4.18E-05	1.3311		1581	-8.97E-05	1.3631		1613	-1.48E-04	1.3951
1550	-4.28E-05	1.3321		1582	-9.16E-05	1.3641		1614	-1.49E-04	1.3961
1551	-4.41E-05	1.3331		1583	-9.33E-05	1.3651		1615	-1.51E-04	1.3971
1552	-4.52E-05	1.3341		1584	-9.51E-05	1.3661		1616	-1.53E-04	1.3981
1553	-4.65E-05	1.3351		1585	-9.67E-05	1.3671		1617	-1.54E-04	1.3991
1554	-4.87E-05	1.3361		1586	-9.85E-05	1.3681		1618	-1.57E-04	1.4001
1555	-4.96E-05	1.3371		1587	-9.98E-05	1.3691		1619	-1.58E-04	1.4011
1556	-5.04E-05	1.3381		1588	-1.02E-04	1.3701		1620	-1.61E-04	1.4021
1557	-5.18E-05	1.3391		1589	-1.04E-04	1.3711		1621	-1.62E-04	1.4031
1558	-5.32E-05	1.3401		1590	-1.05E-04	1.3721		1622	-1.64E-04	1.4041
1559	-5.50E-05	1.3411		1591	-1.08E-04	1.3731		1623	-1.66E-04	1.4051
1560	-5.65E-05	1.3421		1592	-1.10E-04	1.3741		1624	-1.67E-04	1.4061
1561	-5.75E-05	1.3431		1593	-1.11E-04	1.3751		1625	-1.70E-04	1.4071
1562	-5.92E-05	1.3441		1594	-1.13E-04	1.3761		1626	-1.71E-04	1.4081
1563	-6.07E-05	1.3451		1595	-1.15E-04	1.3771		1627	-1.73E-04	1.4091
1564	-6.22E-05	1.3461		1596	-1.17E-04	1.3781		1628	-1.74E-04	1.4101
1565	-6.36E-05	1.3471		1597	-1.18E-04	1.3791		1629	-1.77E-04	1.4111
1566	-6.48E-05	1.3481		1598	-1.20E-04	1.3801		1630	-1.79E-04	1.4121

1631	-1.80E-04	1.4131		1663	-2.35E-04	1.4451		1695	-2.85E-04	1.4771
1632	-1.82E-04	1.4141		1664	-2.36E-04	1.4461		1696	-2.86E-04	1.4781
1633	-1.84E-04	1.4151		1665	-2.39E-04	1.4471		1697	-2.88E-04	1.4791
1634	-1.85E-04	1.4161		1666	-2.40E-04	1.4481		1698	-2.89E-04	1.4801
1635	-1.87E-04	1.4171		1667	-2.42E-04	1.4491		1699	-2.90E-04	1.4811
1636	-1.89E-04	1.4181		1668	-2.44E-04	1.4501		1700	-2.91E-04	1.4821
1637	-1.91E-04	1.4191		1669	-2.45E-04	1.4511		1701	-2.93E-04	1.4831
1638	-1.93E-04	1.4201		1670	-2.47E-04	1.4521		1702	-2.94E-04	1.4841
1639	-1.95E-04	1.4211		1671	-2.48E-04	1.4531		1703	-2.96E-04	1.4851
1640	-1.96E-04	1.4221		1672	-2.50E-04	1.4541		1704	-2.97E-04	1.4861
1641	-1.98E-04	1.4231		1673	-2.51E-04	1.4551		1705	-2.99E-04	1.4871
1642	-2.00E-04	1.4241		1674	-2.53E-04	1.4561		1706	-3.00E-04	1.4881
1643	-2.02E-04	1.4251		1675	-2.55E-04	1.4571		1707	-3.02E-04	1.4891
1644	-2.03E-04	1.4261		1676	-2.56E-04	1.4581		1708	-3.03E-04	1.4901
1645	-2.05E-04	1.4271		1677	-2.57E-04	1.4591		1709	-3.04E-04	1.4911
1646	-2.07E-04	1.4281		1678	-2.59E-04	1.4601		1710	-3.05E-04	1.4921
1647	-2.09E-04	1.4291		1679	-2.61E-04	1.4611		1711	-3.07E-04	1.4931
1648	-2.10E-04	1.4301		1680	-2.63E-04	1.4621		1712	-3.08E-04	1.4941
1649	-2.13E-04	1.4311		1681	-2.64E-04	1.4631		1713	-3.09E-04	1.4951
1650	-2.14E-04	1.4321		1682	-2.65E-04	1.4641		1714	-3.11E-04	1.4961
1651	-2.16E-04	1.4331		1683	-2.66E-04	1.4651		1715	-3.13E-04	1.4971
1652	-2.18E-04	1.4341		1684	-2.68E-04	1.4661		1716	-3.14E-04	1.4981
1653	-2.19E-04	1.4351		1685	-2.69E-04	1.4671		1717	-3.15E-04	1.4991
1654	-2.20E-04	1.4361		1686	-2.71E-04	1.4681		1718	-3.16E-04	1.5001
1655	-2.22E-04	1.4371		1687	-2.73E-04	1.4691		1719	-3.17E-04	1.5011
1656	-2.24E-04	1.4381		1688	-2.74E-04	1.4701		1720	-3.18E-04	1.5021
1657	-2.25E-04	1.4391		1689	-2.76E-04	1.4711		1721	-3.20E-04	1.5031
1658	-2.27E-04	1.4401		1690	-2.77E-04	1.4721		1722	-3.21E-04	1.5041
1659	-2.30E-04	1.4411		1691	-2.79E-04	1.4731		1723	-3.22E-04	1.5051
1660	-2.31E-04	1.4421		1692	-2.80E-04	1.4741		1724	-3.24E-04	1.5061
1661	-2.31E-04	1.4431		1693	-2.82E-04	1.4751		1725	-3.25E-04	1.5071
1662	-2.34E-04	1.4441		1694	-2.83E-04	1.4761		1726	-3.26E-04	1.5081

1727	-3.27E-04	1.5091	1759	-3.65E-04	1.5411	1791	-3.82E-04	1.5731
1728	-3.27E-04	1.5101	1760	-3.66E-04	1.5421	1792	-3.83E-04	1.5741
1729	-3.29E-04	1.5111	1761	-3.66E-04	1.5431	1793	-3.84E-04	1.5751
1730	-3.30E-04	1.5121	1762	-3.67E-04	1.5441	1794	-3.84E-04	1.5761
1731	-3.31E-04	1.5131	1763	-3.67E-04	1.5451	1795	-3.85E-04	1.5771
1732	-3.32E-04	1.5141	1764	-3.68E-04	1.5461	1796	-3.86E-04	1.5781
1733	-3.33E-04	1.5151	1765	-3.68E-04	1.5471	1797	-3.87E-04	1.5791
1734	-3.34E-04	1.5161	1766	-3.69E-04	1.5481	1798	-3.88E-04	1.5801
1735	-3.35E-04	1.5171	1767	-3.69E-04	1.5491	1799	-3.88E-04	1.5811
1736	-3.36E-04	1.5181	1768	-3.70E-04	1.5501	1800	-3.89E-04	1.5821
1737	-3.38E-04	1.5191	1769	-3.70E-04	1.5511	1801	-3.90E-04	1.5831
1738	-3.38E-04	1.5201	1770	-3.66E-04	1.5521	1802	-3.91E-04	1.5841
1739	-3.40E-04	1.5211	1771	-3.66E-04	1.5531	1803	-3.91E-04	1.5851
1740	-3.42E-04	1.5221	1772	-3.66E-04	1.5541	1804	-3.92E-04	1.5861
1741	-3.42E-04	1.5231	1773	-3.67E-04	1.5551	1805	-3.92E-04	1.5871
1742	-3.44E-04	1.5241	1774	-3.67E-04	1.5561	1806	-3.94E-04	1.5881
1743	-3.45E-04	1.5251	1775	-3.67E-04	1.5571	1807	-3.94E-04	1.5891
1744	-3.47E-04	1.5261	1776	-3.68E-04	1.5581	1808	-3.95E-04	1.5901
1745	-3.49E-04	1.5271	1777	-3.68E-04	1.5591	1809	-3.95E-04	1.5911
1746	-3.50E-04	1.5281	1778	-3.69E-04	1.5601	1810	-3.96E-04	1.5921
1747	-3.51E-04	1.5291	1779	-3.70E-04	1.5611	1811	-3.97E-04	1.5931
1748	-3.53E-04	1.5301	1780	-3.71E-04	1.5621	1812	-3.98E-04	1.5941
1749	-3.54E-04	1.5311	1781	-3.72E-04	1.5631	1813	-3.99E-04	1.5951
1750	-3.56E-04	1.5321	1782	-3.73E-04	1.5641	1814	-4.00E-04	1.5961
1751	-3.57E-04	1.5331	1783	-3.72E-04	1.5651	1815	-4.01E-04	1.5971
1752	-3.58E-04	1.5341	1784	-3.73E-04	1.5661	1816	-4.02E-04	1.5981
1753	-3.59E-04	1.5351	1785	-3.74E-04	1.5671	1817	-4.03E-04	1.5991
1754	-3.60E-04	1.5361	1786	-3.74E-04	1.5681	1818	-4.05E-04	1.6001
1755	-3.61E-04	1.5371	1787	-3.76E-04	1.5691	1819	-4.07E-04	1.6011
1756	-3.62E-04	1.5381	1788	-3.78E-04	1.5701	1820	-4.07E-04	1.6021
1757	-3.63E-04	1.5391	1789	-3.79E-04	1.5711	1821	-4.08E-04	1.6031
1758	-3.64E-04	1.5401	1790	-3.81E-04	1.5721	1822	-4.08E-04	1.6041

1823	-4.09E-04	1.6051		1855	-4.06E-04	1.6371		1887	-3.85E-04	1.6691
1824	-4.09E-04	1.6061		1856	-4.06E-04	1.6381		1888	-3.84E-04	1.6701
1825	-4.10E-04	1.6071		1857	-4.06E-04	1.6391		1889	-3.83E-04	1.6711
1826	-4.12E-04	1.6081		1858	-4.05E-04	1.6401		1890	-3.82E-04	1.6721
1827	-4.13E-04	1.6091		1859	-4.05E-04	1.6411		1891	-3.81E-04	1.6731
1828	-4.12E-04	1.6101		1860	-4.05E-04	1.6421		1892	-3.81E-04	1.6741
1829	-4.13E-04	1.6111		1861	-4.03E-04	1.6431		1893	-3.80E-04	1.6751
1830	-4.13E-04	1.6121		1862	-4.02E-04	1.6441		1894	-3.79E-04	1.6761
1831	-4.15E-04	1.6131		1863	-4.03E-04	1.6451		1895	-3.77E-04	1.6771
1832	-4.16E-04	1.6141		1864	-4.02E-04	1.6461		1896	-3.75E-04	1.6781
1833	-4.17E-04	1.6151		1865	-4.02E-04	1.6471		1897	-3.75E-04	1.6791
1834	-4.18E-04	1.6161		1866	-4.01E-04	1.6481		1898	-3.75E-04	1.6801
1835	-4.17E-04	1.6171		1867	-4.01E-04	1.6491		1899	-3.74E-04	1.6811
1836	-4.19E-04	1.6181		1868	-4.00E-04	1.6501		1900	-3.72E-04	1.6821
1837	-4.18E-04	1.6191		1869	-4.00E-04	1.6511		1901	-3.70E-04	1.6831
1838	-4.20E-04	1.6201		1870	-3.99E-04	1.6521		1902	-3.68E-04	1.6841
1839	-4.18E-04	1.6211		1871	-4.00E-04	1.6531		1903	-3.67E-04	1.6851
1840	-4.18E-04	1.6221		1872	-3.99E-04	1.6541		1904	-3.64E-04	1.6861
1841	-4.12E-04	1.6231		1873	-3.98E-04	1.6551		1905	-3.63E-04	1.6871
1842	-4.11E-04	1.6241		1874	-3.97E-04	1.6561		1906	-3.62E-04	1.6881
1843	-4.10E-04	1.6251		1875	-3.97E-04	1.6571		1907	-3.60E-04	1.6891
1844	-4.10E-04	1.6261		1876	-3.96E-04	1.6581		1908	-3.59E-04	1.6901
1845	-4.10E-04	1.6271		1877	-3.95E-04	1.6591		1909	-3.58E-04	1.6911
1846	-4.10E-04	1.6281		1878	-3.95E-04	1.6601		1910	-3.56E-04	1.6921
1847	-4.10E-04	1.6291		1879	-3.94E-04	1.6611		1911	-3.55E-04	1.6931
1848	-4.09E-04	1.6301		1880	-3.93E-04	1.6621		1912	-3.54E-04	1.6941
1849	-4.09E-04	1.6311		1881	-3.92E-04	1.6631		1913	-3.53E-04	1.6951
1850	-4.08E-04	1.6321		1882	-3.90E-04	1.6641		1914	-3.52E-04	1.6961
1851	-4.08E-04	1.6331		1883	-3.90E-04	1.6651		1915	-3.50E-04	1.6971
1852	-4.07E-04	1.6341		1884	-3.88E-04	1.6661		1916	-3.49E-04	1.6981
1853	-4.07E-04	1.6351		1885	-3.87E-04	1.6671		1917	-3.47E-04	1.6991
1854	-4.07E-04	1.6361		1886	-3.86E-04	1.6681		1918	-3.46E-04	1.7001

1919	-3.44E-04	1.7011	1951	-2.92E-04	1.7331	1983	-2.46E-04	1.7651
1920	-3.42E-04	1.7021	1952	-2.91E-04	1.7341	1984	-2.45E-04	1.7661
1921	-3.41E-04	1.7031	1953	-2.89E-04	1.7351	1985	-2.44E-04	1.7671
1922	-3.40E-04	1.7041	1954	-2.89E-04	1.7361	1986	-2.43E-04	1.7681
1923	-3.38E-04	1.7051	1955	-2.87E-04	1.7371	1987	-2.42E-04	1.7691
1924	-3.36E-04	1.7061	1956	-2.85E-04	1.7381	1988	-2.41E-04	1.7701
1925	-3.34E-04	1.7071	1957	-2.84E-04	1.7391	1989	-2.40E-04	1.7711
1926	-3.32E-04	1.7081	1958	-2.82E-04	1.7401	1990	-2.39E-04	1.7721
1927	-3.30E-04	1.7091	1959	-2.81E-04	1.7411	1991	-2.38E-04	1.7731
1928	-3.28E-04	1.7101	1960	-2.79E-04	1.7421	1992	-2.36E-04	1.7741
1929	-3.27E-04	1.7111	1961	-2.78E-04	1.7431	1993	-2.34E-04	1.7751
1930	-3.26E-04	1.7121	1962	-2.77E-04	1.7441	1994	-2.34E-04	1.7761
1931	-3.24E-04	1.7131	1963	-2.76E-04	1.7451	1995	-2.33E-04	1.7771
1932	-3.22E-04	1.7141	1964	-2.74E-04	1.7461	1996	-2.32E-04	1.7781
1933	-3.20E-04	1.7151	1965	-2.73E-04	1.7471	1997	-2.30E-04	1.7791
1934	-3.18E-04	1.7161	1966	-2.71E-04	1.7481	1998	-2.28E-04	1.7801
1935	-3.16E-04	1.7171	1967	-2.69E-04	1.7491	1999	-2.28E-04	1.7811
1936	-3.15E-04	1.7181	1968	-2.68E-04	1.7501	2000	-2.27E-04	1.7821
1937	-3.13E-04	1.7191	1969	-2.66E-04	1.7511	2001	-2.26E-04	1.7831
1938	-3.11E-04	1.7201	1970	-2.65E-04	1.7521	2002	-2.25E-04	1.7841
1939	-3.09E-04	1.7211	1971	-2.63E-04	1.7531	2003	-2.24E-04	1.7851
1940	-3.08E-04	1.7221	1972	-2.62E-04	1.7541	2004	-2.24E-04	1.7861
1941	-3.06E-04	1.7231	1973	-2.60E-04	1.7551	2005	-2.23E-04	1.7871
1942	-3.05E-04	1.7241	1974	-2.59E-04	1.7561	2006	-2.22E-04	1.7881
1943	-3.03E-04	1.7251	1975	-2.58E-04	1.7571	2007	-2.21E-04	1.7891
1944	-3.02E-04	1.7261	1976	-2.57E-04	1.7581	2008	-2.21E-04	1.7901
1945	-3.00E-04	1.7271	1977	-2.56E-04	1.7591	2009	-2.20E-04	1.7911
1946	-2.99E-04	1.7281	1978	-2.55E-04	1.7601	2010	-2.20E-04	1.7921
1947	-2.98E-04	1.7291	1979	-2.53E-04	1.7611	2011	-2.19E-04	1.7931
1948	-2.96E-04	1.7301	1980	-2.51E-04	1.7621	2012	-2.17E-04	1.7941
1949	-2.95E-04	1.7311	1981	-2.48E-04	1.7631	2013	-2.16E-04	1.7951
1950	-2.93E-04	1.7321	1982	-2.46E-04	1.7641	2014	-2.15E-04	1.7961

2015	-2.15E-04	1.7971	2047	-1.94E-04	1.8291	2079	-1.77E-04	1.8611
2016	-2.14E-04	1.7981	2048	-1.93E-04	1.8301	2080	-1.76E-04	1.8621
2017	-2.13E-04	1.7991	2049	-1.93E-04	1.8311	2081	-1.76E-04	1.8631
2018	-2.13E-04	1.8001	2050	-1.93E-04	1.8321	2082	-1.76E-04	1.8641
2019	-2.11E-04	1.8011	2051	-1.93E-04	1.8331	2083	-1.75E-04	1.8651
2020	-2.11E-04	1.8021	2052	-1.92E-04	1.8341	2084	-1.74E-04	1.8661
2021	-2.10E-04	1.8031	2053	-1.92E-04	1.8351	2085	-1.73E-04	1.8671
2022	-2.10E-04	1.8041	2054	-1.92E-04	1.8361	2086	-1.73E-04	1.8681
2023	-2.09E-04	1.8051	2055	-1.90E-04	1.8371	2087	-1.72E-04	1.8691
2024	-2.08E-04	1.8061	2056	-1.91E-04	1.8381	2088	-1.72E-04	1.8701
2025	-2.08E-04	1.8071	2057	-1.90E-04	1.8391	2089	-1.72E-04	1.8711
2026	-2.08E-04	1.8081	2058	-1.88E-04	1.8401	2090	-1.71E-04	1.8721
2027	-2.07E-04	1.8091	2059	-1.88E-04	1.8411	2091	-1.70E-04	1.8731
2028	-2.06E-04	1.8101	2060	-1.87E-04	1.8421	2092	-1.69E-04	1.8741
2029	-2.06E-04	1.8111	2061	-1.87E-04	1.8431	2093	-1.69E-04	1.8751
2030	-2.06E-04	1.8121	2062	-1.87E-04	1.8441	2094	-1.68E-04	1.8761
2031	-2.05E-04	1.8131	2063	-1.86E-04	1.8451	2095	-1.68E-04	1.8771
2032	-2.05E-04	1.8141	2064	-1.86E-04	1.8461	2096	-1.68E-04	1.8781
2033	-2.04E-04	1.8151	2065	-1.85E-04	1.8471	2097	-1.67E-04	1.8791
2034	-2.03E-04	1.8161	2066	-1.85E-04	1.8481	2098	-1.67E-04	1.8801
2035	-2.02E-04	1.8171	2067	-1.84E-04	1.8491	2099	-1.66E-04	1.8811
2036	-2.02E-04	1.8181	2068	-1.83E-04	1.8501	2100	-1.66E-04	1.8821
2037	-2.02E-04	1.8191	2069	-1.82E-04	1.8511	2101	-1.65E-04	1.8831
2038	-2.01E-04	1.8201	2070	-1.81E-04	1.8521	2102	-1.64E-04	1.8841
2039	-2.01E-04	1.8211	2071	-1.81E-04	1.8531	2103	-1.64E-04	1.8851
2040	-2.00E-04	1.8221	2072	-1.80E-04	1.8541	2104	-1.63E-04	1.8861
2041	-2.00E-04	1.8231	2073	-1.80E-04	1.8551	2105	-1.63E-04	1.8871
2042	-1.99E-04	1.8241	2074	-1.80E-04	1.8561	2106	-1.62E-04	1.8881
2043	-1.99E-04	1.8251	2075	-1.79E-04	1.8571	2107	-1.62E-04	1.8891
2044	-1.98E-04	1.8261	2076	-1.79E-04	1.8581	2108	-1.62E-04	1.8901
2045	-1.96E-04	1.8271	2077	-1.77E-04	1.8591	2109	-1.61E-04	1.8911
2046	-1.94E-04	1.8281	2078	-1.77E-04	1.8601	2110	-1.60E-04	1.8921

2111	-1.60E-04	1.8931		2143	-1.44E-04	1.9251		2175	-1.31E-04	1.9571
2112	-1.59E-04	1.8941		2144	-1.43E-04	1.9261		2176	-1.30E-04	1.9581
2113	-1.58E-04	1.8951		2145	-1.42E-04	1.9271		2177	-1.30E-04	1.9591
2114	-1.57E-04	1.8961		2146	-1.42E-04	1.9281		2178	-1.30E-04	1.9601
2115	-1.57E-04	1.8971		2147	-1.41E-04	1.9291		2179	-1.30E-04	1.9611
2116	-1.57E-04	1.8981		2148	-1.41E-04	1.9301		2180	-1.30E-04	1.9621
2117	-1.57E-04	1.8991		2149	-1.40E-04	1.9311		2181	-1.29E-04	1.9631
2118	-1.56E-04	1.9001		2150	-1.40E-04	1.9321		2182	-1.29E-04	1.9641
2119	-1.55E-04	1.9011		2151	-1.39E-04	1.9331		2183	-1.28E-04	1.9651
2120	-1.55E-04	1.9021		2152	-1.39E-04	1.9341		2184	-1.28E-04	1.9661
2121	-1.54E-04	1.9031		2153	-1.38E-04	1.9351		2185	-1.28E-04	1.9671
2122	-1.54E-04	1.9041		2154	-1.39E-04	1.9361		2186	-1.27E-04	1.9681
2123	-1.53E-04	1.9051		2155	-1.38E-04	1.9371		2187	-1.27E-04	1.9691
2124	-1.52E-04	1.9061		2156	-1.38E-04	1.9381		2188	-1.27E-04	1.9701
2125	-1.52E-04	1.9071		2157	-1.37E-04	1.9391		2189	-1.27E-04	1.9711
2126	-1.52E-04	1.9081		2158	-1.37E-04	1.9401		2190	-1.26E-04	1.9721
2127	-1.52E-04	1.9091		2159	-1.36E-04	1.9411		2191	-1.27E-04	1.9731
2128	-1.51E-04	1.9101		2160	-1.36E-04	1.9421		2192	-1.26E-04	1.9741
2129	-1.51E-04	1.9111		2161	-1.36E-04	1.9431		2193	-1.26E-04	1.9751
2130	-1.50E-04	1.9121		2162	-1.35E-04	1.9441		2194	-1.25E-04	1.9761
2131	-1.50E-04	1.9131		2163	-1.35E-04	1.9451		2195	-1.25E-04	1.9771
2132	-1.49E-04	1.9141		2164	-1.34E-04	1.9461		2196	-1.25E-04	1.9781
2133	-1.49E-04	1.9151		2165	-1.34E-04	1.9471		2197	-1.25E-04	1.9791
2134	-1.47E-04	1.9161		2166	-1.34E-04	1.9481		2198	-1.24E-04	1.9801
2135	-1.48E-04	1.9171		2167	-1.34E-04	1.9491		2199	-1.24E-04	1.9811
2136	-1.48E-04	1.9181		2168	-1.33E-04	1.9501		2200	-1.24E-04	1.9821
2137	-1.46E-04	1.9191		2169	-1.32E-04	1.9511		2201	-1.23E-04	1.9831
2138	-1.46E-04	1.9201		2170	-1.32E-04	1.9521		2202	-1.23E-04	1.9841
2139	-1.46E-04	1.9211		2171	-1.32E-04	1.9531		2203	-1.23E-04	1.9851
2140	-1.45E-04	1.9221		2172	-1.32E-04	1.9541		2204	-1.22E-04	1.9861
2141	-1.44E-04	1.9231		2173	-1.31E-04	1.9551		2205	-1.23E-04	1.9871
2142	-1.44E-04	1.9241		2174	-1.31E-04	1.9561		2206	-1.22E-04	1.9881

2207	-1.22E-04	1.9891		2239	-1.16E-04	2.0211		2271	-1.12E-04	2.0531
2208	-1.22E-04	1.9901		2240	-1.16E-04	2.0221		2272	-1.12E-04	2.0541
2209	-1.22E-04	1.9911		2241	-1.16E-04	2.0231		2273	-1.12E-04	2.0551
2210	-1.22E-04	1.9921		2242	-1.16E-04	2.0241		2274	-1.12E-04	2.0561
2211	-1.21E-04	1.9931		2243	-1.16E-04	2.0251		2275	-1.12E-04	2.0571
2212	-1.21E-04	1.9941		2244	-1.15E-04	2.0261		2276	-1.11E-04	2.0581
2213	-1.21E-04	1.9951		2245	-1.15E-04	2.0271		2277	-1.12E-04	2.0591
2214	-1.21E-04	1.9961		2246	-1.15E-04	2.0281		2278	-1.12E-04	2.0601
2215	-1.21E-04	1.9971		2247	-1.15E-04	2.0291		2279	-1.10E-04	2.0611
2216	-1.20E-04	1.9981		2248	-1.15E-04	2.0301		2280	-1.10E-04	2.0621
2217	-1.21E-04	1.9991		2249	-1.15E-04	2.0311		2281	-1.10E-04	2.0631
2218	-1.20E-04	2.0001		2250	-1.15E-04	2.0321		2282	-1.10E-04	2.0641
2219	-1.20E-04	2.0011		2251	-1.14E-04	2.0331		2283	-1.11E-04	2.0651
2220	-1.20E-04	2.0021		2252	-1.14E-04	2.0341		2284	-1.10E-04	2.0661
2221	-1.20E-04	2.0031		2253	-1.14E-04	2.0351		2285	-1.10E-04	2.0671
2222	-1.19E-04	2.0041		2254	-1.13E-04	2.0361		2286	-1.10E-04	2.0681
2223	-1.19E-04	2.0051		2255	-1.13E-04	2.0371		2287	-1.10E-04	2.0691
2224	-1.18E-04	2.0061		2256	-1.13E-04	2.0381		2288	-1.10E-04	2.0701
2225	-1.19E-04	2.0071		2257	-1.13E-04	2.0391		2289	-1.10E-04	2.0711
2226	-1.18E-04	2.0081		2258	-1.14E-04	2.0401		2290	-1.10E-04	2.0721
2227	-1.18E-04	2.0091		2259	-1.13E-04	2.0411		2291	-1.10E-04	2.0731
2228	-1.19E-04	2.0101		2260	-1.13E-04	2.0421		2292	-1.09E-04	2.0741
2229	-1.18E-04	2.0111		2261	-1.13E-04	2.0431		2293	-1.09E-04	2.0751
2230	-1.18E-04	2.0121		2262	-1.13E-04	2.0441		2294	-1.09E-04	2.0761
2231	-1.18E-04	2.0131		2263	-1.13E-04	2.0451		2295	-1.09E-04	2.0771
2232	-1.18E-04	2.0141		2264	-1.13E-04	2.0461		2296	-1.10E-04	2.0781
2233	-1.17E-04	2.0151		2265	-1.13E-04	2.0471		2297	-1.09E-04	2.0791
2234	-1.17E-04	2.0161		2266	-1.13E-04	2.0481		2298	-1.09E-04	2.0801
2235	-1.17E-04	2.0171		2267	-1.12E-04	2.0491		2299	-1.09E-04	2.0811
2236	-1.17E-04	2.0181		2268	-1.12E-04	2.0501		2300	-1.09E-04	2.0821
2237	-1.17E-04	2.0191		2269	-1.12E-04	2.0511		2301	-1.09E-04	2.0831
2238	-1.16E-04	2.0201		2270	-1.12E-04	2.0521		2302	-1.08E-04	2.0841

2303	-1.09E-04	2.0851	2335	-1.05E-04	2.1171	2367	-1.03E-04	2.1491
2304	-1.08E-04	2.0861	2336	-1.06E-04	2.1181	2368	-1.03E-04	2.1501
2305	-1.08E-04	2.0871	2337	-1.05E-04	2.1191	2369	-1.03E-04	2.1511
2306	-1.08E-04	2.0881	2338	-1.05E-04	2.1201	2370	-1.03E-04	2.1521
2307	-1.08E-04	2.0891	2339	-1.05E-04	2.1211	2371	-1.03E-04	2.1531
2308	-1.08E-04	2.0901	2340	-1.05E-04	2.1221	2372	-1.03E-04	2.1541
2309	-1.08E-04	2.0911	2341	-1.05E-04	2.1231	2373	-1.03E-04	2.1551
2310	-1.08E-04	2.0921	2342	-1.05E-04	2.1241	2374	-1.03E-04	2.1561
2311	-1.08E-04	2.0931	2343	-1.05E-04	2.1251	2375	-1.03E-04	2.1571
2312	-1.08E-04	2.0941	2344	-1.06E-04	2.1261	2376	-1.03E-04	2.1581
2313	-1.08E-04	2.0951	2345	-1.05E-04	2.1271	2377	-1.03E-04	2.1591
2314	-1.07E-04	2.0961	2346	-1.05E-04	2.1281	2378	-1.03E-04	2.1601
2315	-1.08E-04	2.0971	2347	-1.05E-04	2.1291	2379	-1.03E-04	2.1611
2316	-1.07E-04	2.0981	2348	-1.05E-04	2.1301	2380	-1.02E-04	2.1621
2317	-1.08E-04	2.0991	2349	-1.05E-04	2.1311	2381	-1.03E-04	2.1631
2318	-1.07E-04	2.1001	2350	-1.04E-04	2.1321	2382	-1.02E-04	2.1641
2319	-1.07E-04	2.1011	2351	-1.04E-04	2.1331	2383	-1.02E-04	2.1651
2320	-1.07E-04	2.1021	2352	-1.04E-04	2.1341	2384	-1.02E-04	2.1661
2321	-1.07E-04	2.1031	2353	-1.04E-04	2.1351	2385	-1.02E-04	2.1671
2322	-1.07E-04	2.1041	2354	-1.04E-04	2.1361	2386	-1.03E-04	2.1681
2323	-1.07E-04	2.1051	2355	-1.04E-04	2.1371	2387	-1.02E-04	2.1691
2324	-1.07E-04	2.1061	2356	-1.04E-04	2.1381	2388	-1.03E-04	2.1701
2325	-1.06E-04	2.1071	2357	-1.04E-04	2.1391	2389	-1.02E-04	2.1711
2326	-1.06E-04	2.1081	2358	-1.04E-04	2.1401	2390	-1.02E-04	2.1721
2327	-1.06E-04	2.1091	2359	-1.04E-04	2.1411	2391	-1.02E-04	2.1731
2328	-1.06E-04	2.1101	2360	-1.04E-04	2.1421	2392	-1.02E-04	2.1741
2329	-1.07E-04	2.1111	2361	-1.03E-04	2.1431	2393	-1.02E-04	2.1751
2330	-1.05E-04	2.1121	2362	-1.04E-04	2.1441	2394	-1.01E-04	2.1761
2331	-1.06E-04	2.1131	2363	-1.04E-04	2.1451	2395	-1.01E-04	2.1771
2332	-1.06E-04	2.1141	2364	-1.03E-04	2.1461	2396	-1.01E-04	2.1781
2333	-1.06E-04	2.1151	2365	-1.04E-04	2.1471	2397	-1.01E-04	2.1791
2334	-1.06E-04	2.1161	2366	-1.04E-04	2.1481	2398	-1.02E-04	2.1801

2399	-1.02E-04	2.1811	2431	-9.96E-05	2.2131	2463	-9.91E-05	2.2451
2400	-1.01E-04	2.1821	2432	-1.00E-04	2.2141	2464	-9.86E-05	2.2461
2401	-1.02E-04	2.1831	2433	-1.00E-04	2.2151	2465	-9.86E-05	2.2471
2402	-1.01E-04	2.1841	2434	-1.00E-04	2.2161	2466	-9.88E-05	2.2481
2403	-1.01E-04	2.1851	2435	-1.00E-04	2.2171	2467	-9.86E-05	2.2491
2404	-1.01E-04	2.1861	2436	-9.96E-05	2.2181	2468	-9.87E-05	2.2501
2405	-1.01E-04	2.1871	2437	-9.98E-05	2.2191	2469	-9.84E-05	2.2511
2406	-1.00E-04	2.1881	2438	-9.99E-05	2.2201	2470	-9.86E-05	2.2521
2407	-1.01E-04	2.1891	2439	-9.98E-05	2.2211	2471	-9.82E-05	2.2531
2408	-1.00E-04	2.1901	2440	-9.96E-05	2.2221	2472	-9.88E-05	2.2541
2409	-1.00E-04	2.1911	2441	-9.94E-05	2.2231	2473	-9.87E-05	2.2551
2410	-1.01E-04	2.1921	2442	-9.97E-05	2.2241	2474	-9.83E-05	2.2561
2411	-1.01E-04	2.1931	2443	-9.98E-05	2.2251	2475	-9.80E-05	2.2571
2412	-1.01E-04	2.1941	2444	-9.95E-05	2.2261	2476	-9.82E-05	2.2581
2413	-9.98E-05	2.1951	2445	-9.95E-05	2.2271	2477	-9.82E-05	2.2591
2414	-1.00E-04	2.1961	2446	-9.94E-05	2.2281	2478	-9.83E-05	2.2601
2415	-1.00E-04	2.1971	2447	-9.95E-05	2.2291	2479	-9.84E-05	2.2611
2416	-1.01E-04	2.1981	2448	-9.97E-05	2.2301	2480	-9.82E-05	2.2621
2417	-1.01E-04	2.1991	2449	-9.91E-05	2.2311	2481	-9.83E-05	2.2631
2418	-1.01E-04	2.2001	2450	-9.95E-05	2.2321	2482	-9.78E-05	2.2641
2419	-1.00E-04	2.2011	2451	-9.93E-05	2.2331	2483	-9.78E-05	2.2651
2420	-1.01E-04	2.2021	2452	-9.94E-05	2.2341	2484	-9.83E-05	2.2661
2421	-1.01E-04	2.2031	2453	-9.92E-05	2.2351	2485	-9.80E-05	2.2671
2422	-1.01E-04	2.2041	2454	-9.93E-05	2.2361	2486	-9.77E-05	2.2681
2423	-1.01E-04	2.2051	2455	-9.96E-05	2.2371	2487	-9.85E-05	2.2691
2424	-1.01E-04	2.2061	2456	-9.95E-05	2.2381	2488	-9.80E-05	2.2701
2425	-1.01E-04	2.2071	2457	-9.94E-05	2.2391	2489	-9.78E-05	2.2711
2426	-1.00E-04	2.2081	2458	-9.91E-05	2.2401	2490	-9.78E-05	2.2721
2427	-1.00E-04	2.2091	2459	-9.92E-05	2.2411	2491	-9.79E-05	2.2731
2428	-1.00E-04	2.2101	2460	-9.88E-05	2.2421	2492	-9.79E-05	2.2741
2429	-1.00E-04	2.2111	2461	-9.92E-05	2.2431	2493	-9.81E-05	2.2751
2430	-1.00E-04	2.2121	2462	-9.86E-05	2.2441	2494	-9.81E-05	2.2761

2495	-9.80E-05	2.2771	2527	-9.63E-05	2.3091	2559	-9.61E-05	2.3411
2496	-9.78E-05	2.2781	2528	-9.66E-05	2.3101	2560	-9.63E-05	2.3421
2497	-9.77E-05	2.2791	2529	-9.68E-05	2.3111	2561	-9.63E-05	2.3431
2498	-9.82E-05	2.2801	2530	-9.66E-05	2.3121	2562	-9.60E-05	2.3441
2499	-9.80E-05	2.2811	2531	-9.67E-05	2.3131	2563	-9.61E-05	2.3451
2500	-9.80E-05	2.2821	2532	-9.67E-05	2.3141	2564	-9.60E-05	2.3461
2501	-9.77E-05	2.2831	2533	-9.65E-05	2.3151	2565	-9.64E-05	2.3471
2502	-9.80E-05	2.2841	2534	-9.67E-05	2.3161	2566	-9.57E-05	2.3481
2503	-9.80E-05	2.2851	2535	-9.63E-05	2.3171	2567	-9.59E-05	2.3491
2504	-9.78E-05	2.2861	2536	-9.68E-05	2.3181	2568	-9.58E-05	2.3501
2505	-9.79E-05	2.2871	2537	-9.58E-05	2.3191	2569	-9.58E-05	2.3511
2506	-9.80E-05	2.2881	2538	-9.63E-05	2.3201	2570	-9.60E-05	2.3521
2507	-9.78E-05	2.2891	2539	-9.63E-05	2.3211	2571	-9.61E-05	2.3531
2508	-9.72E-05	2.2901	2540	-9.61E-05	2.3221	2572	-9.56E-05	2.3541
2509	-9.74E-05	2.2911	2541	-9.67E-05	2.3231	2573	-9.58E-05	2.3551
2510	-9.78E-05	2.2921	2542	-9.65E-05	2.3241	2574	-9.53E-05	2.3561
2511	-9.73E-05	2.2931	2543	-9.66E-05	2.3251	2575	-9.56E-05	2.3571
2512	-9.76E-05	2.2941	2544	-9.59E-05	2.3261	2576	-9.53E-05	2.3581
2513	-9.72E-05	2.2951	2545	-9.66E-05	2.3271	2577	-9.53E-05	2.3591
2514	-9.75E-05	2.2961	2546	-9.64E-05	2.3281	2578	-9.56E-05	2.3601
2515	-9.72E-05	2.2971	2547	-9.60E-05	2.3291	2579	-9.54E-05	2.3611
2516	-9.73E-05	2.2981	2548	-9.61E-05	2.3301	2580	-9.53E-05	2.3621
2517	-9.70E-05	2.2991	2549	-9.60E-05	2.3311	2581	-9.53E-05	2.3631
2518	-9.73E-05	2.3001	2550	-9.59E-05	2.3321	2582	-9.54E-05	2.3641
2519	-9.75E-05	2.3011	2551	-9.58E-05	2.3331	2583	-9.53E-05	2.3651
2520	-9.65E-05	2.3021	2552	-9.62E-05	2.3341	2584	-9.52E-05	2.3661
2521	-9.71E-05	2.3031	2553	-9.59E-05	2.3351	2585	-9.53E-05	2.3671
2522	-9.73E-05	2.3041	2554	-9.59E-05	2.3361	2586	-9.50E-05	2.3681
2523	-9.67E-05	2.3051	2555	-9.60E-05	2.3371	2587	-9.53E-05	2.3691
2524	-9.67E-05	2.3061	2556	-9.60E-05	2.3381	2588	-9.50E-05	2.3701
2525	-9.65E-05	2.3071	2557	-9.66E-05	2.3391	2589	-9.50E-05	2.3711
2526	-9.72E-05	2.3081	2558	-9.61E-05	2.3401	2590	-9.50E-05	2.3721

2591	-9.50E-05	2.3731	2623	-9.42E-05	2.4051	2655	-9.20E-05	2.4331
2592	-9.49E-05	2.3741	2624	-9.41E-05	2.4061	2656	-9.24E-05	2.4321
2593	-9.48E-05	2.3751	2625	-9.45E-05	2.4071	2657	-9.14E-05	2.4311
2594	-9.47E-05	2.3761	2626	-9.41E-05	2.4081	2658	-9.14E-05	2.4301
2595	-9.49E-05	2.3771	2627	-9.45E-05	2.4091	2659	-9.04E-05	2.4291
2596	-9.50E-05	2.3781	2628	-9.41E-05	2.4101	2660	-8.99E-05	2.4281
2597	-9.47E-05	2.3791	2629	-9.47E-05	2.4111	2661	-8.98E-05	2.4271
2598	-9.49E-05	2.3801	2630	-9.45E-05	2.4121	2662	-9.02E-05	2.4261
2599	-9.47E-05	2.3811	2631	-9.45E-05	2.4131	2663	-8.96E-05	2.4251
2600	-9.47E-05	2.3821	2632	-9.39E-05	2.4141	2664	-8.89E-05	2.4241
2601	-9.47E-05	2.3831	2633	-9.39E-05	2.4151	2665	-8.82E-05	2.4231
2602	-9.52E-05	2.3841	2634	-9.39E-05	2.4161	2666	-8.78E-05	2.4221
2603	-9.48E-05	2.3851	2635	-9.40E-05	2.4171	2667	-8.74E-05	2.4211
2604	-9.47E-05	2.3861	2636	-9.42E-05	2.4181	2668	-8.72E-05	2.4201
2605	-9.46E-05	2.3871	2637	-9.40E-05	2.4191	2669	-8.68E-05	2.4191
2606	-9.50E-05	2.3881	2638	-9.39E-05	2.4201	2670	-8.65E-05	2.4181
2607	-9.48E-05	2.3891	2639	-9.40E-05	2.4211	2671	-8.53E-05	2.4171
2608	-9.49E-05	2.3901	2640	-9.41E-05	2.4221	2672	-8.50E-05	2.4161
2609	-9.45E-05	2.3911	2641	-9.40E-05	2.4231	2673	-8.44E-05	2.4151
2610	-9.50E-05	2.3921	2642	-9.35E-05	2.4241	2674	-8.52E-05	2.4141
2611	-9.47E-05	2.3931	2643	-9.34E-05	2.4251	2675	-8.49E-05	2.4131
2612	-9.53E-05	2.3941	2644	-9.33E-05	2.4261	2676	-8.33E-05	2.4121
2613	-9.50E-05	2.3951	2645	-9.36E-05	2.4271	2677	-8.37E-05	2.4111
2614	-9.49E-05	2.3961	2646	-9.34E-05	2.4281	2678	-8.35E-05	2.4101
2615	-9.49E-05	2.3971	2647	-9.35E-05	2.4291	2679	-8.24E-05	2.4091
2616	-9.51E-05	2.3981	2648	-9.34E-05	2.4301	2680	-8.20E-05	2.4081
2617	-9.47E-05	2.3991	2649	-9.36E-05	2.4311	2681	-8.22E-05	2.4071
2618	-9.49E-05	2.4001	2650	-9.37E-05	2.4321	2682	-8.18E-05	2.4061
2619	-9.47E-05	2.4011	2651	-9.29E-05	2.4331	2683	-8.08E-05	2.4051
2620	-9.45E-05	2.4021	2652	-9.31E-05	2.4341	2684	-8.11E-05	2.4041
2621	-9.50E-05	2.4031	2653	-9.31E-05	2.4351	2685	-7.98E-05	2.4031
2622	-9.45E-05	2.4041	2654	-9.27E-05	2.4341	2686	-8.02E-05	2.4021

2687	-8.03E-05	2.4011		2719	-7.04E-05	2.3691		2751	-6.28E-05	2.3371
2688	-7.99E-05	2.4001		2720	-7.02E-05	2.3681		2752	-6.24E-05	2.3361
2689	-7.92E-05	2.3991		2721	-6.92E-05	2.3671		2753	-6.20E-05	2.3351
2690	-7.95E-05	2.3981		2722	-7.00E-05	2.3661		2754	-6.20E-05	2.3341
2691	-7.82E-05	2.3971		2723	-6.93E-05	2.3651		2755	-6.15E-05	2.3331
2692	-7.80E-05	2.3961		2724	-6.90E-05	2.3641		2756	-6.18E-05	2.3321
2693	-7.79E-05	2.3951		2725	-6.93E-05	2.3631		2757	-6.08E-05	2.3311
2694	-7.74E-05	2.3941		2726	-6.87E-05	2.3621		2758	-6.13E-05	2.3301
2695	-7.72E-05	2.3931		2727	-6.82E-05	2.3611		2759	-6.09E-05	2.3291
2696	-7.66E-05	2.3921		2728	-6.82E-05	2.3601		2760	-6.10E-05	2.3281
2697	-7.66E-05	2.3911		2729	-6.77E-05	2.3591		2761	-5.99E-05	2.3271
2698	-7.65E-05	2.3901		2730	-6.81E-05	2.3581		2762	-6.03E-05	2.3261
2699	-7.56E-05	2.3891		2731	-6.72E-05	2.3571		2763	-5.99E-05	2.3251
2700	-7.58E-05	2.3881		2732	-6.69E-05	2.3561		2764	-6.00E-05	2.3241
2701	-7.55E-05	2.3871		2733	-6.75E-05	2.3551		2765	-5.98E-05	2.3231
2702	-7.48E-05	2.3861		2734	-6.61E-05	2.3541		2766	-5.90E-05	2.3221
2703	-7.45E-05	2.3851		2735	-6.57E-05	2.3531		2767	-5.83E-05	2.3211
2704	-7.44E-05	2.3841		2736	-6.66E-05	2.3521		2768	-5.83E-05	2.3201
2705	-7.41E-05	2.3831		2737	-6.57E-05	2.3511		2769	-5.86E-05	2.3191
2706	-7.41E-05	2.3821		2738	-6.56E-05	2.3501		2770	-5.82E-05	2.3181
2707	-7.40E-05	2.3811		2739	-6.55E-05	2.3491		2771	-5.85E-05	2.3171
2708	-7.30E-05	2.3801		2740	-6.54E-05	2.3481		2772	-5.86E-05	2.3161
2709	-7.32E-05	2.3791		2741	-6.46E-05	2.3471		2773	-5.76E-05	2.3151
2710	-7.22E-05	2.3781		2742	-6.46E-05	2.3461		2774	-5.77E-05	2.3141
2711	-7.17E-05	2.3771		2743	-6.42E-05	2.3451		2775	-5.86E-05	2.3131
2712	-7.20E-05	2.3761		2744	-6.41E-05	2.3441		2776	-5.73E-05	2.3121
2713	-7.12E-05	2.3751		2745	-6.41E-05	2.3431		2777	-5.78E-05	2.3111
2714	-7.14E-05	2.3741		2746	-6.38E-05	2.3421		2778	-5.73E-05	2.3101
2715	-7.04E-05	2.3731		2747	-6.36E-05	2.3411		2779	-5.73E-05	2.3091
2716	-7.15E-05	2.3721		2748	-6.37E-05	2.3401		2780	-5.64E-05	2.3081
2717	-7.10E-05	2.3711		2749	-6.29E-05	2.3391		2781	-5.70E-05	2.3071
2718	-7.07E-05	2.3701		2750	-6.27E-05	2.3381		2782	-5.68E-05	2.3061

2783	-5.64E-05	2.3051	2815	-5.14E-05	2.2731	2847	-4.67E-05	2.2411
2784	-5.62E-05	2.3041	2816	-5.11E-05	2.2721	2848	-4.60E-05	2.2401
2785	-5.58E-05	2.3031	2817	-5.03E-05	2.2711	2849	-4.66E-05	2.2391
2786	-5.52E-05	2.3021	2818	-4.95E-05	2.2701	2850	-4.62E-05	2.2381
2787	-5.54E-05	2.3011	2819	-4.94E-05	2.2691	2851	-4.53E-05	2.2371
2788	-5.56E-05	2.3001	2820	-5.02E-05	2.2681	2852	-4.55E-05	2.2361
2789	-5.52E-05	2.2991	2821	-4.98E-05	2.2671	2853	-4.51E-05	2.2351
2790	-5.50E-05	2.2981	2822	-4.95E-05	2.2661	2854	-4.55E-05	2.2341
2791	-5.44E-05	2.2971	2823	-4.92E-05	2.2651	2855	-4.54E-05	2.2331
2792	-5.46E-05	2.2961	2824	-4.96E-05	2.2641	2856	-4.58E-05	2.2321
2793	-5.45E-05	2.2951	2825	-4.98E-05	2.2631	2857	-4.56E-05	2.2311
2794	-5.37E-05	2.2941	2826	-4.95E-05	2.2621	2858	-4.51E-05	2.2301
2795	-5.42E-05	2.2931	2827	-4.92E-05	2.2611	2859	-4.43E-05	2.2291
2796	-5.38E-05	2.2921	2828	-4.91E-05	2.2601	2860	-4.46E-05	2.2281
2797	-5.41E-05	2.2911	2829	-4.90E-05	2.2591	2861	-4.38E-05	2.2271
2798	-5.35E-05	2.2901	2830	-4.89E-05	2.2581	2862	-4.41E-05	2.2261
2799	-5.33E-05	2.2891	2831	-4.85E-05	2.2571	2863	-4.39E-05	2.2251
2800	-5.26E-05	2.2881	2832	-4.89E-05	2.2561	2864	-4.40E-05	2.2241
2801	-5.28E-05	2.2871	2833	-4.79E-05	2.2551	2865	-4.37E-05	2.2231
2802	-5.27E-05	2.2861	2834	-4.86E-05	2.2541	2866	-4.41E-05	2.2221
2803	-5.27E-05	2.2851	2835	-4.82E-05	2.2531	2867	-4.40E-05	2.2211
2804	-5.21E-05	2.2841	2836	-4.76E-05	2.2521	2868	-4.33E-05	2.2201
2805	-5.20E-05	2.2831	2837	-4.76E-05	2.2511	2869	-4.31E-05	2.2191
2806	-5.25E-05	2.2821	2838	-4.78E-05	2.2501	2870	-4.33E-05	2.2181
2807	-5.20E-05	2.2811	2839	-4.77E-05	2.2491	2871	-4.28E-05	2.2171
2808	-5.14E-05	2.2801	2840	-4.72E-05	2.2481	2872	-4.25E-05	2.2161
2809	-5.19E-05	2.2791	2841	-4.73E-05	2.2471	2873	-4.27E-05	2.2151
2810	-5.13E-05	2.2781	2842	-4.68E-05	2.2461	2874	-4.27E-05	2.2141
2811	-5.20E-05	2.2771	2843	-4.69E-05	2.2451	2875	-4.23E-05	2.2131
2812	-5.13E-05	2.2761	2844	-4.67E-05	2.2441	2876	-4.25E-05	2.2121
2813	-5.04E-05	2.2751	2845	-4.69E-05	2.2431	2877	-4.24E-05	2.2111
2814	-5.14E-05	2.2741	2846	-4.67E-05	2.2421	2878	-4.23E-05	2.2101

2879	-4.18E-05	2.2091	2911	-3.87E-05	2.1771	2943	-3.58E-05	2.1451
2880	-4.21E-05	2.2081	2912	-3.86E-05	2.1761	2944	-3.54E-05	2.1441
2881	-4.14E-05	2.2071	2913	-3.87E-05	2.1751	2945	-3.52E-05	2.1431
2882	-4.12E-05	2.2061	2914	-3.82E-05	2.1741	2946	-3.51E-05	2.1421
2883	-4.10E-05	2.2051	2915	-3.81E-05	2.1731	2947	-3.45E-05	2.1411
2884	-4.11E-05	2.2041	2916	-3.81E-05	2.1721	2948	-3.48E-05	2.1401
2885	-4.15E-05	2.2031	2917	-3.79E-05	2.1711	2949	-3.48E-05	2.1391
2886	-4.10E-05	2.2021	2918	-3.78E-05	2.1701	2950	-3.47E-05	2.1381
2887	-4.10E-05	2.2011	2919	-3.77E-05	2.1691	2951	-3.42E-05	2.1371
2888	-4.11E-05	2.2001	2920	-3.75E-05	2.1681	2952	-3.46E-05	2.1361
2889	-4.11E-05	2.1991	2921	-3.74E-05	2.1671	2953	-3.45E-05	2.1351
2890	-4.09E-05	2.1981	2922	-3.73E-05	2.1661	2954	-3.41E-05	2.1341
2891	-4.06E-05	2.1971	2923	-3.71E-05	2.1651	2955	-3.40E-05	2.1331
2892	-4.08E-05	2.1961	2924	-3.71E-05	2.1641	2956	-3.38E-05	2.1321
2893	-4.10E-05	2.1951	2925	-3.69E-05	2.1631	2957	-3.43E-05	2.1311
2894	-4.10E-05	2.1941	2926	-3.69E-05	2.1621	2958	-3.42E-05	2.1301
2895	-4.09E-05	2.1931	2927	-3.71E-05	2.1611	2959	-3.41E-05	2.1291
2896	-3.98E-05	2.1921	2928	-3.68E-05	2.1601	2960	-3.41E-05	2.1281
2897	-4.06E-05	2.1911	2929	-3.70E-05	2.1591	2961	-3.36E-05	2.1271
2898	-4.06E-05	2.1901	2930	-3.64E-05	2.1581	2962	-3.36E-05	2.1261
2899	-3.97E-05	2.1891	2931	-3.62E-05	2.1571	2963	-3.31E-05	2.1251
2900	-4.06E-05	2.1881	2932	-3.62E-05	2.1561	2964	-3.35E-05	2.1241
2901	-4.07E-05	2.1871	2933	-3.65E-05	2.1551	2965	-3.34E-05	2.1231
2902	-4.00E-05	2.1861	2934	-3.59E-05	2.1541	2966	-3.41E-05	2.1221
2903	-3.95E-05	2.1851	2935	-3.60E-05	2.1531	2967	-3.35E-05	2.1211
2904	-4.01E-05	2.1841	2936	-3.57E-05	2.1521	2968	-3.39E-05	2.1201
2905	-3.96E-05	2.1831	2937	-3.58E-05	2.1511	2969	-3.23E-05	2.1191
2906	-3.98E-05	2.1821	2938	-3.59E-05	2.1501	2970	-3.36E-05	2.1181
2907	-3.92E-05	2.1811	2939	-3.55E-05	2.1491	2971	-3.36E-05	2.1171
2908	-3.85E-05	2.1801	2940	-3.53E-05	2.1481	2972	-3.27E-05	2.1161
2909	-3.95E-05	2.1791	2941	-3.52E-05	2.1471	2973	-3.28E-05	2.1151
2910	-3.87E-05	2.1781	2942	-3.49E-05	2.1461	2974	-3.30E-05	2.1141

2975	-3.30E-05	2.1131	3007	-2.94E-05	2.0811	3039	-2.71E-05	2.0491
2976	-3.27E-05	2.1121	3008	-2.95E-05	2.0801	3040	-2.73E-05	2.0481
2977	-3.21E-05	2.1111	3009	-2.97E-05	2.0791	3041	-2.73E-05	2.0471
2978	-3.25E-05	2.1101	3010	-2.98E-05	2.0781	3042	-2.80E-05	2.0461
2979	-3.25E-05	2.1091	3011	-2.98E-05	2.0771	3043	-2.74E-05	2.0451
2980	-3.23E-05	2.1081	3012	-3.03E-05	2.0761	3044	-2.73E-05	2.0441
2981	-3.22E-05	2.1071	3013	-2.92E-05	2.0751	3045	-2.77E-05	2.0431
2982	-3.22E-05	2.1061	3014	-2.86E-05	2.0741	3046	-2.69E-05	2.0421
2983	-3.20E-05	2.1051	3015	-2.96E-05	2.0731	3047	-2.77E-05	2.0411
2984	-3.18E-05	2.1041	3016	-2.91E-05	2.0721	3048	-2.64E-05	2.0401
2985	-3.19E-05	2.1031	3017	-2.97E-05	2.0711	3049	-2.68E-05	2.0391
2986	-3.16E-05	2.1021	3018	-2.93E-05	2.0701	3050	-2.74E-05	2.0381
2987	-3.15E-05	2.1011	3019	-2.92E-05	2.0691	3051	-2.69E-05	2.0371
2988	-3.18E-05	2.1001	3020	-2.85E-05	2.0681	3052	-2.71E-05	2.0361
2989	-3.19E-05	2.0991	3021	-2.83E-05	2.0671	3053	-2.70E-05	2.0351
2990	-3.12E-05	2.0981	3022	-2.86E-05	2.0661	3054	-2.65E-05	2.0341
2991	-3.20E-05	2.0971	3023	-2.91E-05	2.0651	3055	-2.59E-05	2.0331
2992	-3.11E-05	2.0961	3024	-2.88E-05	2.0641	3056	-2.72E-05	2.0321
2993	-3.05E-05	2.0951	3025	-2.92E-05	2.0631	3057	-2.60E-05	2.0311
2994	-3.08E-05	2.0941	3026	-2.82E-05	2.0621	3058	-2.66E-05	2.0301
2995	-3.10E-05	2.0931	3027	-2.88E-05	2.0611	3059	-2.61E-05	2.0291
2996	-3.12E-05	2.0921	3028	-2.82E-05	2.0601	3060	-2.64E-05	2.0281
2997	-3.07E-05	2.0911	3029	-2.88E-05	2.0591	3061	-2.63E-05	2.0271
2998	-3.01E-05	2.0901	3030	-2.81E-05	2.0581	3062	-2.56E-05	2.0261
2999	-3.13E-05	2.0891	3031	-2.84E-05	2.0571	3063	-2.61E-05	2.0251
3000	-3.06E-05	2.0881	3032	-2.74E-05	2.0561	3064	-2.57E-05	2.0241
3001	-3.10E-05	2.0871	3033	-2.82E-05	2.0551	3065	-2.60E-05	2.0231
3002	-3.05E-05	2.0861	3034	-2.77E-05	2.0541	3066	-2.55E-05	2.0221
3003	-3.03E-05	2.0851	3035	-2.81E-05	2.0531	3067	-2.56E-05	2.0211
3004	-3.02E-05	2.0841	3036	-2.78E-05	2.0521	3068	-2.54E-05	2.0201
3005	-2.98E-05	2.0831	3037	-2.77E-05	2.0511	3069	-2.55E-05	2.0191
3006	-2.99E-05	2.0821	3038	-2.77E-05	2.0501	3070	-2.50E-05	2.0181

3071	-2.53E-05	2.0171	3103	-2.33E-05	1.9851	3135	-2.17E-05	1.9531
3072	-2.53E-05	2.0161	3104	-2.31E-05	1.9841	3136	-2.18E-05	1.9521
3073	-2.50E-05	2.0151	3105	-2.30E-05	1.9831	3137	-2.12E-05	1.9511
3074	-2.54E-05	2.0141	3106	-2.32E-05	1.9821	3138	-2.14E-05	1.9501
3075	-2.56E-05	2.0131	3107	-2.31E-05	1.9811	3139	-2.20E-05	1.9491
3076	-2.53E-05	2.0121	3108	-2.30E-05	1.9801	3140	-2.10E-05	1.9481
3077	-2.52E-05	2.0111	3109	-2.28E-05	1.9791	3141	-2.15E-05	1.9471
3078	-2.44E-05	2.0101	3110	-2.29E-05	1.9781	3142	-2.11E-05	1.9461
3079	-2.52E-05	2.0091	3111	-2.29E-05	1.9771	3143	-2.16E-05	1.9451
3080	-2.45E-05	2.0081	3112	-2.31E-05	1.9761	3144	-2.07E-05	1.9441
3081	-2.44E-05	2.0071	3113	-2.23E-05	1.9751	3145	-2.09E-05	1.9431
3082	-2.52E-05	2.0061	3114	-2.27E-05	1.9741	3146	-2.09E-05	1.9421
3083	-2.48E-05	2.0051	3115	-2.25E-05	1.9731	3147	-2.08E-05	1.9411
3084	-2.47E-05	2.0041	3116	-2.27E-05	1.9721	3148	-2.10E-05	1.9401
3085	-2.42E-05	2.0031	3117	-2.31E-05	1.9711	3149	-2.05E-05	1.9391
3086	-2.48E-05	2.0021	3118	-2.26E-05	1.9701	3150	-2.09E-05	1.9381
3087	-2.45E-05	2.0011	3119	-2.31E-05	1.9691	3151	-2.06E-05	1.9371
3088	-2.43E-05	2.0001	3120	-2.23E-05	1.9681	3152	-2.07E-05	1.9361
3089	-2.37E-05	1.9991	3121	-2.25E-05	1.9671	3153	-2.04E-05	1.9351
3090	-2.42E-05	1.9981	3122	-2.20E-05	1.9661	3154	-2.07E-05	1.9341
3091	-2.42E-05	1.9971	3123	-2.25E-05	1.9651	3155	-2.05E-05	1.9331
3092	-2.45E-05	1.9961	3124	-2.21E-05	1.9641	3156	-2.06E-05	1.9321
3093	-2.41E-05	1.9951	3125	-2.20E-05	1.9631	3157	-2.05E-05	1.9311
3094	-2.38E-05	1.9941	3126	-2.23E-05	1.9621	3158	-2.00E-05	1.9301
3095	-2.42E-05	1.9931	3127	-2.17E-05	1.9611	3159	-2.01E-05	1.9291
3096	-2.38E-05	1.9921	3128	-2.24E-05	1.9601	3160	-2.01E-05	1.9281
3097	-2.34E-05	1.9911	3129	-2.18E-05	1.9591	3161	-2.01E-05	1.9271
3098	-2.40E-05	1.9901	3130	-2.21E-05	1.9581	3162	-1.98E-05	1.9261
3099	-2.29E-05	1.9891	3131	-2.11E-05	1.9571	3163	-1.98E-05	1.9251
3100	-2.31E-05	1.9881	3132	-2.15E-05	1.9561	3164	-2.03E-05	1.9241
3101	-2.35E-05	1.9871	3133	-2.17E-05	1.9551	3165	-2.01E-05	1.9231
3102	-2.30E-05	1.9861	3134	-2.17E-05	1.9541	3166	-1.97E-05	1.9221

3167	-1.94E-05	1.9211		3199	-1.80E-05	1.8891		3231	-1.69E-05	1.8571
3168	-2.00E-05	1.9201		3200	-1.81E-05	1.8881		3232	-1.71E-05	1.8561
3169	-1.99E-05	1.9191		3201	-1.79E-05	1.8871		3233	-1.60E-05	1.8551
3170	-1.95E-05	1.9181		3202	-1.84E-05	1.8861		3234	-1.65E-05	1.8541
3171	-1.93E-05	1.9171		3203	-1.79E-05	1.8851		3235	-1.61E-05	1.8531
3172	-1.97E-05	1.9161		3204	-1.76E-05	1.8841		3236	-1.72E-05	1.8521
3173	-1.94E-05	1.9151		3205	-1.81E-05	1.8831		3237	-1.59E-05	1.8511
3174	-1.97E-05	1.9141		3206	-1.77E-05	1.8821		3238	-1.62E-05	1.8501
3175	-1.93E-05	1.9131		3207	-1.79E-05	1.8811		3239	-1.71E-05	1.8491
3176	-1.92E-05	1.9121		3208	-1.77E-05	1.8801		3240	-1.67E-05	1.8481
3177	-1.94E-05	1.9111		3209	-1.76E-05	1.8791		3241	-1.59E-05	1.8471
3178	-1.97E-05	1.9101		3210	-1.72E-05	1.8781		3242	-1.57E-05	1.8461
3179	-1.95E-05	1.9091		3211	-1.72E-05	1.8771		3243	-1.64E-05	1.8451
3180	-1.91E-05	1.9081		3212	-1.73E-05	1.8761		3244	-1.61E-05	1.8441
3181	-1.95E-05	1.9071		3213	-1.75E-05	1.8751		3245	-1.58E-05	1.8431
3182	-1.84E-05	1.9061		3214	-1.74E-05	1.8741		3246	-1.66E-05	1.8421
3183	-1.96E-05	1.9051		3215	-1.71E-05	1.8731		3247	-1.56E-05	1.8411
3184	-1.94E-05	1.9041		3216	-1.70E-05	1.8721		3248	-1.62E-05	1.8401
3185	-1.94E-05	1.9031		3217	-1.74E-05	1.8711		3249	-1.65E-05	1.8391
3186	-1.93E-05	1.9021		3218	-1.69E-05	1.8701		3250	-1.53E-05	1.8381
3187	-1.88E-05	1.9011		3219	-1.72E-05	1.8691		3251	-1.62E-05	1.8371
3188	-1.89E-05	1.9001		3220	-1.67E-05	1.8681		3252	-1.57E-05	1.8361
3189	-1.88E-05	1.8991		3221	-1.72E-05	1.8671		3253	-1.57E-05	1.8351
3190	-1.85E-05	1.8981		3222	-1.68E-05	1.8661		3254	-1.58E-05	1.8341
3191	-1.88E-05	1.8971		3223	-1.71E-05	1.8651		3255	-1.53E-05	1.8331
3192	-1.81E-05	1.8961		3224	-1.71E-05	1.8641		3256	-1.57E-05	1.8321
3193	-1.83E-05	1.8951		3225	-1.69E-05	1.8631		3257	-1.48E-05	1.8311
3194	-1.86E-05	1.8941		3226	-1.71E-05	1.8621		3258	-1.56E-05	1.8301
3195	-1.86E-05	1.8931		3227	-1.65E-05	1.8611		3259	-1.51E-05	1.8291
3196	-1.86E-05	1.8921		3228	-1.62E-05	1.8601		3260	-1.49E-05	1.8281
3197	-1.80E-05	1.8911		3229	-1.74E-05	1.8591		3261	-1.50E-05	1.8271
3198	-1.86E-05	1.8901		3230	-1.64E-05	1.8581		3262	-1.60E-05	1.8261

3263	-1.56E-05	1.8251		3295	-1.42E-05	1.7931		3327	-1.34E-05	1.7611
3264	-1.52E-05	1.8241		3296	-1.43E-05	1.7921		3328	-1.28E-05	1.7601
3265	-1.49E-05	1.8231		3297	-1.40E-05	1.7911		3329	-1.29E-05	1.7591
3266	-1.56E-05	1.8221		3298	-1.41E-05	1.7901		3330	-1.31E-05	1.7581
3267	-1.48E-05	1.8211		3299	-1.41E-05	1.7891		3331	-1.28E-05	1.7571
3268	-1.50E-05	1.8201		3300	-1.45E-05	1.7881		3332	-1.29E-05	1.7561
3269	-1.48E-05	1.8191		3301	-1.37E-05	1.7871		3333	-1.29E-05	1.7551
3270	-1.47E-05	1.8181		3302	-1.41E-05	1.7861		3334	-1.27E-05	1.7541
3271	-1.51E-05	1.8171		3303	-1.39E-05	1.7851		3335	-1.29E-05	1.7531
3272	-1.53E-05	1.8161		3304	-1.43E-05	1.7841		3336	-1.26E-05	1.7521
3273	-1.45E-05	1.8151		3305	-1.39E-05	1.7831		3337	-1.28E-05	1.7511
3274	-1.45E-05	1.8141		3306	-1.43E-05	1.7821		3338	-1.22E-05	1.7501
3275	-1.42E-05	1.8131		3307	-1.36E-05	1.7811		3339	-1.24E-05	1.7491
3276	-1.47E-05	1.8121		3308	-1.34E-05	1.7801		3340	-1.23E-05	1.7481
3277	-1.39E-05	1.8111		3309	-1.41E-05	1.7791		3341	-1.26E-05	1.7471
3278	-1.49E-05	1.8101		3310	-1.34E-05	1.7781		3342	-1.22E-05	1.7461
3279	-1.45E-05	1.8091		3311	-1.35E-05	1.7771		3343	-1.26E-05	1.7451
3280	-1.41E-05	1.8081		3312	-1.31E-05	1.7761		3344	-1.21E-05	1.7441
3281	-1.43E-05	1.8071		3313	-1.37E-05	1.7751		3345	-1.21E-05	1.7431
3282	-1.41E-05	1.8061		3314	-1.36E-05	1.7741		3346	-1.23E-05	1.7421
3283	-1.37E-05	1.8051		3315	-1.34E-05	1.7731		3347	-1.19E-05	1.7411
3284	-1.47E-05	1.8041		3316	-1.35E-05	1.7721		3348	-1.23E-05	1.7401
3285	-1.34E-05	1.8031		3317	-1.36E-05	1.7711		3349	-1.16E-05	1.7391
3286	-1.39E-05	1.8021		3318	-1.35E-05	1.7701		3350	-1.16E-05	1.7381
3287	-1.40E-05	1.8011		3319	-1.33E-05	1.7691		3351	-1.20E-05	1.7371
3288	-1.43E-05	1.8001		3320	-1.34E-05	1.7681		3352	-1.27E-05	1.7361
3289	-1.41E-05	1.7991		3321	-1.30E-05	1.7671		3353	-1.18E-05	1.7351
3290	-1.36E-05	1.7981		3322	-1.34E-05	1.7661		3354	-1.18E-05	1.7341
3291	-1.49E-05	1.7971		3323	-1.31E-05	1.7651		3355	-1.20E-05	1.7331
3292	-1.41E-05	1.7961		3324	-1.27E-05	1.7641		3356	-1.19E-05	1.7321
3293	-1.41E-05	1.7951		3325	-1.25E-05	1.7631		3357	-1.22E-05	1.7311
3294	-1.45E-05	1.7941		3326	-1.34E-05	1.7621		3358	-1.13E-05	1.7301

3359	-1.19E-05	1.7291	3391	-1.08E-05	1.6971	3423	-9.99E-06	1.6651
3360	-1.18E-05	1.7281	3392	-1.03E-05	1.6961	3424	-1.06E-05	1.6641
3361	-1.17E-05	1.7271	3393	-1.04E-05	1.6951	3425	-1.01E-05	1.6631
3362	-1.19E-05	1.7261	3394	-1.08E-05	1.6941	3426	-1.01E-05	1.6621
3363	-1.16E-05	1.7251	3395	-1.11E-05	1.6931	3427	-9.94E-06	1.6611
3364	-1.12E-05	1.7241	3396	-1.08E-05	1.6921	3428	-9.90E-06	1.6601
3365	-1.17E-05	1.7231	3397	-1.03E-05	1.6911	3429	-9.46E-06	1.6591
3366	-1.19E-05	1.7221	3398	-1.03E-05	1.6901	3430	-9.80E-06	1.6581
3367	-1.17E-05	1.7211	3399	-1.08E-05	1.6891	3431	-9.79E-06	1.6571
3368	-1.18E-05	1.7201	3400	-1.07E-05	1.6881	3432	-9.45E-06	1.6561
3369	-1.15E-05	1.7191	3401	-1.02E-05	1.6871	3433	-9.59E-06	1.6551
3370	-1.18E-05	1.7181	3402	-1.02E-05	1.6861	3434	-9.47E-06	1.6541
3371	-1.14E-05	1.7171	3403	-1.05E-05	1.6851	3435	-9.70E-06	1.6531
3372	-1.14E-05	1.7161	3404	-1.03E-05	1.6841	3436	-9.43E-06	1.6521
3373	-1.13E-05	1.7151	3405	-1.03E-05	1.6831	3437	-9.24E-06	1.6511
3374	-1.13E-05	1.7141	3406	-1.04E-05	1.6821	3438	-9.54E-06	1.6501
3375	-1.12E-05	1.7131	3407	-1.02E-05	1.6811	3439	-9.21E-06	1.6491
3376	-1.12E-05	1.7121	3408	-1.01E-05	1.6801	3440	-9.39E-06	1.6481
3377	-1.11E-05	1.7111	3409	-1.03E-05	1.6791	3441	-9.27E-06	1.6471
3378	-1.10E-05	1.7101	3410	-1.01E-05	1.6781	3442	-9.13E-06	1.6461
3379	-1.12E-05	1.7091	3411	-9.99E-06	1.6771	3443	-9.15E-06	1.6451
3380	-1.11E-05	1.7081	3412	-1.02E-05	1.6761	3444	-9.11E-06	1.6441
3381	-1.14E-05	1.7071	3413	-1.04E-05	1.6751	3445	-8.99E-06	1.6431
3382	-1.10E-05	1.7061	3414	-9.88E-06	1.6741	3446	-8.99E-06	1.6421
3383	-1.05E-05	1.7051	3415	-9.70E-06	1.6731	3447	-9.16E-06	1.6411
3384	-1.10E-05	1.7041	3416	-1.03E-05	1.6721	3448	-8.92E-06	1.6401
3385	-1.11E-05	1.7031	3417	-9.72E-06	1.6711	3449	-9.21E-06	1.6391
3386	-1.08E-05	1.7021	3418	-1.01E-05	1.6701	3450	-8.89E-06	1.6381
3387	-1.17E-05	1.7011	3419	-9.64E-06	1.6691	3451	-9.08E-06	1.6371
3388	-1.16E-05	1.7001	3420	-1.01E-05	1.6681	3452	-8.92E-06	1.6361
3389	-1.04E-05	1.6991	3421	-9.92E-06	1.6671	3453	-8.89E-06	1.6351
3390	-1.08E-05	1.6981	3422	-1.01E-05	1.6661	3454	-8.82E-06	1.6341

3455	-8.34E-06	1.6331	3487	-7.82E-06	1.6011	3519	-7.35E-06	1.5691
3456	-9.28E-06	1.6321	3488	-8.07E-06	1.6001	3520	-7.05E-06	1.5681
3457	-9.14E-06	1.6311	3489	-7.96E-06	1.5991	3521	-7.11E-06	1.5671
3458	-9.00E-06	1.6301	3490	-7.89E-06	1.5981	3522	-6.61E-06	1.5661
3459	-8.63E-06	1.6291	3491	-7.41E-06	1.5971	3523	-7.45E-06	1.5651
3460	-8.49E-06	1.6281	3492	-7.83E-06	1.5961	3524	-6.73E-06	1.5641
3461	-8.72E-06	1.6271	3493	-7.68E-06	1.5951	3525	-6.99E-06	1.5631
3462	-8.78E-06	1.6261	3494	-7.94E-06	1.5941	3526	-7.07E-06	1.5621
3463	-9.09E-06	1.6251	3495	-8.03E-06	1.5931	3527	-6.88E-06	1.5611
3464	-8.66E-06	1.6241	3496	-7.44E-06	1.5921	3528	-7.11E-06	1.5601
3465	-8.37E-06	1.6231	3497	-7.96E-06	1.5911	3529	-6.87E-06	1.5591
3466	-8.31E-06	1.6221	3498	-7.78E-06	1.5901	3530	-6.93E-06	1.5581
3467	-8.54E-06	1.6211	3499	-7.70E-06	1.5891	3531	-6.61E-06	1.5571
3468	-8.47E-06	1.6201	3500	-7.92E-06	1.5881	3532	-6.70E-06	1.5561
3469	-8.23E-06	1.6191	3501	-7.94E-06	1.5871	3533	-6.83E-06	1.5551
3470	-8.73E-06	1.6181	3502	-7.54E-06	1.5861	3534	-6.99E-06	1.5541
3471	-8.46E-06	1.6171	3503	-7.36E-06	1.5851	3535	-6.68E-06	1.5531
3472	-8.60E-06	1.6161	3504	-7.63E-06	1.5841	3536	-6.57E-06	1.5521
3473	-8.80E-06	1.6151	3505	-7.76E-06	1.5831	3537	-6.57E-06	1.5511
3474	-8.68E-06	1.6141	3506	-7.36E-06	1.5821	3538	-6.50E-06	1.5501
3475	-8.11E-06	1.6131	3507	-7.41E-06	1.5811	3539	-6.67E-06	1.5491
3476	-8.10E-06	1.6121	3508	-7.65E-06	1.5801	3540	-6.66E-06	1.5481
3477	-7.92E-06	1.6111	3509	-7.52E-06	1.5791	3541	-6.50E-06	1.5471
3478	-8.30E-06	1.6101	3510	-7.18E-06	1.5781	3542	-6.61E-06	1.5461
3479	-7.86E-06	1.6091	3511	-7.20E-06	1.5771	3543	-6.46E-06	1.5451
3480	-8.30E-06	1.6081	3512	-7.39E-06	1.5761	3544	-6.53E-06	1.5441
3481	-8.20E-06	1.6071	3513	-7.65E-06	1.5751	3545	-6.66E-06	1.5431
3482	-8.25E-06	1.6061	3514	-7.28E-06	1.5741	3546	-6.58E-06	1.5421
3483	-8.05E-06	1.6051	3515	-7.38E-06	1.5731	3547	-6.51E-06	1.5411
3484	-7.87E-06	1.6041	3516	-7.37E-06	1.5721	3548	-6.40E-06	1.5401
3485	-8.11E-06	1.6031	3517	-7.13E-06	1.5711	3549	-6.40E-06	1.5391
3486	-8.15E-06	1.6021	3518	-7.19E-06	1.5701	3550	-6.46E-06	1.5381

3551	-6.57E-06	1.5371	3583	-5.90E-06	1.5051	3615	-4.43E-06	1.4731
3552	-6.25E-06	1.5361	3584	-5.54E-06	1.5041	3616	-5.09E-06	1.4721
3553	-6.33E-06	1.5351	3585	-5.80E-06	1.5031	3617	-4.69E-06	1.4711
3554	-6.24E-06	1.5341	3586	-5.60E-06	1.5021	3618	-4.56E-06	1.4701
3555	-6.11E-06	1.5331	3587	-5.79E-06	1.5011	3619	-5.07E-06	1.4691
3556	-6.23E-06	1.5321	3588	-5.21E-06	1.5001	3620	-4.77E-06	1.4681
3557	-6.39E-06	1.5311	3589	-5.44E-06	1.4991	3621	-4.92E-06	1.4671
3558	-6.30E-06	1.5301	3590	-5.55E-06	1.4981	3622	-4.85E-06	1.4661
3559	-6.27E-06	1.5291	3591	-5.61E-06	1.4971	3623	-5.11E-06	1.4651
3560	-6.43E-06	1.5281	3592	-5.51E-06	1.4961	3624	-5.04E-06	1.4641
3561	-5.79E-06	1.5271	3593	-5.22E-06	1.4951	3625	-4.67E-06	1.4631
3562	-6.17E-06	1.5261	3594	-5.18E-06	1.4941	3626	-4.47E-06	1.4621
3563	-6.10E-06	1.5251	3595	-5.30E-06	1.4931	3627	-4.80E-06	1.4611
3564	-6.10E-06	1.5241	3596	-5.53E-06	1.4921	3628	-4.80E-06	1.4601
3565	-5.69E-06	1.5231	3597	-5.55E-06	1.4911	3629	-4.83E-06	1.4591
3566	-5.77E-06	1.5221	3598	-5.15E-06	1.4901	3630	-4.80E-06	1.4581
3567	-5.99E-06	1.5211	3599	-5.28E-06	1.4891	3631	-4.77E-06	1.4571
3568	-6.01E-06	1.5201	3600	-5.25E-06	1.4881	3632	-4.74E-06	1.4561
3569	-6.26E-06	1.5191	3601	-5.16E-06	1.4871	3633	-4.27E-06	1.4551
3570	-5.75E-06	1.5181	3602	-5.12E-06	1.4861	3634	-4.69E-06	1.4541
3571	-5.64E-06	1.5171	3603	-5.13E-06	1.4851	3635	-4.68E-06	1.4531
3572	-5.77E-06	1.5161	3604	-5.13E-06	1.4841	3636	-4.22E-06	1.4521
3573	-6.03E-06	1.5151	3605	-5.27E-06	1.4831	3637	-4.28E-06	1.4511
3574	-5.74E-06	1.5141	3606	-5.14E-06	1.4821	3638	-4.59E-06	1.4501
3575	-5.64E-06	1.5131	3607	-4.97E-06	1.4811	3639	-4.24E-06	1.4491
3576	-5.71E-06	1.5121	3608	-5.37E-06	1.4801	3640	-4.55E-06	1.4481
3577	-5.63E-06	1.5111	3609	-4.76E-06	1.4791	3641	-4.43E-06	1.4471
3578	-5.50E-06	1.5101	3610	-4.97E-06	1.4781	3642	-4.69E-06	1.4461
3579	-5.75E-06	1.5091	3611	-4.72E-06	1.4771	3643	-4.42E-06	1.4451
3580	-5.76E-06	1.5081	3612	-4.97E-06	1.4761	3644	-4.20E-06	1.4441
3581	-5.63E-06	1.5071	3613	-5.10E-06	1.4751	3645	-4.15E-06	1.4431
3582	-5.41E-06	1.5061	3614	-4.65E-06	1.4741	3646	-4.41E-06	1.4421

3647	-4.20E-06	1.4411		3679	-4.07E-06	1.4091		3711	-3.27E-06	1.3771
3648	-4.36E-06	1.4401		3680	-3.71E-06	1.4081		3712	-3.21E-06	1.3761
3649	-3.99E-06	1.4391		3681	-3.94E-06	1.4071		3713	-2.79E-06	1.3751
3650	-4.23E-06	1.4381		3682	-3.42E-06	1.4061		3714	-3.19E-06	1.3741
3651	-4.09E-06	1.4371		3683	-3.85E-06	1.4051		3715	-2.85E-06	1.3731
3652	-4.20E-06	1.4361		3684	-3.38E-06	1.4041		3716	-3.23E-06	1.3721
3653	-4.13E-06	1.4351		3685	-3.55E-06	1.4031		3717	-3.37E-06	1.3711
3654	-3.95E-06	1.4341		3686	-3.33E-06	1.4021		3718	-2.85E-06	1.3701
3655	-3.73E-06	1.4331		3687	-3.14E-06	1.4011		3719	-3.39E-06	1.3691
3656	-3.98E-06	1.4321		3688	-3.58E-06	1.4001		3720	-2.57E-06	1.3681
3657	-4.28E-06	1.4311		3689	-3.46E-06	1.3991		3721	-3.03E-06	1.3671
3658	-4.02E-06	1.4301		3690	-3.43E-06	1.3981		3722	-3.05E-06	1.3661
3659	-4.02E-06	1.4291		3691	-3.32E-06	1.3971		3723	-3.10E-06	1.3651
3660	-4.01E-06	1.4281		3692	-3.65E-06	1.3961		3724	-2.63E-06	1.3641
3661	-4.05E-06	1.4271		3693	-3.12E-06	1.3951		3725	-3.18E-06	1.3631
3662	-4.30E-06	1.4261		3694	-3.65E-06	1.3941		3726	-2.84E-06	1.3621
3663	-3.81E-06	1.4251		3695	-3.10E-06	1.3931		3727	-3.09E-06	1.3611
3664	-4.00E-06	1.4241		3696	-3.47E-06	1.3921		3728	-2.94E-06	1.3601
3665	-3.86E-06	1.4231		3697	-3.07E-06	1.3911		3729	-2.73E-06	1.3591
3666	-3.73E-06	1.4221		3698	-3.58E-06	1.3901		3730	-2.52E-06	1.3581
3667	-3.87E-06	1.4211		3699	-3.05E-06	1.3891		3731	-2.60E-06	1.3571
3668	-4.22E-06	1.4201		3700	-3.22E-06	1.3881		3732	-2.65E-06	1.3561
3669	-3.74E-06	1.4191		3701	-3.61E-06	1.3871		3733	-2.84E-06	1.3551
3670	-4.11E-06	1.4181		3702	-3.08E-06	1.3861		3734	-2.73E-06	1.3541
3671	-3.87E-06	1.4171		3703	-3.00E-06	1.3851		3735	-2.91E-06	1.3531
3672	-3.71E-06	1.4161		3704	-3.65E-06	1.3841		3736	-2.55E-06	1.3521
3673	-3.70E-06	1.4151		3705	-3.37E-06	1.3831		3737	-2.73E-06	1.3511
3674	-3.80E-06	1.4141		3706	-3.24E-06	1.3821		3738	-2.63E-06	1.3501
3675	-3.97E-06	1.4131		3707	-3.46E-06	1.3811		3739	-2.76E-06	1.3491
3676	-3.81E-06	1.4121		3708	-3.33E-06	1.3801		3740	-2.88E-06	1.3481
3677	-3.99E-06	1.4111		3709	-3.44E-06	1.3791		3741	-3.09E-06	1.3471
3678	-3.57E-06	1.4101		3710	-3.00E-06	1.3781		3742	-2.64E-06	1.3461

3743	-2.61E-06	1.3451		3775	-1.66E-06	1.3131		3807	-1.63E-06	1.2811
3744	-2.49E-06	1.3441		3776	-2.51E-06	1.3121		3808	-1.40E-06	1.2801
3745	-2.72E-06	1.3431		3777	-1.91E-06	1.3111		3809	-1.88E-06	1.2791
3746	-2.70E-06	1.3421		3778	-2.20E-06	1.3101		3810	-1.56E-06	1.2781
3747	-2.24E-06	1.3411		3779	-1.77E-06	1.3091		3811	-2.08E-06	1.2771
3748	-2.61E-06	1.3401		3780	-2.43E-06	1.3081		3812	-1.97E-06	1.2761
3749	-2.23E-06	1.3391		3781	-2.00E-06	1.3071		3813	-1.84E-06	1.2751
3750	-2.35E-06	1.3381		3782	-1.79E-06	1.3061		3814	-1.73E-06	1.2741
3751	-2.36E-06	1.3371		3783	-1.75E-06	1.3051		3815	-1.54E-06	1.2731
3752	-2.11E-06	1.3361		3784	-2.30E-06	1.3041		3816	-1.77E-06	1.2721
3753	-2.07E-06	1.3351		3785	-1.87E-06	1.3031		3817	-1.63E-06	1.2711
3754	-2.38E-06	1.3341		3786	-2.32E-06	1.3021		3818	-1.72E-06	1.2701
3755	-2.24E-06	1.3331		3787	-2.38E-06	1.3011		3819	-9.45E-07	1.2691
3756	-2.64E-06	1.3321		3788	-1.76E-06	1.3001		3820	-1.20E-06	1.2671
3757	-2.66E-06	1.3311		3789	-1.76E-06	1.2991		3821	-1.70E-06	1.2661
3758	-2.16E-06	1.3301		3790	-1.91E-06	1.2981		3822	-1.26E-06	1.2651
3759	-2.28E-06	1.3291		3791	-2.00E-06	1.2971		3823	-1.34E-06	1.2641
3760	-2.25E-06	1.3281		3792	-1.72E-06	1.2961		3824	-1.92E-06	1.2631
3761	-2.08E-06	1.3271		3793	-1.77E-06	1.2951		3825	-1.59E-06	1.2621
3762	-2.66E-06	1.3261		3794	-1.90E-06	1.2941		3826	-1.69E-06	1.2611
3763	-2.27E-06	1.3251		3795	-2.15E-06	1.2931		3827	-1.08E-06	1.2601
3764	-2.32E-06	1.3241		3796	-2.05E-06	1.2921		3828	-1.65E-06	1.2591
3765	-2.25E-06	1.3231		3797	-1.52E-06	1.2911		3829	-1.40E-06	1.2581
3766	-2.41E-06	1.3221		3798	-1.97E-06	1.2901		3830	-1.54E-06	1.2571
3767	-2.22E-06	1.3211		3799	-1.39E-06	1.2891		3831	-1.04E-06	1.2561
3768	-2.49E-06	1.3201		3800	-1.70E-06	1.2881		3832	-1.57E-06	1.2551
3769	-2.09E-06	1.3191		3801	-1.25E-06	1.2871		3833	-1.07E-06	1.2541
3770	-2.17E-06	1.3181		3802	-1.59E-06	1.2861		3834	-1.47E-06	1.2531
3771	-2.07E-06	1.3171		3803	-1.56E-06	1.2851		3835	-9.44E-07	1.2521
3772	-2.01E-06	1.3161		3804	-1.59E-06	1.2841		3836	-1.56E-06	1.2501
3773	-2.37E-06	1.3151		3805	-1.57E-06	1.2831		3837	-9.87E-07	1.2491
3774	-2.04E-06	1.3141		3806	-1.82E-06	1.2821		3838	-1.57E-06	1.2471

3839	-1.40E-06	1.2461		3871	-9.28E-07	1.2011		3903	-5.32E-07	1.1391
3840	-1.47E-06	1.2451		3872	-1.11E-06	1.1991		3904	-1.98E-07	1.1371
3841	-1.08E-06	1.2441		3873	-5.44E-07	1.1981		3905	-5.13E-07	1.1351
3842	-1.39E-06	1.2431		3874	-1.23E-06	1.1961		3906	-4.96E-07	1.1331
3843	-1.12E-06	1.2421		3875	-5.57E-07	1.1951		3907	-3.28E-07	1.1311
3844	-1.18E-06	1.2411		3876	-7.80E-07	1.1931		3908	-5.39E-07	1.1291
3845	-1.32E-06	1.2401		3877	-7.69E-07	1.1911		3909	4.91E-08	1.1271
3846	-1.28E-06	1.2391		3878	-8.49E-07	1.1891		3910	-6.34E-07	1.1251
3847	-7.01E-07	1.2381		3879	-9.66E-07	1.1871		3911	-3.10E-08	1.1231
3848	-1.02E-06	1.2361		3880	-6.90E-07	1.1851		3912	-1.14E-07	1.1211
3849	-1.12E-06	1.2341		3881	-3.18E-07	1.1831		3913	-7.43E-08	1.1191
3850	-1.02E-06	1.2331		3882	-8.92E-07	1.1811		3914	9.59E-08	1.1171
3851	-1.31E-06	1.2311		3883	-2.98E-07	1.1791		3915	1.91E-08	1.1151
3852	-1.34E-06	1.2301		3884	-2.55E-07	1.1771		3916	-6.26E-07	1.1131
3853	-6.15E-07	1.2291		3885	-8.61E-07	1.1751		3917	4.65E-08	1.1111
3854	-1.41E-06	1.2271		3886	-9.79E-07	1.1731		3918	-5.54E-07	1.1091
3855	-8.39E-07	1.2261		3887	-6.33E-07	1.1711		3919	9.29E-08	1.1071
3856	-9.95E-07	1.2241		3888	-3.96E-07	1.1691		3920	-2.60E-07	1.1051
3857	-1.08E-06	1.2221		3889	-5.41E-07	1.1671		3921	-4.64E-07	1.1031
3858	-1.12E-06	1.2211		3890	-4.41E-07	1.1651		3922	2.28E-07	1.1011
3859	-1.06E-06	1.2201		3891	-9.69E-07	1.1631		3923	1.76E-07	1.0991
3860	-1.00E-06	1.2191		3892	-8.23E-07	1.1611		3924	-2.46E-07	1.0971
3861	-7.00E-07	1.2171		3893	-2.64E-07	1.1591		3925	4.07E-07	1.0951
3862	-1.34E-06	1.2151		3894	-7.11E-07	1.1571		3926	-1.97E-09	1.0931
3863	-6.22E-07	1.2141		3895	-2.59E-07	1.1551		3927	-2.63E-07	1.0911
3864	-1.14E-06	1.2121		3896	-3.15E-07	1.1531		3928	-1.40E-08	1.0891
3865	-5.59E-07	1.2111		3897	-5.41E-07	1.1511		3929	5.57E-09	1.0871
3866	-7.80E-07	1.2091		3898	-1.07E-07	1.1491		3930	-4.92E-08	1.0851
3867	-1.26E-06	1.2071		3899	-6.44E-07	1.1471		3931	-2.33E-07	1.0831
3868	-1.12E-06	1.2061		3900	-6.62E-07	1.1451		3932	-5.34E-07	1.0811
3869	-7.18E-07	1.2051		3901	-3.25E-07	1.1431		3933	1.16E-07	1.0791
3870	-4.85E-07	1.2031		3902	-7.91E-07	1.1411		3934	7.78E-08	1.0771

3935	-4.12E-07	1.0751
3936	-1.02E-07	1.0731
3937	4.28E-08	1.0711
3938	-2.90E-07	1.0691
3939	2.28E-07	1.0671
3940	-2.23E-07	1.0651
3941	-2.39E-07	1.0631
3942	9.42E-08	1.0611
3943	9.50E-09	1.0591
3944	-1.46E-07	1.0571
3945	2.70E-07	1.0551
3946	-3.31E-07	1.0531
3947	6.95E-08	1.0511
3948	2.05E-07	1.0491
3949	-3.06E-08	1.0471

Ti6Al4V Welded in 3.5% NaCl Solution		
	Current(A)	Potential (V)
1	-9.84E-05	-0.39419
2	-1.54E-06	-0.39319
3	7.26E-06	-0.39219
4	7.44E-06	-0.39119
5	7.69E-06	-0.39019
6	7.43E-06	-0.38919
7	7.25E-06	-0.38819
8	7.22E-06	-0.38719
9	6.64E-06	-0.38619
10	7.14E-06	-0.38519
11	6.67E-06	-0.38419
12	6.25E-06	-0.38319
13	5.99E-06	-0.38219
14	5.76E-06	-0.38119
15	5.62E-06	-0.38019
16	5.46E-06	-0.37919
17	5.56E-06	-0.37819
18	5.57E-06	-0.37719
19	5.62E-06	-0.37619
20	5.08E-06	-0.37519
21	5.75E-06	-0.37419
22	5.13E-06	-0.37319
23	4.95E-06	-0.37219
24	5.20E-06	-0.37119
25	4.76E-06	-0.37019
26	5.43E-06	-0.36919
27	4.18E-06	-0.36819
28	4.40E-06	-0.36719
29	4.51E-06	-0.36619
30	4.05E-06	-0.36519
31	4.40E-06	-0.36419
32	3.94E-06	-0.36319
33	3.71E-06	-0.36219
34	3.95E-06	-0.36119
35	4.19E-06	-0.36019
36	3.78E-06	-0.35919
37	4.09E-06	-0.35819
38	3.71E-06	-0.35719
39	3.51E-06	-0.35619
40	3.40E-06	-0.35519
41	3.69E-06	-0.35419
42	3.75E-06	-0.35319
43	3.14E-06	-0.35219
44	3.39E-06	-0.35119
45	2.98E-06	-0.35019
46	3.32E-06	-0.34919
47	2.91E-06	-0.34819
48	2.76E-06	-0.34719
49	2.76E-06	-0.34619
50	2.83E-06	-0.34519
51	3.19E-06	-0.34419
52	2.44E-06	-0.34319
53	2.68E-06	-0.34219
54	2.57E-06	-0.34119
55	2.40E-06	-0.34019
56	2.64E-06	-0.33919
57	2.46E-06	-0.33819
58	2.76E-06	-0.33719
59	2.34E-06	-0.33619
60	2.46E-06	-0.33519
61	2.25E-06	-0.33419
62	2.07E-06	-0.33319
63	2.11E-06	-0.33219
64	2.22E-06	-0.33119
65	1.99E-06	-0.33019
66	2.21E-06	-0.32919
67	1.75E-06	-0.32819
68	1.78E-06	-0.32719
69	1.85E-06	-0.32619
70	1.46E-06	-0.32519
71	1.64E-06	-0.32419
72	1.84E-06	-0.32319
73	1.63E-06	-0.32219
74	1.76E-06	-0.32119
75	1.11E-06	-0.32019
76	1.98E-06	-0.31919
77	1.48E-06	-0.31819
78	1.35E-06	-0.31719
79	1.57E-06	-0.31619
80	1.03E-06	-0.31519
81	1.29E-06	-0.31419
82	1.54E-06	-0.31319
83	1.19E-06	-0.31219
84	1.09E-06	-0.31119
85	1.25E-06	-0.31019
86	1.46E-06	-0.30919
87	1.08E-06	-0.30819
88	1.18E-06	-0.30719
89	6.81E-07	-0.30619
90	1.13E-06	-0.30419
91	7.87E-07	-0.30319
92	6.86E-07	-0.30119
93	6.45E-07	-0.29919
94	8.32E-07	-0.29719

95	8.67E-07	-0.29519	127	-7.62E-07	-0.23119	159	-1.58E-06	-0.19119
96	2.92E-07	-0.29319	128	-6.72E-07	-0.22919	160	-1.18E-06	-0.19019
97	5.24E-07	-0.29119	129	-1.15E-06	-0.22719	161	-1.79E-06	-0.18919
98	5.28E-07	-0.28919	130	-9.28E-07	-0.22619	162	-1.40E-06	-0.18819
99	1.17E-07	-0.28719	131	-6.00E-07	-0.22419	163	-1.72E-06	-0.18719
100	7.60E-07	-0.28519	132	-7.52E-07	-0.22219	164	-1.67E-06	-0.18619
101	5.02E-08	-0.28319	133	-1.19E-06	-0.22019	165	-1.64E-06	-0.18519
102	7.99E-08	-0.28119	134	-9.75E-07	-0.21919	166	-1.78E-06	-0.18419
103	5.63E-08	-0.27919	135	-9.58E-07	-0.21719	167	-1.49E-06	-0.18319
104	-9.58E-08	-0.27719	136	-1.32E-06	-0.21519	168	-1.55E-06	-0.18219
105	-3.54E-07	-0.27519	137	-1.38E-06	-0.21419	169	-1.95E-06	-0.18119
106	2.79E-07	-0.27319	138	-1.04E-06	-0.21319	170	-1.71E-06	-0.18019
107	2.12E-07	-0.27119	139	-1.28E-06	-0.21219	171	-1.43E-06	-0.17919
108	1.73E-07	-0.26919	140	-1.59E-06	-0.21119	172	-1.92E-06	-0.17819
109	-1.82E-07	-0.26719	141	-1.62E-06	-0.21019	173	-1.63E-06	-0.17719
110	-2.19E-07	-0.26519	142	-1.64E-06	-0.20919	174	-2.00E-06	-0.17619
111	-3.66E-07	-0.26319	143	-1.29E-06	-0.20819	175	-1.46E-06	-0.17519
112	-3.15E-07	-0.26119	144	-1.17E-06	-0.20719	176	-1.99E-06	-0.17419
113	-3.02E-07	-0.25919	145	-1.24E-06	-0.20619	177	-1.69E-06	-0.17319
114	-6.32E-07	-0.25719	146	-1.48E-06	-0.20519	178	-1.59E-06	-0.17219
115	-4.11E-07	-0.25519	147	-1.63E-06	-0.20419	179	-2.00E-06	-0.17119
116	-4.26E-07	-0.25319	148	-1.25E-06	-0.20319	180	-1.58E-06	-0.17019
117	-4.65E-07	-0.25119	149	-1.55E-06	-0.20219	181	-2.06E-06	-0.16919
118	-4.61E-07	-0.24919	150	-1.05E-06	-0.20119	182	-2.00E-06	-0.16819
119	-3.85E-07	-0.24719	151	-1.39E-06	-0.20019	183	-1.88E-06	-0.16719
120	-3.97E-07	-0.24519	152	-1.10E-06	-0.19919	184	-2.05E-06	-0.16619
121	-7.70E-07	-0.24319	153	-1.20E-06	-0.19819	185	-1.82E-06	-0.16519
122	-4.95E-07	-0.24119	154	-1.43E-06	-0.19719	186	-1.75E-06	-0.16419
123	-7.78E-07	-0.23919	155	-1.58E-06	-0.19619	187	-1.73E-06	-0.16319
124	-5.57E-07	-0.23719	156	-1.21E-06	-0.19519	188	-1.76E-06	-0.16219
125	-1.01E-06	-0.23519	157	-9.97E-07	-0.19419	189	-2.12E-06	-0.16119
126	-5.51E-07	-0.23319	158	-1.34E-06	-0.19219	190	-2.05E-06	-0.16019

191	-2.27E-06	-0.15919	223	-2.16E-06	-0.12719	255	-2.88E-06	-0.095189
192	-1.60E-06	-0.15819	224	-2.68E-06	-0.12619	256	-2.58E-06	-0.094189
193	-2.45E-06	-0.15719	225	-2.13E-06	-0.12519	257	-3.28E-06	-0.093189
194	-2.28E-06	-0.15619	226	-2.58E-06	-0.12419	258	-2.67E-06	-0.092189
195	-1.89E-06	-0.15519	227	-2.41E-06	-0.12319	259	-2.71E-06	-0.091189
196	-1.77E-06	-0.15419	228	-2.68E-06	-0.12219	260	-3.01E-06	-0.090189
197	-2.62E-06	-0.15319	229	-2.37E-06	-0.12119	261	-2.98E-06	-0.089189
198	-1.98E-06	-0.15219	230	-2.22E-06	-0.12019	262	-2.95E-06	-0.088189
199	-1.74E-06	-0.15119	231	-2.61E-06	-0.11919	263	-2.77E-06	-0.087189
200	-2.14E-06	-0.15019	232	-2.08E-06	-0.11819	264	-2.98E-06	-0.086189
201	-2.14E-06	-0.14919	233	-2.48E-06	-0.11719	265	-2.81E-06	-0.085189
202	-1.98E-06	-0.14819	234	-2.69E-06	-0.11619	266	-3.06E-06	-0.084189
203	-1.83E-06	-0.14719	235	-2.76E-06	-0.11519	267	-2.46E-06	-0.083189
204	-2.01E-06	-0.14619	236	-2.52E-06	-0.11419	268	-2.81E-06	-0.082189
205	-2.27E-06	-0.14519	237	-2.20E-06	-0.11319	269	-2.86E-06	-0.081189
206	-2.08E-06	-0.14419	238	-2.57E-06	-0.11219	270	-2.81E-06	-0.080189
207	-2.38E-06	-0.14319	239	-2.33E-06	-0.11119	271	-3.12E-06	-0.079189
208	-1.90E-06	-0.14219	240	-2.64E-06	-0.11019	272	-2.84E-06	-7.82E-02
209	-2.07E-06	-0.14119	241	-2.64E-06	-0.10919	273	-2.65E-06	-0.077189
210	-1.99E-06	-0.14019	242	-2.29E-06	-0.10819	274	-3.09E-06	-0.076189
211	-2.05E-06	-0.13919	243	-2.68E-06	-0.10719	275	-3.05E-06	-0.075189
212	-1.95E-06	-0.13819	244	-3.15E-06	-0.10619	276	-2.99E-06	-0.074189
213	-1.91E-06	-0.13719	245	-2.69E-06	-0.10519	277	-3.23E-06	-0.073189
214	-2.40E-06	-0.13619	246	-2.63E-06	-0.10419	278	-2.71E-06	-0.072189
215	-2.16E-06	-0.13519	247	-2.81E-06	-0.10319	279	-2.90E-06	-0.071189
216	-2.16E-06	-0.13419	248	-2.83E-06	-0.10219	280	-2.84E-06	-0.070189
217	-2.39E-06	-0.13319	249	-2.41E-06	-0.10119	281	-2.78E-06	-0.069189
218	-2.59E-06	-0.13219	250	-2.95E-06	-0.10019	282	-3.13E-06	-0.068189
219	-2.26E-06	-0.13119	251	-2.59E-06	-0.099189	283	-3.27E-06	-0.067189
220	-2.29E-06	-0.13019	252	-2.96E-06	-0.098189	284	-3.12E-06	-0.066189
221	-2.41E-06	-0.12919	253	-2.69E-06	-0.097189	285	-2.69E-06	-0.065189
222	-2.29E-06	-0.12819	254	-2.87E-06	-0.096189	286	-3.26E-06	-0.064189

287	-3.05E-06	-0.063189	319	-3.21E-06	-0.031189	351	-3.50E-06	0.0008106
288	-3.09E-06	-0.062189	320	-3.12E-06	-0.030189	352	-3.79E-06	0.0018105
289	-3.30E-06	-0.061189	321	-3.44E-06	-0.029189	353	-3.97E-06	0.0028105
290	-3.23E-06	-0.060189	322	-3.49E-06	-0.028189	354	-4.26E-06	0.0038105
291	-3.00E-06	-0.059189	323	-3.59E-06	-0.027189	355	-4.00E-06	0.0048105
292	-2.90E-06	-0.058189	324	-3.38E-06	-0.026189	356	-4.12E-06	0.0058105
293	-3.05E-06	-0.057189	325	-3.46E-06	-0.025189	357	-3.60E-06	0.0068105
294	-3.15E-06	-0.056189	326	-3.70E-06	-0.024189	358	-3.41E-06	0.0078105
295	-3.44E-06	-0.055189	327	-3.34E-06	-0.023189	359	-3.52E-06	0.0088105
296	-2.98E-06	-0.054189	328	-3.43E-06	-0.022189	360	-3.75E-06	0.0098105
297	-3.09E-06	-0.053189	329	-3.46E-06	-0.021189	361	-3.37E-06	0.010811
298	-3.19E-06	-0.052189	330	-3.32E-06	-0.020189	362	-3.52E-06	0.011811
299	-2.93E-06	-0.051189	331	-3.40E-06	-0.019189	363	-3.82E-06	0.012811
300	-3.38E-06	-0.050189	332	-3.47E-06	-0.018189	364	-3.45E-06	0.013811
301	-3.47E-06	-0.049189	333	-3.59E-06	-0.017189	365	-3.65E-06	0.014811
302	-3.52E-06	-0.048189	334	-3.44E-06	-0.016189	366	-3.69E-06	0.015811
303	-3.58E-06	-0.047189	335	-3.76E-06	-0.015189	367	-3.84E-06	0.016811
304	-3.26E-06	-0.046189	336	-3.32E-06	-0.014189	368	-4.36E-06	0.017811
305	-3.27E-06	-0.045189	337	-3.75E-06	-0.013189	369	-3.71E-06	0.018811
306	-3.26E-06	-0.044189	338	-3.49E-06	-0.012189	370	-3.37E-06	0.019811
307	-3.65E-06	-0.043189	339	-3.26E-06	-0.011189	371	-3.77E-06	0.020811
308	-3.28E-06	-0.042189	340	-3.09E-06	-0.010189	372	-3.54E-06	0.021811
309	-3.41E-06	-0.041189	341	-3.71E-06	-0.0091895	373	-3.22E-06	0.022811
310	-3.16E-06	-0.040189	342	-3.09E-06	-0.0081895	374	-3.91E-06	0.023811
311	-2.86E-06	-0.039189	343	-3.45E-06	-0.0071895	375	-4.18E-06	0.024811
312	-3.38E-06	-0.038189	344	-3.56E-06	-0.0061895	376	-3.63E-06	0.025811
313	-2.98E-06	-0.037189	345	-3.83E-06	-0.0051895	377	-3.66E-06	0.026811
314	-3.38E-06	-0.036189	346	-3.23E-06	-0.0041895	378	-3.38E-06	0.027811
315	-3.33E-06	-0.035189	347	-3.83E-06	-0.0031895	379	-3.90E-06	0.028811
316	-3.38E-06	-0.034189	348	-3.53E-06	-0.0021895	380	-3.73E-06	0.029811
317	-3.45E-06	-0.033189	349	-3.85E-06	-0.0011895	381	-3.61E-06	0.030811
318	-3.33E-06	-0.032189	350	-3.54E-06	-0.0001895	382	-4.11E-06	0.031811

383	-3.72E-06	0.032811	415	-3.71E-06	0.064811	447	-4.27E-06	0.096811
384	-3.22E-06	0.033811	416	-3.85E-06	0.065811	448	-4.03E-06	0.097811
385	-3.55E-06	0.034811	417	-4.37E-06	0.066811	449	-4.13E-06	0.098811
386	-3.95E-06	0.035811	418	-4.01E-06	0.067811	450	-4.02E-06	0.099811
387	-4.03E-06	0.036811	419	-4.22E-06	0.068811	451	-4.29E-06	0.10081
388	-4.11E-06	0.037811	420	-3.88E-06	0.069811	452	-4.31E-06	0.10181
389	-4.01E-06	0.038811	421	-4.25E-06	0.070811	453	-4.04E-06	0.10281
390	-3.84E-06	3.98E-02	422	-3.69E-06	0.071811	454	-4.34E-06	0.10381
391	-3.72E-06	0.040811	423	-3.92E-06	0.072811	455	-4.32E-06	0.10481
392	-4.27E-06	0.041811	424	-3.88E-06	0.073811	456	-4.05E-06	0.10581
393	-3.90E-06	0.042811	425	-3.93E-06	0.074811	457	-3.75E-06	0.10681
394	-4.30E-06	0.043811	426	-3.95E-06	0.075811	458	-4.12E-06	0.10781
395	-3.93E-06	0.044811	427	-4.01E-06	0.076811	459	-4.07E-06	0.10881
396	-4.27E-06	0.045811	428	-4.16E-06	0.077811	460	-4.38E-06	0.10981
397	-3.79E-06	0.046811	429	-3.84E-06	0.078811	461	-4.12E-06	0.11081
398	-3.78E-06	0.047811	430	-3.78E-06	0.079811	462	-4.28E-06	0.11181
399	-4.02E-06	0.048811	431	-3.93E-06	0.080811	463	-3.80E-06	0.11281
400	-3.97E-06	0.049811	432	-4.04E-06	0.081811	464	-4.31E-06	0.11381
401	-3.61E-06	0.050811	433	-3.63E-06	0.082811	465	-4.18E-06	0.11481
402	-3.42E-06	0.051811	434	-3.97E-06	0.083811	466	-3.92E-06	0.11581
403	-4.15E-06	0.052811	435	-4.07E-06	0.084811	467	-3.94E-06	0.11681
404	-3.81E-06	0.053811	436	-3.99E-06	0.085811	468	-4.31E-06	0.11781
405	-4.48E-06	0.054811	437	-4.28E-06	0.086811	469	-4.35E-06	0.11881
406	-4.41E-06	0.055811	438	-3.86E-06	0.087811	470	-4.48E-06	0.11981
407	-3.96E-06	0.056811	439	-3.87E-06	0.088811	471	-3.69E-06	0.12081
408	-3.93E-06	0.057811	440	-3.91E-06	0.089811	472	-4.21E-06	0.12181
409	-4.04E-06	0.058811	441	-3.37E-06	0.090811	473	-4.21E-06	0.12281
410	-4.43E-06	0.059811	442	-4.07E-06	0.091811	474	-4.16E-06	0.12381
411	-4.16E-06	0.060811	443	-4.21E-06	0.092811	475	-4.41E-06	0.12481
412	-4.28E-06	0.061811	444	-4.31E-06	0.093811	476	-3.93E-06	0.12581
413	-4.14E-06	0.062811	445	-3.73E-06	0.094811	477	-3.86E-06	0.12681
414	-4.03E-06	0.063811	446	-4.35E-06	0.095811	478	-4.42E-06	0.12781

479	-3.86E-06	0.12881	511	-4.07E-06	0.16081	543	-4.64E-06	0.19281
480	-4.41E-06	0.12981	512	-4.50E-06	0.16181	544	-4.54E-06	0.19381
481	-3.94E-06	0.13081	513	-4.28E-06	0.16281	545	-4.40E-06	0.19481
482	-4.21E-06	0.13181	514	-4.39E-06	0.16381	546	-4.17E-06	0.19581
483	-4.12E-06	0.13281	515	-4.32E-06	0.16481	547	-4.65E-06	0.19681
484	-4.10E-06	0.13381	516	-4.44E-06	0.16581	548	-4.13E-06	0.19781
485	-4.11E-06	0.13481	517	-4.41E-06	0.16681	549	-4.68E-06	0.19881
486	-4.15E-06	0.13581	518	-4.60E-06	0.16781	550	-4.19E-06	0.19981
487	-4.13E-06	0.13681	519	-3.95E-06	0.16881	551	-4.75E-06	0.20081
488	-4.54E-06	0.13781	520	-4.43E-06	0.16981	552	-4.44E-06	0.20181
489	-4.14E-06	0.13881	521	-4.54E-06	0.17081	553	-4.52E-06	0.20281
490	-4.16E-06	0.13981	522	-4.77E-06	0.17181	554	-4.63E-06	0.20381
491	-4.09E-06	0.14081	523	-4.12E-06	0.17281	555	-4.00E-06	0.20481
492	-4.33E-06	0.14181	524	-4.39E-06	0.17381	556	-4.54E-06	0.20581
493	-4.42E-06	0.14281	525	-4.42E-06	0.17481	557	-4.50E-06	0.20681
494	-4.09E-06	0.14381	526	-4.46E-06	0.17581	558	-4.44E-06	0.20781
495	-4.41E-06	0.14481	527	-4.16E-06	0.17681	559	-4.19E-06	0.20881
496	-4.25E-06	0.14581	528	-4.54E-06	0.17781	560	-4.69E-06	0.20981
497	-4.00E-06	0.14681	529	-4.05E-06	0.17881	561	-4.32E-06	0.21081
498	-4.23E-06	0.14781	530	-4.53E-06	0.17981	562	-4.22E-06	0.21181
499	-4.43E-06	0.14881	531	-4.15E-06	0.18081	563	-4.59E-06	0.21281
500	-4.33E-06	0.14981	532	-3.82E-06	0.18181	564	-4.50E-06	0.21381
501	-4.07E-06	0.15081	533	-4.58E-06	0.18281	565	-4.94E-06	0.21481
502	-4.79E-06	0.15181	534	-4.08E-06	0.18381	566	-4.44E-06	0.21581
503	-4.50E-06	0.15281	535	-4.46E-06	0.18481	567	-4.75E-06	0.21681
504	-4.08E-06	0.15381	536	-4.37E-06	0.18581	568	-4.89E-06	0.21781
505	-4.21E-06	0.15481	537	-4.26E-06	0.18681	569	-3.88E-06	0.21881
506	-4.18E-06	0.15581	538	-4.39E-06	0.18781	570	-4.59E-06	0.21981
507	-4.37E-06	0.15681	539	-4.45E-06	0.18881	571	-4.31E-06	0.22081
508	-4.61E-06	0.15781	540	-4.60E-06	0.18981	572	-4.28E-06	0.22181
509	-4.27E-06	0.15881	541	-4.32E-06	0.19081	573	-4.24E-06	0.22281
510	-4.21E-06	0.15981	542	-4.44E-06	0.19181	574	-4.53E-06	0.22381

575	-4.49E-06	0.22481	607	-4.54E-06	0.25681	639	-4.75E-06	0.28881
576	-4.62E-06	0.22581	608	-4.53E-06	0.25781	640	-4.50E-06	0.28981
577	-4.49E-06	0.22681	609	-4.24E-06	0.25881	641	-4.70E-06	0.29081
578	-4.50E-06	0.22781	610	-4.72E-06	0.25981	642	-4.68E-06	0.29181
579	-4.63E-06	0.22881	611	-4.21E-06	0.26081	643	-4.61E-06	0.29281
580	-4.29E-06	0.22981	612	-4.57E-06	0.26181	644	-4.82E-06	0.29381
581	-4.72E-06	0.23081	613	-4.71E-06	0.26281	645	-4.90E-06	0.29481
582	-4.48E-06	0.23181	614	-4.37E-06	0.26381	646	-4.40E-06	0.29581
583	-4.44E-06	0.23281	615	-4.65E-06	0.26481	647	-4.77E-06	0.29681
584	-4.67E-06	0.23381	616	-4.61E-06	0.26581	648	-4.91E-06	0.29781
585	-4.27E-06	0.23481	617	-4.64E-06	0.26681	649	-4.87E-06	0.29881
586	-4.36E-06	0.23581	618	-4.51E-06	0.26781	650	-4.94E-06	0.29981
587	-4.80E-06	0.23681	619	-4.93E-06	0.26881	651	-4.86E-06	0.30081
588	-4.36E-06	0.23781	620	-4.05E-06	0.26981	652	-4.56E-06	0.30181
589	-4.79E-06	0.23881	621	-4.53E-06	0.27081	653	-4.50E-06	0.30281
590	-4.49E-06	0.23981	622	-4.92E-06	0.27181	654	-4.45E-06	0.30381
591	-4.88E-06	0.24081	623	-4.87E-06	0.27281	655	-4.62E-06	0.30481
592	-4.20E-06	0.24181	624	-4.62E-06	0.27381	656	-4.51E-06	0.30581
593	-4.52E-06	0.24281	625	-4.87E-06	0.27481	657	-4.70E-06	0.30681
594	-4.66E-06	0.24381	626	-4.48E-06	0.27581	658	-4.35E-06	0.30781
595	-4.65E-06	0.24481	627	-4.99E-06	0.27681	659	-4.85E-06	0.30881
596	-4.45E-06	0.24581	628	-4.54E-06	0.27781	660	-4.81E-06	0.30981
597	-4.78E-06	0.24681	629	-4.46E-06	0.27881	661	-4.71E-06	0.31081
598	-4.49E-06	0.24781	630	-4.65E-06	0.27981	662	-4.77E-06	0.31181
599	-4.56E-06	0.24881	631	-4.40E-06	0.28081	663	-4.96E-06	0.31281
600	-4.39E-06	0.24981	632	-4.72E-06	0.28181	664	-4.81E-06	0.31381
601	-4.61E-06	0.25081	633	-4.78E-06	0.28281	665	-4.58E-06	0.31481
602	-4.84E-06	0.25181	634	-4.34E-06	0.28381	666	-4.57E-06	0.31581
603	-4.65E-06	0.25281	635	-4.79E-06	0.28481	667	-5.01E-06	0.31681
604	-4.67E-06	0.25381	636	-4.63E-06	0.28581	668	-4.93E-06	0.31781
605	-4.51E-06	0.25481	637	-4.86E-06	0.28681	669	-4.48E-06	0.31881
606	-4.40E-06	0.25581	638	-5.18E-06	0.28781	670	-4.63E-06	0.31981

671	-4.56E-06	0.32081	703	-5.01E-06	0.35281	735	-5.10E-06	0.38481
672	-4.68E-06	0.32181	704	-4.63E-06	0.35381	736	-5.09E-06	0.38581
673	-5.13E-06	0.32281	705	-4.80E-06	0.35481	737	-5.11E-06	0.38681
674	-5.02E-06	0.32381	706	-5.03E-06	0.35581	738	-4.77E-06	0.38781
675	-4.99E-06	0.32481	707	-4.93E-06	0.35681	739	-4.66E-06	0.38881
676	-4.85E-06	0.32581	708	-4.68E-06	0.35781	740	-4.79E-06	0.38981
677	-4.77E-06	0.32681	709	-4.53E-06	0.35881	741	-5.03E-06	0.39081
678	-4.64E-06	0.32781	710	-4.66E-06	0.35981	742	-5.01E-06	0.39181
679	-4.90E-06	0.32881	711	-4.90E-06	0.36081	743	-4.84E-06	0.39281
680	-4.82E-06	0.32981	712	-4.91E-06	0.36181	744	-5.03E-06	0.39381
681	-4.99E-06	0.33081	713	-4.91E-06	0.36281	745	-5.10E-06	0.39481
682	-4.91E-06	0.33181	714	-4.96E-06	0.36381	746	-5.15E-06	0.39581
683	-4.63E-06	0.33281	715	-4.98E-06	0.36481	747	-5.07E-06	0.39681
684	-4.85E-06	0.33381	716	-4.98E-06	0.36581	748	-5.16E-06	0.39781
685	-4.82E-06	0.33481	717	-5.18E-06	0.36681	749	-5.09E-06	0.39881
686	-5.05E-06	0.33581	718	-4.97E-06	0.36781	750	-4.87E-06	0.39981
687	-5.06E-06	0.33681	719	-4.81E-06	0.36881	751	-4.74E-06	0.40081
688	-4.67E-06	0.33781	720	-4.72E-06	0.36981	752	-5.04E-06	0.40181
689	-4.82E-06	0.33881	721	-5.21E-06	0.37081	753	-5.21E-06	0.40281
690	-4.97E-06	0.33981	722	-4.86E-06	0.37181	754	-4.91E-06	0.40381
691	-4.98E-06	0.34081	723	-5.17E-06	0.37281	755	-5.07E-06	0.40481
692	-5.00E-06	0.34181	724	-5.13E-06	0.37381	756	-4.81E-06	0.40581
693	-4.73E-06	0.34281	725	-5.19E-06	0.37481	757	-4.87E-06	0.40681
694	-4.88E-06	0.34381	726	-4.81E-06	0.37581	758	-5.09E-06	0.40781
695	-4.94E-06	0.34481	727	-4.71E-06	0.37681	759	-5.33E-06	0.40881
696	-4.98E-06	0.34581	728	-5.12E-06	0.37781	760	-5.12E-06	0.40981
697	-4.74E-06	0.34681	729	-4.67E-06	0.37881	761	-4.99E-06	0.41081
698	-5.05E-06	0.34781	730	-5.20E-06	0.37981	762	-4.88E-06	0.41181
699	-4.64E-06	0.34881	731	-4.74E-06	0.38081	763	-4.94E-06	0.41281
700	-4.92E-06	0.34981	732	-5.11E-06	0.38181	764	-5.04E-06	0.41381
701	-4.98E-06	0.35081	733	-4.75E-06	0.38281	765	-5.16E-06	0.41481
702	-5.05E-06	0.35181	734	-4.84E-06	0.38381	766	-4.94E-06	0.41581

767	-5.22E-06	0.41681	799	-5.09E-06	0.44881	831	-4.99E-06	0.48081
768	-5.17E-06	0.41781	800	-5.00E-06	0.44981	832	-4.70E-06	0.48181
769	-4.98E-06	0.41881	801	-5.49E-06	0.45081	833	-5.29E-06	0.48281
770	-5.02E-06	0.41981	802	-4.71E-06	0.45181	834	-5.10E-06	0.48381
771	-5.06E-06	0.42081	803	-4.82E-06	0.45281	835	-5.32E-06	0.48481
772	-4.77E-06	0.42181	804	-4.93E-06	0.45381	836	-4.78E-06	0.48581
773	-4.78E-06	0.42281	805	-5.02E-06	0.45481	837	-4.77E-06	0.48681
774	-5.16E-06	0.42381	806	-4.82E-06	0.45581	838	-4.92E-06	0.48781
775	-4.73E-06	0.42481	807	-4.99E-06	0.45681	839	-5.05E-06	0.48881
776	-4.98E-06	0.42581	808	-4.84E-06	0.45781	840	-5.25E-06	0.48981
777	-5.28E-06	0.42681	809	-5.20E-06	0.45881	841	-5.07E-06	0.49081
778	-5.17E-06	0.42781	810	-4.99E-06	0.45981	842	-5.37E-06	0.49181
779	-5.12E-06	0.42881	811	-4.86E-06	0.46081	843	-5.28E-06	0.49281
780	-5.15E-06	0.42981	812	-4.57E-06	0.46181	844	-5.39E-06	0.49381
781	-4.88E-06	0.43081	813	-5.12E-06	0.46281	845	-5.09E-06	0.49481
782	-5.00E-06	0.43181	814	-4.71E-06	0.46381	846	-5.41E-06	0.49581
783	-5.03E-06	0.43281	815	-5.30E-06	0.46481	847	-5.18E-06	0.49681
784	-4.82E-06	0.43381	816	-4.88E-06	0.46581	848	-5.43E-06	0.49781
785	-5.11E-06	0.43481	817	-5.15E-06	0.46681	849	-4.99E-06	0.49881
786	-4.98E-06	0.43581	818	-4.78E-06	0.46781	850	-5.23E-06	0.49981
787	-4.99E-06	0.43681	819	-5.20E-06	0.46881	851	-4.90E-06	0.50081
788	-5.19E-06	0.43781	820	-5.18E-06	0.46981	852	-5.07E-06	0.50181
789	-4.92E-06	0.43881	821	-4.86E-06	0.47081	853	-5.19E-06	0.50281
790	-5.12E-06	0.43981	822	-5.14E-06	0.47181	854	-5.10E-06	0.50381
791	-4.91E-06	0.44081	823	-5.31E-06	0.47281	855	-5.11E-06	0.50481
792	-4.90E-06	0.44181	824	-4.68E-06	0.47381	856	-5.12E-06	0.50581
793	-5.12E-06	0.44281	825	-5.13E-06	0.47481	857	-4.88E-06	0.50681
794	-4.95E-06	0.44381	826	-5.00E-06	0.47581	858	-5.15E-06	0.50781
795	-5.19E-06	0.44481	827	-5.04E-06	0.47681	859	-5.29E-06	0.50881
796	-5.27E-06	0.44581	828	-5.20E-06	0.47781	860	-5.35E-06	0.50981
797	-4.61E-06	0.44681	829	-5.21E-06	0.47881	861	-5.56E-06	0.51081
798	-4.90E-06	0.44781	830	-5.06E-06	0.47981	862	-4.93E-06	0.51181

863	-5.07E-06	0.51281	895	-5.21E-06	0.54481	927	-5.06E-06	0.57681
864	-4.77E-06	0.51381	896	-5.20E-06	0.54581	928	-4.80E-06	0.57781
865	-5.27E-06	0.51481	897	-5.53E-06	0.54681	929	-4.97E-06	0.57881
866	-5.51E-06	0.51581	898	-4.86E-06	0.54781	930	-4.63E-06	0.57981
867	-5.09E-06	0.51681	899	-5.09E-06	0.54881	931	-5.36E-06	0.58081
868	-4.56E-06	0.51781	900	-5.21E-06	0.54981	932	-4.97E-06	0.58181
869	-5.05E-06	0.51881	901	-5.12E-06	0.55081	933	-5.32E-06	0.58281
870	-5.06E-06	0.51981	902	-4.94E-06	0.55181	934	-5.37E-06	0.58381
871	-5.07E-06	0.52081	903	-5.33E-06	0.55281	935	-5.65E-06	0.58481
872	-5.15E-06	0.52181	904	-5.07E-06	0.55381	936	-4.68E-06	0.58581
873	-5.34E-06	0.52281	905	-5.28E-06	0.55481	937	-5.45E-06	0.58681
874	-4.91E-06	0.52381	906	-5.28E-06	0.55581	938	-4.84E-06	0.58781
875	-5.03E-06	0.52481	907	-5.29E-06	0.55681	939	-5.22E-06	0.58881
876	-4.88E-06	0.52581	908	-5.53E-06	0.55781	940	-5.13E-06	0.58981
877	-5.15E-06	0.52681	909	-5.64E-06	0.55881	941	-5.43E-06	0.59081
878	-5.14E-06	0.52781	910	-5.35E-06	0.55981	942	-4.83E-06	0.59181
879	-5.00E-06	0.52881	911	-5.51E-06	0.56081	943	-5.55E-06	0.59281
880	-5.52E-06	0.52981	912	-4.85E-06	0.56181	944	-5.41E-06	0.59381
881	-4.72E-06	0.53081	913	-5.33E-06	0.56281	945	-5.41E-06	0.59481
882	-5.12E-06	0.53181	914	-4.96E-06	0.56381	946	-5.13E-06	0.59581
883	-5.25E-06	0.53281	915	-5.18E-06	0.56481	947	-5.88E-06	0.59681
884	-5.54E-06	0.53381	916	-4.77E-06	0.56581	948	-5.23E-06	0.59781
885	-5.20E-06	0.53481	917	-4.94E-06	0.56681	949	-5.25E-06	0.59881
886	-4.99E-06	0.53581	918	-5.76E-06	0.56781	950	-5.23E-06	0.59981
887	-5.18E-06	0.53681	919	-4.74E-06	0.56881	951	-5.02E-06	0.60081
888	-5.25E-06	0.53781	920	-5.28E-06	0.56981	952	-5.12E-06	0.60181
889	-4.43E-06	0.53881	921	-4.91E-06	0.57081	953	-4.90E-06	0.60281
890	-5.68E-06	0.53981	922	-4.90E-06	0.57181	954	-5.19E-06	0.60381
891	-4.52E-06	0.54081	923	-4.85E-06	0.57281	955	-4.94E-06	0.60481
892	-5.10E-06	0.54181	924	-4.64E-06	0.57381	956	-5.19E-06	0.60581
893	-5.12E-06	0.54281	925	-5.49E-06	0.57481	957	-5.16E-06	0.60681
894	-5.29E-06	0.54381	926	-4.67E-06	0.57581	958	-4.81E-06	0.60781

959	-5.19E-06	0.60881		991	-5.03E-06	0.64081		1023	-5.20E-06	0.67281
960	-5.32E-06	0.60981		992	-4.66E-06	0.64181		1024	-5.45E-06	0.67381
961	-5.43E-06	0.61081		993	-5.71E-06	0.64281		1025	-5.11E-06	0.67481
962	-5.38E-06	0.61181		994	-5.05E-06	0.64381		1026	-5.03E-06	0.67581
963	-5.09E-06	0.61281		995	-4.95E-06	0.64481		1027	-5.44E-06	0.67681
964	-5.46E-06	0.61381		996	-5.00E-06	0.64581		1028	-5.19E-06	0.67781
965	-5.34E-06	0.61481		997	-5.17E-06	0.64681		1029	-5.20E-06	0.67881
966	-4.80E-06	0.61581		998	-5.01E-06	0.64781		1030	-5.18E-06	0.67981
967	-5.46E-06	0.61681		999	-5.36E-06	0.64881		1031	-5.28E-06	0.68081
968	-5.06E-06	0.61781		1000	-5.46E-06	0.64981		1032	-5.07E-06	0.68181
969	-5.08E-06	0.61881		1001	-5.26E-06	0.65081		1033	-5.33E-06	0.68281
970	-5.74E-06	0.61981		1002	-5.04E-06	0.65181		1034	-5.34E-06	0.68381
971	-5.04E-06	0.62081		1003	-5.28E-06	0.65281		1035	-5.61E-06	0.68481
972	-4.99E-06	0.62181		1004	-5.30E-06	0.65381		1036	-5.56E-06	0.68581
973	-4.81E-06	0.62281		1005	-5.61E-06	0.65481		1037	-5.02E-06	0.68681
974	-4.78E-06	0.62381		1006	-5.13E-06	0.65581		1038	-5.61E-06	0.68781
975	-5.62E-06	0.62481		1007	-5.47E-06	0.65681		1039	-5.13E-06	0.68881
976	-5.16E-06	0.62581		1008	-5.48E-06	0.65781		1040	-5.16E-06	0.68981
977	-5.37E-06	0.62681		1009	-5.08E-06	0.65881		1041	-5.28E-06	0.69081
978	-5.33E-06	0.62781		1010	-5.07E-06	0.65981		1042	-5.37E-06	0.69181
979	-5.70E-06	0.62881		1011	-5.06E-06	0.66081		1043	-5.38E-06	0.69281
980	-5.15E-06	0.62981		1012	-5.61E-06	0.66181		1044	-5.11E-06	0.69381
981	-4.93E-06	0.63081		1013	-4.97E-06	0.66281		1045	-5.43E-06	0.69481
982	-4.87E-06	0.63181		1014	-5.28E-06	0.66381		1046	-5.33E-06	0.69581
983	-5.16E-06	0.63281		1015	-5.18E-06	0.66481		1047	-5.63E-06	0.69681
984	-5.35E-06	0.63381		1016	-5.73E-06	0.66581		1048	-5.39E-06	0.69781
985	-5.32E-06	0.63481		1017	-5.46E-06	0.66681		1049	-5.11E-06	0.69881
986	-5.21E-06	0.63581		1018	-5.39E-06	0.66781		1050	-5.43E-06	0.69981
987	-4.74E-06	0.63681		1019	-5.37E-06	0.66881		1051	-5.46E-06	0.70081
988	-5.71E-06	0.63781		1020	-5.12E-06	0.66981		1052	-5.49E-06	0.70181
989	-4.96E-06	0.63881		1021	-5.29E-06	0.67081		1053	-5.23E-06	0.70281
990	-5.25E-06	0.63981		1022	-5.52E-06	0.67181		1054	-5.19E-06	0.70381

1055	-5.13E-06	0.70481		1087	-5.48E-06	0.73681		1119	-5.38E-06	0.76881
1056	-5.40E-06	0.70581		1088	-5.27E-06	0.73781		1120	-5.12E-06	0.76981
1057	-5.50E-06	0.70681		1089	-5.58E-06	0.73881		1121	-5.23E-06	0.77081
1058	-5.63E-06	0.70781		1090	-5.10E-06	0.73981		1122	-4.88E-06	0.77181
1059	-5.06E-06	0.70881		1091	-5.54E-06	0.74081		1123	-5.43E-06	0.77281
1060	-5.09E-06	0.70981		1092	-5.31E-06	0.74181		1124	-5.76E-06	0.77381
1061	-5.54E-06	0.71081		1093	-5.56E-06	0.74281		1125	-5.62E-06	0.77481
1062	-5.64E-06	0.71181		1094	-5.31E-06	0.74381		1126	-5.63E-06	0.77581
1063	-5.52E-06	0.71281		1095	-5.44E-06	0.74481		1127	-5.35E-06	0.77681
1064	-5.40E-06	0.71381		1096	-5.46E-06	0.74581		1128	-5.36E-06	0.77781
1065	-5.55E-06	0.71481		1097	-5.47E-06	0.74681		1129	-5.40E-06	0.77881
1066	-4.97E-06	0.71581		1098	-5.44E-06	0.74781		1130	-5.43E-06	0.77981
1067	-5.21E-06	0.71681		1099	-5.38E-06	0.74881		1131	-5.59E-06	0.78081
1068	-5.44E-06	0.71781		1100	-5.49E-06	0.74981		1132	-5.30E-06	0.78181
1069	-5.36E-06	0.71881		1101	-5.27E-06	0.75081		1133	-5.36E-06	0.78281
1070	-5.34E-06	0.71981		1102	-5.65E-06	0.75181		1134	-5.73E-06	0.78381
1071	-5.08E-06	0.72081		1103	-5.23E-06	0.75281		1135	-5.34E-06	0.78481
1072	-5.67E-06	0.72181		1104	-5.22E-06	0.75381		1136	-5.62E-06	0.78581
1073	-5.55E-06	0.72281		1105	-5.21E-06	0.75481		1137	-5.36E-06	0.78681
1074	-5.79E-06	0.72381		1106	-5.07E-06	0.75581		1138	-5.27E-06	0.78781
1075	-5.61E-06	0.72481		1107	-5.63E-06	0.75681		1139	-5.16E-06	0.78881
1076	-5.40E-06	0.72581		1108	-5.33E-06	0.75781		1140	-5.29E-06	0.78981
1077	-5.34E-06	0.72681		1109	-5.55E-06	0.75881		1141	-5.53E-06	0.79081
1078	-5.60E-06	0.72781		1110	-5.33E-06	0.75981		1142	-5.49E-06	0.79181
1079	-5.64E-06	0.72881		1111	-5.15E-06	0.76081		1143	-5.22E-06	0.79281
1080	-5.29E-06	0.72981		1112	-5.50E-06	0.76181		1144	-5.55E-06	0.79381
1081	-5.21E-06	0.73081		1113	-5.27E-06	0.76281		1145	-5.17E-06	0.79481
1082	-5.54E-06	0.73181		1114	-5.50E-06	0.76381		1146	-5.05E-06	0.79581
1083	-5.20E-06	0.73281		1115	-5.48E-06	0.76481		1147	-5.43E-06	0.79681
1084	-5.07E-06	0.73381		1116	-5.58E-06	0.76581		1148	-5.59E-06	0.79781
1085	-5.37E-06	0.73481		1117	-5.44E-06	0.76681		1149	-5.31E-06	0.79881
1086	-5.66E-06	0.73581		1118	-5.41E-06	0.76781		1150	-5.28E-06	0.79981

1151	-5.60E-06	0.80081	1183	-5.32E-06	0.83281	1215	-5.12E-06	0.86481
1152	-5.65E-06	0.80181	1184	-5.25E-06	0.83381	1216	-5.20E-06	0.86581
1153	-5.31E-06	0.80281	1185	-5.12E-06	0.83481	1217	-5.35E-06	0.86681
1154	-4.95E-06	0.80381	1186	-5.28E-06	0.83581	1218	-5.44E-06	0.86781
1155	-5.26E-06	0.80481	1187	-5.29E-06	0.83681	1219	-5.43E-06	0.86881
1156	-5.64E-06	0.80581	1188	-5.45E-06	0.83781	1220	-5.46E-06	0.86981
1157	-5.86E-06	0.80681	1189	-5.56E-06	0.83881	1221	-5.36E-06	0.87081
1158	-5.41E-06	0.80781	1190	-5.12E-06	0.83981	1222	-5.11E-06	0.87181
1159	-5.48E-06	0.80881	1191	-5.56E-06	0.84081	1223	-5.26E-06	0.87281
1160	-5.19E-06	0.80981	1192	-5.44E-06	0.84181	1224	-5.50E-06	0.87381
1161	-5.35E-06	0.81081	1193	-5.18E-06	0.84281	1225	-5.24E-06	0.87481
1162	-5.36E-06	0.81181	1194	-5.32E-06	0.84381	1226	-5.51E-06	0.87581
1163	-5.40E-06	0.81281	1195	-5.40E-06	0.84481	1227	-5.26E-06	0.87681
1164	-4.80E-06	0.81381	1196	-5.45E-06	0.84581	1228	-4.68E-06	0.87781
1165	-5.17E-06	0.81481	1197	-5.44E-06	0.84681	1229	-5.50E-06	0.87881
1166	-5.31E-06	0.81581	1198	-5.37E-06	0.84781	1230	-5.08E-06	0.87981
1167	-5.23E-06	0.81681	1199	-5.28E-06	0.84881	1231	-5.14E-06	0.88081
1168	-5.00E-06	0.81781	1200	-5.74E-06	0.84981	1232	-5.53E-06	0.88181
1169	-5.20E-06	0.81881	1201	-5.34E-06	0.85081	1233	-5.81E-06	0.88281
1170	-5.30E-06	0.81981	1202	-4.99E-06	0.85181	1234	-5.63E-06	0.88381
1171	-5.45E-06	0.82081	1203	-5.50E-06	0.85281	1235	-4.97E-06	0.88481
1172	-5.14E-06	0.82181	1204	-4.84E-06	0.85381	1236	-5.77E-06	0.88581
1173	-5.42E-06	0.82281	1205	-5.41E-06	0.85481	1237	-5.64E-06	0.88681
1174	-5.63E-06	0.82381	1206	-5.20E-06	0.85581	1238	-4.89E-06	0.88781
1175	-5.46E-06	0.82481	1207	-5.12E-06	0.85681	1239	-5.56E-06	0.88881
1176	-5.47E-06	0.82581	1208	-5.37E-06	0.85781	1240	-5.46E-06	0.88981
1177	-5.10E-06	0.82681	1209	-5.25E-06	0.85881	1241	-4.94E-06	0.89081
1178	-5.60E-06	0.82781	1210	-5.40E-06	0.85981	1242	-5.02E-06	0.89181
1179	-5.25E-06	0.82881	1211	-5.21E-06	0.86081	1243	-5.40E-06	0.89281
1180	-5.26E-06	0.82981	1212	-5.51E-06	0.86181	1244	-5.59E-06	0.89381
1181	-5.37E-06	0.83081	1213	-5.41E-06	0.86281	1245	-5.40E-06	0.89481
1182	-5.09E-06	0.83181	1214	-5.28E-06	0.86381	1246	-5.48E-06	0.89581

1247	-5.37E-06	0.89681	1279	-5.25E-06	0.92881	1311	-6.29E-06	0.96081
1248	-5.29E-06	0.89781	1280	-4.84E-06	0.92981	1312	-6.18E-06	0.96181
1249	-5.67E-06	0.89881	1281	-5.42E-06	0.93081	1313	-5.90E-06	0.96281
1250	-4.64E-06	0.89981	1282	-5.08E-06	0.93181	1314	-4.80E-06	0.96381
1251	-5.78E-06	0.90081	1283	-5.05E-06	0.93281	1315	-5.94E-06	0.96481
1252	-5.11E-06	0.90181	1284	-4.98E-06	0.93381	1316	-5.73E-06	0.96581
1253	-5.63E-06	0.90281	1285	-5.10E-06	0.93481	1317	-4.88E-06	0.96681
1254	-5.39E-06	0.90381	1286	-5.11E-06	0.93581	1318	-5.84E-06	0.96781
1255	-5.36E-06	0.90481	1287	-4.86E-06	0.93681	1319	-5.42E-06	0.96881
1256	-5.23E-06	0.90581	1288	-5.30E-06	0.93781	1320	-5.64E-06	0.96981
1257	-5.72E-06	0.90681	1289	-5.15E-06	0.93881	1321	-5.32E-06	0.97081
1258	-5.76E-06	0.90781	1290	-5.95E-06	0.93981	1322	-5.44E-06	0.97181
1259	-5.51E-06	0.90881	1291	-5.67E-06	0.94081	1323	-5.86E-06	0.97281
1260	-5.60E-06	0.90981	1292	-5.36E-06	0.94181	1324	-5.54E-06	0.97381
1261	-5.40E-06	0.91081	1293	-5.39E-06	0.94281	1325	-5.79E-06	0.97481
1262	-5.58E-06	0.91181	1294	-5.15E-06	0.94381	1326	-5.15E-06	0.97581
1263	-5.51E-06	0.91281	1295	-5.35E-06	0.94481	1327	-5.60E-06	0.97681
1264	-5.42E-06	0.91381	1296	-5.39E-06	0.94581	1328	-5.92E-06	0.97781
1265	-5.67E-06	0.91481	1297	-5.71E-06	0.94681	1329	-5.10E-06	0.97881
1266	-5.44E-06	0.91581	1298	-5.17E-06	0.94781	1330	-5.43E-06	0.97981
1267	-5.31E-06	0.91681	1299	-5.29E-06	0.94881	1331	-5.58E-06	0.98081
1268	-4.95E-06	0.91781	1300	-5.22E-06	0.94981	1332	-5.43E-06	0.98181
1269	-5.91E-06	0.91881	1301	-5.24E-06	0.95081	1333	-5.38E-06	0.98281
1270	-5.95E-06	0.91981	1302	-5.69E-06	0.95181	1334	-5.82E-06	0.98381
1271	-5.43E-06	0.92081	1303	-5.57E-06	0.95281	1335	-5.92E-06	0.98481
1272	-5.36E-06	0.92181	1304	-5.55E-06	0.95381	1336	-5.12E-06	0.98581
1273	-5.63E-06	0.92281	1305	-5.38E-06	0.95481	1337	-5.33E-06	0.98681
1274	-5.31E-06	0.92381	1306	-5.53E-06	0.95581	1338	-5.65E-06	0.98781
1275	-5.15E-06	0.92481	1307	-5.01E-06	0.95681	1339	-5.48E-06	0.98881
1276	-5.11E-06	0.92581	1308	-5.61E-06	0.95781	1340	-5.69E-06	0.98981
1277	-5.39E-06	0.92681	1309	-5.09E-06	0.95881	1341	-5.36E-06	0.99081
1278	-5.23E-06	0.92781	1310	-5.42E-06	0.95981	1342	-5.74E-06	0.99181

1343	-5.50E-06	0.99281		1375	-5.55E-06	1.0248		1407	-4.90E-06	1.0568
1344	-5.65E-06	0.99381		1376	-5.17E-06	1.0258		1408	-5.68E-06	1.0578
1345	-5.33E-06	0.99481		1377	-5.49E-06	1.0268		1409	-5.61E-06	1.0588
1346	-6.22E-06	0.99581		1378	-5.69E-06	1.0278		1410	-5.63E-06	1.0598
1347	-5.22E-06	0.99681		1379	-5.31E-06	1.0288		1411	-5.50E-06	1.0608
1348	-5.52E-06	0.99781		1380	-5.63E-06	1.0298		1412	-6.03E-06	1.0618
1349	-5.80E-06	0.99881		1381	-5.42E-06	1.0308		1413	-5.26E-06	1.0628
1350	-5.59E-06	0.99981		1382	-5.14E-06	1.0318		1414	-5.90E-06	1.0638
1351	-5.35E-06	1.0008		1383	-5.27E-06	1.0328		1415	-5.12E-06	1.0648
1352	-5.40E-06	1.0018		1384	-5.47E-06	1.0338		1416	-6.20E-06	1.0658
1353	-5.01E-06	1.0028		1385	-5.60E-06	1.0348		1417	-5.30E-06	1.0668
1354	-5.59E-06	1.0038		1386	-5.34E-06	1.0358		1418	-5.65E-06	1.0678
1355	-5.69E-06	1.0048		1387	-5.53E-06	1.0368		1419	-5.82E-06	1.0688
1356	-5.19E-06	1.0058		1388	-5.61E-06	1.0378		1420	-5.66E-06	1.0698
1357	-5.60E-06	1.0068		1389	-5.24E-06	1.0388		1421	-5.56E-06	1.0708
1358	-5.57E-06	1.0078		1390	-5.74E-06	1.0398		1422	-5.68E-06	1.0718
1359	-5.29E-06	1.0088		1391	-5.32E-06	1.0408		1423	-5.75E-06	1.0728
1360	-4.87E-06	1.0098		1392	-5.20E-06	1.0418		1424	-5.45E-06	1.0738
1361	-5.39E-06	1.0108		1393	-5.38E-06	1.0428		1425	-5.97E-06	1.0748
1362	-5.93E-06	1.0118		1394	-5.28E-06	1.0438		1426	-5.60E-06	1.0758
1363	-5.59E-06	1.0128		1395	-5.37E-06	1.0448		1427	-5.40E-06	1.0768
1364	-5.30E-06	1.0138		1396	-5.57E-06	1.0458		1428	-4.70E-06	1.0778
1365	-5.10E-06	1.0148		1397	-5.53E-06	1.0468		1429	-5.77E-06	1.0788
1366	-5.72E-06	1.0158		1398	-5.02E-06	1.0478		1430	-5.67E-06	1.0798
1367	-5.65E-06	1.0168		1399	-5.52E-06	1.0488		1431	-6.05E-06	1.0808
1368	-5.38E-06	1.0178		1400	-5.64E-06	1.0498		1432	-5.11E-06	1.0818
1369	-5.51E-06	1.0188		1401	-5.40E-06	1.0508		1433	-5.35E-06	1.0828
1370	-5.49E-06	1.0198		1402	-5.45E-06	1.0518		1434	-6.21E-06	1.0838
1371	-5.85E-06	1.0208		1403	-5.46E-06	1.0528		1435	-5.60E-06	1.0848
1372	-5.07E-06	1.0218		1404	-5.39E-06	1.0538		1436	-5.02E-06	1.0858
1373	-5.96E-06	1.0228		1405	-4.94E-06	1.0548		1437	-5.00E-06	1.0868
1374	-5.84E-06	1.0238		1406	-5.05E-06	1.0558		1438	-5.85E-06	1.0878

1439	-5.47E-06	1.0888	1471	-5.37E-06	1.1208	1503	-5.19E-06	1.1528
1440	-5.74E-06	1.0898	1472	-5.50E-06	1.1218	1504	-5.16E-06	1.1538
1441	-5.38E-06	1.0908	1473	-5.30E-06	1.1228	1505	-5.56E-06	1.1548
1442	-5.29E-06	1.0918	1474	-5.75E-06	1.1238	1506	-6.00E-06	1.1558
1443	-5.99E-06	1.0928	1475	-5.74E-06	1.1248	1507	-5.70E-06	1.1568
1444	-5.53E-06	1.0938	1476	-5.66E-06	1.1258	1508	-5.95E-06	1.1578
1445	-5.24E-06	1.0948	1477	-5.30E-06	1.1268	1509	-5.89E-06	1.1588
1446	-6.19E-06	1.0958	1478	-5.98E-06	1.1278	1510	-5.68E-06	1.1598
1447	-5.74E-06	1.0968	1479	-5.27E-06	1.1288	1511	-5.76E-06	1.1608
1448	-5.99E-06	1.0978	1480	-5.74E-06	1.1298	1512	-5.38E-06	1.1618
1449	-5.84E-06	1.0988	1481	-5.55E-06	1.1308	1513	-5.68E-06	1.1628
1450	-5.83E-06	1.0998	1482	-5.05E-06	1.1318	1514	-5.94E-06	1.1638
1451	-5.61E-06	1.1008	1483	-5.18E-06	1.1328	1515	-5.79E-06	1.1648
1452	-4.96E-06	1.1018	1484	-5.22E-06	1.1338	1516	-5.67E-06	1.1658
1453	-5.79E-06	1.1028	1485	-5.49E-06	1.1348	1517	-5.67E-06	1.1668
1454	-5.51E-06	1.1038	1486	-5.14E-06	1.1358	1518	-5.68E-06	1.1678
1455	-5.46E-06	1.1048	1487	-6.14E-06	1.1368	1519	-5.94E-06	1.1688
1456	-5.09E-06	1.1058	1488	-5.21E-06	1.1378	1520	-5.69E-06	1.1698
1457	-5.88E-06	1.1068	1489	-4.94E-06	1.1388	1521	-5.57E-06	1.1708
1458	-5.69E-06	1.1078	1490	-5.49E-06	1.1398	1522	-6.22E-06	1.1718
1459	-5.72E-06	1.1088	1491	-5.78E-06	1.1408	1523	-6.25E-06	1.1728
1460	-5.58E-06	1.1098	1492	-5.95E-06	1.1418	1524	-5.67E-06	1.1738
1461	-5.39E-06	1.1108	1493	-5.09E-06	1.1428	1525	-5.47E-06	1.1748
1462	-5.62E-06	1.1118	1494	-5.71E-06	1.1438	1526	-5.69E-06	1.1758
1463	-5.68E-06	1.1128	1495	-5.33E-06	1.1448	1527	-6.15E-06	1.1768
1464	-5.89E-06	1.1138	1496	-5.32E-06	1.1458	1528	-5.52E-06	1.1778
1465	-5.18E-06	1.1148	1497	-5.67E-06	1.1468	1529	-5.61E-06	1.1788
1466	-5.91E-06	1.1158	1498	-6.03E-06	1.1478	1530	-5.77E-06	1.1798
1467	-5.68E-06	1.1168	1499	-5.35E-06	1.1488	1531	-5.43E-06	1.1808
1468	-5.75E-06	1.1178	1500	-5.72E-06	1.1498	1532	-6.09E-06	1.1818
1469	-5.78E-06	1.1188	1501	-5.62E-06	1.1508	1533	-5.75E-06	1.1828
1470	-5.35E-06	1.1198	1502	-5.70E-06	1.1518	1534	-5.93E-06	1.1838

1535	-6.16E-06	1.1848		1567	-5.99E-06	1.2168		1599	-6.12E-06	1.2488
1536	-5.30E-06	1.1858		1568	-5.50E-06	1.2178		1600	-6.09E-06	1.2498
1537	-5.29E-06	1.1868		1569	-5.22E-06	1.2188		1601	-6.10E-06	1.2508
1538	-5.52E-06	1.1878		1570	-5.68E-06	1.2198		1602	-6.43E-06	1.2518
1539	-5.33E-06	1.1888		1571	-5.41E-06	1.2208		1603	-6.23E-06	1.2528
1540	-5.71E-06	1.1898		1572	-5.85E-06	1.2218		1604	-5.97E-06	1.2538
1541	-5.48E-06	1.1908		1573	-6.56E-06	1.2228		1605	-5.49E-06	1.2548
1542	-6.12E-06	1.1918		1574	-6.14E-06	1.2238		1606	-5.75E-06	1.2558
1543	-6.04E-06	1.1928		1575	-6.19E-06	1.2248		1607	-5.66E-06	1.2568
1544	-5.81E-06	1.1938		1576	-6.66E-06	1.2258		1608	-6.07E-06	1.2578
1545	-5.98E-06	1.1948		1577	-5.44E-06	1.2268		1609	-5.96E-06	1.2588
1546	-5.51E-06	1.1958		1578	-6.10E-06	1.2278		1610	-6.11E-06	1.2598
1547	-5.71E-06	1.1968		1579	-5.85E-06	1.2288		1611	-6.69E-06	1.2608
1548	-6.40E-06	1.1978		1580	-6.06E-06	1.2298		1612	-6.36E-06	1.2618
1549	-6.33E-06	1.1988		1581	-6.16E-06	1.2308		1613	-5.85E-06	1.2628
1550	-6.00E-06	1.1998		1582	-5.86E-06	1.2318		1614	-6.49E-06	1.2638
1551	-5.37E-06	1.2008		1583	-5.94E-06	1.2328		1615	-6.54E-06	1.2648
1552	-5.55E-06	1.2018		1584	-6.46E-06	1.2338		1616	-5.89E-06	1.2658
1553	-5.58E-06	1.2028		1585	-6.33E-06	1.2348		1617	-6.60E-06	1.2668
1554	-5.82E-06	1.2038		1586	-5.72E-06	1.2358		1618	-6.77E-06	1.2678
1555	-5.73E-06	1.2048		1587	-5.75E-06	1.2368		1619	-6.53E-06	1.2688
1556	-6.01E-06	1.2058		1588	-6.08E-06	1.2378		1620	-6.88E-06	1.2698
1557	-5.54E-06	1.2068		1589	-5.80E-06	1.2388		1621	-6.38E-06	1.2708
1558	-6.11E-06	1.2078		1590	-5.93E-06	1.2398		1622	-6.26E-06	1.2718
1559	-5.59E-06	1.2088		1591	-6.36E-06	1.2408		1623	-6.66E-06	1.2728
1560	-6.28E-06	1.2098		1592	-6.13E-06	1.2418		1624	-6.45E-06	1.2738
1561	-5.88E-06	1.2108		1593	-6.11E-06	1.2428		1625	-6.78E-06	1.2748
1562	-5.93E-06	1.2118		1594	-6.56E-06	1.2438		1626	-6.66E-06	1.2758
1563	-6.01E-06	1.2128		1595	-6.29E-06	1.2448		1627	-6.43E-06	1.2768
1564	-6.05E-06	1.2138		1596	-6.38E-06	1.2458		1628	-6.82E-06	1.2778
1565	-5.92E-06	1.2148		1597	-6.10E-06	1.2468		1629	-6.26E-06	1.2788
1566	-6.11E-06	1.2158		1598	-6.53E-06	1.2478		1630	-6.19E-06	1.2798

1631	-6.38E-06	1.2808		1663	-6.50E-06	1.3128		1695	-7.76E-06	1.3448
1632	-5.96E-06	1.2818		1664	-6.97E-06	1.3138		1696	-7.61E-06	1.3458
1633	-6.77E-06	1.2828		1665	-7.38E-06	1.3148		1697	-8.28E-06	1.3468
1634	-6.67E-06	1.2838		1666	-7.19E-06	1.3158		1698	-7.90E-06	1.3478
1635	-6.78E-06	1.2848		1667	-7.11E-06	1.3168		1699	-8.20E-06	1.3488
1636	-6.65E-06	1.2858		1668	-7.10E-06	1.3178		1700	-7.66E-06	1.3498
1637	-6.80E-06	1.2868		1669	-6.73E-06	1.3188		1701	-7.76E-06	1.3508
1638	-6.57E-06	1.2878		1670	-7.50E-06	1.3198		1702	-7.69E-06	1.3518
1639	-7.08E-06	1.2888		1671	-7.28E-06	1.3208		1703	-7.86E-06	1.3528
1640	-6.24E-06	1.2898		1672	-6.80E-06	1.3218		1704	-7.97E-06	1.3538
1641	-7.05E-06	1.2908		1673	-6.94E-06	1.3228		1705	-8.32E-06	1.3548
1642	-6.80E-06	1.2918		1674	-7.14E-06	1.3238		1706	-8.22E-06	1.3558
1643	-6.79E-06	1.2928		1675	-7.39E-06	1.3248		1707	-8.33E-06	1.3568
1644	-7.19E-06	1.2938		1676	-7.51E-06	1.3258		1708	-8.57E-06	1.3578
1645	-6.89E-06	1.2948		1677	-7.00E-06	1.3268		1709	-7.99E-06	1.3588
1646	-6.49E-06	1.2958		1678	-6.98E-06	1.3278		1710	-8.49E-06	1.3598
1647	-6.33E-06	1.2968		1679	-7.27E-06	1.3288		1711	-8.53E-06	1.3608
1648	-6.41E-06	1.2978		1680	-7.12E-06	1.3298		1712	-8.56E-06	1.3618
1649	-7.07E-06	1.2988		1681	-7.25E-06	1.3308		1713	-8.28E-06	1.3628
1650	-6.64E-06	1.2998		1682	-7.47E-06	1.3318		1714	-8.91E-06	1.3638
1651	-6.84E-06	1.3008		1683	-7.23E-06	1.3328		1715	-8.88E-06	1.3648
1652	-6.57E-06	1.3018		1684	-7.13E-06	1.3338		1716	-8.46E-06	1.3658
1653	-6.64E-06	1.3028		1685	-7.61E-06	1.3348		1717	-8.93E-06	1.3668
1654	-6.79E-06	1.3038		1686	-7.52E-06	1.3358		1718	-8.72E-06	1.3678
1655	-6.51E-06	1.3048		1687	-7.84E-06	1.3368		1719	-9.12E-06	1.3688
1656	-6.93E-06	1.3058		1688	-7.61E-06	1.3378		1720	-8.56E-06	1.3698
1657	-6.70E-06	1.3068		1689	-7.67E-06	1.3388		1721	-8.95E-06	1.3708
1658	-6.49E-06	1.3078		1690	-7.88E-06	1.3398		1722	-9.05E-06	1.3718
1659	-6.32E-06	1.3088		1691	-7.81E-06	1.3408		1723	-9.18E-06	1.3728
1660	-6.22E-06	1.3098		1692	-7.75E-06	1.3418		1724	-8.91E-06	1.3738
1661	-6.62E-06	1.3108		1693	-7.87E-06	1.3428		1725	-9.34E-06	1.3748
1662	-7.05E-06	1.3118		1694	-7.90E-06	1.3438		1726	-8.85E-06	1.3758

1727	-8.63E-06	1.3768		1759	-1.20E-05	1.4088		1791	-1.77E-05	1.4408
1728	-8.94E-06	1.3778		1760	-1.21E-05	1.4098		1792	-1.77E-05	1.4418
1729	-8.87E-06	1.3788		1761	-1.20E-05	1.4108		1793	-1.79E-05	1.4428
1730	-9.10E-06	1.3798		1762	-1.22E-05	1.4118		1794	-1.82E-05	1.4438
1731	-9.84E-06	1.3808		1763	-1.30E-05	1.4128		1795	-1.83E-05	1.4448
1732	-8.99E-06	1.3818		1764	-1.23E-05	1.4138		1796	-1.84E-05	1.4458
1733	-9.43E-06	1.3828		1765	-1.28E-05	1.4148		1797	-1.86E-05	1.4468
1734	-9.53E-06	1.3838		1766	-1.29E-05	1.4158		1798	-1.88E-05	1.4478
1735	-9.69E-06	1.3848		1767	-1.33E-05	1.4168		1799	-2.01E-05	1.4488
1736	-9.70E-06	1.3858		1768	-1.36E-05	1.4178		1800	-1.96E-05	1.4498
1737	-1.01E-05	1.3868		1769	-1.36E-05	1.4188		1801	-1.95E-05	1.4508
1738	-9.90E-06	1.3878		1770	-1.32E-05	1.4198		1802	-2.04E-05	1.4518
1739	-1.01E-05	1.3888		1771	-1.41E-05	1.4208		1803	-2.07E-05	1.4528
1740	-1.01E-05	1.3898		1772	-1.37E-05	1.4218		1804	-2.06E-05	1.4538
1741	-1.06E-05	1.3908		1773	-1.38E-05	1.4228		1805	-2.12E-05	1.4548
1742	-1.01E-05	1.3918		1774	-1.39E-05	1.4238		1806	-2.10E-05	1.4558
1743	-1.03E-05	1.3928		1775	-1.50E-05	1.4248		1807	-2.18E-05	1.4568
1744	-1.06E-05	1.3938		1776	-1.49E-05	1.4258		1808	-2.19E-05	1.4578
1745	-1.06E-05	1.3948		1777	-1.50E-05	1.4268		1809	-2.22E-05	1.4588
1746	-1.04E-05	1.3958		1778	-1.45E-05	1.4278		1810	-2.30E-05	1.4598
1747	-1.09E-05	1.3968		1779	-1.47E-05	1.4288		1811	-2.36E-05	1.4608
1748	-1.03E-05	1.3978		1780	-1.53E-05	1.4298		1812	-2.38E-05	1.4618
1749	-1.05E-05	1.3988		1781	-1.58E-05	1.4308		1813	-2.40E-05	1.4628
1750	-1.14E-05	1.3998		1782	-1.52E-05	1.4318		1814	-2.40E-05	1.4638
1751	-1.16E-05	1.4008		1783	-1.57E-05	1.4328		1815	-2.44E-05	1.4648
1752	-1.08E-05	1.4018		1784	-1.66E-05	1.4338		1816	-2.53E-05	1.4658
1753	-1.09E-05	1.4028		1785	-1.62E-05	1.4348		1817	-2.52E-05	1.4668
1754	-1.12E-05	1.4038		1786	-1.65E-05	1.4358		1818	-2.57E-05	1.4678
1755	-1.10E-05	1.4048		1787	-1.63E-05	1.4368		1819	-2.56E-05	1.4688
1756	-1.15E-05	1.4058		1788	-1.69E-05	1.4378		1820	-2.61E-05	1.4698
1757	-1.15E-05	1.4068		1789	-1.64E-05	1.4388		1821	-2.64E-05	1.4708
1758	-1.15E-05	1.4078		1790	-1.74E-05	1.4398		1822	-2.73E-05	1.4718

1823	-2.71E-05	1.4728		1855	-4.29E-05	1.5048		1887	-6.05E-05	1.5368
1824	-2.76E-05	1.4738		1856	-4.31E-05	1.5058		1888	-6.09E-05	1.5378
1825	-2.83E-05	1.4748		1857	-4.34E-05	1.5068		1889	-6.17E-05	1.5388
1826	-2.89E-05	1.4758		1858	-4.44E-05	1.5078		1890	-6.20E-05	1.5398
1827	-2.92E-05	1.4768		1859	-4.47E-05	1.5088		1891	-6.22E-05	1.5408
1828	-2.94E-05	1.4778		1860	-4.51E-05	1.5098		1892	-6.31E-05	1.5418
1829	-2.97E-05	1.4788		1861	-4.61E-05	1.5108		1893	-6.35E-05	1.5428
1830	-2.98E-05	1.4798		1862	-4.68E-05	1.5118		1894	-6.38E-05	1.5438
1831	-3.11E-05	1.4808		1863	-4.72E-05	1.5128		1895	-6.47E-05	1.5448
1832	-3.15E-05	1.4818		1864	-4.74E-05	1.5138		1896	-6.51E-05	1.5458
1833	-3.17E-05	1.4828		1865	-4.85E-05	1.5148		1897	-6.54E-05	1.5468
1834	-3.19E-05	1.4838		1866	-4.89E-05	1.5158		1898	-6.58E-05	1.5478
1835	-3.24E-05	1.4848		1867	-4.93E-05	1.5168		1899	-6.66E-05	1.5488
1836	-3.29E-05	1.4858		1868	-5.04E-05	1.5178		1900	-6.67E-05	1.5498
1837	-3.31E-05	1.4868		1869	-5.08E-05	1.5188		1901	-6.74E-05	1.5508
1838	-3.36E-05	1.4878		1870	-5.10E-05	1.5198		1902	-6.75E-05	1.5518
1839	-3.46E-05	1.4888		1871	-5.25E-05	1.5208		1903	-6.78E-05	1.5528
1840	-3.48E-05	1.4898		1872	-5.27E-05	1.5218		1904	-6.89E-05	1.5538
1841	-3.59E-05	1.4908		1873	-5.27E-05	1.5228		1905	-6.92E-05	1.5548
1842	-3.57E-05	1.4918		1874	-5.34E-05	1.5238		1906	-6.97E-05	1.5558
1843	-3.65E-05	1.4928		1875	-5.38E-05	1.5248		1907	-6.97E-05	1.5568
1844	-3.72E-05	1.4938		1876	-5.46E-05	1.5258		1908	-7.06E-05	1.5578
1845	-3.73E-05	1.4948		1877	-5.46E-05	1.5268		1909	-7.11E-05	1.5588
1846	-3.75E-05	1.4958		1878	-5.55E-05	1.5278		1910	-7.14E-05	1.5598
1847	-3.81E-05	1.4968		1879	-5.58E-05	1.5288		1911	-7.17E-05	1.5608
1848	-3.93E-05	1.4978		1880	-5.69E-05	1.5298		1912	-7.20E-05	1.5618
1849	-3.95E-05	1.4988		1881	-5.74E-05	1.5308		1913	-7.24E-05	1.5628
1850	-3.98E-05	1.4998		1882	-5.81E-05	1.5318		1914	-7.32E-05	1.5638
1851	-4.08E-05	1.5008		1883	-5.85E-05	1.5328		1915	-7.35E-05	1.5648
1852	-4.08E-05	1.5018		1884	-5.86E-05	1.5338		1916	-7.34E-05	1.5658
1853	-4.16E-05	1.5028		1885	-5.94E-05	1.5348		1917	-7.39E-05	1.5668
1854	-4.24E-05	1.5038		1886	-6.00E-05	1.5358		1918	-7.46E-05	1.5678

1919	-7.45E-05	1.5688	1951	-8.67E-05	1.6008	1983	-1.51E-04	1.6328
1920	-7.51E-05	1.5698	1952	-8.73E-05	1.6018	1984	-1.55E-04	1.6338
1921	-7.56E-05	1.5708	1953	-8.80E-05	1.6028	1985	-1.61E-04	1.6348
1922	-7.59E-05	1.5718	1954	-8.85E-05	1.6038	1986	-1.67E-04	1.6358
1923	-7.58E-05	1.5728	1955	-8.92E-05	1.6048	1987	-1.71E-04	1.6368
1924	-7.64E-05	1.5738	1956	-8.98E-05	1.6058	1988	-1.76E-04	1.6378
1925	-7.71E-05	1.5748	1957	-9.10E-05	1.6068	1989	-1.80E-04	1.6388
1926	-7.68E-05	1.5758	1958	-9.19E-05	1.6078	1990	-1.85E-04	1.6398
1927	-7.81E-05	1.5768	1959	-9.21E-05	1.6088	1991	-1.88E-04	1.6408
1928	-7.77E-05	1.5778	1960	-9.29E-05	1.6098	1992	-1.92E-04	1.6418
1929	-7.81E-05	1.5788	1961	-9.41E-05	1.6108	1993	-1.93E-04	1.6428
1930	-7.86E-05	1.5798	1962	-9.50E-05	1.6118	1994	-1.94E-04	1.6438
1931	-7.90E-05	1.5808	1963	-9.55E-05	1.6128	1995	-1.95E-04	1.6448
1932	-7.90E-05	1.5818	1964	-9.70E-05	1.6138	1996	-1.93E-04	1.6458
1933	-7.98E-05	1.5828	1965	-9.84E-05	1.6148	1997	-1.91E-04	1.6468
1934	-7.94E-05	1.5838	1966	-9.96E-05	1.6158	1998	-1.88E-04	1.6478
1935	-8.01E-05	1.5848	1967	-1.01E-04	1.6168	1999	-1.84E-04	1.6488
1936	-8.08E-05	1.5858	1968	-1.02E-04	1.6178	2000	-1.81E-04	1.6498
1937	-8.01E-05	1.5868	1969	-1.04E-04	1.6188	2001	-1.76E-04	1.6508
1938	-8.11E-05	1.5878	1970	-1.07E-04	1.6198	2002	-1.71E-04	1.6518
1939	-8.17E-05	1.5888	1971	-1.08E-04	1.6208	2003	-1.66E-04	1.6528
1940	-8.18E-05	1.5898	1972	-1.11E-04	1.6218	2004	-1.59E-04	1.6538
1941	-8.24E-05	1.5908	1973	-1.13E-04	1.6228	2005	-1.52E-04	1.6528
1942	-8.23E-05	1.5918	1974	-1.17E-04	1.6238	2006	-1.45E-04	1.6518
1943	-8.28E-05	1.5928	1975	-1.19E-04	1.6248	2007	-1.38E-04	1.6508
1944	-8.33E-05	1.5938	1976	-1.22E-04	1.6258	2008	-1.31E-04	1.6498
1945	-8.35E-05	1.5948	1977	-1.25E-04	1.6268	2009	-1.25E-04	1.6488
1946	-8.44E-05	1.5958	1978	-1.28E-04	1.6278	2010	-1.20E-04	1.6478
1947	-8.49E-05	1.5968	1979	-1.32E-04	1.6288	2011	-1.14E-04	1.6468
1948	-8.49E-05	1.5978	1980	-1.36E-04	1.6298	2012	-1.11E-04	1.6458
1949	-8.63E-05	1.5988	1981	-1.40E-04	1.6308	2013	-1.06E-04	1.6448
1950	-8.62E-05	1.5998	1982	-1.46E-04	1.6318	2014	-1.04E-04	1.6438

2015	-9.96E-05	1.6428		2047	-5.94E-05	1.6108		2079	-4.54E-05	1.5788
2016	-9.70E-05	1.6418		2048	-5.89E-05	1.6098		2080	-4.54E-05	1.5778
2017	-9.40E-05	1.6408		2049	-5.85E-05	1.6088		2081	-4.47E-05	1.5768
2018	-9.18E-05	1.6398		2050	-5.77E-05	1.6078		2082	-4.48E-05	1.5758
2019	-8.95E-05	1.6388		2051	-5.70E-05	1.6068		2083	-4.40E-05	1.5748
2020	-8.72E-05	1.6378		2052	-5.70E-05	1.6058		2084	-4.40E-05	1.5738
2021	-8.52E-05	1.6368		2053	-5.61E-05	1.6048		2085	-4.33E-05	1.5728
2022	-8.37E-05	1.6358		2054	-5.61E-05	1.6038		2086	-4.32E-05	1.5718
2023	-8.19E-05	1.6348		2055	-5.51E-05	1.6028		2087	-4.23E-05	1.5708
2024	-8.07E-05	1.6338		2056	-5.47E-05	1.6018		2088	-4.23E-05	1.5698
2025	-7.93E-05	1.6328		2057	-5.37E-05	1.6008		2089	-4.20E-05	1.5688
2026	-7.74E-05	1.6318		2058	-5.36E-05	1.5998		2090	-4.20E-05	1.5678
2027	-7.69E-05	1.6308		2059	-5.32E-05	1.5988		2091	-4.11E-05	1.5668
2028	-7.57E-05	1.6298		2060	-5.31E-05	1.5978		2092	-4.06E-05	1.5658
2029	-7.40E-05	1.6288		2061	-5.28E-05	1.5968		2093	-4.08E-05	1.5648
2030	-7.31E-05	1.6278		2062	-5.25E-05	1.5958		2094	-4.05E-05	1.5638
2031	-7.19E-05	1.6268		2063	-5.18E-05	1.5948		2095	-4.06E-05	1.5628
2032	-7.09E-05	1.6258		2064	-5.16E-05	1.5938		2096	-3.92E-05	1.5618
2033	-7.01E-05	1.6248		2065	-5.08E-05	1.5928		2097	-3.90E-05	1.5608
2034	-6.92E-05	1.6238		2066	-5.02E-05	1.5918		2098	-3.97E-05	1.5598
2035	-6.80E-05	1.6228		2067	-5.07E-05	1.5908		2099	-3.87E-05	1.5588
2036	-6.71E-05	1.6218		2068	-4.98E-05	1.5898		2100	-3.87E-05	1.5578
2037	-6.64E-05	1.6208		2069	-4.94E-05	1.5888		2101	-3.82E-05	1.5568
2038	-6.52E-05	1.6198		2070	-4.89E-05	1.5878		2102	-3.85E-05	1.5558
2039	-6.51E-05	1.6188		2071	-4.84E-05	1.5868		2103	-3.75E-05	1.5548
2040	-6.41E-05	1.6178		2072	-4.77E-05	1.5858		2104	-3.75E-05	1.5538
2041	-6.28E-05	1.6168		2073	-4.77E-05	1.5848		2105	-3.69E-05	1.5528
2042	-6.23E-05	1.6158		2074	-4.65E-05	1.5838		2106	-3.65E-05	1.5518
2043	-6.24E-05	1.6148		2075	-4.71E-05	1.5828		2107	-3.66E-05	1.5508
2044	-6.13E-05	1.6138		2076	-4.67E-05	1.5818		2108	-3.68E-05	1.5498
2045	-6.06E-05	1.6128		2077	-4.63E-05	1.5808		2109	-3.60E-05	1.5488
2046	-6.04E-05	1.6118		2078	-4.59E-05	1.5798		2110	-3.59E-05	1.5478

2111	-3.53E-05	1.5468		2143	-2.77E-05	1.5148		2175	-2.16E-05	1.4828
2112	-3.49E-05	1.5458		2144	-2.77E-05	1.5138		2176	-2.10E-05	1.4818
2113	-3.51E-05	1.5448		2145	-2.78E-05	1.5128		2177	-2.11E-05	1.4808
2114	-3.45E-05	1.5438		2146	-2.75E-05	1.5118		2178	-2.08E-05	1.4798
2115	-3.39E-05	1.5428		2147	-2.68E-05	1.5108		2179	-2.07E-05	1.4788
2116	-3.45E-05	1.5418		2148	-2.70E-05	1.5098		2180	-2.07E-05	1.4778
2117	-3.39E-05	1.5408		2149	-2.68E-05	1.5088		2181	-2.04E-05	1.4768
2118	-3.32E-05	1.5398		2150	-2.68E-05	1.5078		2182	-2.02E-05	1.4758
2119	-3.35E-05	1.5388		2151	-2.62E-05	1.5068		2183	-2.01E-05	1.4748
2120	-3.36E-05	1.5378		2152	-2.63E-05	1.5058		2184	-2.00E-05	1.4738
2121	-3.29E-05	1.5368		2153	-2.57E-05	1.5048		2185	-1.99E-05	1.4728
2122	-3.28E-05	1.5358		2154	-2.54E-05	1.5038		2186	-1.92E-05	1.4718
2123	-3.21E-05	1.5348		2155	-2.57E-05	1.5028		2187	-1.94E-05	1.4708
2124	-3.25E-05	1.5338		2156	-2.52E-05	1.5018		2188	-1.88E-05	1.4698
2125	-3.15E-05	1.5328		2157	-2.55E-05	1.5008		2189	-1.91E-05	1.4688
2126	-3.13E-05	1.5318		2158	-2.47E-05	1.4998		2190	-1.90E-05	1.4678
2127	-3.11E-05	1.5308		2159	-2.41E-05	1.4988		2191	-1.84E-05	1.4668
2128	-3.07E-05	1.5298		2160	-2.42E-05	1.4978		2192	-1.85E-05	1.4658
2129	-3.10E-05	1.5288		2161	-2.45E-05	1.4968		2193	-1.84E-05	1.4648
2130	-3.13E-05	1.5278		2162	-2.35E-05	1.4958		2194	-1.75E-05	1.4638
2131	-3.13E-05	1.5268		2163	-2.34E-05	1.4948		2195	-1.81E-05	1.4628
2132	-3.06E-05	1.5258		2164	-2.31E-05	1.4938		2196	-1.81E-05	1.4618
2133	-2.97E-05	1.5248		2165	-2.30E-05	1.4928		2197	-1.79E-05	1.4608
2134	-3.00E-05	1.5238		2166	-2.31E-05	1.4918		2198	-1.77E-05	1.4598
2135	-3.00E-05	1.5228		2167	-2.24E-05	1.4908		2199	-1.74E-05	1.4588
2136	-2.94E-05	1.5218		2168	-2.24E-05	1.4898		2200	-1.70E-05	1.4578
2137	-2.96E-05	1.5208		2169	-2.26E-05	1.4888		2201	-1.66E-05	1.4568
2138	-2.94E-05	1.5198		2170	-2.24E-05	1.4878		2202	-1.69E-05	1.4558
2139	-2.94E-05	1.5188		2171	-2.22E-05	1.4868		2203	-1.66E-05	1.4548
2140	-2.81E-05	1.5178		2172	-2.15E-05	1.4858		2204	-1.62E-05	1.4538
2141	-2.82E-05	1.5168		2173	-2.23E-05	1.4848		2205	-1.61E-05	1.4528
2142	-2.78E-05	1.5158		2174	-2.20E-05	1.4838		2206	-1.61E-05	1.4518

2207	-1.60E-05	1.4508	2239	-1.16E-05	1.4188	2271	-8.49E-06	1.3868
2208	-1.59E-05	1.4498	2240	-1.12E-05	1.4178	2272	-8.43E-06	1.3858
2209	-1.53E-05	1.4488	2241	-1.15E-05	1.4168	2273	-8.15E-06	1.3848
2210	-1.52E-05	1.4478	2242	-1.11E-05	1.4158	2274	-8.27E-06	1.3838
2211	-1.52E-05	1.4468	2243	-1.09E-05	1.4148	2275	-7.99E-06	1.3828
2212	-1.49E-05	1.4458	2244	-1.14E-05	1.4138	2276	-8.14E-06	1.3818
2213	-1.55E-05	1.4448	2245	-1.08E-05	1.4128	2277	-7.36E-06	1.3808
2214	-1.53E-05	1.4438	2246	-1.11E-05	1.4118	2278	-6.97E-06	1.3798
2215	-1.52E-05	1.4428	2247	-1.09E-05	1.4108	2279	-7.79E-06	1.3788
2216	-1.48E-05	1.4418	2248	-1.05E-05	1.4098	2280	-7.21E-06	1.3778
2217	-1.48E-05	1.4408	2249	-1.08E-05	1.4088	2281	-7.43E-06	1.3768
2218	-1.48E-05	1.4398	2250	-1.04E-05	1.4078	2282	-7.68E-06	1.3758
2219	-1.45E-05	1.4388	2251	-1.04E-05	1.4068	2283	-7.35E-06	1.3748
2220	-1.38E-05	1.4378	2252	-1.01E-05	1.4058	2284	-7.07E-06	1.3738
2221	-1.38E-05	1.4368	2253	-9.62E-06	1.4048	2285	-7.45E-06	1.3728
2222	-1.40E-05	1.4358	2254	-9.75E-06	1.4038	2286	-6.84E-06	1.3718
2223	-1.38E-05	1.4348	2255	-9.36E-06	1.4028	2287	-6.83E-06	1.3708
2224	-1.40E-05	1.4338	2256	-9.59E-06	1.4018	2288	-6.51E-06	1.3698
2225	-1.39E-05	1.4328	2257	-9.42E-06	1.4008	2289	-6.95E-06	1.3688
2226	-1.36E-05	1.4318	2258	-9.63E-06	1.3998	2290	-6.77E-06	1.3678
2227	-1.31E-05	1.4308	2259	-9.08E-06	1.3988	2291	-6.43E-06	1.3668
2228	-1.27E-05	1.4298	2260	-9.16E-06	1.3978	2292	-6.74E-06	1.3658
2229	-1.29E-05	1.4288	2261	-9.12E-06	1.3968	2293	-6.33E-06	1.3648
2230	-1.28E-05	1.4278	2262	-9.47E-06	1.3958	2294	-6.66E-06	1.3638
2231	-1.27E-05	1.4268	2263	-8.93E-06	1.3948	2295	-6.32E-06	1.3628
2232	-1.27E-05	1.4258	2264	-9.03E-06	1.3938	2296	-6.42E-06	1.3618
2233	-1.26E-05	1.4248	2265	-9.01E-06	1.3928	2297	-5.96E-06	1.3608
2234	-1.22E-05	1.4238	2266	-8.31E-06	1.3918	2298	-6.07E-06	1.3598
2235	-1.19E-05	1.4228	2267	-8.25E-06	1.3908	2299	-5.67E-06	1.3588
2236	-1.22E-05	1.4218	2268	-8.70E-06	1.3898	2300	-6.28E-06	1.3578
2237	-1.18E-05	1.4208	2269	-8.59E-06	1.3888	2301	-6.10E-06	1.3568
2238	-1.17E-05	1.4198	2270	-8.53E-06	1.3878	2302	-6.12E-06	1.3558

2303	-5.80E-06	1.3548		2335	-4.13E-06	1.3228		2367	-2.57E-06	1.2908
2304	-5.45E-06	1.3538		2336	-3.77E-06	1.3218		2368	-3.00E-06	1.2898
2305	-5.52E-06	1.3528		2337	-3.83E-06	1.3208		2369	-2.99E-06	1.2888
2306	-5.41E-06	1.3518		2338	-4.04E-06	1.3198		2370	-3.00E-06	1.2878
2307	-5.05E-06	1.3508		2339	-3.63E-06	1.3188		2371	-2.49E-06	1.2868
2308	-5.32E-06	1.3498		2340	-4.22E-06	1.3178		2372	-2.35E-06	1.2858
2309	-5.33E-06	1.3488		2341	-3.79E-06	1.3168		2373	-2.23E-06	1.2848
2310	-5.32E-06	1.3478		2342	-3.59E-06	1.3158		2374	-2.72E-06	1.2838
2311	-5.45E-06	1.3468		2343	-3.18E-06	1.3148		2375	-2.46E-06	1.2828
2312	-4.84E-06	1.3458		2344	-3.80E-06	1.3138		2376	-2.47E-06	1.2818
2313	-5.05E-06	1.3448		2345	-3.83E-06	1.3128		2377	-2.73E-06	1.2808
2314	-4.71E-06	1.3438		2346	-3.46E-06	1.3118		2378	-2.78E-06	1.2798
2315	-5.15E-06	1.3428		2347	-2.86E-06	1.3108		2379	-2.32E-06	1.2788
2316	-5.06E-06	1.3418		2348	-3.78E-06	1.3098		2380	-2.66E-06	1.2778
2317	-4.88E-06	1.3408		2349	-3.29E-06	1.3088		2381	-2.25E-06	1.2768
2318	-4.59E-06	1.3398		2350	-2.93E-06	1.3078		2382	-2.10E-06	1.2758
2319	-4.67E-06	1.3388		2351	-3.23E-06	1.3068		2383	-2.05E-06	1.2748
2320	-4.79E-06	1.3378		2352	-2.90E-06	1.3058		2384	-2.14E-06	1.2738
2321	-4.26E-06	1.3368		2353	-3.48E-06	1.3048		2385	-2.49E-06	1.2728
2322	-4.76E-06	1.3358		2354	-3.22E-06	1.3038		2386	-2.44E-06	1.2718
2323	-4.30E-06	1.3348		2355	-3.00E-06	1.3028		2387	-2.54E-06	1.2708
2324	-4.84E-06	1.3338		2356	-3.25E-06	1.3018		2388	-2.05E-06	1.2698
2325	-4.61E-06	1.3328		2357	-3.23E-06	1.3008		2389	-2.10E-06	1.2688
2326	-4.39E-06	1.3318		2358	-3.02E-06	1.2998		2390	-2.16E-06	1.2678
2327	-4.41E-06	1.3308		2359	-2.88E-06	1.2988		2391	-2.10E-06	1.2668
2328	-4.12E-06	1.3298		2360	-2.84E-06	1.2978		2392	-1.74E-06	1.2658
2329	-4.18E-06	1.3288		2361	-2.98E-06	1.2968		2393	-1.98E-06	1.2648
2330	-4.09E-06	1.3278		2362	-2.89E-06	1.2958		2394	-2.15E-06	1.2638
2331	-4.22E-06	1.3268		2363	-3.15E-06	1.2948		2395	-2.01E-06	1.2628
2332	-4.16E-06	1.3258		2364	-2.66E-06	1.2938		2396	-2.26E-06	1.2618
2333	-3.89E-06	1.3248		2365	-2.74E-06	1.2928		2397	-2.02E-06	1.2608
2334	-4.23E-06	1.3238		2366	-3.11E-06	1.2918		2398	-1.85E-06	1.2598

2399	-2.12E-06	1.2588		2431	-1.48E-06	1.2268		2463	-1.27E-06	1.1848
2400	-2.10E-06	1.2578		2432	-1.68E-06	1.2258		2464	-9.00E-07	1.1838
2401	-2.04E-06	1.2568		2433	-1.49E-06	1.2248		2465	-6.40E-07	1.1818
2402	-1.83E-06	1.2558		2434	-1.58E-06	1.2238		2466	-8.69E-07	1.1798
2403	-1.84E-06	1.2548		2435	-1.27E-06	1.2228		2467	-6.68E-07	1.1778
2404	-1.76E-06	1.2538		2436	-1.46E-06	1.2218		2468	-7.94E-07	1.1768
2405	-1.95E-06	1.2528		2437	-1.40E-06	1.2208		2469	-1.02E-06	1.1748
2406	-1.89E-06	1.2518		2438	-1.00E-06	1.2198		2470	-4.93E-07	1.1728
2407	-1.87E-06	1.2508		2439	-1.16E-06	1.2178		2471	-6.01E-07	1.1708
2408	-1.84E-06	1.2498		2440	-1.20E-06	1.2168		2472	-1.16E-06	1.1688
2409	-1.29E-06	1.2488		2441	-1.08E-06	1.2158		2473	-5.73E-07	1.1678
2410	-1.96E-06	1.2478		2442	-1.41E-06	1.2148		2474	-6.09E-07	1.1658
2411	-1.75E-06	1.2468		2443	-1.26E-06	1.2138		2475	-9.09E-07	1.1638
2412	-1.41E-06	1.2458		2444	-1.19E-06	1.2128		2476	-9.68E-07	1.1618
2413	-1.50E-06	1.2448		2445	-1.27E-06	1.2118		2477	-5.61E-07	1.1598
2414	-1.34E-06	1.2438		2446	-1.12E-06	1.2108		2478	-7.31E-07	1.1588
2415	-1.26E-06	1.2428		2447	-1.47E-06	1.2098		2479	-1.07E-06	1.1568
2416	-1.76E-06	1.2418		2448	-1.30E-06	1.2088		2480	-4.17E-07	1.1558
2417	-1.62E-06	1.2408		2449	-1.18E-06	1.2078		2481	-7.61E-07	1.1538
2418	-1.63E-06	1.2398		2450	-1.00E-06	1.2068				
2419	-1.41E-06	1.2388		2451	-1.24E-06	1.2048				
2420	-1.83E-06	1.2378		2452	-1.00E-06	1.2038				
2421	-1.56E-06	1.2368		2453	-1.24E-06	1.2018				
2422	-1.65E-06	1.2358		2454	-9.12E-07	1.2008				
2423	-1.63E-06	1.2348		2455	-7.35E-07	1.1988				
2424	-1.42E-06	1.2338		2456	-1.11E-06	1.1968				
2425	-1.52E-06	1.2328		2457	-1.08E-06	1.1958				
2426	-1.57E-06	1.2318		2458	-9.72E-07	1.1948				
2427	-1.32E-06	1.2308		2459	-9.25E-07	1.1928				
2428	-1.49E-06	1.2298		2460	-5.11E-07	1.1908				
2429	-1.78E-06	1.2288		2461	-7.22E-07	1.1888				
2430	-1.71E-06	1.2278		2462	-7.00E-07	1.1868				