## HEALTH PHYSICS DIVISION

# THE FLUID DYNAMICS OF A SPHERICAL PARTICLE: <br> Tabulation of Settling Velocity, Reynolds Number, Drag Coefficient, Relaxation Time and Acceleration-Distance in Air and Water* 

B. R. Fish and W. H. Wilkie**

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## LIST OF SYMBOLS

| $A, B, C, Q, A^{\prime}, B^{\prime}, C^{\prime}$ | constants |
| :---: | :---: |
| A. D. | acceleration distance |
| d | particle diameter |
| D | container diameter |
| F | force |
| 9 | acceleration due to gravity |
| k | Boltzmann's constant |
| K | slip correction factor |
| m | mass |
| N | molecules per unit volume |
| P | pressure |
| Re | Reynolds number |
| S | cross section area |
| S. D. | stop-distance |
| T | absolute temperature |
| $\bar{v}$ | mean molecular speed |
| $\overline{v^{2}}$ | mean square molecular velocity |
| $V_{s}$ | settling velocity |
| $V_{\infty}$ | terminal settling velocity in an infinite medium |
| $\eta$ | viscosity |
| $\lambda$ | molecular mean free path |
| $\rho_{g}$ | density of air |
| $\rho_{p}$ | density of particle |
| $\rho_{m}$ | density of fluid medium |
| $\tau$ | relaxation time |
| $\psi$ | drag coefficient |

# THE FLUID DYNAMICS OF A SPHERICAL PARTICLE: <br> Tabulation of Settling Velocity, Reynolds Number, Drag Coefficient, Relaxation Time and Acceleration-Distance in Air and Water*: 

B. R. Fish and W. H. Wilkie


#### Abstract

Various fluid dynamical parameters are calculated for spherical particles falling freely in air and in water. Tabulations include settling velocity, drag coefficient and Reynolds number for particles from 1 to 1000 microns in diameter and having a buoyancy-corrected density of 1 to 12 grams per cubic centimeter.


## INTRODUCTION

There are many areas of experimental and theoretical investigation related to inhalation of particles, aerosol physics, environmental pollution, and micrometerology which involve deposition of particulates under the influence of inertial forces. Frequently, the researcher or engineer must spend a considerable amount of time calculating various fluid dynamical parameters associated with particle settling or impaction. It is the purpose of this report to provide several of the more useful parameters in tabular and graphical form for spherical particles with densities from 1 to $12 \mathrm{grams}_{\mathrm{cm}^{-3}}$ and diameters of 1 to 1000 microns falling freely in air at $20^{\circ} \mathrm{C}$ and 760 mm Hg and in water at $20^{\circ} \mathrm{C}$. In addition, curves are given which can be used to determine stopdistance for a sphere acted upon by fluid dynamical forces only.

## REYNOLDS NUMBER AND DRAG COEFFICIENT

An isolated rigid sphere moving freely through an infinite viscous medium under the influence of a constant force presents a deceptively simple model. Unfortunately, the theoretical description of the relation between the resistance of the medium and the velocity is exceedingly complex. Simplifying assumptions may be made resulting in relations such as Stokes ' law which are applicable in a restricted range of velocities to experimental situations satisfying certain conditions concerning the properties of the particle and the medium. While modifications and corrections may be applied
to Stokes' law which extend the range of this type expression, in general a frankly empirical approach is more useful for the region of higher Reynolds number. ${ }^{(1)}$ For practical purposes the investigator must rely on empirical relations based on experimental data to obtain the fluid dynamical parameters applicable to his particular interest.

It has been found useful to express data relating fluid resistance and particle velocity as a logarithmic plot of a dimensionless drag coefficient and Reynolds number. The Reynolds number of a particle of diameter $d$ moving with a velocity $V$ in a medium having a viscosity $\eta$ and a density $\rho_{m}$ is defined by

$$
\begin{equation*}
\operatorname{Re}_{\mathrm{p}}=\frac{d \rho_{\mathrm{m}} V}{\eta} \tag{1}
\end{equation*}
$$

The Reynolds number is a unique function of velocity in a given flow system and is proportional to the ratio of inertial forces to viscous forces.

The moving particle experiences a force $F_{m}$ caused by the resistance of the medium in the form of skin friction and pressure differentials. The force is a complex function of the velocity, density and size of the particle, and the viscosity and density of the medium. The mathematical relations may be simplified by the organization of the parameters and variables into the smallest number of significant, dimensionless groups using the Buckingham Pi Theorem. ${ }^{(2)}$ In this manner the dimensionless group containing the fluid resistance may be defined as the drag coefficient,

$$
\begin{equation*}
\psi=\frac{8 F_{m}}{\pi \rho_{m} d^{2} V^{2}} \tag{2}
\end{equation*}
$$

Rearranging, we obtain

$$
\begin{equation*}
\mathrm{F}_{\mathrm{m}}=\psi \frac{\rho_{\mathrm{m}} \mathrm{~V}^{2}}{2} \mathrm{~S} . \tag{3}
\end{equation*}
$$

Thus, the drag coefficient may be interpreted as a variable coefficient which is used to multiply the product of the kinetic energy per unit volume of the medium moving
past the particle $\frac{1}{2} \rho_{m} V^{2}$ and the cross section area $S$ of the particle to obtain the fluid resistance.

In the case of a sphere falling freely through a stagnant medium of infinite extent under the influence of gravity, the fluid resistance at the terminal velocity is equal to the inertial force on the sphere,

$$
\begin{equation*}
F_{m}=\left(m-m^{\prime}\right) g ; \tag{4}
\end{equation*}
$$

where $m$ is the mass of the sphere, $m^{\prime}$ is the mass of the displaced medium, and $g$ is the acceleration due to gravity. By substitution of equation (4) in (2) and solving for $\psi$, the experimenter has a means of obtaining the drag coefficient after measuring the settling velocity,

$$
\begin{equation*}
\psi=\frac{4 d\left(\rho_{p}-\rho_{m}\right) g}{3 \rho_{m} V_{s}^{2}} \tag{5}
\end{equation*}
$$

The Reynolds number is calculated from known parameters, and one can then plot drag coefficient as a function of Reynolds number. This convention allows the direct comparison of the data of different experiments, since a single curve must be obtained for all combinations of fluids and spheres. The curve cannot be used to obtain the settling velocity directly, because this parameter occurs in both $\psi$ and Re. In order to overcome this difficulty, equation (5) may be multiplied by the square of the Reynolds number to obtain the dimensionless group

$$
\begin{equation*}
\psi \operatorname{Re}^{2}=\frac{4 d^{3} \rho_{m}\left(\rho_{\mathrm{p}}-\rho_{\mathrm{m}}\right) g}{3 n^{2}}, \tag{6}
\end{equation*}
$$

which involves only the mass of the sphere and properties of the medium. If $\operatorname{Re}$ is expressed as a function of $\psi \mathrm{Re}^{2}$, then for any given value of equation (6) the Reynolds number and, hence, the velocity is available. Davies ${ }^{(3)}$ recognized the need for a relation from which an explicit solution for terminal velocity could be obtained and, using this approach, derived two expressions which together span the range of Reynolds numbers from 0 to $10^{4}$ :

$$
\begin{align*}
\operatorname{Re}= & \frac{\psi \operatorname{Re}^{2}}{24}-2.3363 \times 10^{-4}\left(\psi \operatorname{Re}^{2}\right)^{2}+2.0154 \times 10^{-6}\left(\psi \operatorname{Re}^{2}\right)^{3} \\
& -6.9105 \times 10^{-9}\left(\psi \operatorname{Re}^{2}\right)^{4} \tag{7}
\end{align*}
$$

for $\operatorname{Re}<4$; and

$$
\begin{align*}
\log \operatorname{Re}= & -1.29536+0.986\left(\log \psi \operatorname{Re}^{2}\right)-0.046677\left(\log \psi \operatorname{Re}^{2}\right)^{2} \\
& +0.0011235\left(\log \psi \operatorname{Re}^{2}\right)^{3} \tag{8}
\end{align*}
$$

for $3<\operatorname{Re}<10^{4}$, where the logarithms are to the base 10 (see Figs. 1 and 2). The constants for these polynomials were obtained by fitting the expressions to critically selected data using the method of least squares. For equation (7), Davies used data of Moller, ${ }^{(4)}$ Schmiedel, ${ }^{(5)}$ Liebster, $^{(6)}$ and Arnold ${ }^{(7)}$ in the range $0.0507 \leq \operatorname{Re} \leq$ 4. 16. Equation (7) tends to Stokes' law for small Re. For the derivation of equation (8), the data of Liebster, ${ }^{(6)}$ Davies, ${ }^{(8)}$ Wieselsberger, ${ }^{(9,10)}$ and Lunnon ${ }^{(11)}$ were used in the range $2.3<\operatorname{Re}<10,890$. Equation (7) may be applied below the Stokes, or hydrodynamic, region if suitable corrections are made for the effect of slip. This effect, first described by Cunningham, ${ }^{(12)}$ becomes apparent when the particle radius is comparable to the mean free path of the molecules of the medium, and the medium can no longer be regarded as continuous. The particle then "slips" between molecular collisions and falls at a rate faster than predicted by hydrodynamic theory. A successful theoretical treatment of this effect has not been demonstrated, and one must rely on empirical relations for this correction. As usually defined the slip correction is a multiplicative factor ( $\geq 1$ ) which is applied as in equations (17), (18), (19), and (22) to modify the parameters derived from Stokes! law in the sense of decreasing: the effective drag force.

Knudsen and Weber ${ }^{(13)}$ developed the following expression for the slip correction which agrees satisfactorily with experimental data:

$$
\begin{equation*}
K=1+A \frac{\lambda}{d}+B \frac{\lambda}{d} \exp \left(-C \frac{d}{\lambda}\right), \tag{9}
\end{equation*}
$$

where $\lambda$ is the molecular mean free path, $d$ is the diameter of the sphere, and $A$, $B$, and $C$ are constants. If Millikan's data ${ }^{(14)}$ are taken to provide the most reliable basis ${ }^{(15)}$ for determining these zoefficients, the values for $A, B$, and $C$ are 2.492, 0.84 , and 0.433 , respectively, using the accepted definition of the mean free path, developed independently by Chapman and Enskog, (16)

$$
\begin{equation*}
\lambda=\frac{\eta}{0.499 \rho_{g} \bar{v}} \tag{10}
\end{equation*}
$$

where $\bar{v}$ is the mean molecular speed. From kinetic theory the pressure is given by

$$
\begin{equation*}
P=\frac{N m \overline{v^{2}}}{3}=N k T, \tag{11}
\end{equation*}
$$

where $N$ is the number of molecules per unit volume, $m$ is the mass per molecule, $\overline{v^{2}}$ is the mean square molecular velocity, $k$ is Boltzmann's constant, and $T$ is the absolute temperature.

After substituting

$$
\begin{equation*}
\bar{v}=\frac{8 k T}{\pi m}^{\frac{1}{2}} \tag{12}
\end{equation*}
$$

in equation (10), the product of pressure and mean free path is seen to be

$$
\begin{equation*}
P \lambda=Q T^{\frac{1}{2}} \eta \tag{13}
\end{equation*}
$$

where $Q$ is a constant depending on the units used. In the CGS system of units, with $P$ expressed in mm Hg ,

$$
\begin{equation*}
P \lambda=1.594 \mathrm{~T}^{\frac{1}{2}} \eta \tag{14}
\end{equation*}
$$

This relation assumes that the pressure follows the ideal gas law which, in general, is not the case. A more precise approach requires a correction for this discrepancy, for example, by use of the virial expansion; (17) however, equation (13) is adequate for use in calculation of the slip correction. Davies ${ }^{(3)}$ used this approach in deriving an expression for the slip correction which may be useful for experiments in air. It follows from equations (9) and (13) that

$$
\begin{equation*}
K=1+\frac{1}{P d}\left[A^{\prime}+B^{\prime} \exp \left(C^{\prime} P d\right)\right] \tag{15}
\end{equation*}
$$

where the constants $A^{\prime}, B^{\prime}$, and $C^{\prime}$ depend on the temperature. If the accepted definition, equation (10), of mean free path is used, the correction factor for air at $20^{\circ} \mathrm{C}$ is

$$
\begin{equation*}
K=1+\frac{10^{-3}}{P d}[12.44+4.19 \exp (-86.8 \mathrm{Pd})] \tag{16}
\end{equation*}
$$

for $P$ in mm Hg and d in cm .
In this report, equation (7) is used for the calculation of Reynolds number below 4.0. The calculations for air include slip corrections for diameters below 30 microns. At 15 microns diameter, the correction is $1 \%$, and at 1 micron diameter, it is $14 \%$. It is not necessary to apply this correction to the data for sedimentation in water, because the diameters of the spheres are much larger than the mean free path of the water molecules.

## SETTLING VELOCITY AND RELAXATION TIME

The settling velocity follows directly from the definition of Reynolds number, equation (1). In the Stokes region, $\operatorname{Re}<0.1$, the settling velocity may be obtained directly by equating Stokes' law for fluid resistance

$$
\begin{equation*}
F_{m}=\frac{3 \pi n d V}{K} \tag{17}
\end{equation*}
$$

with the inertial force given by equation (4) and solving for the velocity; thus,

$$
\begin{equation*}
V_{s}=\frac{d^{2}\left(\rho_{p}-\rho_{m}\right) K}{18 n}=g \tau \tag{18}
\end{equation*}
$$

where

$$
\begin{equation*}
\tau=\frac{d^{2}\left(\rho_{p}-\rho_{m}\right) K}{18 \eta} \tag{19}
\end{equation*}
$$

The relaxation time $\tau$ is useful in the simplification of the equations of nonlinear motion of particles. In the case of a particle starting at rest at time zero, the
velocity will differ from the terminal velocity by $1 / e$ at time $\tau$. As the Reynolds number increases and inertial forces begin to predominate, the conditions on which Stokes' derivation is based are violated, and the resistance force is no longer a linear function of velocity but varies in a nonlinear manner with both velocity and particle size. Equation (19) no longer holds, and the relaxation time must be obtained directly from the settling velocity by dividing by $g$. The tabulated values for $\tau$ are computed using equation (18). (See Figs. 3 and 5.)

## ACCELERATION-DISTANCE

Another parameter of practical interest is the acceleration-distance which is the distance traveled by a particle while accelerating from zero velocity to a specified velocity, hence, from a Reynolds number of 0 to some final value $\operatorname{Re}_{f}$. The relation between the distance covered and the velocity of a particle as derived by Fuchs ${ }^{(18)}$ is

$$
\begin{equation*}
\text { A.D. }=\frac{4 d\left(\rho_{p}-\rho_{m}\right)}{3 \rho_{m}} \int_{0}^{\operatorname{Re}} \frac{\operatorname{Red} \operatorname{Re}}{X-\psi \operatorname{Re}^{2}} \tag{20}
\end{equation*}
$$

where

$$
\begin{equation*}
x=\frac{4 g\left(\rho_{p}-\rho_{m}\right) \rho_{m} d^{3}}{3 \eta^{2}} \tag{21}
\end{equation*}
$$

In deriving this relation, it is assumed that the drag coefficient for the particle accelerating through a given velocity increment $\Delta V$ at $V$ is equal to the drag coefficient for the same particle moving steadily at velocity $V$. Hughes and Gilliland ${ }^{(19)}$ discussed the effect in the light of the few existing experiments relating to it and concluded that an accelerational drag does exist. This means that the tabulated values of the acceleration-distance calculated using equation (20) may underestimate slightly the true values in the case of a sphere starting from rest. Fuchs ${ }^{(20)}$ also considered this effect and concluded that for Reynolds numbers below a few hundred, the errors associated with the accelerational drag are probably negligible.

Evaluation of equation (20) was accomplished using a numerical-integration subroutine, based on a l6-point Gaussian quadrature, written for the Oak Ridge National Laboratory CDC-1604A computer. ${ }^{(21)}$ It was necessary to calculate the integrand and, hence, the drag coefficient for any given Reynolds number below
the upper limit. For values of $\operatorname{Re}<0.4$, the drag coefficient was calculated using Oseen's formula corrected for slip,

$$
\begin{equation*}
\psi=\frac{1}{K} \frac{24}{\operatorname{Re}}+4.5 \tag{22}
\end{equation*}
$$

For $0.4<\operatorname{Re}<1000$, the drag coefficient was calculated using a polynomial obtained by a least squares fit of $\log \psi$ as a function of $\log \operatorname{Re}$,

$$
\begin{align*}
\log \psi= & 1.43-0.902(\log \operatorname{Re})+0.115(\log \operatorname{Re})^{2} \\
& -0.0115(\log \operatorname{Re})^{3}+0.00271(\log \operatorname{Re})^{4} \tag{23}
\end{align*}
$$

Values of $\psi$ from equation (23) are within $0.5 \%$ of those calculated using equations (7) and (8).

It can be shown that at the terminal velocity, the denominator of the integrand in equation (20) is zero. This does not affect the numerical integration procedure provided that $\psi \operatorname{Re}^{2}<X$. This condition is violated for $\operatorname{Re}$ very near the end point due to the oscillation of the fitted expression for $\psi$ (equation (R3)) about $\psi=\frac{X}{\operatorname{Re}}$. Therefore, the acceleration-distance, listed as 0.98 DIST in the tables, corresponds to the distance traveled by the particle in accelerating from rest to $98 \%$ of its terminal velocity. (See Figs. 4 and 6.)
STOP-DISTANCE

In a derivation similar to that for equation (20), Fuchs ${ }^{(22)}$ obtains the expression for the stop-distance in the absence of external forces,

$$
\begin{equation*}
\text { S.D. }=\frac{4 d\left(\rho_{p}-\rho_{m}\right)}{3 \rho_{m}} \int_{0}^{\operatorname{Re}} \frac{d \operatorname{Re}}{\psi \operatorname{Re}} . \tag{24}
\end{equation*}
$$

This distance is related to the probability of impaction onto a surface which is deflecting an airstream in which particles are entrained. For this condition the initial velocity of the particles is known (initial Reynolds number $\operatorname{Re}_{\mathrm{j}}$ ), and one must calculate the distance traveled against fluid resistance alone while decelerating to zero velocity. The experiments of Ingebo ${ }^{(23)}$ indicate that the drag coefficient experienced by particles undergoing deceleration is lower than in conditions of
constant velocity. For this condition, the drag coefficient may be related ${ }^{(24)}$ to Reynolds number by

$$
\begin{equation*}
\psi=27 \operatorname{Re}^{-0.84} \tag{25}
\end{equation*}
$$

for $6<\operatorname{Re}<400$. According to Ingebo, the decelerational drag coefficient is appreciably lower than the drag coefficient at constant velocity, the ratio being approximately a factor of 5 at $\operatorname{Re}=600$. Figure 7 shows a plot of $\operatorname{INTEGRAL~}=$ $\int_{0}^{R e} e_{i}$ as a function of Re. The integral was evaluated using an expression derived ${ }^{0}$ from Oseen's formula

$$
\begin{equation*}
F_{m}=-3 \pi \eta d V\left(1+\frac{3}{16} R e\right) \tag{26}
\end{equation*}
$$

to obtain

$$
\begin{equation*}
\int_{0}^{R e_{i}}=\frac{1}{4.5} \ln \left(1+0.1875 \operatorname{Re}_{i}\right) \tag{27}
\end{equation*}
$$

for values of $\operatorname{Re}<0.4$ and using equation (25) for values of $\operatorname{Re}>0.4$. The stopdistance of a sphere of diameter $d$ and density $\rho_{p}$ moving with an initial velocity corresponding to a Reynolds number $\mathrm{Re}_{\mathrm{i}}$ in a medium of density $\rho_{m}$ may be obtained by multiplying the value of the ordinate at $\operatorname{Re}$ by $d\left(\rho_{p}-\rho_{m}\right) / \rho_{m}$.

## DISCUSSION

Experimental investigations rarely satisfy ideal conditions, and errors may arise from many sources such as particle imperfections, deformation during transit, agglomeration, electroviscous effects, wall effects, and concentration effects; and the importance of these factors should be determined during experimental design and analyses. The discussions of $\operatorname{Orr}(25,26)$ Lapple, ${ }^{(27)}$ Fuchs, ${ }^{(1)}$ Davies, ${ }^{(28)}$ and Strauss ${ }^{(35)}$, provide useful guides for the experimenter.

In general, wall effects should be considered whenever the diameter of the particle exceeds several percent of the vessel diameter. Orr ${ }^{(29)}$ gives a correction for rigid spheres settling in a cylindrical container expressed as the ratio of the observed terminal settling velocity to the terminal settling velocity in an infinite medium,

$$
\begin{equation*}
\frac{V_{s}}{V_{\infty}}=\left[1-\left(\frac{d}{D}\right)^{2}\right]\left[1-\frac{1}{2}\left(\frac{d}{D}\right)^{2}\right]^{\frac{3}{2}} \tag{28}
\end{equation*}
$$

where $d$ is the diameter of the sphere and $D$ is the diameter of the container. When the concentration of particles is high, the interactions are such that all the particles move at the same rate regardless of diameter. This effect may be neglected where the volumetric concentration of particles is below $0.1 \%$. ${ }^{(30)}$ Electroviscous effects may usually be neglected whenever the medium is an electrolyte of ionic strength greater than 0.1 normal. (31)

In order to estimate the errors which might be reflected by the values tabulated in this report, a comparison is made between the values of $\psi$ as a function of $\operatorname{Re}$ using Davies' relations for Re and the curves of Lapple and Shepherd ${ }^{(32)}$ and Klyachko. Lapple obtained his curve by plotting the averaged values of the combined data of seventeen experimenters in the range $0.1 \leq \operatorname{Re} \leq 3 \times 10^{6}$. Klyachko's curve, defined by

$$
\begin{equation*}
\psi=\frac{24}{\operatorname{Re}}+\frac{4}{\sqrt[3]{\operatorname{Re}}} \tag{29}
\end{equation*}
$$

is included in the comparison, because, according to Fuchs, ${ }^{(34)}$ it is the most successful of the empirical relations proposed by various authors from the standpoint of accuracy and simplicity in the range $3<\operatorname{Re}<400$. Davies' relations, however, are the only ones derived quantitatively from critically selected data using clearly defined mathematical methods. Figure 1 indicates the overall agreement of the curves of Lapple and Davies. It may be observed that Klyachko's curve deviates less than 4\% from Davies' values in the range $0.1<\operatorname{Re}<600$.

Orr's mathematical expression is shown for comparison, since it may be useful due to its simplicity where a rough estimate of drag coefficient is desired. Lapple's curve is consistently lower than that of Davies. The largest discrepancies of 2 to $3 \%$ occur in the range $10<\operatorname{Re}<10^{2}$, and the curves in this range are replotted on a larger scale along with Klyachko's curve in Fig. 2.

Considering the apparent agreement between the various sources of data, it is expected that the errors associated with the values tabulated in this report are less than $2 \%$ with the possible exception of the relaxation times and stop-distances for Reynolds numbers above several hundred. In this region the tabulated values are too low for conditions of acceleration; however, this discrepancy probably does not exceed about $10 \%$ at $R=10^{3}$; consequently, the listed values may be useful in many applications.

Table 1 gives the air data, and Table 2 gives the water data.

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Fig. I Comparison of Curves by Davies, Klyachko, Lapple and Orr in the Range $0.1<\operatorname{Re}<10^{3}$.


Fig. 2 Comparison of Curves by Davies, Klyachko and Lapple in the Range $10<\operatorname{Re}<10^{2}$.


Fig. 3 Settling Velocity of Spheres, Densities $1-12$ grams $\mathrm{cm}^{-3}$, in Air as a Function of Diameter.


Fig. 4 Acceleration-Distance of Spheres, Densities $1-12$ grams $\mathrm{cm}^{-3}$, in Air as a Function of Diameter.


Fig. 5 Settling Velocity of Spheres, Densities 2-13 grams $\mathrm{cm}^{-3}$ in Water as a Function of Diameter.


Fig. 6 Acceleration-Distance of Spheres, Densities $2-13$ grams $\mathrm{cm}^{-3}$, in Water as a Function of Diameter.


Fig. 7 Decelerational Stop-Distance as a Function of Reynolds Number.

## Table I

# Settling Velocity, Reynolds Number, Drag Coefficient, Relaxation Time and Acceleration-Distance as a Function of Diameter for Rigid Spheres Falling Freely in Air. 



| ULAMETEK | VELOClTr | RE | URAG CUEF | helax time | .90 0IST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.000: 000 | 3.020 $0=03$ | 1.992-06 | $1.1600+07$ | 3.080.006 | 2.0410008 |
| 1.100=+00 | 3.656-03 | 2.648-06 | $8.8000+06$ | 3,728m=06 | 4.1560008 |
| 1.200x+00 | 4.345-03 | 3.4340=06 | 6.803- +00 | 4.4310-06 | 5.0810-08 |
| 1.300\% 00 | 5.094-03 | $4.361=06$ | 5.367-06 | 5.1950006 | 8.19940008 |
| $1.400 x+00$ | $5.900^{3}=03$ | 5.4420-06 | 4. $50^{4}+06$ | 6.0200006 | $1 . u^{880}=07$ |
| $1.500 \times+00$ | $0.771 \pm 03$ | 0.6880006 | 3.511*.06 | $6.9050=06$ | 1.4330007 |
| $1.600 \%+00$ | 7.099003 | $8.111 x=00$ | 2.899.0 06 | 7.851:06 | 1.0530007 |
| 1.700x+00 | 8.680003 | 9.723= 06 | $2.4210+06$ | 8.8580006 | 2.3610007 |
| $1.800 x+00$ | 9.733003 | 1.1540=05 | $2.0430+06$ | $9.925=06$ | 2.465u-07 |
| 1.900x+00 | $1 \cdot 0^{84}=02$ | $1.356=05$ | $1.7400+06$ | 1.105**05 | 3.0790-07 |
| $<\cdot 000 x+00$ | 1.2010022 | 1.2810005 | $1.4930 * 06$ | 1.224*05 | 4.21500.07 |
| 2. $100 x+00$ | $1.3230-02$ | $1.0300=05$ | 1.2920+06 | $1.3490^{*} 0^{5}$ | 5.485007 |
| c. $200 \times+00$ | 1.4520-02 | 2.1030=05 | 1.1250+06 | 1.480005 | $6.0040=07$ |
| C. $300 x+00$ | 1,5860-02 | 2.402005 | $9.8510+05$ | 1.6170005 | $7.88500-07$ |
| c. $4000 \times 00$ | 1.720002 | 2. 728005 | 8.0780*05 | $1.7610=05$ | 9, 945007 |
| <. $5000+00$ | 1.873002 | 3.083-05 | $7.0840+05$ | 1.9100005 | 1.1000000 |
| $2.600 x+00$ | 2.025-02 | 5.467-05 | $6.8300+05$ | 2.065:05 | 1.2860006 |
| c. $700 \times+00$ |  | 3.8820"05 | 6. $10^{9} 0+05$ | 2.227-05 | 1.4950906 |
| $2.800 x+00$ | 2.348-02 | 4.328000 | $5.4810+05$ | 2.5940005 | $1.129 \times 06$ |
| C. $4000+110$ | $2.518=02$ | 4,8080005 | $4.9300 * 05$ | 2. $568000^{5}$ | 1.9880006 |
| S. $000 x+110$ | 2.694m*02 | 5.3220=05 | $4.461=05$ | 2, $747=0{ }^{5}$ | $2 \cdot 2^{76 * 06}$ |
| 3.100x+00 | 2.876m=02 | 2.8710005 | 4.0450+05 | 2.9330005 | 2. $2940-06$ |
| $3.200 x+00$ | 3.064m*02 | $6.456=05$ | $3.0800+05$ | 3.1250-05 | 2. $9450-00$ |
| 3. $300 \times+10$ | 3.258=02 | 7.0790-05 | $3.357=05$ | 3, $3220 \cdot 05$ | 3. 9300006 |
| 3.400n+ 00 | 3.458 $=02$ | 7.742-05 | 3.0710+05 | 3,5200005 | 3. 1510006 |
| S.5000+00 | 3,6640-02 | $8.444 x=05$ | 2.810m+ 15 | $3.7360-05$ | 4. 21110006 |
| 3.0000+ 00 | 3,870 0 -02 | 9,187=05 | $2.5898+05$ | 3.9520005 | 4.1120000 |
| 3.700x+00 | 4. $0^{9} S_{n}=02$ | 9,9730=0 | 2. $3850+05$ | 4, 174*-05 | 5. $2560 \cdot 06$ |
| -.800x+00 | $4.3170-02$ | $1.0^{8} 0004$ | 2. $2030+05$ | $4.4030=05$ | 5.0460006 |
| 3.900x+00 | 4.547=02 | 1. $1680=04$ | 2.03000 05 | 4.637-05 | 0.484w 06 |
| 4.000x+00 | 4,7830.02 | 1.260=-04 | $1.0900+05$ | 4,8770.05 | 7.1740000 |
| 4. $100 x+00$ | 5.024x-02 | 1.356-04 | $1.7550+05$ | 5. $1230 \cdot 05$ | 7. 7160006 |
| $4.200 x+00$ | 5.272-02 | $1.458=04$ | $1.6330 \pm 05$ | 5.376.05 | $8.11500-06$ |
| $4.300 x+00$ | $5.525=02$ | $1.5640=04$ | $1.523 n+05$ | $5.634 x=05$ | 9. 2730006 |
| $4.400 x+00$ | 5.78500 | 1.676= $=04$ | $1.4210+05$ | $5.699 \sim 05$ | 1. $\mathrm{u}^{490 \cdot 05}$ |
| $4.500 x+00$ | 6.0500-02 | 1.793004 | $1.329 \sim+05$ | 6.1700.05 | 1.148000 |
| $4.6000+00$ | $6.322_{0}+02$ | 1.915.0.04 | 1.245**05 | 6.4460005 | 1. $2^{5} 30 \cdot 05$ |
| $4.700 x+00$ | 6,599-02 | 2,042x=04 | 1.167 .05 | $6.729 \times 05$ | 1.365*05 |
| $4.800 x+150$ | 6.8820-0'2 | 2. $175=04$ | 1.090.0.05 | 7.018=05 | 1.4850005 |
| $4.900 x+00$ | 7.171.02 | $2.314 n=04$ | $1.0300+05$ | $7.3130=05$ | 1.0120005 |
| - $000 x+00$ | 7.467-02 | 2.458:04 | $9.700=04$ | 7.6140005 | 1.147=05 |
| $2.100 x+00$ | 7.768.02 | 2,6090004 | 9.1420004 | 7.921:"05 | 1.0910005 |
| 2, $2000 \mathrm{c}+10$ | $8.075=02$ | 2,7650-04 | $8,6200+04$ | $8.234=05$ | $2 \cdot 043-05$ |
| 2. $500 x+110$ | $8,380=02$ | 2.9270004 | 8. $1490+04$ | $8.554=05$ | 2. $6050-05$ |
| 5.400x+00 | $8.707 \cdot 02$ | $3.0960=04$ | $7.7000+04$ | $8.879=05$ | 2.57610-05 |
| 2. $2000+00$ | 9.032** 02 | $3.2710=04$ | 7. $294 n+04$ | $9.2100 \cdot 05$ | 2. 2560005 |

PARTICLE DENSITY $=1.0$ GRAMS PER CU日IC CENTIMEIER
©IAMETFK

| 600x+00 | 9.3630002 |
| :---: | :---: |
| $5.700 \times+00$ | 9,7000 02 |
| 2.800:+00 | $1.00{ }^{4}=01$ |
| $00=+00$ | 1.03 |
| $6.0000+00$ | 1.07 |
| $6.100 \times+00$ | 1. |
| $6.2000+00$ | 1.147. |
| b. $3000+00$ | 1.185. |
| -. $4000+00$ | 1.222.00 |
| 6. $5000+00$ | 1.2610001 |
| 600- 00 | 1.3000001 |
| 6. $7000 \times 00$ | 1.5400-01 |
| $800 \times+00$ | 1.3800001 |
| $0.900 x+00$ | 1.421 m - |
| -. $0000 \times 00$ | $1.462 m=$ |
| 1.100x+00 | 1.50400 |
| 1.200x+100 | 1.54700 |
| 1.000x+00 | 1.590001 |
| 1.400x+00 | $1.634=01$ |
| 1.200x+40 | 1.6780=01 |
| $1.000 \times+00$ | 1.725.01 |
| $7.700=+00$ | 1.769.001 |
| $7.600=00$ | 1.815.01 |
| $7.900 \times+00$ | $1.862=01$ |
| $0.000=+00$ | 1.909 .01 |
| $8.100 x+00$ | 1,457.01 |
| $8.2000+00$ | 2.0050-01 |
| $6.300 \times+00$ | 2.055-01 |
| $8.400 x+00$ | 2.10400 |
| -.500x+00 | 2,155=01 |
| $6.600=+00$ | 2.206-01 |
| 6. 700000 | 2.257-01 |
| $0.800 \times 400$ | 2.3090\%01 |
| $6.900 x+00$ | 2,362.01 |
| $4.000 x+00$ | 2.415 .001 |
| y. $100 x+40$ | 2,469.01 |
| Y. $2000 \times 40$ | 2,5240-01 |
| Y. $300 x+100$ | 2.5790-01 |
| $4.400 \times+100$ | 2.634.01 |
| $4.500 \times+00$ | 2.6910=01 |
| $4.000 x+00$ | 2,7480-01 |
| $4.700 \mathrm{~m}+00$ | 2.805.01 |
| Y.000x+00 | 2.863. 01 |
| $4,4000+00$ | 2.9220-01 |
| 1.000x+11 | 2.9810001 |
| . $1000 x+01$ | 3,606\% $=$ |

RE
$3.4520=04$ 5.641=04. 3.635.0.04

4, 037.004
$4.245=04$
4.461004
$4.684=04$
$4.914=04$
5. 151=04
$5.397=04$
$5.649=04$
$5.649=04$
$5.910=04$
6. 178=" 04
$6.454=04$
$6.739=04$
7.031=04
$7.333=04$
$7.642=04$
$7.860=04$
8.287=-04
$8.6230=04$
$8.967000^{4}$
$9.3210=04$
$9.684=04$
$1.006=03$
$1.044=03$
$1.0830=03$
$1.1230=05$
$1.164=03$
1.206003
$1.249 \theta^{\circ}=3$
$1.293=03$
$1.338=03$
$1.384=03$
$1.431=03$
$1.480=003$
$1,529 \infty 03$
1.579n=03
$1.631=03$
$1.683=03$
$1.737=03$
1.7920003
$1.648=03$
$1.9050-03$
$1.963=03$
2.0120003

DRAG CUEF
helax time
$6.4110+114$
$0.555 m+04$
$9.5480=05$
$9.8910=05$
.90 DIST
$9.8910=05$
2. $1470 \cdot 05$
6.2230* 14
$1.0240=04$
$1.0600=04$
$1.0960=04$
2. $448=05$
3. $1590=05$
3. $\mathrm{j}^{8} 20=05$
$3.617=05$
$3.664=-15$
4.1230005
$4.3940-05$
$4.079=05$
$4 . y 78 \cdot 05$
$5.2^{9} 1=05$
$5.018=05$
5. 4600005
$6.3170=05$
$0.0910=05$
7. $U^{8} 00=05$
$7.4860=05$
7.4100005
$8.551=05$
8. $211=05$
$9.289=05$
9.186005
$1 \cdot 4^{3} 0=04$
$1 \cdot u^{84=-04}$
$1 \cdot 1^{4} 00004$
$1 \cdot 198=04$
$1 \cdot \angle 5800=04$
$1.520=04$
$1.5850=04$
1.3850004
1.4520004
1.4520004
1.5210004
1.2931004
1.2930004
1.0670 .04
$1.067=04$
$1.144=04$
1.02409 .04

1. $7000=04$
$1 . y 91=04$
2.147910.04
2. $1690 \cdot 04$
3. $2630=04$
4. $559=04$
$2.4590=04$
5. 26.2004
$2.067=04$
$2 \cdot 177=00^{4}$
6. $u^{6 / 100} 04$

Particle density = 1.0 grams per cubic centimeter

| WIAMETEK | velucity | RE | drag ceef | relax time | . 90 DJST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.200x+01 | 4.2910001 | 3.5900.03 | $7.0630+03$ | 4,376.04 04 | 5.147~04 |
| $1.3000+01$ | 5.035-01 | 4,3100003 | 5. 5.550 .03 | 5.134 .0 .14 | 7.4100-04 |
| $1.4000+01$ | 5.838 .001 | 5,381=03 | 4.453 .0 .03 | $5.953 .00^{4}$ | 1.0630003 |
| $1.500 x+01$ | 0.700001 | 6.617n=03 | 3.622n+03 | 6.832 m 04 | 1.4000003 |
| $1.000 x+01$ | 7.621.01 | 8.029:03 | $2.9800+03$ | 7.7710004 | $1.011=03$ |
| $1.700 x+41$ | 8,601.01 | 9,628:03 | 2.491**03 | $8.7710 \cdot 04$ | 2. 9 97=03 |
| $1.000 \pm+61$ | 9.039.01 | 1.143m=02 | 2.100 - 03 | $9.8300=04$ | 2.098003 |
| $1.900 \times+61$ | 1.0740+00 | 1.3430\% 02 | $1.7870+03$ | 1.09500 .03 | 3.5950=03 |
| $6.0000+11$ | $1.189 n+00$ | 1.566-02 | $1.533 .0+03$ | 1.213.03 | 4.412=03 |
| 2.100. 0101 | $1.3110+00$ | 1,812=02 | $1.325 n+03$ | 1,337.013 | 5.3600003 |
| $2.2000+01$ | 1.438000 | 2.083=02 | $1.154 n+03$ | 1.466:03 | 6,453=03 |
| $2.300 x+01$ | $1.5710+00$ | 2.379=02 | $1.01100+03$ | $1.6020 .0{ }^{3}$ | 7.106-03 |
| $2.4000+01$ | $1.7100+00$ | 2.7020\%02 | $8.9030+02$ | $1.7430=03$ | 9.1.320003 |
| $2.500 \times+01$ | 1.854 .00 | 3.052m02 | $7.885 m+0.2$ | 1.8910003 | $1.0750=02$ |
| 2.000x+01 | $2.000^{40}+00$ | 3.4320002 | 7.0170002 | 2,044-03 | 1.257-02 |
| C.700x+01 | 2.160.0+00 | 3.8.41m=02 | 6.273n+02 | 2.203.03 | 1.46,1002 |
| C.000x+11 | 2.322w+00 | 4.2810.02 | $5.032 m+02$ | 2,368.0.03 | 1.0890002 |
| 2.900x+01 | $2.489{ }^{\circ}+00$ | 4.7530.02 | $5.0700+02$ | 2.538 .03 | 1.4430=02 |
| 3.000x+01 | $2.6620+00$ | 5.258-02 | 4.5920* 02 | 2.7140003 | 2. 224.002 |
| 3. $100 x+01$ | $2.8400+00$ | 5,7980.02 | $4.168 n+02$ | 2,8900\% 03 | 2. $535-02$ |
| $3.200 x+01$ | $3.024 n+00$ | 6,3720=02 | 3.795n+02 | 3.0840\%03 | 2,878-02 |
| $3.300 x+01$ | 3.215000 | 6.982-02 | 3.460.*02 | $3,277.5003$ | 3. 254 - 02 |
| $3.400 x+01$ | 3.400000 | 7.6260002 | $3.1800+02$ | $3.474 m=03$ | 3.0650002 |
| $3.500 \times+01$ | $3.6060+00$ | 8.311000 | 2.9200+02 | 3.078003 | 4.11500 02 |
| $3.000 x+01$ | 3.612000 | 9.035-02 | $2.089 \times+12$ | 3.887 .03 | $4.004=02$ |
| $3.700 x+31$ | 4.0220+00 | 9.799-02 | $2.48 \mathrm{~cm}+02$ | 4.1020-03 | 5.1360002 |
| 3.8000001 | $4,238+00$ | 1.0600001 | 2. $2900+02$ | $4.322=03$ | 5.1130002 |
| $3.400 \times+91$ | 4.459 \# +00 | $1.145=01$ | 2.129n+02 | 4,547003 | 6, 3370.02 |
| $4.000 \times 4$ 91 | 4.685 .00 | 1.234me01 | $1.4780+02$ | 4,777.03 | 7. 100002 |
| $4.100 x+01$ | $4,916{ }_{0}+00$ | 1.327-01 | $1.641 .0+02$ | $5.013 \%=03$ | 7.136n-02 |
| $4.800 x+01$ | 5.1520000 | 1.4250.01 | 1.717.02 | 5,254n-03 | 8.3170 .02 |
| 4. Sucix +01 | 5,3930000 | 1.527n=01 | $1.00^{40+02}$ | $5.499 n-0^{3}$ | 9.3550002 |
| $4.400 x+101$ | 5.038 .00 | 1.634-01 | $1.502 x+02$ | $5.7500=03$ | 1. $\mathrm{y}^{2500} 01$ |
| $4.200 x+01$ | 5.889 .00 | 1.745-01 | $1.4080+02$ | $6.005 \times 03$ | 1.1220-01 |
| $4.6000+01$ | $0.1440+00$ | 1.0610001 | $1.3220+02$ | $6,265000^{3}$ | 1. $2240=01$ |
| $4.700 \times+01$ | 0,4040000 | 1.9820*01 | 1.844n*02 | $6.5300=03$ | 1. 3340001 |
| $4.000 \times+01$ | 0.060 .00 | 2,107-01 | 1.171.002 | 6,7990-03 | 1.451001 |
| $4.4000+01$ | $0.936 \mathrm{~m}+00$ | 2.238.001 | $1.100^{5}+02$ | $7 \cdot 0730=03$ | 1.,2750=01 |
| $2.000 x+01$ | $7.209+00$ | 2.374.*01 | $1.044 m+02$ | 7,3520-03 | 1.1080001 |
| $2 \cdot 100 x+01$ | $7,4800^{+} 00$ | 2.5140001 | $9.873 .+01$ | 7.634 .013 | 1.8480001 |
| 9.200x+01 | 7.768 .00 | 2.0600001 | $9.351 .+01$ | $7.9210=03$ | 1.4970001 |
| 2, 300x+61 | $8.053_{n}+00$ | C.811.001 | $8.867 \times 01$ | 8.2120003 | 2.1554001 |
| $2.400 x+1$ | $8.543 .+00$ | 2.960.01 | $8.418 x+01$ | 8.5080003 | 2.3170001 |
| 2.500x+01 | $8.036 \%+00$ | 3.128.001 | $8.002 m+01$ | $8.607000^{3}$ | 2.483.01 |
| $2.0000 x+31$ | $0.93310+00$ | 3.2940-01 | $7.0148+01$ | 9.110x-03 | 2.0550001 |
| $2.700 x+1$ | 9.234 .00 | 3.466**01 | $7.8530+01$ | 9,4170003 | 2.03410901 |

# Particle densify = 1.0 grams per cubic centimeter 

UIAMETEK
velocity
RE
DRAG COEF
RELAX TIME
-9ヵ DIST

| 2.800n+01 | 9.539 .00 |
| :---: | :---: |
| $5.900 x+01$ | $9.847 \%+00$ |
| $6.000 x+01$ | $1.0100+01$ |
| $0.100+01$ | $1.047 m+01$ |
| -.200x+01 | $1.079+01$ |
| $6,300 x+01$ | $1.1110+01$ |
| $0.400 x+01$ | $1.1440+01$ |
| $0.500 x+01$ | 1. $1700+01$ |
| $0.000 x+01$ | $1.20{ }^{\circ}+01$ |
| $0.7000+01$ | $1.2430+01$ |
| $0.800=+01$ | $1.276 \pm 01$ |
| $0.900=+01$ | 1.3100*01 |
| 7.000x+01 | $1.3440+01$ |
| 1.100x+01 | 1.378 .01 |
| \%.200x+01 | $1.413 n+01$ |
| $\% 300 \%+01$ | $1.4480+01$ |
| $7.400 x+01$ | 1.483 .01 |
| 7.5000+01 | 1.610 .01 |
| $7.0000+01$ | $1.2550+01$ |
| $7.700 x+01$ | $1.589+01$ |
| $7.000 \times+01$ | 1.625 .01 |
| $7.900 x+01$ | $1.0610+01$ |
| c.000x+01 | $1.697 * 01$ |
| 0.1000+01 | $1.733 \times 01$ |
| 6.200:+01 | $1.7700+01$ |
| b. $3000+01$ | $1.8070+01$ |
| -. $400 \pm+01$ | $1.0440+01$ |
| 0.500x+01 | $1.8810 * 01$ |
| $0.000 \times+01$ | $1.9180+01$ |
| $6.700=01$ | 1.955 .01 |
| -. $6000 x+01$ | 1.995001 |
| c.900x+ 111 | 2.0310+01 |
| 9.000**01 | 2.069**01 |
| 9. $100 x+01$ | 2.107**01 |
| $4.200 x+01$ | $2.1450+01$ |
| $4.300=01$ | 2.184.0101 |
| צ, 400x+01 | 2.222s+01 |
| Y. $5000 x+61$ | 2.2610+01 |
| $4.000=+01$ | $2.3000+01$ |
| $4.700 \times 01$ | 2.3400*01 |
| $9.800 x+01$ | $2.3790+01$ |
| $4.900 \times+01$ | $2.419=01$ |
| $1.0004+12$ | $2.459 n+01$ |
| 1. $100 x+12$ | $2.8740+01$ |
| 1.200x+02 | 3.3210+01 |
| 1.500x+42 | 3.794n+01 |


| $3,0430=01$ |
| :---: |
| 3, 625.01 |
| 4.0130-01 |
| 4.2070*01 |
| 4.405.01 |
| 4.6100001 |
| $4.8200=01$ |
| 5.0350=01 |
| 5. 256 mmol |
| 5.4820=01 |
| 5.7140001 |
| $5.952=01$ |
| 6.195=01 |
| 6.4440001 |
| 6,099-01 |
| 6,959.01 |
| 7.2250001 |
| 7,4960001 |
| 7.774001 |
| 8.0500001 |
| 8.3450001 |
| 8,639=01 |
| 8,939=-01 |
| 9.245**01 |
| 9.5570001 |
| 9,8740001 |
| 1.0200*00 |
| 1.053.000 |
| 1.086:+00 |
| 1.1200*00 |
| 1.1550*00 |
| 1.1900+00 |
| 1.226.00 |
| 1.262=*00 |
| 1.3000+00 |
| 1.3370+00 |
| 1.3760*00 |
| $1.4150+00$ |
| $1.4540+00$ |
| 1.494x*00 |
| 1.5350*00 |
| $1.5770 * 00^{\circ}$ |
| $1.6190+00$ |
| $2.0820 * 00$ |
| 2.024= 00 |
| 3. $2470+00$ |


| $6.9170+01$ | 9,7270-03 | 3.418=01 |
| :---: | :---: | :---: |
| $6.6030+01$ | 1.0040-02 | 3. $2090=01$ |
| 6. $309 x+01$ | $1.036=02$ | 3.4060001 |
| 6.035n+01 | 1.068-02 | $3.010=01$ |
| 5.7770+01 | $1.1000=02$ | 3.0210001 |
| 5. $2300+01$ | 1.1330002 | 4.039-01 |
| 5. $5090+01$ | 1.166x=02 | 4. $264 \times 01$ |
| 5.0970+01 | 1.2000=02 | $4.4960=01$ |
| $4.890-01$ | 1.233m=02 | 4. 1350001 |
| $4.7080+01$ | 1.267m=02 | 4. 9810001 |
| 4. $3300+01$ | $1.3010=02$ | $5.2340=01$ |
| $4.363 n+01$ | 1.3360-02 | 5.495-01 |
| 4.204n+01 | 1.371002 | 5.1630-01 |
| 4.055.01 | $1.4060=02$ | 6.0380001 |
| 3.913.0101 | 1.4410002 | 6.321001 |
| 3,779+01 | $1.476=02$ | 6.0120001 |
| 3,052n+01 | 1,5120-02 | 6.4100001 |
| $3.5320+01$ | $1.548=02$ | 7. $2160=01$ |
| $3.4180+01$ | $1.584=02$ | 7.529-01 |
| $3.309 x+01$ | 1.0200002 | 7.0500001 |
| $3,200 x+01$ | 1.657-02 | $8.1790=01$ |
| $3.1080+01$ | $1.6940=02$ | 8.2160001 |
| 3.0140+01 | 1.7310002 | 8.0600-01 |
| $2.9250+71$ | 1.7680002 | 9. 13 - 01 |
| 2.640-01 | 1.8050002 | 9.373 mol |
| 2.759n+01 | 1.8420002 | 9.y 4 1-01 |
| 2.0820+01 | $1.8800=02$ | $1 \cdot 4^{320+00}$ |
| $2.600^{\circ}+01$ | 1.918002 | 1.4700+00 |
| 2.537 $=01$ | 1.956002 | 1.1090+00 |
| 2.469 ${ }^{\text {a }}$ + 01 | 1.994m=02 | 1. 150000 |
| $2.40^{4 n+01}$ | 2.0320002 | 1. $190+00$ |
| 2.342n+01 | 2.0710.02 | 1. $232 x+00$ |
| 2.2820+01 | 2.1100:02 | 1. $4750+00$ |
| 2. $224 \mathrm{~m}+01$ | 2. 1480002 | $1.9180+00$ |
| $2.1690+01$ | 2.1880-02 | $1.5620+00$ |
| 2.110=*01 | 2.2270-02 | $1.407 \times 00$ |
| 2.0650+01 | 2. $2660 \cdot 02$ | $1.4530+00$ |
| 2.0100*01 | 2,306=0.02 | $1.4990+00$ |
| 1.968. 91 | 2.34600 .02 | 1. $5470+00$ |
| 1.9230*01 | 2,3860002 | 1. $2950+00$ |
| 1.0780+01 | 2.426" 0 ? | $1.0440+00$ |
| 1.0300+01 | 2,467m:02 | $1.0940+00$ |
| 1.794x+01 | 2.5080002 | $1.1450+00$ |
| $1.4450+01$ | 2.9310002 | 2. $5000+00$ |
| 1.1800*01 | 3,3870-02 | $2.9400+00$ |
| 9.0010*00 | 3,869x=02 | $3.0660+00$ |

# PARTICLE DENSITY 1.0 GRAMS PER CUBIC CENTIMETER 

UIAMETEF
$1.400 n+02$
$1.500 x+02$
$1.600=+02$
$1.700=+12$
$1.800 x+112$
$1.900 x+12$
$2.000 x+102$
2. $100 x+112$
2. $200 x+012$
$2.300 x+02$
2. $400=+02$
$2.500 x+02$
$2.600=+02$
2. $700 \mathrm{x}+02$
$2.800=+122$
$2.900 x+11^{2}$
3. $000 x+02$
S. $100 x+02$
$3.200=+02$
$3.300 x+02$
$3.400 x+02$
$3.500=+02$
$3.600 x+02$
3. $700=+42$
$3.800 x+02$
$5.900=+02$
4.000 $x+02$
$4.100=+02$
$4.200 x+0{ }^{2}$
$4.300 x+02$
$4.400=+62$
4. $500 x+0{ }^{2}$
$4.000 x+02$
$4.700=+{ }_{0}^{2}$
$4,600 x+00^{2}$
$4.900 x+02$
$2.000 x+0^{2}$
ン. $100 x+01^{2}$
5. $200 x+02$
b. $310 x+122$
$2.400 x+0{ }^{2}$
2. $5000+02$
b. $600 x+122$
-.700~+02
b. $800 x+02$
b. $900 x+02$
velocity
RE
$3.9020=00$
$4.576 n+00$
$5.336 x=00$
6.158- 00
7.041~*00
$7.9850+00$
$8.9900+00$
$1.006=01$
$1.118 m=01$
$1.237 m+01$
$1.237 m * 01$
$1.362 n+01$
$1.492 m+01$
$1.629 x+01$
$1.7710+01$
$1.9190+01$
2. 074 * 01
$2.2330+01$
$2.3990+01$
$2.399 n+01$
$2.5700+01$
$2,747=01$
$2.9300+01$
$3.118=01$
$3.312=+01$
3. 511=*01
$3.715 x+01$
$3.9250+01$
4. $1410+01$
4.3610+01
$4.5870+01$
$4.8190+01$
$4.8190+01$
$5.055=+01$
$5.2970+01$
$5.5430+01$
$5.7950+01$
6. $052=01$
$6,314 m+01$
$0.581=01$
$6,652 x+01$
7. 129 $20+01$
$7.4100+01$
$7.988 n+01$
$8.284 n+01$
$8.584 x+01$
$8.8900+01$
$9.1990+01$

DRAG: COEF RELAX TIME .90 DIST

| $8.478 .0+00$ | 4.316002 | $4.4800+00$ |
| :---: | :---: | :---: |
| $7.5810+00$ | 4.725: 02 | $5.3800+00$ |
| $6.767 .+00$ | $5.1650=02$ | $6.3660+00$ |
| $6.095 \times 00$ | 5.6100 .02 | $7.438=00$ |
| 5.535.000 | 6.058.002 | 8.395000 |
| $5.0610+00$ | $6,5080 \cdot 02$ | 9. $0370+00$ |
| 4,657*00 | 6,9610002 | $1.1160+01$ |
| $4.309 p+00$ | 7.416002 | $1.2570+01$ |
| 4.006m+00 | 7,8720002 | $1.4060+01$ |
| 3,7420*00 | 8,328\%-02 | 1.2620.01 |
| 3.508-00 | 8,786=02 | 1.127**01 |
| $3.3010+00$ | $9.2440=02$ | 1.899x+01 |
| 3.117.00 | 9,7010-02 | 2.479**01 |
| $2.952 x+00$ | 1.0160-01 | $2.267 *+01$ |
| $2.8030+00$ | 1.0620=01 | 2.4620*01 |
| $2.069+00$ | 1.1070001 | $2.0640+01$ |
| $2.346 \pm+00$ | 1.1530-01 | $2.0730+01$ |
| 2.4350+00 | 1. $1990=01$ | 3.4890*01 |
| $2.333 .+00$ | 1.2440=01 | 3.3120*01 |
| 2,2400*00 | 1,289-01 | $3.5410+01$ |
| 2. $154 m+00$ | $1.335-01$ | 3.1780*01 |
| 2.075 +00 | 1.3800-01 | 4.0200*01 |
| 2.0010\%00 | 1.4250001 | 4. $2700^{+0} 01$ |
| 1.9330*00 | 1.470-01 | 4. $2250+01$ |
| 1.870000 | $1.5140=01$ | 4.187w+01 |
| 1.811000 | 1,559m=01 | 5.1454m+01 |
| 1.750.000 | 1.003001 | 5.327-01 |
| $1.7050+00$ | 1.647001 | $5.0070+01$ |
| $1.0560+00$ | 1.6920001 | 5.8920*01 |
| 1.011 .400 | 1.7350001 | 6.1820001 |
| $1.5680+00$ | 1.7790\%01 | 6.4780+01 |
| $1.5200+00$ | 1.8230001 | $6.7800+01$ |
| 1.4900*00 | $1.8660=01$ | $7.0860+01$ |
| $1.454 m+00$ | 1.9100001 | 7.998x+01 |
| 1.4210*00 | 1.953001 | 7.1150+01 |
| 1. 5880000 | 1.995\% 01 | 8. $\cup^{370}+01$ |
| $1.3580+00$ | 2.0380\% 01 | 8. $5640+01$ |
| 1.329x+00 | 2.081-01 | 8.096-01 |
| 1. $5020+00$ | 2.1230* 01 | 9.4320+01 |
| 1.275:00 | 2.1650-01 | 9.374=*01 |
| 1.251000 | $2.2070=01$ | 9.1190+01 |
| 1.2270+00 | 2.2490-01 | 1.U070*02 |
| $1.200^{4}+00$ | 2.2910=01 | 1.144200+02 |
| 1.1820+00 | 2.3320001 | 1. $u^{78 \pm+02}$ |
| 1.1620*00 | 2.374-01 | 1.115m+02 |
| $1.1420+00$ | 2,415=01 | 1.1510+02 |

## PARTICLE DENSITY $=1.0$ GRaMS PER CUbIC CENTIMETER

| UIAMETER | VELOCITY | RE | DRAG COEF | helax timt | . 90 D!ST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.000=+02$ | $2.40^{8}+02$ | 9.3140+01 | 1.1230*00 | 2.456000! | $1 \cdot 1^{890}+02$ |
| $0.100=+02$ | $2.4480+02$ | $9.833=01$ | 1.104**00 | 2,4900=01 | 1. $2260 * 02$ |
| 0. $2000+02$ | 2,488** 02 | 1.016- 02 | 1.087000 | 2.5370-01 | $1.8640+02$ |
| $0.300=+02$ | $2.527 m+02$ | $1.0480+02$ | 1.070=*00 | 2.5770001 | $1 \cdot 5820+02$ |
| $6.400 x+12$ | $2.5670+02$ | 1.0820*02 | $1.054 m+00$ | 2.018 mmol | $1 \cdot 3410+02$ |
| b. $500 x+0^{2}$ | $2.6060+02$ | 1.1150002 | 1.038 .00 | $2.658=01$ | $1.9800+02$ |
| $6.600 x+02$ | $2.645 m+02$ | $1.1500+02$ | 1.0230+00 | $2.698=01$ | $1.4200+02$ |
| $0.700=+02$ | 2,684**02 | $1.1840+02$ | $1.0090+00$ | $2.7370=01$ | $1.4600+02$ |
| $0.800=02$ | 2.723.02 | 1.219 .02 | 9.9510001 | 2.7770-01 | 1. $2000+02$ |
| $0.900 x+02$ | $2.7620+02$ | 1.2550+02 | 9.8170001 | 2.8100001 | $1.7400+02$ |
| \%.000 $2+02$ | $2.8000+02$ | $1.2910 * 02$ | $9.6860=01$ | $2.8550=01$ | $1 \cdot 5810+02$ |
| $\% 100 n+02^{2}$ | $2,838=02$ | $1.3270+02$ | $9.5630=01$ | 2.8940001 | 1.0220002 |
| \%.200x+02 | $2.870 .+02$ | 1. $364 n+02$ | 9.442.001 | $2.9330=01$ | $1.0640+02$ |
| $7.300 x+02$ | $2.914 n+02$ | $1.4010+02$ | 9.320001 | 2.9720-01 | $1.1060+02$ |
| 1.400= +02 | $2.9520+02$ | 1.438 .02 | 9.213-01 | 3.0100001 | 1.1480*02 |
| 7.500x+02 | $2.9900+02$ | $1.4760+02$ | $9.10^{5} \times 01$ | 3.0490001 | $1.1910+02$ |
| \%.600=+02 | 3.027m*02 | $1.515=+02$ | 8.9990001 | $3.087 \times 01$ | $1.0330+02$ |
| $7.700=+0^{2}$ | 3.064n+02 | $1.5540+02$ | 8.097.01 | 3.1250001 | 1.077- 02 |
| $7.800=+02$ | 3. $102 \pm+02$ | $1.5930+02$ | $8.7900=01$ | $3,1030-01$ | $1 \cdot y 200+02$ |
| $7.900=+02$ | $3.1380+02$ | $1.633=02$ | 8.702001 | 3,2010001 | $1.4640+02$ |
| $8 \cdot 000=+0^{2}$ | 3.1750+02 | $1.6730+02$ | $8.610=01$ | 3.2380001 | $2 \cdot 00^{8 \times+} 02$ |
| -.100x+02 | 3.212m+02 | 1.7130002 | 8.5190001 | 3.2750011 | $2 \cdot 4^{5} 20+02$ |
| -. $200=+02$ | 3,248**02 | $1.7540+02$ | $8.432=01$ | 3.313-01 | $2 \cdot 4970+02$ |
| -.300x+02 | 3.285.02 | $1.7950+02$ | 8,347001 | 3.35000001 | 2-1420+02 |
| $6.400=+02$ | 3.3210+02 | 1.837= ${ }^{1.8}$ | 8.c65-01 | $3.3860=1$ | 2.1870+02 |
| $0.200 x+02$ | 3.357**2 |  | 8.185001 | 3.4230001 | 2. $3^{3} 2=+02$ |
| $0.600 x+02$ | 3.393*+02 | 1.9210002 | $8.107=01$ | 3.4600001 | $2 .<780+02$ |
| $0.7000+02$ | $3.4280+02$ | 1.964~+02 | $8.031=01$ | 3,496n=11 | 2. $32400+02$ |
| $8.800 x+02$ | 3.464 .02 | 2. $007 \%+02$ | 7.958m=01 | 3, $2320=01$ | 2.3700+02 |
| $8.900 x+12$ | 3.499 0 + 02 | 2.0510*02 | 7.080-01 | 3,5690001 | $2.4170+02$ |
| 4.000x+02 | 3.535002 | 2.095m+02 | 7.8100001 | $3.0050-01$ | $2.4630+02$ |
| $y \cdot 100 x+0{ }^{2}$ | $3.5700+02$ | 2. $139 x+02$ | $7.7480=01$ | $3.6400-01$ | 2. $3100+02$ |
| y. $2000+02$ | $3.6050+02$ | 2.184**02 | $7.682=01$ | $3.0760=1$ | 2. $2580+02$ |
| 9.300x+ 42 | $3.6400+02$ | 2. 2298002 | 7.618 .01 | 3.7110001 | 2.005w+02 |
| $9.400 x+02$ | $3.6744^{10}+02$ | 2. $2740+02$ | 7.555-01 | $3.747 x-31$ | 2.653-02 |
| 9.500x+32 | $3.709+02$ | $2,3200+02$ | $7.494=01$ | 3.7820-01 | 2.1010+02 |
| 9.600x+02 | $3.7430+02$ | $2.366=02$ | 7.435001 | $3.017 \times 1$ | 2. $149 \pm+02$ |
| $9.700 x+02$ | $3.7770+02$ | $2.413 m+02$ | 7.370 .01 | 3,8520001 | 2.1970+02 |
| $4.800=+0^{2}$ | $3.81100+02$ | 2.4600*02 | 7.3200001 | $3.887=01$ | 2.0460+02 |
| $4.4000+02$ | 3.84502 | 2.5070+02 | 7.264=01 | 3.9210-01 | $2.0950+02$ |
| 1.0000*0S | $3.879{ }^{0}+02$ | 2,554=+02 | 7.210=001 | $3.9500=01$ | 2. $4444+02$ |
| $1.010 x+03$ | $3.9150+02$ | $2.0020+02$ | 7.156.0.01 | 3.9900001 | $2.4930+02$ |
| 1.020x+14 | 3.9470+02 | $2.6510-02$ | 7.106=01 | 4.0240-01 | 3.4420*02 |
| 1.050x+05 | $3,9800+02$ | 2.699n*02 | 7.050.0-01 | 4,0590001 | 3.19 $20+02$ |
| $1.0408+05$ | 4.0130 +02 | $2.7480+02$ | 7.007ッ01 | 4.0930001 | 3. $1420+02$ |
| 1.030x+4S | $4.046 \pm+02$ | 2.198.*02 | $6.9580=01$ | 4.1260\%01 | 3.192**02 |

## PARTICLE DENSITY $=2.0$ GRAMS PER CUBIC CENTIMETER

## biameter

## VELOCITY

$6.051=03$
$7.312=03$
$8.091=03$
$1.0 .19=02$
$1.181=02$
$1.554=02$
$1.540=02$
$1.737=02$
$1.947=02$
$2.168=02$
$2.401=02$
$2.046=02$
$2.403=02$
$3.172=02$
$3.453=02$
$3.740=02$
$4.050=02$
$4.367=02$
$4.695=02$
$5.035=02$
$5.580=02$
$5.7520=02$
$6.128=02$
$6.516=02$
$6.416=02$
$7.326=02$
$7.751_{10}=02$
8．187＝02
$0.634-02$
$9.0^{040}=[2$
$9.265=02$
$1.000^{5}=01$
1．054n－01
$1 \cdot 10=01$
1．157＝01
1．210＊＊01
$1.264=01$
1．32010－01
$1.5700=01$
$1.4340=01$
$1.493_{10}=01$
$1.653_{0}=01$
$1.012=01$
$1.6701 n=01$
$1.741=01$
$1.000=0!$

RE
$3.9850=06$
5．296＝$=06$
6，867．－06
$8.722=06$
1．088．＂05
$1.338=05$
$1.622 \times 05$
$1.945 x=05$
$2.307=05$
2．712＊－05
3．162＝＂．05
3.659 .05
$4.206=05$
$4.804=05$
5． $457=05$
6． 1660005
$0.9340-05$
7．763n－0b
8．657．05
$9.016=05$
1．064－04
1．174＝04
1.2910004
1.416004

1． $248=04$
$1.689=04$
1.837 .04
$1.9950=04$
2． $1600-04$
2． 3350004
く． $219 x=04$
$2.7130-0^{4}$
2.9100004

3． $1290=0^{4}$
3． $3520=0^{4}$
$3.585=04$
$5.0290=0^{4}$
4．084ш＂04
$4.350=04$
$4.028=04$
$4,916=04$
2． $217=04$
う．5300＂04
2．6540－04
6．1920－04
$6,542 x=04$
drag coef relax time
．96 01ST
$5.8300+00$
$4.4000+06$
$3.402=+06$
$2.6840+00$
2．154＋ 176
$1.756=06$
$1.4500+06$
$1.211 x+06$
$1.0220+110$
$8.6980+05$
$7.467 n+05$
$6.456 x+05$
$5.6230+05$
$4.925 x+05$
4． $5390+05$
$3.6420+05$
$3.4100+05$
3． $05410+05$
$2.740 n+05$
2． $468 x+05$
2． $210+05$
$2.0230+05$
$1.0400+05$
$1.0780+05$
$1.3350+05$
$1.40^{8}+05$
1． $1945+05$
$1.1930+05$
$1.1010+05$
$1.0190+05$
$9.4490+04$
$8.7770+04$
$8.777=04$
$8.1670+04$
$7.6150+04$
$7.107 n+04$
$6.640 m+04$
6． $2250+04$
$5.330 m+04$
$5.4800+04$
5． $152 x+04$ $4.050 x+04$
$4.5710+04$
4．31300 04
4． $750+04$
$3.653 n+04$
$3.647 n+04$

6．1710006
$7.4560=06$
$8.8620=06$
$1.039=05$
1.204005
1.3810005
$1.570=05$
$1.772=.05$
$1.985=05$
$2.2110=05$
2．449．05
2．698－05
$2.961=05$
3.235 .05

3．5210－05
3.8200005

4． $1300=05$
4． $453=-05$
$4.788=05$
5．1350－05
$5.4940=05$
5.860005
$6.2490=05$
$6.6450=05$
7．052x－05
$7.472 x=05$
$7.904=05$
$8,349=05$
$8.805-05$
$9.273=05$
9，7540005
1．0250－04
1．0750－04
$1.1270^{\circ} 0^{4}$
1.1800004
$1.234 m-10^{4}$
$1.289=04$
$1.346 x=04$
$1.4040=04$
$1,4630=14$
$1.5230=04$
1． $2840=04$
$1.647 m-04$
$1.770=0.424=0=05$
$1,7760=04 \quad 9 \cdot 4760-07$
$1.842 \infty-04$
$7.007=-05$
$8.424=05$
$9.40=05$
$1.4^{8600007}$
1． $288 \times-07$
2． $247=07$
3． $\mathrm{U}^{9} 2=0=07$
4．156－0 07
$5.4730=07$
7．$u^{8} 1=07$
9． $4180=07$
$1 \cdot 1330=06$
$1.406=06$
1.1250006

2． $4^{96-06}$
2． $22310=06$
3．リ13：$=06$
3． 970000
4．$\angle 020=06$
$4.9130-06$
5.1120006
$6.004=-06$
7． $2960-06$
$8.09715=06$
9． $1120=00$
1．125－05
$1 \cdot<72.10-05$
1.433 .05
$1.0090 \cdot 05$
1．00000－05
2． $4080 \cdot 05$
$2.233=05$
2．477．0－05
2． 1410005
3． $424=05$
3． 5300005
3.0570005

4． $40^{9}=0^{5}$
$4.1870=5$
5． $616=-05$
$5.073=05$
6．159＝－05
$0.0760=05$
7． 2250005
$9.16 b=05$

# PaRticle density $=2.0$ grams per cubic centimeter 

| UIAMETEH | velocity | re | drag ceef | relax time | .90. DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2, $6000 \times 00$ | 1.872.01 | 6, 9050-04 | 3.456.004 | 1.9090-04 | 1.4490004 |
| $5.700 \times+00$ | 1.940.01 | 7.281.004 | 3.278**04 | 1.978004 | 1.1260004 |
| $2.8000+00$ | 2.008=01 | 7.6700"04 | 3.112n*04 | 2.048.0.04 | 1.2070004 |
| $5.9000+00$ | 2.0780001 | 8.073.-04 | 2.957**04 | 2.119m=04 | $1 \cdot 2^{9} 2^{\prime \prime}=04$ |
| $6.000 \times 00$ | 2,149.01 | $8.4900 \sim 04$ | 2.8120*04 | 2.1920004 | 1.3820 .04 |
| $0.100 x+00$ | 2,2210001 | 8.922-04 | 2.6760*04 | 2.265.04 | 1.476-04 |
| 0.200x+U0 | 2.2940001 | $9.367=04$ | 2,5490**4 | 2,3400=04 | 1.9750004 |
| $0.3000+00$ | 2,3690001 | 9.827 .04 | 2.4300+04 | $2,416 \mathrm{~m}=0^{4}$ | 1.0790\% $0^{4}$ |
| 6. $4000+00$ | 2,4450-01 | 1.0300003 | 2.3180004 | $2,493 \%=04$ | 1.1880004 |
| $6.500=+00$ | 2,5220-01 | 1.079.003 | $2.213=00^{4}$ | $2.5710=04$ | $1.902 m=04$ |
| $6.000=+00$ | 2.600-01 | $1.1300=03$ | 2.11400+04 | 2.651 .004 | 2. $421=04$ |
| $0.700 x+00$ | 2.679001 | $1.1820=03$ | 2.0210+04 | $2.732 p=04$ | 2.1460\% 04 |
| $6.800 x+00$ | 2.759.01 | 1.235.003 | $1.934 x+04$ | $2.814=00^{4}$ | 2. ${ }^{77700} 0^{4}$ |
| $0.900 x+00$ | $2.841 \pm 001$ | 1.2910003 | $1.85110+04$ | 2.897004 | 2.4130004 |
| $7.000 x+00$ | 2,924-01 | 1,348=03 | $1.7730+04$ | $2.982=00^{4}$ | $2.556000^{4}$ |
| $7.100 \times+00$ | 3,008-01 | 1.406.003 | $1.6990+04$ | 3,067.04 ${ }^{4}$ | 2.1050004 |
| $7.200 x+00$ | 3.093.01 | 1.466.03 | $1.63 .00+04$ | $3.154 m=04$ | 2.0600004 |
| 7.3000+00 | 3.179n=01 | 1,528.03 | 1.564 .04 | 3.2420-04 | 3. $\mathrm{y}^{22=04}$ |
| 1.400x+00 | 3,267-01 | 1,5920003 | $1.5010+04$ | 3.3310004 | 3. $191=04$ |
| ?.500x+00 | 3,356\% 01 | 1.657=03 | $1.442 n+04$ | $3.422=04$ | 3. 666004 |
| $7.000 x+00$ | 3.446=01 | 1.724003 | 1.386 .044 | $3.514 n=04$ | 3. 349004 |
| $7.700=+00$ | 3.537m=01 | 1.793=03 | $1.333 n+04$ | 3.6070004 | 3.1390004 |
| $7.800 \times+00$ | 3.6290001 | 1,864=03 | $1.2830+04$ | 3.7010004 | 3.936=04 |
| $7.400 x+00$ | 3.723-01 | 1.936.03 | $1.235 * 04$ | 3.7960004 | 4. $1420=04$ |
| $6.000 x+00$ | 3.817.01 | 2.011003 | $1.189 n+04$ | 3.893 .04 | 4. 5 55-04 |
| $8.100 \times+00$ | 3.9130.01 | 2.087-03 | 1.140n+04 | 3.9910004 | 4.5760004 |
| $8.200=+00$ | 4.01010001 | 2.155.0.03 | $1.1040+04$ | $4.090 p=04$ | 4.006=04 |
| $\square .500=+40$ | $4 \cdot 109.01$ | $2.245=03$ | 1.0650004 | $4.190 m=04$ | 5.0440004 |
| $8.400 x+00$ | 4.208001 | 2,3280-03 | $1.0270+04$ | 4.2910004 | $5.291=04$ |
| $8.500 \times+00$ | $4.309=01$ | 2.412-03 | $9.917 \times+03$ | $4.394 n=04$ | $5.346 \times 00^{4}$ |
| $0.600 x+00$ | 4.410-701 | 2.498=03 | $9.570 \mathrm{~m}+03$ | $4,498.04$ | 5.011004 |
| $8.700 \times 40$ | $4,513{ }^{\circ}=01$ | 2,5860003 | $9.2500+03$ | $4.603 n-04$ | -. $0^{860=04}$ |
| $\bigcirc .000 x+00$ | $4.018{ }^{10}=01$ | 2.076n=03 | $8.9390+03$ | $4.700^{9}-04$ | 6. 9700004 |
| $8.900 x+00$ | 4.723001 | 2.768003 | $8.642=+03$ | $4,8160=04$ | $6.0630=04$ |
| Y. $0000 \times 00$ | 4,830-01 | 2,862=03 | $8.3580+03$ | $4.9250-04$ | 6. $967 \mathrm{~m}-04$ |
| Y. $100 x+00$ | 4.937.-01 | 2.9590*03 | $8.080{ }^{80}+03$ | 5, 035004 | 7. $\mathrm{C}^{81} 10-04$ |
| $9.200 x+00$ | 5.0400001 | 3.0570003 | 7.8260003 | 5.146=04 | $7.0060 \cdot 04$ |
| $9.300 x+60$ | 5.156001 | 3.158.03 | $7.5770+03$ | $5.258=04$ | 7.941000 04 |
| $4.400 x+00$ | $5.2680=01$ | 3.261. 03 | 7.330 .03 | $5.3720-04$ | 8. $8^{87 m=04}$ |
| $9.500 x+100$ | 5.3800001 | 3,3660-03 | 7.1100+03 | $5,487=04$ | $8.045 \mathrm{~F}=04$ |
| 9.600x +00 | 5.494.01 | 3,473x-03 | $6.8900+03$ | 5.0030-04 | 9. 114004 |
| $4.700 x+40$ | $5.007=01$ | 3.5820\% 03 | $6.0800+03$ | $5.720000^{4}$ | 9.3940004 |
| $9.800=+00$ | 5.725001 | 3,694=03 | $6.4780+03$ | 5,8380004 | 9.1870004 |
| $9.900 x+40$ | 5.8420001 | 3.8080 $=03$ | $6.2840+03$ | 5.958 .004 | 1.4190003 |
| $1.000 x+01$ | 5.961 .001 | 3,925=003 | $6.0980+03$ | 6.078.04 | 1.0610003 |
| $1.100 x+01$ | 7.2100-01 | 5.2220003 | $4.585=+03$ | 7.3520004 | 1.3520003 |

## Particle density $=2.0$ grams per cubic centimetek

DJAMEIEK
VELOClTY
KE


| 200x+01 | 8.57800 |
| :---: | :---: |
| $1.300 x+01$ | $1 \cdot 0.000+00$ |
| $1.400 x+11$ | 1.167**00 |
| $1.500 \times+01$ | 1.339m+00 |
| $1.600=+01$ | 1. 222000 |
| $1.700 \mathrm{x}+01$ | 1.718=00 |
| $1.800=+01$ | 1.927**0 |
| $1.900 x+01$ | $2.143 * 00$ |
| 2.000x+11 | $2.374=00$ |
| $2.100 x+01$ | $2.015+00$ |
| $2 \cdot 200 x+01$ | $2.868 \pm+00$ |
| C. $300 x+01$ | $3.132 .+00$ |
| <. $4000 \times 01$ | 3.407 .00 |
| $2.500 x+131$ | $3.6930+00$ |
| $2.600 \times+01$ | $3.991 \times+00$ |
| $2.700 x+01$ | $4.2990+00$ |
| $2.800 x+01$ | 4.618000 |
| $2.900 x+01$ | $4,947 \%+00$ |
| 3.000x+01 | $5.287 m+0$ |
| 3. $1000 \times 01$ | 5.637**00 |
| 3,200x+01 | $5.997 \times 00$ |
| $3.300 x+01$ | $0.368 \pm 00$ |
| $3.400 x+01$ | $6.745 \pm+00$ |
| 3.500 $0+01$ | $7.134 n+00$ |
| $3.0000+01$ | $7,5340+00$ |
| $3.7000+11$ | $7.942 x+00$ |
| $3.800 x+01$ | $8.3600+00$ |
| 3.400: 01 | $8.7800+00$ |
| 4.000x+61 | 9.221.00 |
| 4.1.00x+111 | $9.6650+00$ |
| $4.200 x+01$ | 1.0120+01 |
| 4.3000+ 41 | 1.0500*01 |
| 4.400x+ 01 | $1.10^{4} 0+01$ |
| 4.200x+01 | 1.1520+01 |
| $4.600 x+11$ | $1.2000+01$ |
| $4.700 x+11$ | 1.249** 01 |
| 4.000: 01 | $1.299 * 0!$ |
| 4.900x+01 | $1.3490+01$ |
| b. $0000 \mathrm{c}+1$ | 1.400*01 |
| b. $100 \times+01$ | $1.4510+01$ |
| b. $200 \times+11$ | $1.5040+01$ |
| 2.300x+01 | 1.556.01 |
| b.400x+01 | $1.609 \times 01$ |
| 2. $2000 x+01$ | 1.6630+01 |
| $2.600 x+01$ | $1.717 x+01$ |
| b, 700x 01 | 1.772 |

6.778. $=03$
$8.614=03$
1.075=02
1.322:"02
$1.004=02$
$1.923=02$
2, 2820=02
2,682=02
3.126.002
$3,0,6=02$
4. 1540" 02
4.743 .102
$5.384=02$
6. $0^{8} 0=02$
$6.832=02$
$7.643=02$
$8.513=02$
$9.446=02$
$1 \cdot 044=01$

1. 151me01
$1.2640=01$
$1.384=01$
1.5100001
$1.6440=01$
$1.786=01$
1.935.0.01
2. 092.01
3. $2560=01$
4. $429=01$
5. $0090=01$
2.798=01
$2.995=-01$
$3.200=01$
$3.413=01$
$3.635=01$
$3.8660=01$
6. 1050=01
4.3520.01
4.609 .01
4.0774=01
7. 1480001
$2.4310=01$
ל. 723m=01
6.0230=01
$0,333=01$
$6.651=01$

DRAG COEF RELAX TIME
.9n DIST
3.5320+03
$2.7820+03$
2.2300*03
$1.8140+03$
$1.4960+03$
$1.249 x+03$
1.053**03
$8.460+0.2$
$7.6980+02$
$6.059 \ldots+02$
$5.8010+02$
$5.0^{85}+02$
4.484-02 02
$3.9750+02$
3.541**02
3. $169 n+02$
$2.848=02$
2. $2700+02$
$2.3280+02$
$2.1160+02$
$1.9300+02$
$1.765 x+02$
$1.6220+02$
$1.4920+02$
$1.577 \Delta+02$

1. $2750+02$
$1.1800+02$
$1.0900+02$
$1.0210+02$
$9.520=01$
$8.900+01$
$8.520+01$
2. 342 - 01
$7.029 .0+01$
3. $5600+01$
$6.4310+01$
$6.5380+01$
$6.176+01$
$5.044=+01$
$5.5370+01$
$5.254=01$
$4.9920+01$
$4.1490+01$
4.224.0+01
$4.3150 * 01$
4.120**01
$3.939+01$
$8,747 m=04$
$1.0260=03$
$1.1900=03$
$1.365=03$
$1.5530=03$
1.752=03
$1.903=03$
$2.186=03$
$2.420=03$
$2.067 .0^{2}+0$
$2.9240-03$
3.194=003
$3.4740-03$
3.7660-03
4. $0690=03$
5. $3840-03$
$4.7090=03$
6. $0450=03$
$5.3910=03$
$5.7480=03$
$0.1100=03$
$6.493 x-13$
$6.8780=03$
$7.275 x=03$
$7.6820=03$
7. $099 \mathrm{n}=03$
$8.5250-03$
$8.9600=03$
$9.403 .=03$
$9.8560-03$
$1.032=02$
8. $079=02$
9. $120 x=02$
1.175:02
$1.2240=02$
$1.274=02$
$1.324 x=02$
$1.376=02$
$1.4280=02$
1.4800002
1.5330=02
$1.587=02$
$1.6410=02$
$1.0960=02$
1.7510002
$1,8070=02$
2.1960.03
10. $4220=03$
11. $10^{620=03}$
$5.549=03$
12. 4190003
8.813=0.03
1.1070-02
$1.374=02$
$1.086=02$
$2.1^{48} 0-02$
2.465002
$2.444=02$
3.489-02
13. $1060=02$
$4.002=02$
5.,2820002
$6.454=02$
7.423-02
$8.4990=02$
$9.0870-02$
1.099001
$1.243=01$
$1.400^{+0001}$
14. 372001
1.1590001
$1 . y 62001$
15. 1830-01
2.4210001
2.0780-01
16. $456=01$
17. $2540 \cdot 01$
18. 2650001
19. ォ87" $7=01$
20. $2230 \cdot 01$
4., $740-01$
21. $+410-01$
22. 523 $2 n-01$
23. 12200001
6.137001
$6.370-01$
7.0190001
$7.485=01$
7.469001
$8.47100=01$
$8.490=01$
9.228001

Particle density $=2.0$ grams per cubic centimeter
UIAMETEK
velocity
2.800.001
5.900x+01
$0.0000+01$
$6.1000+01$
$0.200 x+01$
$6.300 \mathrm{e}+01$
$6.400 x+01$
$0,500 \mathrm{n}+01$
$0.600 x+01$
$6.700 \times+01$
$6.800 x+01$
$0.900 x+01$
$7.000 x+01$
$7.100=+01$
$7.200 x+01$
$7.3000+01$
$7.400=+01$
$7.5000+01$
$1.6000+01$
$7.700 x+01$
$7.8000+01$
$7.9000+01$
$8.0000+01$
b. 100 $0+01$
$8.2000+01$
$0.300 \times+01$
$8,400 x+01$
$8.500 \times+01$
6. $000 \mathrm{x}+01$
$8.7000+01$
$8.800 x+01$
$0.900 \times+01$
$9 \cdot 000=+01$
$y \cdot \mid 00 x+41$
Y. $200 \mathrm{x}+\pi$ !
$9.300=+01$
$9.400 x+01$
$4.500 x+01$
$9.600 \times+01$
$9.700 x+01$
$4.800=01$
$9,900=+01$
$1.000 x+112$
$1.100 \times 02$
$1.200=+02$
$1.300 *+02$

| $827 \times 01$ | 6.9790-01 |
| :---: | :---: |
| $1.8830+01$ | 7.3150*01 |
| $1.939 * 01$ | $7.6610 \% 01$ |
| 1.995.*01 | 8.015-01 |
| 2.0520*01 | 8.379 .01 |
| 2.110**01 | 8.7510-01 |
| 2.1670+01 |  |
| $2.2250+01$ | 9.5240-01 |
| 2.2830+01 | 9.92 |
| $2.342 m+01$ | 1.0330*00 |
| $2.4010+01$ | 1.075-00 |
| $2.4610+01$ | 1.1180* 00 |
| 2.5200+01 | 1.1020*00 |
| $2.5800+01$ | 1.206x+00 |
| $2.6410+01$ | 1.252.*00 |
| $2.7010+01$ | 1.299**00 |
| 2.7630*01 | 1.346. +00 |
| $2.824 x+01$ | 1.395-00 |
| 2.886.001 | 1.4440*00 |
| 2,9490*01 | 1.4950*00 |
| 3.0110+01 | 1.547.*00 |
| 3.075n+01 | 1.599**0 |
| 3.1380+01 | 1.653n+00 |
| $3.2030+01$ | 1.708**0 |
| 3.2670+01 | 1,7640*00 |
| 3.3350+01 | 1.8210*00 |
| 3.3990+01 | 1.880000 |
| $3.46 b_{0}+01$ | 1.939\%*00 |
| $3.5320+01$ | 2,0000*00 |
| $3.6000+01$ | 2.0620*00 |
| $3.6680+01$ | 2.126**00 |
| $3.7370+01$ | 2. $1900+00$ |
| $3.800^{70}+01$ | 2. $2560+00$ |
| $3.8780+01$ | 2, $3240+00$ |
| 3.949x+01 | 2.3920+00 |
| 4.021\%+01 | 2.4620*00 |
| 4.0930+01 | 2.5340+00 |
| 4.160 0 + 01 | 2.006-00 |
| $4.2400+01$ | 2. $6800+00$ |
| $4.315 .+01$ | $2.7560+00$ |
| 4.389 .001 | 2.832.00 |
| 4.4640 - 01 | 2.910**00 |
| $4.5400+01$ | 2.9890+00 |
| 5.264 .01 | $3.8130+00$ |
| $5.9020+01$ | $4.6640+00$ |
| $6.5898+0$ | 5.64 |

DRAG CEEF RELAX TIME ,9O DIST

| 3,769n+01 | 1.863=02 |  |
| :---: | :---: | :---: |
| 3.6110*01 | $1.9200=02$ | 1.4600*00 |
| 3.463\% +01 | 1.977** 02 | 1.1250+00 |
| 3.324m+01 | 2.0350\%02 | 1.1860*00 |
| 3.194**01 | 2.093-02 |  |
| 3.072.401 | 2.1510.02 | 1.3140+00 |
| 2.957-*01 | 2. 2190002 | 1.3810+00 |
| $2.849 m+01$ | 2,269.02 | 1.449p+00 |
| 2.747n+01 | 2, 329n-02 | 1.520*00 |
| $2.651 m+01$ | 2, $388 \mathrm{~m}=02$ | 1.3920*00 |
| 2.5600+01 | 2,449--02 | 1.067-*00 |
| 2.4730+01 | 2,509.002 | 1.7430*00 |
| 2,392n+01 | 2.5700002 | $1.022 \mathrm{t}+00$ |
| $2.314 n+01$ | 2.6310002 | 1. $4020+00$ |
| 2.2410+01 | 2.693 - 02 | 1.984=*00 |
| 2.1710+01 | 2.7550\%02 | $2.1580+00$ |
| $2.104 n+01$ | 2.817 .002 | 2. $1550+00$ |
| 2.041=*01 | $2.8800=02$ | 2.243n+00 |
| $1.9800+01$ | 2.943-02 | 2. 33 |
| $1.922=+01$ | 3.007=02 | 2.426**00 |
| $1.867 n+01$ | 3.071=02 | 2.520*00 |
| 1.n14-* 01 | 3.135-02 | 2.0160*00 |
| $1.7630+01$ | 3.200:-02 | 2.115**00 |
| \| $1.714 \times+0 \mid$ | 3.260:02 | 2.0150+00 |
| 1.067.01 | 3.3320=02 | 2.4180*00 |
| 1.022=*01 | 3.399. 02 | 3. $322 * 00$ |
| 1. $5780+01$ | 3.466" 02 | 3. $2990+00$ |
| $1.5360+01$ | 3.534n=02 | 3. $\angle 37+00$ |
| 1.490001 | 3.002000 | 3. 488000 |
| $1.4570+01$ | 3.6710002 | $3.4610+00$ |
| $1.4190+01$ | 3,741:-02 | 3.9750+00 |
| $1.3830+01$ | $3.8110=02$ | 3.0920+00 |
| 1.347.*01 | $3.883 \% 02$ | 3.0110*00 |
| 1.3130*01 | 3.954 .02 | 3. 4 320*00 |
| 1.28000 01 | 4:027-02 | $4.0550+00$ |
| 1. $2480+01$ | $4 \cdot 100002$ | $4.1800+00$ |
| $1.2170+01$ | 4.174=02 | 4. $308=00$ |
| 1.1880+01 | 4.249m=02 | $4.4378+00$ |
| $1.1590+0 \mid$ | 4,324-02 | 4. $2680+00$ |
| $1.1310+01$ | 4,4000002 | 4.102**00 |
| $1.104=+01$ | 4.4700.02 | 4.837 .00 |
| $1.0780+01$ | 4.553 .02 | $4.9750+00$ |
| $1.0530+01$ | 4.6300002 | 5.1150000 |
| $8.015=+00$ | 5.3680002 | 6.0270000 |
| 7.476*00 | 6.0190002 | $8.5490+00$ |
| 6,497 | 6.72000 |  |

Particle density $=2.0$ grams per cubic centimeter

| UIAMETER | velocity | RE | dRag ceef | relax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.400:+02 | $7.2840+01$ | 6.7150+00 | $5.720 \times 00$ | 7.428.02 | $1 .<420 \pm 01$ |
| $1.500 \times+{ }^{2}$ | 7.985-01 | 7.886.000 | 5.100000 | $8.142 m=02$ | $1.4760+01$ |
| $1.600 \times+0^{2}$ | $8.6900+01$ | 9.155 .00 | $4.5980+00$ | 8.861.02 | $1.1300+01$ |
| $1.700 x+10^{2}$ | $9.3980+01$ | 1.0520*01 | 4.177500 | 9.5830-02 | 2.004=901 |
| $1.800 \times+02$ | $1.011 \mathrm{n}+02$ | 1.198 .01 | 3.825=00 | 1.0310001 | $2.2970+01$ |
| $1.900 \times 02$ | 1.082 .002 | 1. 3540 * 01 | 3.522=*00 | 1.1030001 | 2.0100001 |
| - $0000 \times 02$ | 1.153 ${ }^{102}+02$ | $1.519 n+01$ | 3.2630+00 | 1.1.76-701 | 2.94in+01 |
| 2.100×+02 | 1.225m+02 | $1.693 \mathrm{~m}+01$ | 3.039n+ 00 | 1.249n=01 | 3. $2900+01$ |
| $2 \cdot 200 \times 02$ | $1.29600+02$ | $1.8770+01$ | 2.84400+00 | 1.3210001 | $3.658 \times+01$ |
| $2.300=+0^{2}$ | $1.3670+02$ | 2.07000+01 | $2.6710+00$ | 1.3940\% 01 | 4. $0^{4} 20+01$ |
| C. $400 \times+02$ | $1.43800+02$ | 2,2720*01 | 2.519000 | $1.4660=01$ | $4.4440+01$ |
| 2.500x+02 | $1.509 \%+02$ | 2.484**01 | 2.3830+00 | 1.5390001 | $4.8630+01$ |
| 2.0000+02 | $1.5790+02$ | 2,7040+01 | 2.c620+00 | 1.6110001 | $5.4980+01$ |
| $2.700 .+02$ | $1.6500+02$ | 2,933.+01 | 2.153.000 | 1.682m-01 | 5.1500001 |
| C. 8000002 | 1.72000+02 | 3.1710+01 | 2. $054.0+00$ | 1.754m-01 | 6. $2160+01$ |
| $3.900=+02$ | $1.79010+02$ | 3.41800+01 | 1.9640*00 | 1.8250001 | $6.099 n+01$ |
| $3.000 \times+12^{2}$ | $1.8600+02$ | 3.674n+01 | $1.6830+00$ | 1.896001 | 7.1960+01 |
| 3.100x+02 | $1.929+02$ | 3,938.*01 | 1.008000 | $1.9670=01$ | $7.1070+01$ |
| 3. $2000+02$ | 1.9980+02 | 4,2100+01 | 1.739000 | 2.038-01 | $8.4330+01$ |
| $3.300 x+02$ | 2.067 .02 | $4.4910+01$ | 1.070000 | 2. 1080001 | $8.1730+01$ |
| $3.400 x+112$ | $2.1350+02$ | 4.781=*01 | $1.6180+00$ | 2.178=01 | 9. $3260+01$ |
| 3,500x+02 | $2.2040+02$ | 5.0780+01 | 1.564 .400 | 2,2470=01 | $9,093+01$ |
| $3.000=+102$ | $2.271 .0+02$ | 5.384n+01 | 1.5140000 | 2,3100001 | $1 \cdot 0470002$ |
| $3.700 x+02^{2}$ | $2.339 \pm+02$ | 5.698.0.01 | 1.460000 | 2,385=01 | $1.1070+02$ |
| $3.800 x+02$ | $2.400^{0}+02$ | 6.020-01 | 1.425 .00 | 2.453 .01 | $1.1670+02$ |
| $3.9000+112$ | 2.475002 | 6.3500001 | 1.384.+00 | 2,5220001 | 1. $229 n+02$ |
| $4.0000+12^{2}$ | $2.5390+02$ | $6.6880{ }^{\circ}+01$ | $1.3400+00$ | 2, $2890=01$ | 1.292m+02 |
| $4 \cdot 100 x+62$ | $2.60^{5} 0+02$ | 7.033n+01 | 1.5110000 | 2,057-01 | $1.3560+02$ |
| $4.200 x+02$ | $2.0710+02$ | $7.3870^{+61}$ | 1. $2780+00$ | 2.724-01 | $1.4210+02$ |
| $4.300 x+0{ }^{2}$ | $2.7300+02$ | 7.7480+01 | 1.240.000 | 2.790001 | $1.487 \times 02$ |
| $4.400 x+102$ | 2.801.02 | $8.1160 * 01$ | $1.2170+00$ | 2,857n=01 | 1.2540*02 |
| $4.500 x+12$ | 2.866 .02 | $0.4920+01$ | 1.189=*00 | 2,9230-01 | 1.0230** 02 |
| $4.000 x+12$ | $2.9300+02$ | 0,870n+01 | $1.1620+00$ | 2.988.01 | $1.09200+02$ |
| $4.700 x+02$ | $2.994 n+02$ | $9.267 \times+01$ | $1.1300+00$ | 3.0540001 | $1.1630+02$ |
| $4.600 x+0^{2}$ | 3. 0580 | $9.065 .+01$ | $1.114 n+00$ | 3. 1180001 | $1.034 x+02$ |
| $4.4000 \times 42$ | 3.1210+02 | $1.0070+02$ | 1.0910+00 | 3.1830001 | $1.4070+02$ |
| $5 \cdot 000 x+12^{2}$ | $3.184 n+02$ | 1.048 .02 | 1.070000 | 3.2470-01 | $1.480{ }^{0+0}$ |
| $5.100 x+102$ | $3.247 m+02$ | $1.0900+02$ | $1.0500+00$ | 3.3110001 | 2. 1540402 |
| 勺. $2000 \times 102$ | $3.3090+02$ | $1.133 n+02$ | 1.031 .00 | 3,5740001 | 2. 12900.02 |
| $5.300=+1{ }^{2}$ | $3.371 .+02$ | $1,176 n+02$ | $1.0120+00$ | 3.4380\%01 | 2. $4050+02$ |
| 2, $400 \mathrm{O}+1 \mathrm{l}^{2}$ | 3.433 .02 | 1.2210+02 | 9.440.01 | 3.5000001 | 2. $28.80+02$ |
| b. $5000 \times 02$ | $3.494 n+02$ | 1,2650+02 | 9,7780001 | 3,503.001 | 2. $5600+02$ |
| $5.600 x+12$ | $3.255+02$ | 1.3110*02 | 9.018 .01 | 3,0250.01 | $2.4390+02$ |
| $5.700 x+12$ | $3.615+02$ | 1.357.*02 | 9.464.001 | 3,087 $=01$ | 2.3180002 |
| b. $8000 \times 112$ | $3.6750+02$ | $1.404 n+02$ | 9.317.01 | 3,7480001 | 2.5980+02 |
| b.900x+112 | $3.735+02$ | $1.4510+02$ | 9.170.01 | 3.809000 | 2.0790 |

UIAMEIEN
VELOClTY
RE
$0.000 x+02$ 6. $100 x+12^{2}$ $0.200 x+102$ $0.300 x+02$ $0.400=+02$ 6.500x+112 $0.600 x+112$ $0.700 x+02$
$6.800 x+2$
$6.900 x+62$
$7.000 x+62$
$\%$
$\% 1000+02$
$\%$
$\%$
?. $200 x+12$
7. $3000+i^{2}$
$7.400 x+12$
$7.500 x+1.2$
$\% .600=+122$
7. $700 x+12$
$7.800 x+02$
$1.900 x+12$
$8.000 x+02$
b. $100 x+102$
$0.200 x+12$
$0.300 x+02$
$0.400 x+12$
$0.200 x+12$
$0.000 x+12$ $5.700 x+12$
b.000x+12
$8.900 x+62$
5.000x+12
y. 100x- 52
4. $200 x+12$
4. $300 x+12$
$4.400 x+12^{2}$
4. $5000+02$
$9.600 x+32$
ソ. $700 x+02$
y. $8000 x+12$
$4.400 x+02$
1.000x-30
$1.010 x+10^{3}$
$1.020 x+110$
$1.0304+103$
$1.040 x+1)^{2}$
$1.0504+3$

| 3.795.02 | 1.499n*02 |
| :---: | :---: |
| $3.8540+02$ | $1.5480 * 02$ |
| 3.913 .02 | 1.598**02 |
| $3.972+02$ | $1.648=02$ |
| 4.030-02 | $1.6980 * 02$ |
| 4, $088.0+02$ | $1.7500+02$ |
| $4.146+02$ | $1.802=+02$ |
| 4, $2030+02$ | $1.854=02$ |
| 4.2600*02 | $1.907 * 02$ |
| $4,317+02$ | $1.9610+02$ |
| $4,373 .+02$ | 2.016.*02 |
| $4.429 \pm+02$ | 2.0710+02 |
| 4.485.02 | 2.126.02 |
| $4.5410+02$ | 2,1830+02 |
| $4.596+02$ | 2.239n*02 |
| $4.0510 \pm 02$ | 2.297** 02 |
| $4.70^{5}=+02$ | 2. $5550+02$ |
| $4.7600+02$ | $2.413=02$ |
| 4, $8140+02$ | 2.4720*02 |
| $4,8680+02$ | 2.5320+02 |
| 4.921.02 | 2.5920+02 |
| 4.975002 | 2.6530*02 |
| 5.028 .02 | 2.7150+02 |
| $5.0800+02$ | 2,777x+02 |
| 5. $133 x+02$ | 2.839 $0+02$ |
| 5.185=02 | 2.902**02 |
| $5.237 n+02$ | 2.9660*02 |
| 5. $289 *+02$ | S. 1300002 |
| $5.5400+02$ | 3.194** 02 |
| $5.391 .+02$ | S. $1590+02$ |
| $5.44{ }^{\prime \prime}+02$ | 3.2250+02 |
| $5.493 .+02$ | 5.2910+02 |
| 5.543 .02 | 3.3580+02 |
| $5.59 \mathrm{~S}_{ \pm}+02$ | 3.425x+02 |
| $5.64 S_{n}+02$ | 3.493. 02 |
| 5.093 .02 | 3.261:*02 |
| $5.742_{0}+02$ | $3.0300+02$ |
| $5.7920+02$ | 3.699n+02 |
| 5.6410+02 | 3.769m+02 |
| 5.889 .02 | 3.439.0+02 |
| $5.9380+02$ | 3.9.100+02 |
| b.9800+02 | 3.9810+022 |
| 6.0340 + 02 | 4.053m+02 |
| 6.0820 02 | 4.125=02 |
| $6.1300+02$ | 4.1980+02 |
| $6.1770+02$ | 4,2710*02 |

3.795m*02 1.499n*02
$1.5480 * 02$
$1.598=02$
$1.648=+02$
$1.698 n+02$
$1.7500+02$
$1.802=+02$
$1.907=02$
2.016.*02
2.071- 02
2. $1830+02$
2. 239 ** 02
2.2970*02
$2.413=+02$
2.4720*02
2. $5320+02$
$2.6530+02$
2.715:02
2.839 .02
$2.902=02$
$2.966=+02$
$5.1000+02$
3. $194 .+02$
$3.1590+02$
3.225. 02
3. $2910+02$
$3.425 x+02$
3.49.3. 02
$3.0300+02$
3.699n+02
3.769n+02
$3.9100+02$
$3.9810+02$
4.053. 02
4. $1980+02$
4.2710*02

DRAG CUEF RELAX TIME , 9\% DIST
$9.041=01$
0.912001
8.787=01
$8.667=01$
8.552=01
8.441-01
$8.334=01$
8.231=01
8.132=01
8. 830.01
$7.943=01$
$7.8540=01$
$7.768=01$
$7.684=01$
7.0030:01
$7.5250=01$
$7.449=01$
$7.370=01$
$7.30^{4}=01$
$7.235=01$
$7.168=01$
7. 1030"01
7.040 - 01
$6.979=01$
$0.919=01$
$0.861=01$
$0.00^{5}=01$
$6.750=01$
6.697 .01
$6.645-01$
6. 295001
6.545-01
6.4980 .01
$6.451=01$
$0.40^{5}=01$
$6.3610=01$
6.3180001
6. $275=01$
$6.234=01$
$6.194=01$
6. $155=01$
$6.116=01$
$6.079=01$
$6.042=0.1$
$6.007=01$
$5.972 \times 01$

| $3.8700 \cdot 01$ | 2.161002 |
| :---: | :---: |
| 3.9300001 | 2.044-4.02 |
| $3.990 \mathrm{~m}=01$ | 2. $427=02$ |
| 4.050.01 | 3.0110+02 |
| 4.1100-01 | 3. $496=+02$ |
| 4, 169\% $=01$ | 3. $1810+02$ |
| 4,227001 | $3.867-02$ |
| 4,286n*01 | 3. $554=+02$ |
| 4,344x=01 | $3.4410+02$ |
| $4,4020=01$ | 3.329 .02 |
| $4,459=01$ | $3.017=+02$ |
| $4,517.01$ | $3.1070+02$ |
| $4,574=01$ | 3.1900+02 |
| 4,6300001 | $3.0870+02$ |
| 4,687.001 | $3.4780+02$ |
| 4,7430-01 | 4. $u^{69 p+02}$ |
| 4,7980001 | 4. $1610+02$ |
| 4,854n=01 | $4.2540+02$ |
| 4,909-01 | 4. $547 \%+02$ |
| 4.9640"01 | 4.4419+02 |
| 5.0190=01 | 4. $2350+02$ |
| 5.0730-01 | $4.0290 * 02$ |
| 5.1270001 | 4.1250002 |
| 5.181001 | $4.020=02$ |
| 5.2340-01 | 4. Y 16m+02 |
| $5.2870=0!$ | 5. $4130+02$ |
| 5.3400001 | 5.1100002 |
| $5,3930=01$ | 5. $1070+02$ |
| 5,446=01 | 5. $5050+02$ |
| 5.498. - 01 | $5.4030+02$ |
| $5.550=01$ | $5.5020+02$ |
| $5.601=01$ | $5.0010+02$ |
| $5,653 n=01$ | $5.1010+02$ |
| $5.7040=01$ | 5.5000002 |
| 5.755001 | $5.901 * 02$ |
|  | 6. $0010+02$ |
| $5.8560-01$ | 6. $1020+02$ |
| $5.9060=01$ | 6. $2.040+02$ |
| $5,950-01$ | 6. $2050+02$ |
| 6.006001 | 6. $4.0800+02$ |
| 6.055-0.0 | $6.2100+02$ |
| 6.1050-01 | 6.0.130+02 |
| 6.1540001 | 6.116** 02 |
| 6,2020001. | 0.01190+02 |
| $6.2510-01$ | $6 . y 230+02$ |
| 6.299001 | 7. $427 \pm+02$ |

## PARTICLE IJENSITY = $\quad$ OO GRAMS PER CUBIC CENTIMETEK

UIAMETFK
VELOCITY
RE

$1.000 x+00$ $1,100=+00$ $1.200 x+00$ $1.300=+00$ $1.400=+00$ $1.500=+00$ $1.600=+00$ $1.700 x+00$ $1.800 x+00$ $1.900=+00$
2. $0000+00$
2. $1000+100$
C. $200 \times+00$
2. $3000+00$
$2.4000+00$
C. $2000+00$
$2.600=+00$
$2.700 x+100$
$2.800 x+130$
$2.9000+00$
3.000:*00
$3.100+00$
$3.200 \times+10$
$3.500 \times+00$
$0,400 x+610$
$3.500 \times+00$
s. $0000 \mathrm{x}+60$
$3.700 x+10$
$3.600 x+110$
$3.4004+00$
4. $0000+00$
$4.100 x+00$
$4.200 \times 60$
$4,3000+00$
4, 400x+100
$4.200 x+00$
$4.600 x+100$
$4.700 \mathrm{x}+00$
$4.600 \mathrm{c}+\mathrm{Ej} 0$
$4.5000+100$
$5.000 \mathrm{ic}+0$
$2.100 x+00$
2. $2000+100$
b. $300 \mathrm{x}+1 \mathrm{j0} 0$
5.400=+00
3.bu0. +10
9.077 .03 $1,097=02$ $1.304=02$ $1.528=02$ 1.771 -02 2.0310 .02 $2.310=02$ 2.000002 $2.920=02$
$3.2520=02$
$3.0020=02$
3.969-02
4.35ち. 02
4.758.-02
5. $179=02$
$5.0180=02$
6.075002
$6.550=02$
7.043 $0=02$
$7.553_{w}-02$
8.0820 02
8. $628=02$
9.1920-02
$9.774=02$
$1.037=01$
$1.099_{w}=01$
$1.160_{0}=01$
$1.228_{10}=01$
$1.295=01$
$1.364=01$
$1.432=01$
$1.507=01$
$1.2810=01$
$1,058=01$
$1.730-01$
$1.010=01$
$1.096=01$
$1.9800=01$
2.065-01
2.151:001
$2,2400=01$
2.5300-01
2.4220-01
$2,5100=01$
$2.6120=01$
$2.2090=01$
$2.7090=01$

DRAG COEF
relax time -9ヶ DIST
$3.8870+06$
$2.4350+06$
$2 .<680+06$
$1.7890+06$
$1.430 x+06$
1.1700+06
$9.064=+05$
$8.0^{71 p+05}$
$6.8100+05$
$5.7990+05$
$4,9780+05$
$4.3050+05$
$3.7490+05$
$3.2840+05$
2. $8930+05$
$2.5610 * 05$
$2.279 n+05$
2. $0300+05$
$1.6270+05$
$1.6450+05$
$1.487 x+05$
$1.348 x+05$
$1 \cdot 2270+05$
$1.1190+05$
1.024.0 05
9.5870004
$8.0300+04$
7.952. 044
7. $543 .+04$
$6.795-04$
$0.5000+04$
$5.052 .+04$
5.445. 4.9
5. 17 7 $0+04$
$4.7380+04$
$4.4310+04$
$4.149 m+04$
3.0910+04
$3.053 m+0.4$
$3.4350+00^{4}$
3.2.34n*04
$3.040 x+04$
$2.0700+14$
$2.717=04$
$2.569 x+04$
$2.4320+04$

| 9,2570-06 | 1. 5560007 |
| :---: | :---: |
| 1.1180005 | 2.0610007 |
| 1.3290005 | 4.1448007 |
| $1.5590-05$ | 5.2710007 |
| 1.8060-05 | 7.4880 .07 |
| 2.072-05 | 9.8610007 |
| 2.3550005 | 1.2760000 |
| 2.657005 | 1.025 .06 |
| $2.9780=05$ | 2.14 $1^{40006}$ |
| $3.316 \times 05$ | 2. 2320006 |
| 3.673-05 | 3. 1080006 |
| 4.048-0 05 | 3.1750 m 06 |
| 4,4410005 | 4. $245=06$ |
| 4.8520"05 | $5.428 \times 06$ |
| $5.2820=05$ | 6.432006 |
| 5.729005 | $7.970 \times 06$ |
| $6.1950=05$ | 8.052-96 |
| $6,679=05$ | 1. $429=05$ |
| 7.1820*05 | 1. 1900005 |
| 7.7020005 | $1.3690 \cdot 05$ |
| 8.241- 05 | $1 \cdot .2670 \cdot 05$ |
| $8.7980=05$ | 1.1860-05 |
| 9.3740*05 | 2. 127 - ${ }^{\text {5 }}$ |
| 9.967 .05 | 2. $8^{9} 2=05$ |
| 1.0580004 | 2. $2820=05$ |
| $1.1210-04$ | 2.0980-05 |
| $1.1860 \cdot 04$ | 3.2435005 |
| $1.2520-04$ | $3.018=05$ |
| 1.3210004 | 4.024-05 05 |
| 1.3910004 | $4.463=05$ |
| $1.4630=04$ | $4 . y 380=05$ |
| $1.537 p=04$ | 5.449-05 |
| $1.6130=04$ | $5.499 n=05$ |
| $1.6900=04$ | 6. 2890.05 |
| 1.7700004 | 7. $222=05$ |
| 1.8510004 | $7.4000-05$ |
| 1.93400 .04 | 8.0240005 |
| 2.0190-04 | 9.5970= $0^{5}$ |
| 2.1050-04 | $1 \cdot v 22=04$ |
| 2.1940-04 | $1.110^{\text {me }} 04$ |
| 2.2840"04 | $1.2030=04$ |
| 2.3760 .04 | 1.5020004 |
| 2.470004 | 1.407=04 |
| 2.5600* 04 | 1.218-94 |
| $2.0630=04$ | $1.0350 \cdot 04$ |
| $2.7630-04$ | 1.1590=04 |

$1.9560=07$
2.0610007
4. $148=07$
5.2710007
$7.488=07$
9.0610007
1.2760006
$1.025: 06$
2. $1^{41006}$

- $332=00$
3.1750m06

4. $245=06$
$5.428=06$
6.4320006
$7.270 \times 06$
8.052:906
$1.190=05$
1.369005
$1 \cdot 5670005$
$1 \cdot 186=05$
5. $292=05$
6. $7820=05$
7. $243=0.05$
$3.018=05$
$4 \cdot 024=05$
$4.463=05$
$5.449-05$
$5.499=05$
8. $2890=05$
9. $222=05$
$7.400-05$
$8.0240=05$
$9.5970=0^{5}$
10. $v^{22=}=04$
-110"•04
11. $2030=04$
$1.407=04$
$1.218=04$
$1.035=04$
$1.59=04$



| 1.036=03 | 2. $3040+04$ | $2.864 .00^{4}$ | 1.0910004 |
| :---: | :---: | :---: | :---: |
| 1.092-03 | 2.1850+04 | 2.967.-04 | 2.4290\%04 |
| 1.1500003 | 2.0750+04 | 3.072.04 | 2. $1750=04$ |
| 1.2110003 | $1.9710+04$ | 3. $179=00^{4}$ | 2. $528=04$ |
| 1.273n*03 | $1.8750+04$ | 3. $287 \times 0{ }^{4}$ | 2.490004 |
| 1.338 .03 | $1.784=00^{4}$ | 3.397004 | 2.059-04 |
| 1.405003 | $1.7000+04$ | 3.509=04 | 2. 6380004 |
| $1.4740=03$ | $1.0200+04$ | $3.623=04$ | 3. $\mathrm{j}^{5500} 04$ |
| $1.5450=03$ | $1.5460+04$ | 3.739=04 | 3. $2210=04$ |
| $1.619 \%=03$ | 1.470 .04 | $3.8570 \cdot 04$ | 3.42600 $=04$ |
| 1.095.03 | $1.4100+04$ | 3.976004 | $3.0420=04$ |
| $1.7730=0$ | $1.3480+04$ | 4.0970.04 | 3. 06750.04 |
| 1.853. 03 | 1.289n+04 | 4.2200 .04 | 4.1020004 |
| 1.936-03 | $1.234 n+04$ | 4.345004 | 4.j480-04 |
| 2.021:*03 | 1.1820*04 | 4,4720=04 | 4.0050 .04 |
| 2.109n-03 | 1.133n+ 14 | 4.6000-04 | $4.0730-04$ |
| 2.199m=03 | 1.08 $0^{87}+04$ | 4.731- -04 | $5.15300=04$ |
| 2.2920-03 | $1.0430+04$ | 4,863-04 | 5.445004 |
| 2.388=-03 | 1.0010+04 | 4,997m"04 | 5.1480-04 |
| $2.4800 \cdot 03$ | $9.6170+03$ | $5.132 x=04$ | 0. $1.5650 \cdot 04$ |
| 2.586-03 | 9.243x+03 | $5.2700=04$ | 6. $3940 \cdot 04$ |
| $2.6900 * 03$ | 8.089n+03 | $5.4090=04$ | $6.1360=04$ |
| 2.796:-03 | $8.5520+03$ | 5.5510=04 | 7.1920-04 |
| 2.9040003 | $8.12330+03$ | 5,694=04 | 7.462-04 |
| S.0160003 | $7.9290+03$ | $5.8380 \cdot 04$ | 7. $546=04$ |
| S.130=-03 | 7.039 +03 | 5.9850004 | $8.2450=04$ |
| 3.248-03 | $7.364 n+03$ | 6.1330 04 | $8.058=04$ |
| 3.568. ${ }^{\text {\% }} 03$ | 7.1020+03 | 6. $2840=04$ | 9. $\mathrm{y}^{87 m=04}$ |
| 3.4910003 | $6.0500+03$ | $6.4360 \cdot 0$ | 9.3320-04 |
| 3,617.003 | $6.0140+03$ | $6.590=04$ | $9 . \times 93004$ |
| S. $746=03$ | $6.580 n+0.3$ | 6.7450-04 | 1.11470-03 |
| 5.878n-03 | $6.169 . m+03$ | 6.9030-04 | $1.1^{9} 6-03$ |
| 4.013: 03 | 5.962m+03 | 7.06200-4 | 1.148= $=03$ |
| $4.151 m=03$ | 5.764n+03 | 7.223:04 | 1.2010=0 |
| 4, 29 20:03 | $5.5740 * 03$ | $7.3860=04$ | 1. $2550 \cdot 03$ |
| 4.437= 03 | $5.3930+03$ | 7.55100.04 | $1.5120=03$ |
| $40.5850=03$ | 5.2200+03 | $7,718=04$ | 1.5700003 |
| $4,736=0.03$ | 5.0500+03 | 7,880004 | 1.4310003 |
| 4.890000 | 4.894x+03 | 8.050=-04 | 1.4930003 |
| $5.047=03$ | 4.742w+03 | 8.228=04 | 1. $2580=03$ |
| 5. $2080 \times 03$ | $4.59 .00+03$ | $8.4020=04$ | $1.0240 m 03$ |
| 5.572-03 | $4.4550+03$ | 8.5770004 | $1.093=03$ |
| 5.5400003 | $4.3210+03$ | $8.7550=14$ | 1.1630003 |
| 5.7110003 | 4. 19.2x+03 | $8.934=04$ | 1.0360003 |
| う.8860=03 | 4.0.68-03 | 9.1150-04 | 1.4110003 |
| $7.831=03$ | 3.054-03 | 1.1020-03 | 2.196:03 |

## PARTICLE UENSITY $=3.0$ GRAMS PER CUBIC CENTIMETER

| UIAMETEK | velucity | RE | DRAG COEF | RELAX TIME | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.200x+01 | $1.286 * 00$ | 1.016* 02 | 2.359 ${ }^{\text {\% }} 03$ | 1.3110003 | $3.456=0.03$ |
| $1.3000+01$ | $1.509+00$ | 1.291002 | $1.057 n+03$ | 1.5380003 | $5.444 \times 0{ }^{3}$ |
| $1.4000+01$ | $1.749 n+00$ | 1.0120002 | $1.489 .+03$ | 1.783000 | 7.5170903 |
| $1.200 x+01$ | $2.00^{6} n+00$ | 1.982-02 | 1.212n+03 | 2.0460003 | 9.836 .03 |
| $1.600=+01$ | $2.2810+00$ | $2.400^{3}=02$ | 9.997-02 | $2.326000^{3}$ | 1. $\mathrm{C}^{47 \mathrm{~mm}} 02$ |
| $1.700=01$ | $2.574 m+00$ | 2.881000 | 8.347 .02 | $2.624000^{3}$ | 1. 3880002 |
| $1.000=01$ | $2.883=+00$ | 3.417 .02 | 7.043.02 | 2.9400003 | 1.495.002 |
| 1.400x+01 | $3.2090+00$ | 4.0150\% | $5.9990+02$ | $3,273=03$ | 2. $4750=02$ |
| 2.000x+01 | $3.5530+00$ | $4.6790=02$ | 5.153n+02 | 3,623-03 | 3. 137000 |
| 2.100x+01 | $3.9130+00$ | $5.4110^{\circ} 02$ | 4.461m+02 | 3.990003 | 3.0890002 |
| $2.2000+01$ | $4.2900+00$ | $0.214 x=02$ | 3.889x+02 | $4.375=03$ | 4.4420002 |
| $2.500 \times+01$ | $4.683 .+00$ | $7.092=02$ | 3.412n+02 | 4.776.03 | 5. $5040=02$ |
| $2.400 x+11$ | $2.0920+00$ | 8.048=02 | $3.011=+02$ | $5.1930=03$ | 6. $2860=02$ |
| $2.200 x+61$ | $5.51818+00$ | $9.0830=02$ | $2.671 .0+02$ | 5,627.03 | 7. 5980002 |
| $2.000 x+01$ | $5.9590+00$ | 1.0200.01 | 2. $3820+02$ | 6.0770=03 | 8.051002 |
| c. $700 \mathrm{c}+01$ | $0.4160+00$ | 1.141m=01 | 2. $134.0+02$ | $6.542=03$ | 1.406-01 |
| 2.000x+11 | 6.887* +00 | 1,2700=01 | 1.9200*02 | 7.024=03 | 1. 163 -01 |
| 2.900x+ 111 | $7.374 m+00$ | $1.4080=01$ | 1.7350+02 | 7.520.03 | 1.337-01 |
| 3. $0000 x+101$ | $7.670_{10}+00$ | 1.556 .01 | $1.5730 * 02$ | $8.0320=03$ | 1.5310001 |
| $3.100 x+01$ | 8.392000 | 1.7130001 | $1.432 x+02$ | $8.5580 \cdot 03$ | 1.74510001 |
| $5.200=+01$ | 8.922000 | 1.880.001 | 1.5080+02 | 9.098000 | 1.4810001 |
| 3.300x+ 111 | $9.4600+00$ | 2.057-01 | 1.1980+02 | 9.653 .03 | $2.4400=01$ |
| 3.400x+ 11 | $1.002 m+01$ | 2.243.01 | $1.10^{3}=02$ | 1.0220-02 | 2. $3230=01$ |
| S. $500 \mathrm{oc}+1$ | $1.059+01$ | 2.4400001 | $1.0100+02$ | $1.0800=02$ | 2.032-01 |
| $5.600 \times+11$ | $1.1170+01$ | 2.6480-01 | 9.3910001 | 1.1390=02 | 3. 1690001 |
| S. $700 \mathrm{OL}+111$ | 1.177*01 | 2.067\%"01 | $8.7000+01$ | 1.2000*02 | 3,23500-01 |
| 3.000x+01 | $1.237 \pm 01$ | 3.096.-01 | $8.0800+01$ | 1. $2620=02$ | 3. $+32=01$ |
| $3.900 x+01$ | $1.299+01$ | 3,336.01 | $7.5220+01$ | $1.3250=02$ | 4.3620-01 |
| 4.000x+01 | $1.3620+01$ | 3.587001 | 7.0190001 | 1.3890-02 | 4.311=01 |
| 4. $100 x+01$ | 1.4260001 | 3.8500001 | 6.2630+01 | 1,4540-02 | 5. $\angle 780001$ |
| 4. $2000+01$ | $1.4910+01$ | 4.1240=01 | $6.149 n+01$ | 1.5210-02 | 5.167*01 |
| $4.300 x+01$ | $1.5570+01$ | 4.4090-01 | $5.7730+01$ | $1.5880=02$ | 0. 2790001 |
| $4.400 x+01$ | 1.6240001 | 4,7050=01 | $5.4300+01$ | 1.056-02 | 6.9160001 |
| $4.2000+01$ | $1.6920+01$ | 5.0130-01 | $5.1170+01$ | 1.7250-02 | 7.9770=01 |
| $4,600 \times+10$ | 1.7610001 | 5,3330*01 | $4.0300+01$ | 1,79500 02 | $7.965 \times 01$ |
| $4.700 \times 41$ | 1.8300001 | 5,6640001 | $4.567 .0+01$ | 1,8600002 | $8.278=01$ |
| $4.600=+11$ | $1.9010+01$ | 6.007=01 | 4. $5200+01$ | $1.938=02$ | $9 .<17 n=01$ |
| $4.900 x+i 1$ | $1.9720+01$ | 6,362=01 | 4.1030+01 | 2.0110-02 | $9.083 \mathrm{m-01}$ |
| り.000w+01 | 2.0430+01 | 6.7280-01 | 3.0980001 | 2.084- 020 | $1 \cdot 0^{580+00}$ |
| 2.100= + 1 | $2.1100+01$ | 7.1060001 | 3,7080+01 | $2.158=02$ | $1.1300+00$ |
| 3. $200 x+11$ | C.189 ${ }^{2}+01$ | 7.496\% 01 | 3. 3 320001 | 2, 2320-02 | $1.2050+00$ |
| $2.300 x+1$ | $2 .<63_{n}+01$ | 7.097n=01 | 3.369-01 | $2.3080=02$ | 1.2820+00 |
| $2.400 x+11$ | $2.337+01$ | 8.3110001 | $3.210 \%+01$ | 2.383=-02 | $1.9630+00$ |
| -. $500 \mathrm{c}+11$ | $2.4120+01$ | 0.7300001 | 3.0770+01 | 2.4600002 | 1.446**00 |
| b. $600 x+01$ | $2.4880+01$ | 9.1730-01 | $2.940 x+01$ | $2.5370=02$ | 1., 3200+00 |
| $5.700 x+01$ | $2.564 n+01$ | 9.0220001 | 2,0230*01 | 2,6140002 | 1.0210000 |

PARTICLE UENSITY = 3.0 GRAMS PER CUBIC CENIIMETER

UIAMETEK
VELOCITY
$2.800 x+01$ $3.9000+01$
0.0000+01
6. 100=+01
$0.200 x+01$
$6.300=+01$
$6.400=+01$
$0.5000+01$
$0.000=01$
$6.700 \mathrm{O}+01$
$6.800+01$
$6.900=+01$
$7.000=+01$
$7.100=+01$
$\% \cdot 200=01$
$7.300=01$
$1.400=+01$
7. $200=01$
$7.000=+01$
$7.700 x+01$
$7.800 x+01$
$7.900 x+01$
$8.000=+01$
c. $100 x+01$
$0.200 x+01$
$0.300 x+01$
$8.400 x+01$
$8.500 x+01$
$6.600=+01$
$6.700=+01$
$8.800=+01$
$8.900=+01$

- $000 x+01$
y. $100 x+01$
$9.200 x+01$
Y. $300=+0!$
$4.400=01$
4.500.+01
$9.600=+01$
$9.700 x+01$
$9.800 x+01$

9. $900=+01$
1.000x+02
10. $100 x+02$
$1.200 x+02$
1.300x+02


DRAG COEF RELAX TIME .90 DIST

| $2.7080+01$ | 2.0920 02 | 1.113**00 |
| :---: | :---: | :---: |
| 2.6010001 | 2.7710"02 | $1.0080+00$ |
| 2.5000*01 | 2.8500002 | $1.4060+00$ |
| 2.4050+01 | 2,9300"02 | 2. 107000 |
| 2.3100*01 | 3.0100002 | 2.111000 |
| 2.2320+01 | 3.0910*02 | 2. $2170+00$ |
| 2.1530*01 | 3.1720-02 | 2. $5270+00$ |
| 2.0780+01 | 3.254n=02 | $2.4400+00$ |
| 2.0070*01 | 3,337n=02 | 2. $3560+00$ |
| 1.8390*01 | 3.4200002 | $2.075 \pm+00$ |
| 1.8750001 | 3. $5040 \% 02$ | 2.1970+00 |
| 1.814001 | $3.588=02$ | 2.4230000 |
| 1.750x+01 | $3.6730=02$ | 3. $1510+00$ |
| $1.7010+01$ | 3.7590"02 | 3.1820+00 |
| $1.6480+01$ | 3.846."02 | 3. $317=00$ |
| 1.5970+01 | $3.9340=02$ | 3.455w+00 |
| $1.548 .0+01$ | 4.0220002 | 3. $3960+00$ |
| $1.5020+01$ | 4.1120"02 | $3.1400+00$ |
| $1.4570+01$ | 4,2020-02 | 3.5870*00 |
| $1.414 n+01$ | 4,294m02 | 4. $u^{37}=00$ |
| 1.372x+01 | $4.386=02$ | 4.191- 00 |
| $1.333 x+01$ | $4.480=02$ | 4.9470+00 |
| 1.294n*01 | 4,574=-02 | $4.2070+00$ |
| 1.2570*01 | 4.6700002 | 4.071**00 |
| 1. 2220001 | 4.767002 | $4.037=00$ |
| 1.187x+01 | 4.865=02 | 5. $4060 \times 00$ |
| $1.1540+01$ | 4.963.02 | 5. 1790000 |
| $1.1250+01$ | 5,063.002 | 5. $555=00$ |
| 1.0920*01 | $5.163=02$ | $5.334 *+00$ |
| $1.063=01$ | 5. $2630=02$ | $5.1170+00$ |
| 1.035-01 | 5.364x-02 | $5.7030+00$ |
| $1.909+01$ | 5.4650*02 | 6. $4^{9} 10+00$ |
| 9.834-00 | 5.5660002 | 6. $2^{8} 40+00$ |
| $9.5960+00$ | $5.6600=02$ | $0.4790+00$ |
| 9.371 .00 | $5.7650-02$ | $6.078 x+00$ |
| 9.162.00 | 5.8620-02 | 6. $8800^{0+}+00$ |
| $8.968=00$ | 5.9570002 | 7.485000 |
| 8.1900+00 | 6.049002 | 7. $293 x+00$ |
| 8.629 .000 | $6.1370=02$ | 7. $2050+00$ |
| B. 488.00 | 6.220002 | $7.120 * 00$ |
| 8. $560=00$ | 0.2970002 | 7.4380000 |
| 8.284= +00 | 6.36100 .02 | $8.1590+00$ |
| 8. $13.4=+00$ | 6.4510 .02 | 8. $3840+00$ |
| 6.868000 | 7.3630-02 | $1 \cdot 4^{810+0.1}$ |
| 5.913.000 | 8.2490-02 | $1.3500+01$ |
| 5.173 .00 | 9,223-02 | $1.0630+01$ |

Particle lensity $=3.0$ grams per cubic centimeter

UIAMETEK
$1.400=+02$
$1.500 x+02$
$1.600=+02$
$1.7000+02$
$1.800+02$
$1.900=+112$
2. $000 x+11^{2}$
2. 100 $=+02$
$2.200 x+112$
$2.300 x+12^{2}$
$2.400 u+02$
C. $500 x+102$
$2.600=+02$
$2.700=+02$
$2.800=+112$
$2.900=+12$
3. $000 x+02$
v. $100 \dot{x}+12$
$3.200=+12$
$0.300 x+112$
$3.400=+12$
$3.500 x+112$
$3.600 x+12$
$3.700 x+12$
$3.8000+12$
S. $900 x+12$
$4.000=+12$
$4.100 x+12$
$4.200+162$
$4.300 x+102$
$4.400 x+12$
4. $200 x+02$
$4.600 \mathrm{x}+\mathrm{y}^{2}$
$4.700 x+02$
$4.800 x+12$
$4.900 x+12$
b. $000 \mathrm{x}+12$
b. $100 x+02$
$5.200=+12^{2}$
$2.300 \pi+0^{2}$
$5.400 x+0^{2}$
$2.500 x+02$
$2.600=+02$
b. $700=+112$
$2.800=02$
$2.900 x+02$

VELUCITY
$9.9680+01 \quad 9.189 n+00$ $1.0900+02$ $1.1830+02$ $1.276 \%+02$ $1.3700+02$
$1.463 x+02$
$1.5560+02$
$1.6490+02$
$1.7420+02$
$1.834 m+02$
$1.927 n+02$
$2.01^{8 .}+02$
$2.1100+02$
$2.2010+02$
$2.2910+02$
2.381. 02
$2.471=02$
$2.5600+02$
$2.6490+02$
$2.737 n+02$
$2.8240+02$
$2.9120+02$
$2.9900+02$
S. $0^{84} 4+02$
3. $170 n+02$
3. $2550+0 \%$
3. $5390+02$
$3.4230+02$
$3.2000+02$
3. 589.02
$3.6710+02$
$3.7530+02$
$3.030+02$
$3.9150+02$
$3.996+02$
4. $0^{75}+02$
4. $155+02$
4. $233 .+02$
$4.3120+02$
4.390 .02
4.467 .02
$4.544_{10}+02$
$4.02015+02$
4.696 .02
4.771 .02
$4.046 x+02$
$9.189 x+00$
$1.0760+01$
$1.246 x+01$
$1.428 n+01$
$1.6230+01$
$1.8300+01$
2.0490+01
$2.2800+01$
$2.5230+01$
$2.778 m+01$
S. $045 m+01$
3, 3230*01
3.612n+01
$3,8130+01$
4. $2250+01$
$4.548=01$
$4.881=+01$
$5.226=01$
$2.5810+01$
$5.947=01$
6. $5230+01$
$0.7100+01$
$7.1070+01$
7.5140*01
7.931001
$0.3580+01$
$0.794=01$
$9.2410+01$
$9.6970+01$
$1.016 x+02$
$1.0640+02$

1. $1120+02$
$1.1610+02$
2. $2120 * 02$
$1.2630+02$
$1.3150 * 02$
$1.368=02$
$1.4220 * 02$
$1.476=02$
$1.5320+02$
1.588 *02
$1.6460+02$
$1.7040+02$
$1.763=02$
$1,8220+02$
$1.883=02$
drag coef relax time
.96
DIST

| 4.5800+00 | 1.0170001 | 2.401*+01 |
| :---: | :---: | :---: |
| $4.1120+00$ | $1.11+001$ | 2.3710+01 |
| $3.723=+00$ | 1.206-01 | 2.1720+01 |
| 3.3980*00 | 1.3010001 | $3.2020+01$ |
| 3.124n+00 | 1.397-01 | $3.0620+01$ |
| 2.090n+00 | 1.4920001 | 4. $1510+01$ |
| $2.089 m+00$ | 1.587=01 | $4.0670+01$ |
| $2.5130+00$ | 1.0820-01 | 5. $412 m+01$ |
| $2.3600+00$ | 1.7760001 | 5.183n+01 |
| 2.225 .00 | 1.8710001 | 6. $3800+01$ |
| $2.1050+00$ | 1.9650001 | 7. $403^{*+01}$ |
| 1.9970+00 | 2.0580"01 | $7.0510+01$ |
| 1.901000 | 2.152.01 | 8. $3230+01$ |
| $1.8140+00$ | 2, 2440=01 | 9. $4190+01$ |
| 1.736x+00 | 2,337=01 | $9.1380+01$ |
| 1.065000 | 2,429=01 | 1.1480*02 |
| 1.5990+00 | 2.5200001 | 1.1240*02 |
| $1.540=00$ | 2.6110001 | $1.2030+02$ |
| 1. 485000 | 2.7010-01 | 1. $2830+02$ |
| $1.434 \infty+00$ | 2.7910001 | 1. $5660+02$ |
| 1. $587 .+00$ | 2.8800\% 01 | $1.4510+02$ |
| 1. $344 \pm+00$ | 2.969n=01 | $1.5370+02$ |
| 1.304000 | 3,057m-01 | $1.0260+02$ |
| $1 .<60 n+00$ | 3.145x $=01$ | $1.1160+02$ |
| 1.231-00 | 3,232x001 | 1.0080+02 |
| 1.194**00 | 3,3190=01 | $1.9020+02$ |
| 1.168**00 | 3.4050001 | 1. $4978+02$ |
| $1.134 n+00$ | 3.490001 | 2. $1950+02$ |
| 1.116s+00 | 3,5700-01 | 2. $1940+02$ |
| 1.087n+00 | 3.6600001 | 2. $2940+02$ |
| $1.0630+00$ | 3.7440\%01 | 2. $3960+02$ |
| $1.0400+00$ | 3.0270001 | 2. $2000+02$ |
| $1.5100+00$ | 3.9100001 | $2.0050+02$ |
| 9.980001 | 3.9930001 | 2.1110+02 |
| 9.787 .01 | 4.0750-01 | 2.519x+02 |
| $9.003=01$ | 4. $1560=01$ | 2. $+280+02$ |
| 9.429=01 | 4.237001 | 3. $139 x+02$ |
| 9.263=01 | 4,317001 | 3. 510002 |
| 9.105=01 | 4.3970-01 | 3. $2640+02$ |
| 8.954=01 | 4,476001 | 3. $3790+02$ |
| $8.6100=01$ | 4,5550001 | $3.4950+02$ |
| 8.672-01 | 4,6330-01 | $3.0120+02$ |
| 8,540=01 | 4.7110001 | 3.1300+02 |
| 8.414=01 | 4.7890001 | 3.5490+02 |
| $8.293=01$ | 4,8000.01 | 3. $4700+02$ |
| 8.177001 | 4,9420-01 | $4 \cdot y^{9} 10+02$ |

PARTICLE DENSITY = S.O GRAMS PER CUBIC CENTIMETER

| LIAMETEK | VELUCITY | RE | DRAG COEF | relax time | .9ヵ UIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| -. $0000+02$ | 4.9210+02 | 1.944.002 | 8.060-01 | 5.018=01 | 4. $2140+02$ |
| 6. $100 x+112$ | 4.995002 | 2.006n+02 | 7.9590001 | 5.093001 | 4. $537 m+02$ |
| $0.200=+02$ | $5.0680+02$ | 2.069m+02 | 7.857.01 | $5.109 p=01$ | $4.4620+02$ |
| $0.300 x+02$ | 5.1420+02 | 2.133-* 02 | 7.758.01 | $5.2430=01$ | 4. $5880+02$ |
| $0.400 x+02$ | $5.214_{0}+02$ | 2.197m+02 | $7.0630=01$ | 5.317 .01 | 4. $1140+02$ |
| -. $200 x+02$ | $5.2860+02$ | 2.2630*02 | 7.571.01 | $5.3910=01$ | $4.0420+0.2$ |
| $0.600=+02$ | 5.358 .02 | 2.329n+02 | 7.4830001 | 5.464-01 | $4.47100+02$ |
| $0.700 .+02$ | $5.4300+02$ | 2.3950+02 | 7.398.001 | 5.5370001 | 5.10010+02 |
| $6.800=+02$ | $5.5010+02$ | $2.463 .0+02$ | 7.5160001 | 5.609=01 | $5 .<300+02$ |
| -.900x+ 02 | 5.571 .002 | 2,5310*02 | 7.2360001 | $5.6810=01$ | 5.3620*02 |
| $7.000 x+02$ | $5.641 \pm+02$ | 2.000002 | 7.1600001 | 5.7530001 | $5.4940+02$ |
| \% $100 x+02$ | $5.7110+02$ | $2.6700+02$ | 7.080.01 | $5.8240=01$ | $5.02700+02$ |
| $\% .200 x+02$ | $5.7800+02$ | 2.7410002 | 7.0140001 | $5.8950=01$ | $5.161+02$ |
| $7.3000+02$ | $5.049 n+02$ | 2,8120*02 | 6.945 .001 | $5.965=01$ | $5.0950+02$ |
| $7.400=+12^{2}$ | $5.9180+02$ | 2.8840*02 | 6.570.0.01 | 6.0.350-01 | $6.4^{3} 10+02$ |
| 7.500x+02 | $5.9800+02$ | 2.9560+02 | $6.813-01$ | $6.1040=01$ | $0.1670+02$ |
| $7.600 x+112$ | 6.0.54n+02 | 3.0300+02 | $6.7500=01$ | $6.173=01$ | 6. $5040+02$ |
| 1.700x+02 | $6.1210+02$ | 3. $1040+02$ | 6.689 .01 | $6.2420=01$ | $6.4410+02$ |
| $7.800 x+02$ | 6.1880002 | S.1780-02 | $6.630 \mathrm{n}=01$ | $6.5100=01$ | $6.3800+02$ |
| $7.900 x+02$ | $6.2550+02$ | S.254n+02 | 6.573-01 | 6.3780001 | $6.1190+02$ |
| $0.000 x+02$ | $0.3210+02$ | $3.530=02$ | 0.210001 | $6.4460=01$ | $6.0590+02$ |
| c. $1000+02$ | $0.387 n+02$ | $3.4070 * 02$ | 0.4640001 | 6.2130001 | 6. $4990+02$ |
| $8.200 x+02$ | $6.4520+02$ | 3.4840 -02 | 6.4110001 | $0.5800=01$ | 7.141*02 |
| $8.300 x+02$ | 6.5100002 | 3.2620*02 | 0.3600001 | 6.6400001 | $7 \cdot 2^{8} 20+02$ |
| $0.400 \times+02$ | $0.58210+02$ | 3.641002 | 6.3110001 | 0.7120001 | $7.4250+02$ |
| $0.500 x+0^{2}$ | $0.647 m+02$ | $3.7200+02$ | 6.263001 | 0.778001 | 7.768** 02 |
| $0.600 x+02$ | $0.7110+02$ | 3.8000*02 | 0.210 .01 | $6.8430=01$ | 7.1120+02 |
| -.700=+02 | 6.7750002 | 5.8810*02 | $6.171=01$ | $6.900^{8}-01$ | $7.0560+02$ |
| $0.800 x+02$ | $0.8380+02$ | 3.9620+02 | 6.1200001 | 0.973001 | 8.0010+02 |
| b. $400 x+12$ | $6.501+02$ | 4.044**02 | 0. $0^{83}=01$ | $7.037-01$ | $8.1460+02$ |
| y. $000 x+02$ | $6.964 \omega+02$ | 4.127.02 | 6.041001 | 7.101- $=01$ | $8.4920+02$ |
| y. $1000 x+02$ | $7.026 \mathrm{~m}+02$ | 4.2100+02 | 6.0010001 | 7.165-701 | $8.4390+02$ |
| 4. $200 x+02$ | 7.0880 02 | 4,294- 02 | 5.961001 | 7.228:01 | 8. $5860+02$ |
| $4.300 x+02$ | 7. $1500+02$ | 4.378.*02 | 5.4220001 | 7,291-01 | $8.1340+02$ |
| $4.400=012$ | 7.211.02 | 4,4630+02 | 5.084001 | $7.3540=01$ | $8.0820+02$ |
| $4.500=02$ | $7.272_{00}+02$ | $4,549.0$ +02 | 5.047m001 | 7.41000 0! | 9.43100+02 |
| 4.600x+42 | $7.3350+02$ | $4,6350+02$ | $5.8110=01$ | 7.4780-01 | $9.180^{0+02}$ |
| Y.700x+ 12 | $7.3930+02$ | 4,722=+02 | 5.770.01 | $7.540 \times 0.1$ | 9.5290002 |
| Y.000x+ 102 | 7.4540+02 | 4.8100+02 | 勺.742x-01 | 7.0010001 | $9.48000+12$ |
| 9. $4000+02$ | 7,5130+02 | $4,898=02$ | 5.7090-01 | 7.0620001 | $9.03010+02$ |
| $1.0000+05$ | $7.5750+02$ | 4.987n 02 | $5.0700=01$ | $7.7230-01$ | 9.1810+02 |
| $1.0100+03$ | $7.0320+02$ | 5, $0760+02$ | 5.0440001 | $7.783 x=01$ | $9.43300+02$ |
| 1.020x+03 | $7.6910+02$ | $5.1660 * 02$ | 5.013001 | 7.8430001 | $1.4080+03$ |
| $1.050 x+0^{3}$ | $7.7500+02$ | $5.2560+02$ | 5.2836001 | 7.9030=01 | 1.42400+03 |
| 1.040x+013 | $7.6000+02$ | 5. $5470+02$ | $5.2530 \cdot 01$ | 7.9620001 | 1. $13390+03$ |
| $1.050 x+0^{3}$ | $7.8600+02$ | 5.439n+02 | 5.2240001 | 8.0210001 | $1.0540+0^{3}$ |

## PARIICLE UENSITY $=4.0$ GRAMS PER CUBIC CENTIMETER

WIIANETER
1.000x+00

1:100x+00
$1.200 x+00$
$1.300 x+00$
$1.4110 x+00$
$1.500 x+00$
$1.600 x+110$
$1.700 x+60$

1. $1000+00$
$1.900 x+00$
$2.000 x+00$
2. 100 = +00
3. $200 x+00$
4. $3130 x+00$
c. $400 \times+00$
c. $500 x+00$
$\therefore .600 x+00$
c. $700=+00$
5. $800 x+00$
$2.400=+00$
S. $0000+00$
v. 100x+00
$3.2110 x+00$
6. $500 x+00$
S. $400 \mathrm{O}+00$

- $200 x+60$
$9,600 x+60$
$3,700 x+00$
3.0100~+00
$5.4100 x+00$

4. $000 x+00$
5. $100 \mathrm{x}+100$
6. $200 x+00$
7. $300 x+00$
$4.400=+100$
8. $500 x+00$
$4.600 x+00$
$4.700 x+00$
$4.000 x+100$
$4.400 x+100$
$=.000 x+00$
$2.100 x+00$
b. $2000+150$
$5.300 x+110$
9. $400 x+40$
$5.500 x+100$
velocity

| 1.2100-02 | 7.969.-06 |
| :---: | :---: |
| 1.462.02 | 1.059.05 |
| $1.738=02$ | $1.373=05$ |
| 2.038002 | 1.744=0.05 |
| 2.361002 | 2.177n=05 |
| $2.700^{8}-02$ | 2.675m=05 |
| 3.0800002 | 3.245-05 |
| 3.475.02 | 3.8890=05 |
| 3.893-02 | 4.614-05 |
| $4.3360-02$ | 5.4240-05 |
| $4.800^{\prime}=02$ | 6.324x=05 |
| 5.292.-02 | $7.3180-05$ |
| 5.806002 | 8.411005 |
| $6.344=02$ | $9.6080=05$ |
| 6.906002 | 1.0910.04 |
| 7.491-02 | 1.233.0.04 |
| 8.100.-02 | 1.387=04 |
| $8.733-02$ | 1.553=04 |
| $9.390-02$ | 1.7310004 |
| 1.007-01 | 1.923.04 |
| 1.078.01 | 2.1290=04 |
| 1.1500=01 | 2.348.04 |
| 1. $220=01$ | 2.5820 .04 |
| $1.305_{0}=01$ | $2.8320 \cdot 04$ |
| 1.385.01 | 3.097\%-C4 |
| 1.465-01 | 3.377w-04 |
| 1.5500-01 | 3.675m-04 |
| 1.6370001 | S. 489.04 |
| 1.7270001 | 4.3210-04 |
| 1,0190-01 | 4.6700-04 |
| 1.9130-01 | 2. 0380004 |
| 2.01010-01 | 5.42500 .04 |
| 2.10\% 01 | $5.031=04$ |
| 2.2100001 | $6.257 m=04$ |
| 2.5140001 | $6.704000^{4}$ |
| 2.4200-01 | 7.1700*04 |
| 2.520 -01 | $7.6590-04$ |
| 2.039 = 01 | 8. $168=04$ |
| 2.7530001 | $8.7000-04$ |
| 2.000001 | 9.255:-04 |
| 2.980-01 | $9.0320=04$ |
| 3.107m=01 | $1.0430=03$ |
| 3.23010-01 | 1. 1060-03 |
| 3.355.01 01 | 1.1710-03 |
| 3.482n-01 | 1.238-03 |
| 3.612001 | 1.308=03 |

DHAG COEF KELAX TIME . Y8 UIST

| 2.915m+06 | 1,234=05 | 4.443-707 |
| :---: | :---: | :---: |
| 2, 0000000 | 1,491-05 | 6.499=07 |
| $1.7010+06$ | 1.772.005 | 9.197-07 |
| $1.3420+06$ | 2.078 .05 | 1.c660=06 |
| 1.077n*06 | 2.408 .05 | 1.7010906 |
| $8.7790+05$ | 2.7620005 | 2. 2400006 |
| $7.2480+05$ | 3.1400005 | $2.498=90$ |
| $6.0540+05$ | 3.5430005 | 3.0910006 |
| $5.1080+05$ | $3.970-05$ | 4.037m-06 |
| $4.549 \times+05$ | 4.421005 | 5.154-06 |
| 3.73.40+05 | 4.897.05 | 7.1600=00 |
| $3.229+05$ | 5.397-05 | $8.578=00$ |
| 2.0110+05 | 5.9210005 | 1.0330-05 |
| $2.4630+05$ | 6.469n-05 | $1.2330=05$ |
| $2.1700+05$ | 7.042=0.05 | 1.461005 |
| $1.9210+05$ | $7.639 \times 05$ | 1.1200005 |
| $1.709+05$ | 8.2600005 | 2. $1110=05$ |
| 1.527.05 | 8,906000 | $2.338=-05$ |
| 1.3700+05 | 9.5760-05 | 2.1030005 |
| 1.234- +05 | 1.0270=04 | 3. 1090005 |
| $1.115 x+05$ | 1.099: 04 | $3.560=05$ |
| 1.0110*05 | 1. $173 x=04$ | 4.057-0.05 |
| $9.2000+04$ | 1.2500=04 | $4.0050-05$ |
| $8.3920+04$ | 1.3290004 | 5.207 - 05 |
| $7.0770+04$ | $1.4100=04$ | 5. $5660 \cdot 05$ |
| 7.0400+04 | 1.4940004 | 6. 2850.05 |
| 6.4720*04 | 1.5810004 | 7. 5688005 |
| 5.464.+04 | 1.6700004 | 8.1490005 |
| $5.5070+04$ | 1.761004 | 9.1420005 |
| 5.790n+04 | 1.8550004 | $1 \cdot y 14=04$ |
| 4,725w+04 | 1.9510004 | 1. 1220004 |
| $4.389+04$ | 2.049x-04 | 1. $23810-0^{4}$ |
| $4 \cdot 0^{8400+74}$ | 2. 1500004 | $1.5630=04$ |
| $3.607 n+04$ | 2, $2540 \cdot 04$ | 1.4970004 |
| $3.55 .4=+04$ | 2,559 = $0^{4}$ | $1.04 .10=00^{4}$ |
| 3. $2250+0^{4}$ | $2.4680 \cdot 0^{4}$ | 1.1950-04 |
| 3.1120+04 | 2. $5780=04$ | $1 . \pm 59-04$ |
| $2.9160+04$ | 2,6920-04 | 2. $135=04$ |
| $2.7400+04$ | $2,8070-04$ | 2.9220-04 |
| 2.570.*04 | 2,9250-04 | 2. 221004 . |
| 2.425n+04 | 3.0450-04 | 2.1330004 |
| 2.280.004 | 3.1680\% 04 | $2 . y 570004$ |
| 2. $157 n+04$ | 3.2930-04 | 3.1960-04 |
| 2.036**04 | 3.4210004 | $3.448=04$ |
| $1.427=04$ | $3,5510=04$ | $3.1150-04$ |
| $1.024 \times 04$ | 3.6840\% 04 | 3. $997=04$ |

## PARTICLE LENSITY = A.D GHAMS PER CUBIC CENTIMETER

UIAMETEK

| $0 x+00$ |
| :---: |
| 3. $700 \mathrm{x}+00$ |
| - $800 \times+00$ |
| 2.900x+00 |
| 6. $0000+60$ |
| -.100\% + 00 |
| $6.2000+00$ |
| -.300\%+00 |
| $0.400 x+00$ |
| $\bigcirc \cdot 5000+00$ |
| $6.000=+00$ |
| -.700x+00 |
| $6.800 x+00$ |
| $6.900 x+00$ |
| 7.000x+00 |
| ? 100x+00 |
| $7.200 x+00$ |
| 1.300x+00 |
| $7.400=+00$ |
| 7. $5000+00$ |
| $7.000 \%+00$ |
| 1.700x+00 |
| $7.800 x+00$ |
| $7.900 x+00$ |
| $0.000 x+00$ |
| 6. $1000+60$ |
| $0.200 x+100$ |
| $0.300+00$ |
| $0.400 x+00$ |
| -.500x+00 |
| 6.600x + 00 |
| E.700x+00 |
| b. $8000 x+10$ |
| \%. $9.00 x+00$ |
| 4. $0000 x+00$ |
| Y. $100 x+00$ |
| 4.200x+60 |
| Y. $300=+00$ |
| 9.400x+00 |
| Y. $2000 x+10$ |
| 9, $\operatorname{B00} \mathrm{O}+10$ |
| $4.700=00$ |
| $9.800 x+60$ |
| Y. $400 \times+00$ |
| 1.000x+61 |
| . 000 |

VELUC!TY
RE
3.745:-01 1.381=03 $3.879=01$
4.0160.01
4. 156 $=01$ $4.298=01$ 4,442=01 $4.588=01$ $4.737=01$ 4.889 001 5.0420-01 $5.198=01$ $5.357 n=01$ 5.518001 $5.6810=01$ $5.840=01$ 0.0140001 6. 1850001
$0.357=01$
$0.532=01$
$6.710=-01$
$6.890=01$
7.072-01
$7.250-01$
7.443. 01
$7.63 \mathrm{~J}=01$
$7.0240=01$
8.018-01
$8.215 n-01$
$8.4150=01$
$8.01^{4}-01$
$8.610=01$
9.024-01
$9.232=01$
$9.445_{\infty}=01$
9.656.01
9.871.001
$1.00^{9}+00$
$1.0310+00$
$1.0 .53 x+00$
$1.0700+00$
$1.090 x+00$

1. $121=00$
$1.144 \%+0.0$
$1.160 \% 00$
$1.1910+00$
$1.4410+00$
$1.456=03$
$1.534=03$
$1.615=03$
$1.698=03$
$1.784=03$
$1.873=03$
$1.965=03$
2. $0^{6} 0=03$
3. $158=03$
4. 259." 03
2.3630=03
$2.4710=03$
2.5810003
$2.6950=03$
$2.6120=03$
$2.9320 \div 03$
5. $0560=03$
$3.183=03$
$3,514=0$
$3.514 m=03$
$3.448=03$
$3.586=03$
$3.7270-0.3$
5.0720003
6. $021=03$
7. 173.-03
8. $329=03$
$4.4900=03$
4.022=-05
$4.993=03$
$5 \cdot 169=03$
$5.3500=03$
$5.534=0.3$
$5.7220=03$
$5,915=03$
$0.112=03$
$6.313 x=03$
$0.5180=03$
$0.728=03$
$0.943=0.3$
9. $161=03$
$\% .3850=03$
$7.013=03$
$7.8460=03$
$1.0445=02$
drag cetf relax time
$1.7200 * 04$
$1.6390+04$ $1.5560+04$ $1.4790+04$ $1.4000+04$
$1.338 x+04$
$1.2750+04$
$1.2150+04$
$1.159=+04$
$1 \cdot 10^{7}+0^{4}$
$1.0570+04$
$1.0110+04$
$9.2580+03$
$8.6680+03$
$8.4940+03$
10. 1510*03
7.0220*03
$7.5100+03$
$7.2140+03$
$0.9340+03$
$0.060 m+03$
$6.4100+03$
$0.1700+03$
$5.4480+03$
$5.1310+03$
$5.2250+03$
5.5200 003
b. $1410+03$
$4.452 x+03$
$4.7910+03$
$4.020 \mathrm{~m}+03$
$4.4750+03$
4.324s+03
11. $1^{\mathrm{H} 2=+03}$
12. $460+03$
$3.910 .0+03$
3.7920+03
3.0720+03
$3.5500+03$
3.440 $4+03$
13. $543 n+03$
14. $2420+03$
$3.145=03$
$3.050 x+03$
$2.090 x+03$
3.619m=04
$3.956=04$
$4.096=04$
$4,238=04$
$4,383=04$
$4,383=04$
$4.5300=04$
$4.679=04$
$4,831=04$
$4.985 x=04$
15. $1420=0^{4}$
$5.301=04$
$5,463=04$
$5.627=04$
$5.793=04$
$5.962=00^{4}$
$6.133=04$
$6.3070=0^{4}$
$0.483 m=0^{4}$
6.8420-04 $\quad 1.578-03$
$\begin{array}{ll}7.020=04 & 1.453=03 \\ 7.2120=04 & 1.330=03\end{array}$
$7.2120=04 \quad 1.530=03$
$7.4000=04 \quad 1.611=03$
$7.5900=04 \quad 1.0950=03$
$\begin{array}{ll}7.7830-0^{4} & 1.1830003 \\ 7.97900 & 1.07300\end{array}$
$7.9790004 \quad 1.0730=03$
16. $177=04 \quad 1.967=03$
$8.577-04 \quad 2.065 x=03$
$\begin{array}{ll}8.5800=04 & 2.160=03 \\ 8.785=0 & 2.170=03\end{array}$
$8.785=04 \quad 2.470=03$
$\begin{array}{ll}8.9920-04 & 2.5790=03\end{array}$
$\begin{array}{ll}9.2020-04 & 2.4910-05 \\ 9.4140-04 & 2.0070-05\end{array}$
$9.6 .29=04 \quad 2.128=03$
$9.0460-04 \quad 2.5520-03$
$1.00^{700}=03$
$1.029=03$
$1.0510=03$
$1.074 \infty-03$
17. $047=03$
1.120x-03
$1.1430=03$
$1.107=03$
$1.1910=03$
1.2150003
$1.46950=03$
$1 \cdot<370003$
18. 2950004
4.0091004
19. $74100=04$
$5.2^{89}=04$
$5.050=04$
5.050=04
20. $u^{4} 2 x=0^{4}$

6, 447n=04
6.072*-04
7. $118=04$
7.1850-04
8. $<^{730004}$
$8.1850=04$
$9.320^{\omega=} 0^{4}$
9. $679=04$
$1 \cdot u^{46}=0^{3}$
$1 \cdot 10^{700}=0^{3}$
$1 \cdot 1^{710003}$
1.5060003
2. $1650=03$
2. $166=03$
$2.5790-03$
$2.491=03$
$2.007=03$
$2.128=03$
$2.95200-03$
$2.4800=03$
3. 1130003
3. $251=03$
3. $5920=03$
3. $23910-03$
3.090:03
3.0.05-03
4. 01060003
4.1710903
$4.342=03$
$6.351=03$

| Ulametea | VELUCITY | RE | DRAG COEF | helax time | ．90 DلST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1．200x＋ 11 | $1.7140+00$ | 1．554－02 | 1．7710＋03 | 1．7480003 | $8.48800 \cdot 0^{3}$ |
| $1.300 x+01$ | 2．0100＋00 | 1．721－02 | $1.394 .00^{3}$ | $2.050000^{3}$ | 1．237002 |
| $1.400 \times+01$ | $2.3300+00$ | 2．1480＝02 | 1.1100003 | $2.3760-03$ | 1．0620002 |
| $1.500 x+01$ | $2.0730+00$ | 2.640002 | $9.10^{4 n+02}$ | 2.7260013 | 2．1890－02 |
| $1.0000+61$ | 3．038 $0+00$ | 3.201002 | 7．514in＋02 | 3．099－03 | 2．0320－02 |
| $1.700 \mathrm{c}+01$ | $3.427 m+00$ | 3．836－02 | 6．276－ 02 | 3．495＊ 03 | 3．007－02 |
| $1.800 x+01$ | 3．830＊ 00 | 4．249＝02 | $5.2900+02$ | $3.914{ }^{\text {m }} 03$ | 4． $5320 \cdot 02$ |
| $1.900 x+01$ | 4，2720＋00 | 5．3440＂02 | $4.5150+02$ | 4，356－03 | $5.0230-02$ |
| 2．000x＋01 | $4.7270+00$ | 6．2260＂02 | 3．881－02 | 4．8210003 | 6．0990．02 |
| $2.100 x+01$ | $5.20^{5}=+00$ | 7．197＝02 | 3．562x＋02 | $5.3080=03$ | 8．982－02 |
| $2.200=+01$ | $5.70^{4} 0+00$ | 8．263＝02 | 2．933－＊02 | $5.817=03$ | 1．U090001 |
| 2． $3000+01$ | $6.224 * 00$ | 9．427n－02 | 2．5750＋02 | $6.347=03$ | 1．2050－01 |
| 2． $400 \times+01$ | 6.760000 | 1．069＝ 01 | 2．2740＋02 |  | 1.4280001 |
| 2． $5000+01$ | $7.3200+00$ | 1．2060001 | 2．0190＋02 | 7．4720－03 | 1．081＝01 |
| $2.600=+01$ | $7.9100+00$ | 1．3540－01 | 1．8030＋02 | $8.0600=03$ | 1．4650．01 |
| $2.700=+11$ | $8.5110+00$ | $1.513=01$ | $1.0170+02$ | $8.6800=03$ | 2． 2850001 $^{80}$ |
| 2．6000x＋01 | $9.1330+00$ | 1．684－01 | $1.4500+02$ | 9．3130－13 | 2．0420－01 |
| 2．900x＋ 51 | $9.7720+00$ | 1.8660001 | $1.5170+02$ | 9，9．6600 $0^{3}$ | 3．4390001 |
| S． $000 x+01$ | $1.0430+01$ | 2．0600＂01 | $1.1960+02$ | 1．064＊＊02 | 3．4790001 |
| 3，100x＋01 | $1.1110+0 \mid$ | 2．2670＂01 | $1.0900+02$ | $1.1330=02$ | 3． 4650001 |
| S．200＊＋11 | $1.1800+01$ | 2.4860001 | $9.9690+01$ | 1.2030002 | 4．2000001 |
| 3，300x＋01 | $1.251 .0+01$ | 2．718＝01 | 9．147n＋01 | 1．2760002 | $5 \cdot 0^{880001}$ |
| 0．400x＋ 11 | $1.3230+01$ | 2．9620－01 | $8.4310+01$ | 1．5490002 | 5.1200001 |
| 3．500x＋01 | 1．597＊＋01 | S．2200001 | 7．782x＋01 | 1．4\％50＂02 | 6．979－01 |
| 3．000x＋1 | $1.4730+01$ | 3．491＝01 | 7， $2020+01$ | $1.5020=02$ | 7． $\mathrm{u}^{74000} 0$ |
| S．700x＋01 | $1.5500+01$ | 3．7760001 | 6.084 .001 | 1.5810002 | 7．0090001 |
| 3， $600 x+01$ | $1.029 .0+01$ | 4．0750001 | $6.6190+01$ | $1.6610=02$ | 8． 2840001 |
| $3.900 x+31$ | $1.700+01$ | 4． $587 \times 001$ | 5．0000＋01 | 1.7420002 | 9，401001 |
| 4．000x＊！1 | $1.7890+01$ | 4．／130001 |  | 1.8250002 | 1．4260＊00 |
| $4.100 x+61$ | 1．672＊＊01 | 勺．0530＊01 | 5．0790＋01 | 1.9090002 | 1．1160＋00 |
| $4.200 x+11$ | $1.4500+01$ | 5．407－01 | $4,7690+01$ | $1.9940=02$ | 1．2110＋00 |
| $4.300 x+1$ | 2．04000＋01 | 5.775001 | $4.4800+01$ | 2．0800002 | $1.3110+00$ |
| $4.4000+01$ | 2.1250001 | 0．1570\％01 | 4．2200＋01 | 2．167－02 | $1.4140+00$ |
| $4.500 x+01$ | $2.2120+01$ | 0．254m＝01 | $3.9920+01$ | $2.2550=02$ | 1． $2230+00$ |
| $4.600 \pm+11$ | $2.2990+01$ | 0．964＊－01 | $3.1770+01$ | 2.3450002 | 1.0360000 |
| $4.700 x+01$ | 2．3800＋01 | 7．5890001 | 3． $270 m+01$ | 2．4350＊02 | $1.1540+00$ |
| $4.800 x+11$ | 2．477＊＋01 | 7．828－01 | 3．0900＊01 | 2． 2260002 | 1．077m＋00 |
| $4.400 \times+01$ | 2．567．01 | 8.2820001 | 3．2200＋01 | 2，01800020 | 2． 1040000 |
| $2.000=+11$ | 2.658 .01 | $8.1500=01$ | 3．9730＊01 | 2.710002 | 2． $1360+00$ |
| $2.100 x+01$ | $2.749+01$ | 9．232m－01 | $2.429 m+01$ | $2.0030-02$ | 2．$厶^{7400+00}$ |
| －200\％＋111 | 2．6410＋01 | 9.729 .01 | 2．190＊＊1 | 2.8970002 | $2.41600+00$ |
| 勺． $500 \mathrm{x}+11$ | 2.9340001 | 1．024＊＊00 | $2.6720+01$ | 2.9920002 | 2． 263000 |
| 2．400x＋11 | $3.020 x+01$ | 1.077000 | 2．5500＋01 | $3.0880 \cdot 02$ | $2.715 m+00$ |
| 2．500x＋01 | 3，1220＋01 | $1.1310+00$ | 2．449n＊01 | $3.1840=012$ | 2．0720＋00 |
| 2．000x＋01 | 3．217n＋01 | $1.1860+00$ | 2．54000＋01 | 3.2810002 | $3.434 * 00$ |
| b．700x＋01 | $3.5150+01$ | $1.2430+40$ | 2．8540＋01 | 3.3780002 | 3． $20100+60$ |

PARTICLE UENSITY = 4.0 GRAMS PER CUBIC CENTIMETER

| UIAMETEK | VELOCITY | RE | DRAG COEF | Elax TIME | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.000 x+01$ | $3.4090+01$ | 1. $5020+00$ | $2.1600+01$ | 3.4770*02 | 3. $374=+00$ |
| $3.900 x+01$ | $3.5070+01$ | 1.362\%+00 | 2.0820 $0^{821}$ | $3.576 x=0.2$ | 3. $3510+00$ |
| 6.000x+(1) | $3.00^{5} 0+01$ | 1.4240+00 | 2.004=01 | 3.676-02 | 3.1340000 |
| -. $100 \mathrm{c}+01$ | $3.7030+01$ | 1.488000 | $1.9300+01$ | 3.777-02 | 3. $4220+00$ |
| $0.200 x+01$ | $3.0030+01$ | $1.5530+00$ | $1.8000+01$ | 3,878002 | 4. $115 x+00$ |
| $6.300 x+01$ | $3.90^{4}+01$ | 1.619x+00 | $1.794 n+01$ | 3.981002 | 4. $3130+00$ |
| $0.4000+01$ | $4.00^{5}+01$ | 1.688000 | $1.7310+01$ | 4.085002 | 4. $317 x+00$ |
| $0.500 x+01$ | 4.1080+01 | 1.758 .00 | 1.6720001 | $4.1890=02$ | 4. $1260+00$ |
| $6.000=+01$ | 4.212000 | $1.8300+00$ | 1.6150001 | 4.295= 02 | 4. 4 $400 * 00^{0}$ |
| $6.700 x+01$ | $4,5170+01$ | 1.9104000 | 1.2610001 | $4.402=02$ | 5. $1590+00$ |
| -. $000 x+01$ | $4.4230+01$ | 1.9800*00 | $1.5090+01$ | $4.5100-02$ | 5. $3840+00$ |
| $6.9000+01$ | $4.2300+01$ | 2.058**00 | 1.459 .01 | $4.620 x=02$ | $5.0140+00$ |
| 7.000x+01 | $4.039+01$ | 2. $1380+00$ | 1.4120001 | $4,7300=02$ | $5.0490+00$ |
| 7.100x+01 | $4.7490+01$ | 2.2200+00 | $1.3600+0!$ | 4.8430002 | 6. $4^{9} 0^{*+} 00$ |
| 7.200x+01 | $4.8600+01$ | 2. 304000 | 1.3230+01 | 4,956x-02 | 6. $3350+00$ |
| $7.300 x+01$ | $4.9730+01$ | $2.5900+00$ | $1.2810+01$ | 5,071=02 | $6.287 \mathrm{~m}+00$ |
| $7.400 x+01$ | $5.00^{87}+01$ | 2,479x-00 | $1.2410+01$ | 5.1880-02 | $6.043 \pm+00$ |
| $7.500 x+01$ | $5.200^{3}+01$ | 2.569-00 | $1.200_{0}+01$ | 5.3050002 | 7.1060+00 |
| $7.000 \times+1$ | $5.3190+01$ | 2.6620+0.0 | $1.1600+01$ | $5.425=02$ | 7.573-00 |
| $7.700 x+61$ | $5.4370+01$ | 2.7570+00 | $1.1300+01$ | $5.5450-02$ | $7.046 x+00$ |
| $7.800=01$ | $5.550 \pm+01$ | $2.0540+00$ | 1.397n+01 | 5.0660002 | $7 . y 24 *+00$ |
| $7.900 x+01$ | $5.6750+01$ | $2.9520+00$ | $1.064 n+01$ | $5.7880=02$ | $8.1070+00$ |
| 8.000x+61 | $5.7950+01$ | 3.0530+00 | 1.034-01 | 5.9100002 | $8.4966+00$ |
| $0.100 x+01$ | 5.9130001 | S. 155000 | 1.0050001 | $6.0320=02$ | $8.1910+00$ |
| b. $200 x+01$ | 0.035001 | S.2.58=00 | 9.7750+00 | 6.1540002 | 9.4900*00 |
| 6. $300 x+01$ | $0.1530+01$ | 5.3630+00 | 9.2150+00 | $6.2750-12$ | $9.5960+00$ |
| -. $400 \times 1$ | 0.2700*01 | S.468w+00 | 9.2740+00 | 6,394m-02 | $9.1000+00$ |
| 6. $5000 x+1$ | $6.3840+01$ | S.5730+00 | 9.0520+00 | 6.5100002 | 1.4020+01 |
| $0.600 x+01$ | 0.495x+01 | 3.6780+00 | 8.849000 | $6.62310-02$ | 1.13450 01 |
| c. $100 \mathrm{x}+11$ | $0.0015+01$ | 3.7810+00 | $8.0670+00$ | $6.7310 \cdot 02$ | $1.15670+01$ |
| $0.000 z+31$ | $6.7010+01$ | 3,883.+00 | $8.2070+00$ | $6.8330-12$ | 1.1000001 |
| -. $9000+i i)$ | $0.7930+01$ | 3.981-00 | $8.57 .10+00$ | 6.927-02 | 1. $13400+01$ |
| ¢.000x+01 | $0.6710+0.1$ | 4.0720400 | $8.2750+00$ | 7.00600-02 | 1.16800+01 |
| Y. $100 x+11$ | 6.9780+01 | 4.181=*00 | 8.111000 | 7.116-02 | $1 .<0300+01$ |
| Y. $2000 x+61$ | 7.0800001. | $4.29 .20+00$ | 7.4530+00 | $7.2260-02$ | $1 \cdot<304 n+0!$ |
| 4.300x+111 | 7.1900+01 | $4.4050+00$ | 7.0000+00 | $7.3360=02$ | $1.47400+01$ |
| $9.400 x+101$ | $7.302 x+01$ | 4.5.190*00 | $7.6530+00$ | 7.44600 02 | $1.31100+01$ |
| $9.500 x+01$ | $7.4100+01$ | $4.035 .+00$ | $7.5100+00$ | 7.5.56x=02 |  |
| $4.000 x+3.1$ | 7.5180*01 | 4.7520+00 | $7.3710+00$ | 7.667 .002 | 1. $585 \mathrm{~s}+01$ |
| $4.700 x+31$ | 7.627.01 | 4,0.71= 00 | $7.2300+0.0$ | 7.7780002 | $1.423 x+01$ |
| Y. $800 x+01$ | 7.730001 | 4,992n+00 | 7:1000+00 | 7.688 .02 | 1.46200.01 |
| $4.900 x+01$ | $7.6450+01$ | 5.11.40+00 | 6.9.820+00 | 8, $0.000=02$ | $1.3010+01$ |
| $1.000 x+12$ | 7.954m+0.1 | 5.237000 | $6.061 .0+00$ | $8.1110=02$ | 1.2410+01 |
| $1.100 x+12$ | 9.0530+01 | 0.2580*00 | $5.0250+00$ | 9.232x-02 | 1.9670001 |
| 1.200x+12 | $1.0170+02$ | $0.032=00$ | 5.0400*00 | 1.037001 | 2.4450001 |
| $1.300 x+62$ | 1.1290+02 | 9.661000 | 4.4300000 | $1.1510=01$ | 2. +750001 |

HIAMETEK

| $400 \times+02$ | $1.2410+02$ | 1,1440*01 |
| :---: | :---: | :---: |
| $1.500 x+02$ | $1.3540+02$ | $1.5380+01$ |
| $1.600=+02$ | 1.467.0 02 | 1.546"*01 |
| $1.700 x+12$ | $1.5800+02$ | 1.769.*01 |
| $1.800 x+12$ | $1.693+02$ | 2.0070.01 |
| $1.400 x+0^{2}$ | $1.8000+02$ | 2.260001 |
| C.000x+02 | $1.919+02$ | $2.527 m+01$ |
| <. 100: 02 | $2.0310+02$ | $2.80800+01$ |
| $2 \cdot 200=02$ | $2.1420+02$ | $3.1030 * 01$ |
| $2.300 \times+02$ | 2.253.022 | 3,4130+01 |
| $2.400 x+12$ | 2. $3640+02$ | 3.136** 01 |
| $2.500 x+0{ }^{2}$ | 2.474.02 | 4.0720*01 |
| <. $0000 \times+02$ | 2.583 $0+02$ | 4.4220001 |
| 2. $700 x+02$ | $2.6920+02$ | 4.180.+01 |
| C. $8000 x+02$ | $2.8000+02$ | 2.1620*01 |
| $2.900 x+62$ | $2.9075+02$ | 5.5520*01 |
| $3.000 x+0^{2}$ | 3.0140+02 | 2.954x+01 |
| $3.100=+02$ | 3.1200+02 | 0.3690+01 |
| 3.2000+02 | 3, 220 $0+02$ | 0.197.01 |
| 3, 300\% + 02 | $3.330 .+02$ | 7.236x+01 |
| 3.400x+02 | 3,43.4n+02 | 7.688=* 01 |
| $3.5000+02$ | 3,537\% 02 | 8.153n+01 |
| $3.600 x+12$ | $3.640 x+02$ | $0.629 .+01$ |
| ง.700x+ 02 | $3.742 x+02$ | 9.1100+01 |
| $5.600 x+12$ | $3.843_{10}+02$ | 9.610. +01 |
| 9.900x+02 | 3.9430+02 | 1.013x+02 |
| $4.000=+12$ | $4.0430+02$ | 1.06bot02 |
| $4.100 x+02$ | 4, 1420+02 | 1.11800 02 |
| $4.200 x+02$ | $4.2410+02$ | 1.173x+02 |
| $4.3110 x+112$ | $4.338=02$ | 1.2280*02 |
| $4.400 x+12$ | $4.4350+02$ | 1,2850+02 |
| $4.200 x+1^{2}$ | $4.5320+02$ | 1,5430*0.2 |
| $4.000+2$ | $4.0270+02$ | $1.402 x+02$ |
| $4.700 x+32$ | $4.722 \pm+02$ | $1.4620+02$ |
| $4.6000+42$ | $4.0170+02$ | 1. $2220+02$ |
| $4 \cdot 9.00 x+12$ | $4.9110+02$ | 1. $5840+02$ |
| 5.000x+52 | 5.0040+02 | $1.647 \pm+02$ |
| と.100x+ | $5.0960+02$ | 1.7110+02 |
| $5.200 x+12$ | 5.1800+02 | 1.1760*02 |
| b. $5000+12$ | 5.279000 | 1.0420+02 |
| $2.400 x+02$ | 5.370 .02 | $1,9090+02$ |
| b. $5000+02$ | $5.4600+02$ | 1,4770+02 |
| 2.600F+02 | $5.5490+02$ | 2.0460+02 |
| $5.70 .0 x+12$ | $5.0360+02$ | 2.1100+02 |
| 勺. $600 x+02$ | $5.7200+0 \%$ | 2.1870*02 |
| 5.900x+12 | 5.814n+02 | 2.259** 02 |

URAG COEF KELAX TIME .90 gIST

| $3.9440+00$ | 1.2660-01 | 3.2560+01 |
| :---: | :---: | :---: |
| $3.2500+00$ | 1.381001 | 4.1870+01 |
| $3.220 x+00$ | 1.496.001 | $4.8650+01$ |
| 2.954-00 | 1.0120001 | 5.3910+01 |
| 2.724n+00 | 1.727.01 | $6.5620+01$ |
| $2.5280+00$ | 1.8420001 | 7.1780+01 |
| 2,3560+00 | 1.957001 | $8.10370+01$ |
| $2.2100+00$ | 2.071-01 | $8.4380+01$ |
| $2.0810+00$ | 2.1850-01 | $9.8800+01$ |
| 1.460.000 | 2.2980001 | 1. $1^{8600+02}$ |
| 1.064=00 | 2.4110001 | $1.18800+02$ |
| $1.7730+00$ | 2.5230=0i | $1 \cdot<94 *+02$ |
| 1.691=00 | 2.03400-01 | $1.4030+02$ |
| $1.0170+00$ | 2.7450001 | 1.3100+02 |
| 1.2500000 | 2.6550-01 | $1.0320+02$ |
| 1.4890+00 | 2.965-01 | 1.1520002 |
| 1.43300 00 | 3.0740-01 | $1.0750+02$ |
| $1.3820+00$ | 3.1820\% 01 | 2. 101002 |
| $1.3350+00$ | 3.2890\%01 | 2. $130^{0+0} 02$ |
| $1.2910+00$ | 3.396001 | 2. $2^{6} 20+02$ |
| $1.2510+00$ | 3.5020001 | 2.9970+02 |
| $1.2140+00$ | 3.607001 | 2. $3.340+02$ |
| 1.179n+00 | 3.7120001 | $2.0750+02$ |
| 1.147m*00 | 3.010x=01 | 2.0180*02 |
| $1.1170+00$ | 3.9190001 | $2.963 m+02$ |
| 1.0860000 | 4.0210-01 | 3.11100+02 |
| 1.062x+00 | 4.1230001 | 3. 6620000 |
| 1.037**00 | 4, 2240\%01 | 3.4150+02 |
| 1. $5140+00$ | 4.3250-01 | 3.5700+02 |
| $9.910 x=01$ | 4,424001 | 3.127=02 |
| $9.707=0.1$ | 4.5230-01 | $3.0870+02$ |
| 9.5100001 | 4.0210001 | 4. $1^{49 n+02}$ |
| 9.524-01 | 4.7190001 | 4. $2120+02$ |
| 9.147-01 | 4.8100001 | $4.3780+02$ |
| 8.979.011 | 4.9120-01 | $4.240 x+02$ |
| 8.6190001 | 5.008-01 | $4.1160+02$ |
| 8.6600-01 | 5.1030001 | $4.0870+02$ |
| 8, ל230001 | 5.197\%-01 | 5.14 $0^{600}+02$ |
| 8.585001 | 5.2900001 | $5.2350+02$ |
| 8.254.001 | 5.3830-01 | 5.412x+02 |
| 8.1280001 | 5.476-0! | -.2900*02 |
| 8.000001 | $5.568 \mathrm{~m}=0$ ! | $5.1710+02$ |
| 7.093.01 | 5.6590001 | $5.9520+02$ |
| 7.7830001 | $5.749 \times 01$ | 0.1350+02 |
| 7,0780001 | 5.8390001 | 6. $3200+02$ |
| 7.2770001 | 5.9280-01 | $0.2060+02$ |

PARTICLE DENSITY $=4,0$

UIAMETFK
VELOCITY

| $5.9010+02$ | $2.3310+02$ |
| :---: | :---: |
| $5.9870+02$ | 2.4050+02 |
| 0.073 .02 | 2.4790*02 |
| 6. $15880+02$ | 2.5550*02 |
| 6. $2430+02$ | 2.631 + 02 |
| $0.327 n+02$ | 2.7080* 02 |
| $6.411 \pm+02$ | 2.786n*02 |
| $6.494 m+02$ | 2.8650+02 |
| $6.5770+02$ | 2,94.50*02 |
| 6.659 .02 | 3.025-02 |
| $6.7410+02$ | 3. $1070+02$ |
| 6,822= +02 | S.1890+02 |
| $6.902 x+02$ | 5.2720*02 |
| 6.982m+02 | 3.356-02 |
| $7.0620+02$ | 5.4410+02 |
| 7.141= 02 | 3.5270*02 |
| $7.220 n+02$ | 3.6130+02 |
| $7.2980+02$ | 5.7000*02 |
| 7.376 .02 | $3.7880+02$ |
| $7.4530+02$ | 5.8770*0'2 |
| $7.5300+02$ | 3.9660+02 |
| $7.6060+02$ | 4.0570.02 |
| 7.682w+02 | 4.1480*02 |
| 7.757.02 | 4.2400*02 |
| $7.8320+02$ | 4.3320*02 |
| $7.9070+02$ | 4.4250+02 |
| $7.9810+02$ | 4.5200+02 |
| $8.0550+02$ | $4.0140+02$ |
| 8.1280+02 | $4.7100+0 \%$ |
| $8.201 .+02$ | $4.6060+02$ |
| $8.273 n+02$ | $4.9030+02$ |
| $8.345=+02$ | 5.001-02 |
| $8,417.02$ | 5.0990+02 |
| $8.488+02$ | 5. 198.02 |
| 8.559 .02 | 5. $2.980 \times 0$ |
| $8.6300+02$ | 5. 598.0 |
| $8.7000+02$ | 5.499.0 |
| $8.769 \ldots+02$ | $5.6010 \pm 02$ |
| $8.839 * 02$ | $5.7040+0$ |
| $8.9080+02$ | $5.6070+0 \%$ |
| $8.970 \pm+02$ | 3.9110 ${ }^{\circ}+02$ |
| 9.045 0 + 02 | 0.0150*02 |
| 9.1120+02 | 0.1200+0\% |
| $9.1800+02$ | 0.226.+02 |
| $9.247 \%+02$ | 0. $5333+02$ |
| $9.314 \%+02$ | 6,4400+ |

0.0U0x+ij2
o. 100. + 122
$0.200 x+02$
$0.300 x+02$
-. $400 x+02$
$0.500 x+02$
$0.600 x+02$
$6.700 x+02$
-. $800=+02$
$0.400 x+12$
7.000x+02
$7.100 x+02$
$7.200 x+02$
$7.300 x+12$
$\% .400=+02$
$7.500=+02$
$7.600 \times 02$
$7.700=+02$
$7.000=+02$
$7.900 x+02$
$8.000 x+02$
\&. $100=+02$
n. $200 \mathrm{x}+02$
b. $300 x+02$
b. $400 x+02$
$0.500=+11^{2}$
0.000x+02
b. $700 x+02$
$6.800 x+02$
c. $900 x+02$
$y, 000 x+02$
y. $100 \times+02$
Y. $200 x+02$
$4.300=+02$
9. $400 x+02$
$9.500 x+12$
$9.600 x+02$
$9.700 x+1^{2}$
$9.800 x+42$
$9.900 x+02$
$1,000 x+05$
$1.010=+0.5$
1.020x+03
$1: 0^{3} 0=+0^{3}$

1. $040 x+05$
$1.050 x+0^{3}$
drag ceef kelax time .9a jIST

RE
$2.331=+02$
$2.405 n+02$
2. $479 x+02$
$2.631=02$
$2.7 .08=02$
$2.786 n+02$
$2,945=02$
3.025:+02
3. $189=02$
S. $2720 * 02$
$3.356=02$
$5.5270+02$
$3.0130+02$
6. $583=01$
$6.328=01$
$6.275=01$
$6.223=01$
$6.173=01$
$6.124=01$
$6.077=01$
$6.0310=01$
$5.980=71$
$5.443=01$
$5.401=01$
$5.060=01$
$5.0 .20=01$
$5.781=01$
$5,744 m=01$
5.707001
$5.071=01$
$5.036=01$
$5.602=01$
5. $569=01$
$5.537=01$
$5.505=01$
$5.474=01$
$5.444 \times 01$
5.415.0.01
$5,387=0.1$
$5.359=01$
5.331 m .0 .1

5, 305:-01
$5.279=01$
5. 253 -01
7.479001
7.5800001
$7.290 w=01$
7.2100=01
7.127x=01
7.047=01
$6.970=01$
$6.095=01$
$6.023=01$
$6.7 .540=01$
$6.087=01$
. 559
$6.559=01$
$6.499=01$
$6.44 .00=01$

| 6.0170001 | $6.094 n+02$ |
| :---: | :---: |
| 6.1050-01 | $6.0850+02$ |
| 6.193**01 | $7.47300+02$ |
| $6.280 \mathrm{~m}=01$ | $7.265=+02$ |
| $6.366=01$ | $7.4580+02$ |
| $6.4520=01$ | $7.052 m+02$ |
| $6.538 ⿻=01$ | $7.0478+02$ |
| $6.6230=01$ | 8. $1^{4400+02}$ |
| 6.707001 | $8.2^{4} 20+02$ |
| 6.7910001 | $8.4410+02$ |
| $6.8740=01$ | $8.0410+02$ |
| $6.956=01$ | $8.0420+02$ |
| 7.039x-01 | 9. $u^{440+02}$ |
| 7.1200=01 | 9. $4^{47 m+02}$ |
| 7.2020=01 | $9.452 m+02$ |
| 7.2820001 | $9.0570+02$ |
| 7.3620001 | $9.063 \pm+02$ |
| 7,4420-01 | 1.4070+03 |
| 7.5210001 | 1.42800+03 |
| $7.600=01$ | $1.0490+03$ |
| $7.6780=01$ | $1 . U^{7} 00+03$ |
| 7.7560001 | $1 \cdot 0^{910}+03$ |
| $7.6340=01$ | 1.1120003 |
| 7.9110001 | $1.1330+03$ |
| 7.987-01 | 1.15410+03 |
| $8.0630=01$ | $1.1760+03$ |
| 8.139001 | $1.1970+03$ |
| 8.214-01 | $1.10190+03$ |
| $8.289-01$ | 1. $<^{4} 00+03$ |
| $8.3630-01$ | 1. $<^{6} 2^{n+03}$ |
| $8,437=01$ | 1.2840003 |
| $8.510=01$ | 1.300w+03 |
| $8,583.001$ | 1.5280n+03 |
| 8,6565001 | $1.9500+03$ |
| 8.72800 .1 | 1. 5720003 |
| 8.80000 .1 | 1. $9940+03$ |
| $8.8720=01$ | $1.410 x+03$ |
| $8.943=01$ | $1.43800+05$ |
| 9.0130-01 | $1.4600+03$ |
| 9.0840001 | $1.4820 * 03$ |
| 9.1540-01 | $1.205 x+0^{3}$ |
| 9, 2236001 | 1, $227 \mathrm{~m}+\mathrm{O}^{3}$ |
| 9, $2930=0.1$ | 1.2500+03 |
| 9.361000.1 | $1.9720+03$ |
| 9.430=01 | 1. $2950+03$ |
| 9.4980.01 | $1.0170+03$ |

$7.202=0$
$7.2820=01$
7,442-01
$7.521=01$
$7.600=01$
$7.678 \infty=01$
$7.756 \infty=01$
$\begin{array}{ll}7.0340=01 & 1.1120+03 \\ 7.9110001 & 1.1330+03\end{array}$
$7.987=01 \quad 1.15410+03$
$\begin{array}{ll}8.063=01 & 1.1764+03 \\ 8.139=01 & 1.197 \infty+03\end{array}$
8.2140-01 1. $19190+03$
$8.3630-01 \quad 1.462 n+03$
$\begin{array}{ll}8.4370=01 & 1.0840+03 \\ 8.510=01 & 1.5060+03\end{array}$
$8,5830=01 \quad 1.528 m+03$
$8.7280=0.1 \quad 1.5720+03$
$8.8000-0.1 \quad 1.9940+03$
$\begin{array}{ll}8.872 x=01 & 1.410 w+03 \\ 8.943=01 & 1.4300+05\end{array}$
$9.0130=01 \quad 1.460 m+03$
$9.0840=01 \quad 1.482 x+03$
9.1540-01 $1.205 x+03$
9.2930 $=0.1 \quad 1.2500+03$
$\begin{array}{ll}9.3610=0.1 & 1.5720+03 \\ 9.430=01 & 1.2950+03\end{array}$
$9.4980=01 \quad 1.0170+03$
$6.09410+02$
$6.685 \omega+02$

- $4730+02$
$7.458 v+02$
$7.052 m+02$
-147-02
$8.2^{4} 20+02$
$8.4410+02$
$8.041+02$

9. $u^{44}+02$
$9 \cdot<47=+02$
$9.0570+02$
$9.5630+02$
$1 \cdot 407=+03$
$1 \cdot 428 m+03$
$1 \cdot 0490+03$
$1.0700+03$





PARTICLE DENSITY＝ 5.0 GRAMS PER CUBIC CENTIMETER

UIAMETHE
velucity

1．00．0x＋00
1． $100=+00$
1．200 200
$1.300 x+00$
$1.400=+00$
$1.200 x+00$
$1.600 x+100$
$1.700 x+110$
$1.000 i+100$
$1.900 \times+10$
$2.000=+00$
2． $100 x+00$
＜． $200=+10$
2． $500 x+00$
$2.400 x+00$
$2.500=+100$
$2.000 x+00$
$2.700 x+00$
$2,600 x+110$
2．900 5000
3．000x＋00
$3.100 \times+60$
v． $200 x+100$
$3.300 x+100$
$3.400 x+100$
s． $200 x+30$
S． $600 x+60$
ง． $7000+10$
$5.600 x+00$
S．900x＋00
4． $000 \times+00$
4． $100 x+00$
$4.200=+100$
$4.300 x+60$
$4.400 x+00$
$4.500 x+00$
$4.000 x+10$
$4.700 x+60$
$4.800 x+00$
$4.900 x+10$
5．000x＋00
ン．100x＋00
$2.200 x+100$
2． $3010 x+00$
$2.400 \times 40$
と． $200 \%+00$

| 1.5 .13000 .2 | 9．9620－06 |
| :---: | :---: |
| 1．828＊02 | 1．324＝$=05$ |
| 2．173＝02 | 1．717．05 |
| 2．547 $=02$ | 2．1800－05 |
| 2．952．02 | $2.721=05$ |
| 3．380．02 | 3， $344=05$ |
| 3，850，－02 | 4．056．$=05$ |
| $4.343_{m}-02$ | 4．862－．05 |
| 4， $6.67=02$ | 5.768005 |
| 5.4200002 | $6.781=05$ |
| 6．005002 | 7.905005 |
| 0．615－02 | 9．1480m05 |
| $7.258=02$ | 1．051＝－04 |
| 7．930－02 | 1．2010－04 |
| 8.032 .02 | 1．564m－04 |
| 9．364－02 | 1．541－0．04 |
| $1.013-01$ | $1.7330-0.4$ |
| $1.0920 \cdot 01$ | 1.941004 |
| 1.1740001 | 2．164＝04 |
| 1.2590001 | 2． 4040 m 04 |
| 1.3470001 | 2．6610＝04 |
| 1.4380001 | 2．935－04 |
| $1.5320=01$ | 3．228－04 |
| 1．629－01 | 3．5400＝04 |
| 1．729－01 | 3．6710＝04 |
| $1.832 m=01$ | 4． $2220=04$ |
| 1.930001 | 4． $2930-04$ |
| 2．047．01 | 4．986\％－04 |
| 2．158001 | b．4010＝04 |
| 2．273．01 | 5．838＝$=04$ |
| $2.391=01$ | 0．298＝04 |
| 2.5120001 | 6．7820－04 |
| 2.036001 | 1．2890－04 |
| 2，762w＝01 | 7．0220－04 |
| 2．892001 | 8．379．04 |
| $3.025-01$ | $8.9630=04$ |
| 3．1600001 | 9．573004 |
| 3.2990001 | 1．021－03 |
| 3．441m＝01 | $1.00^{87}=03$ |
| － $3.545-01$ | 1．1．57－03 |
| 3．735001 | 1．229003 |
| 3．ERS： 01 | 1． $5040=03$ |
| 4．037－01 | 1． $5820=03$ |
| 4．195．01 01 | 1．4630－03 |
| $4.3530-01$ | 1，548＝03 |
| 4，bl mol 01 | 1.0350003 |

DRAG：COEF
RELAX TIME
.90 DIST
$2.3320+06$
$1.7600+06$
1． $3610+00$
$1.0730+06$
$8.6180+05$
7．023i＋05
5． $7.980+05$
$4.843 x+05$
$4.0860+05$
3． $479 x+05$
$2.9870+05$
$2.583=+05$
$2.249 .+05$
$1.9700+05$
$1.736 m+05$
$1.5370+05$
$1.367=+05$
$1.2220+05$
$1.0900+05$
9．073．+04
$8.923 x+74$
$8.0910+04$
7． $5600+04$
$6.7140+04$
6． $142 x+01^{4}$
$5.0320+04$
5． $1780+04$
4． $7710+04$
$4.406+04$
4．077．+04
3． $1800+04$
3．2110＊04
3． $2670+04$
3． $400+0^{4}$
2．0．400＋74
$2.0590+04$
$2.4900+04$
$2.5320+0.4$
$2.7920+04$
$2.7920+04$
2． $61=04$
$1.0400+04$
$1.0290+04$
$1.0290+04$
$1.7200+04$
$1.0300+04$
$1.5420+04$
$1.459 \infty+04$

| 1．2430005 | 6． 4 28＝－07 |
| :---: | :---: |
| 1．864．05 05 | $1.413=00$ |
| 2.210005 | 1．434＝－00 |
| 2．5980＊05 | 1． 9740006 |
| 3．010．05 | 2.053 .06 |
| 3．4530＝05 | 3．493－06 |
| 3．92600 05 | 4． $3190=00$ |
| 4.429005 | 5．156－06 |
| $4.9630-05$ | 7．2310006 |
| $5.5270-05$ | 8，471＝00 |
| 6． 1210005 | 1． 1010005 |
| 6．746＝05 | $1.337=05$ |
| 7．4010＝05 | 1.0100005 |
| 8．087－05 | 1.423000 |
| $8.803-05$ | $2.279=0.05$ |
| 9．549x－05 | $2.0820-05$ |
| 1．033＝04 | 3． 1.360005 |
| 1．113＝$=04$ | 3．0460005 |
| 1．1970＝04 | 4．215＝05 |
| 1． $2840 \times 04$ | 4．0480＝05 |
| $1.3740 * 04$ | 5． $551=05$ |
| $1.4660=04$ | 0． $327=05$ |
| 1.5620004 | 7．181000 $0^{5}$ |
| 1．0610004 | $8.1190=05$ |
| $1.7630-04$ | 9．1460－05 |
| $1.868=04$ | 1． $1^{270}=0^{4}$ |
| 1．9760－04 | 1．1490004 |
| 2．0870．04 | 1． $2^{8} 20000^{4}$ |
| 2．20100 04 | 1.426004 |
| 2．3180－04 | 1.3810004 |
| 2，438m＝04 | 1．7490．04 |
| $2.5620=04$ | $1.4300-04$ |
| $2.688800^{4}$ | 2． 1250.04 |
| $2.0170=04$ | 2． 5340004 |
| $2.449=04$ | 2． $559=04$ |
| 3．08ちゃ04 | 2．1990004 |
| 3，2230－04 | 3．$u^{55} 5004$ |
| 3，364－04 | 3． $229=04$ |
| $3.509000^{4}$ | $3.021=04$ |
| 3.050000 | $3.431=04$ |
| 3.0070004 | 4.2610004 |
| 3.9600004 | 4.011004 |
| 4，1178004 | 4．48300．04 |
| 4．27000－14 | 5． 3760004 |
| 4，4390－04 | 5．1930．04 |
| 4．00410－04 | 0.2330004 |

PARTICLE DENSITY $=\quad$. O GRAMS PER CUBIC CENTIMEIER

| UIAMETEK | VELOCITY | RE | DAAG COEF | helax time | -90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.600 x+00$ | 4,6800\% 01 | 1.726003 | $1.3830+04$ | 4,7730004 | 0.0970 .04 |
| $2.700=00$ | 4.8.49.-01 | 1.8200003 | $1.3120+04$ | $4.8450-04$ | 7-187-04 |
| $5.600 x+00$ | 5.0200\% 01 | 1.917 .003 | $1.2450+04$ | 5.119-04 | 7.1040004 |
| 2.900x+00 | 5.194 .01 | 2.018=03 | $1.183=+04$ | $5.2970=04$ | $8 \cdot<48-04$ |
| -. $0000 \times 0$ | 5,372=01 | 2.122=03 | $1.1250+04$ | $5.478=04$ | 8.0200004 |
| b. $100 x+10$ | 5.5520001 | 2.2300\% 03 | 1.0710+04 | 5.6620"04 | 9.4210004 |
| $6.200 x+00$ | 5,735-01 | 2.3410003 | 1.1000*04 | $5.848 \pm=04$ | $1 \cdot 405=03$ |
| $0.300 x+00$ | 5.921 .001 | 2.45600.03 | $9.7230+03$ | 6.038 0 = 04 | $1.0{ }^{7} 2=03$ |
| $0.400 x+00$ | - 1100001 | 2.5750003 | $9.2700+03$ | $6.2310=04$ | 1.1410003 |
| $0.500+00$ | 6. $3020=01$ | 2.097.03 | 8.050 .03 | 6, 427 $=104$ | $1.214 x-03$ |
| $0.600 x+00$ | 0.498001 | 2.8240003 | $8.4610 * 03$ | 6.620004 | $1 \cdot<90^{00}=03$ |
| $6.700=+00$ | 6,696=01 | 2.954-03 | 8. $10898+03$ | 6.8280004 | $1 \cdot 5700005$ |
| 0.800x+00 | 6,897-01 | S. $0980=03$ | $7.7300+03$ | $7.033=04$ | $1.4530-03$ |
| $6.900 x+00$ | 7.1000-01 | $3.220 x=03$ | $7.4070+03$ | 7.24 100004 | 1.9400003 |
| $7.000=+10$ | 7.307=01 | S. $368=03$ | $7.00^{96}+03$ | $7.452=04$ | $1.0310-03$ |
| $7.100=+00$ | 7,5170001 | 3.2140-03 | $0.9010+03$ | 7.0660004 | 1.1260003 |
| $7.200 x+00$ | 7.7300.01 | S.065=03 | 6. 222.003 | $7.083=04$ | $1.026=03$ |
| $7.300=+00$ | $7.946=01$ | 3.819.003 | $6.259+13$ | $8: 1030=04$ | 1.y 290005 |
| $7.4000+00$ | 8.1650001 | 3.978=03 | $6.00^{9}=+03$ | $8.326 x=04$ | 2.036-03 |
| $7.500 x+00$ | 8.386.01 | 4.1420=03 | $5.775=03$ | 8.2520004 | 2. $148 \pm 000$ |
| $7.6000+00$ | 8.6110001 | 4.3090003 | $5.549 n+03$ | 8.7810004 | 2. $2650=05$ |
| $7.700 \times+00$ | 8.839-01 | $4.481=03$ | $5.5300+\square 3$ | 9.0130=04 | 2. 5860003 |
| $7.800 \times+00$ | $9.069=01$ | 4.658.0.03 | $5.1340+03$ | 9.2490004 | 2.312000 |
| $7.900 x+00$ | $9.30^{3}=01$ | $4.0390000^{3}$ | 4.9420003 | $9.487=04$ | 2.0430-03 |
| -0.000x+00 | 9,539=01 | $5.025=0{ }^{3}$ | 4.7600003 | $9.728=04$ | 2.1790005 |
| b. $100 x+00$ | 9,779.01 | 2.2160003 | $4.5800+03$ | $9.9720=04$ | 2.4210003 |
| $8.200 *+00$ | 1.002-00 | 3.4110-03 | $4.4210+03$ | 1.0220=03 | 3. $10^{6700} 03$ |
| 6. $3000 \times 00$ | 1.027000 | 2.011000 | 4. $264 \pm+03$ | $1.047=03$ | 3. $4190-03$ |
| 8.400x+40 | 1.0520+00 | $5.0100=03$ | 4. $1140+03$ | 1.072x-03 | 3.57700 03 |
| $6.200=+00$ | 1.077.00 | $0.026=03$ | 3.4710+03 | 1. $0^{98}=03$ | $3.240=03$ |
| -6.600= +00 | $1.1020+00$ | 6.2410-03 | $3.6340+C 3$ | $1 \cdot 1240003$ | $3.109 \times 03$ |
| -.700x+100 | 1.1280+00 | 0,4610903 | $3.70^{4} 0+033$ | 1.150003 | $3.084=03$ |
| $8.8000+00$ | 1. $154 n+00$ | $0.086=03$ | $3.5800+03$ | $1.177=03$ | 4. 4 66 $6=03$ |
| $8.900=+00$ | 1.1800 $1^{80} 0$ | $6.916=03$ | $3.46100+03$ | 1. 20.35003 | $4,2^{5} 3=0 \cdot 0$ |
| y. $000 \mathrm{x}+00$ | $1.2070+00$ | $7.1510=03$ | 3: $3470+03$ | 1.231003 1.258003 | $4.447 \mathrm{ma}$ |
| 9. $1000+40$ | $1.234 \pm 00$ | 7.3920.03 | 3. $<300003$ | $1.2580=03$ | 4.0470003 |
| $9.200 x+00$ | $1.2610+00$ | 7.0380003 | 3.1340+03 | 1. 2860003 | $4.0550-63$ $5.0690-03$ |
| $9.300 x+00$ | 1. 288800 | $7.689 \% 03$ | 3,0350+03 | $1.3140=03$ | 5.069: 5 - 03 |
| Y. $400 x+010$ | 1.31600 | $8.146=03$ | $2.9390+03$ | $1.3420 \cdot 03$ | $5.890^{* \prime 0} 03$ |
| $y: 500 x+00$ | $1: 3440+00$ | $0.4080=03$ | 2:0480403 | 1.3710003 | 5. $5180=0.3$ |
| $9.600 x+40$ | 1.373 +00 | $0.6760=0 \leq$ | $2.7600+03$ | 1.4000003 | $5.153=03$ |
| Y.700:+00 | $1.4010+00$ | 0.9500003 | 2:0700+03 | 1:429x*03 | 5. $9960 \times 0 \leq$ |
| $4.800 x+00$ | $1.4300+00$ | 9. $229 \%-03$ | 2.595 .03 | $10.458 \cdot 03$ | 6. $2460=23$ |
| $9.900 x+00$ | $1.4590+00$ | 9.5140003 | 2,5100+03 | 1.488000 | 6.20500 .0 |
| 1.000et01 | 1.489*00 | $9.0040=03$ | 2.4450+ 3 | 1.5180003 | 6.1710005 |
| 1. $1000+01$ | $1.8010+00$ | $1.3040 \cdot 02$ | 1.0300003 | 1.8360003 | 9.904005 |

LIIAMETEK
velocity
$2.1410+00$
$1.200 \%+111$
$1.300=+01$
$1.4000+111$
$1.600 x+01$
$1.000=+01$
$1.700 x+101$
$1.800 x+01$
$1.900 x+01$
$2.000=+01$
$2.100 x+01$
$2.200=+01$
c. $3000+01$
$2.400 x+11$
c. $500 x+01$
$2.600 \times+01$
$2.70 .0 x+01$
$2.800 \mathrm{x}+61$
C.900: 01
$3 \cdot 000=+01$
3. $100 x+11$
$3.200 x+91$
$3.300 x+31$
$3.4000+01$
S. $200 \mathrm{0}+\mathrm{ii}$
$5.6004+i 1$
$5.700 u+i i 1$
$3,6004+11$
ง. $6000+11$
$4 \cdot 000 x+1$
4. $1000^{+}+1$
$4.200 x+11$
$4.300 x+11$
$4.40 \mathrm{dx}-\mathrm{it}$
$4.20 \mathrm{Ca}+1$
$4.6005+1$
$4.700 x+11$
$4.800 x+41$
$4.900 x+111$
2.000 $0+1$
b. $100 x+1$
2. $200 x+11$

と. $300 x+i!$
5.400x+61
2. $500 x+11$
b. $6000 \times 01$
$5.7000+61$

RE
$1.0920=02$
2. 1500=02 $2.683=02$
3.2970 02

3,997=02
$4.789=02$
$5,678=02$
$6,668=02$
$7.766=02$
$8.975=02$
$1 \cdot 0300=01$
1.1750-01
$1.332=01$
$1.502=01$
$1.685=01$
1.8820001
2.0930=01
$2.319=01$
$2.559=01$
$2,813=-01$
2.013-01

S:083=01
$3.569-01$
5.0680001
3.9850001

4, 3170001
4.066. $=01$
2. $0^{3} 000=01$
5. $4110=01$
2.0090=01
$0.422=01$
0.052 .01
7.099.01
$7.5620=01$
$0.0^{42000} 01$
$8.5380=0.1$
9.052-01
$9.5820=01$
$1.0130+00$
$1.069+00$
$1.1270+0$
$1.187 \% 00$
$1.2490+00$
$1.5120+00$
1.577000
$1.4450+00$
$1.2130+00$

DRAG COEF
HELAX TIME
. 90 0.ST

| $1.4180+03$ | 2.1840=03 | 1.401002 |
| :---: | :---: | :---: |
| $1.1170+03$ | $2.561000^{3}$ | 1. 429 - 0 - 02 |
| $8.957-02$ | $2.968=03$ | 2.9920-02 |
| 7.290-02 | 3.404-03 | 3.4.14-02 |
| $6.024 m+02$ | 3,869n=03 | $4.4160=02$ |
| $5.034 n+02$ | 4.3630003 | $5.0250=02$ |
| 4. $25.20+02$ | 4.885-03 | $7 \cdot 1060=02$ |
| $3.6250+02$ | $5.435=0{ }^{3}$ | $8.767=02$ |
| $3.1180+02$ | 6.014-03 | 1.0760001 |
| $2.7020+02$ | 6.6190003 | $1 \cdot 3070=01$ |
| $2.359 p+02$ | $7.2510=03$ | 1.2740-01 |
| 2.0730*02 | $7.9100=03$ | 1. $\checkmark 79=01$ |
| $1.03200+02$ | $8.594=03$ | 2. $227=01$ |
| $1.028 .0+02$ | $9,304 x=03$ | 2.021001 |
| $1.455=02$ | 1.004=02 | 3. 0650001 |
| $1.3000+02$ | 1:0800-02 | 3. $263=01$ |
| 1.1780002 | 1.1580=02 | 4. 1190001 |
| 1.0670*02 | 1.2380\% 02 | 4.138=01 |
| 9.697* 01 | 1.321002 | 5.424=01 |
| $8.8490+01$ | $1.4060=02$ | 6. $183=01$ |
| $8.10^{3}+01$ | 1.4920-02 | 0.484=01 |
| 7.445n+01 | 1.581002 | 7.0290001 |
| $0.6720+01$ | 1.6710002 | 8.1260.01 |
| $6.3520+01$ | $1.7630-02$ | 9.077001 |
| $5.089 x+01$ | 1.857-02 | 1. $\mathrm{j}^{6880+00}$ |
| $5.4740+01$ | $1.9530-02$ |  |
| 5.101.0+01 | 2.050w-112 | 1.2870*00 |
| $4.1650+01$ | 2. 14900-02 | $1.4050+00$ |
| 4.4620+01 | 2. 24900 - ${ }^{2}$ | 1. 2290000 |
| 4. 186\%+ 01 | 2. 3500002 | 1.060000 |
| $3.9360+01$ | 2, 45300 02 | 1.1970+00 |
| 3.1110+01 | 2. 5 ¢ $70=0$ 2 | 1.4390+00 |
| $3.2040 \times 01$ | 2,0020-02 | 2. $1^{89} 90+00$ |
| $3.5150+01$ | 2, 1680002 | 2. $2450+00$ |
| $3.1410+01$ | $2.8750 \cdot 02$ | $2.407 x+00$ |
| $2.9810+71$ | 2.983000 | $2.2760+00$ |
| $2.0340+71$ | 3.091的-02 | 2.1510+00 |
| 2.6900001 | 3. 201002 | $2.9330+00$ |
| $2.5760+01$ | 3,3120-02 | 3. $1220+00$ |
| 2.45bn+01 | 3,4230-02 | 3. $1180+00$ |
| 2.547x+01 | $3.530 \times 02$ | 3. $22010+10$ |
| $2.2400+01$ | 3.0490002 | 3.1290+00 |
| 2.1510* 01 | 3.7.630-02 | 3.4450000 |
| $2.863 n+01$ | 3.67910-02 | 4. $1680+00$ |
| $1.4800+01$ | 3,9950-02 | 4.09880 |
| $1.4020+01$ | 4.1120002 | 4.035 $0+00$ |

## PARTICLE DENSITY = $\quad$. O GRAMS PER CUBIC CENTIMETER

UIAMETEK


| 4.1490+01 | 1.584000 | 1.0.200*01 | 4.23.1002 | 4.0790+00 |
| :---: | :---: | :---: | :---: | :---: |
| $4.2600+01$ | $1.6570+00$ | $1.7590+01$ | 4.3500002 | 5.1300*00 |
| $4.385 m+01$ | 1.7320+00 | $1.0930+01$ | 4.4710002 | 5. 988 \% 00 |
| $4.5040+01$ | 1.809x+00 | $1.03100+01$ | 4.5930-02 | $5.0530+00$ |
| 4.020 .01 | 1.888000 | $1.2700+01$ | 4.7170-02 | 5. $4260+00$ |
| $4.7490+01$ | $1.9700+00$ | $1.5160+01$ | $4.8420=02$ | 6.405000 |
| $4.8730+01$ | 2. $0540+00$ | $1.4020+01$ | 4.9690-02 | $6.492 \mathrm{~m}+00$ |
| 4,9990001 | 2.1400+00 | $1.411 .0+01$ | 5.098x-02 | 6.185= +00 |
| 5.127m+0.1 | 2. 228.00 | $1.56<x+01$ | 5.228.02 | 7.48600 00 |
| $5.2500+01$ | 2, $3190 * 00$ | $1.2100+01$ | $5.3600-02$ | 7. $5940+00$ |
| $5.3880+01$ | 2.4120*00 | 1.2710+01 | $5.4940=02$ | $7.1090+00$ |
| 5.5210+01 | $2.5080 \% 00$ | $1 .<2 \theta_{0}+01$ | 5.6300002 | 8. $4^{3} 2^{20+00}$ |
| $5.6550+01$ | $2.607 m+00$ | $1.1870+01$ | $5.7670=02$ | 8. $3620+00$ |
| $5.7910+01$ | 2.707 -00 | $1.149 n+01$ | $5,906=02$ | $8.0990+00$ |
| $5.929+01$ | 2.8110+00 | $1.1110+01$ | 6. $046=02$ | 9. $\mathrm{y}^{43} 3 \mathrm{~m}+00$ |
| $0.0670+0.1$ | 2.9100*00 | 1.0760*01 | $6.187 m-02$ | 9. $3940+00$ |
| $6.2060+01$ | S.024**00 | $1.30^{420+01}$ | 6.329002 | 9.153**00 |
| $6.343_{0}+01$ | S. $1340+00$ | 1.0110*01 | $6.4700=02$ | $1 \cdot 4120+01$ |
| $6.4840+01$ | 3.2450*00 | $9.0080+00$ | 6.6120002 | $1.1^{49}+01$ |
| 6.6210001 | 3.357-00 | $9.5280+00$ | $0.7520=02$ | $1 \cdot 4^{87}+01$ |
| 6.757 .01 | 3.4700*00 | $9.2690+70$ | 6.8900002 | $1.1260+01$ |
| $0.8890+01$ | 3,2840*00 | $9.15310+00$ | 7.025.02 | 1. $165 x+01$ |
| 7.017 $0+01$ | $3.0960+00$ | $8.0120+00$ | 7.155:-02 | $1 \cdot \angle 06=+01$ |
| 7.1380+01 | $3.8070+00$ | $8.0240+00$ | 7.279*-02 | 1. $2470+01$ |
| 7.2520*01 | 3.916. ${ }^{\text {+ }} 00$ | $8.454 * 00$ | 7.3950.12 | 1. $288 \mathrm{n}+01$ |
| $7.333=+01$ | 4.008 .00 | $8.5740+00$ | 7.478002 | $1.0310+01$ |
| $7.4570+01$ | 4. $1250+00$ | $8.195 x+00$ | $7.6050=02$ | $1.3740 * 01$ |
| $7.5820+01$ | 4. $2440 \times 00$ | $8.022=00$ | 7.7320002 | $1.41800+01$ |
| $7.1070+01$ | 4.364n+00 | 7.055000 | $7.8600=02$ | $1.462=+01$ |
| 7.0320+01 | 4.487- 00 | $7.0940+00$ | $7.987 \pm=02$ | 1. $2080+01$ |
| 7.958 0101 | 4.011000 | $7.539 \sim 00$ | 8. $1150-02$ | 1. $25400+01$ |
| $8.00^{84}+01$ | 4.737-00 | 7.389000 | $8.2440=02$ | $1.00000+01$ |
| $8.210 \pm+01$ | 4,0650*00 | 7. $2440 \pm 00$ | $8.3720=02$ | $1.04800+01$ |
| $8 .-3300+01$ | $4.995=+00$ | 7.1.050+00 | $8.5010-02$ | 1.0960001 |
| $8.4630+01$ | $5.127=00$ | 6.970000 | $8.6300-02$ | 1.1450001 |
| 8.589 0 +01 | $5.2600+00$ | $6.0390+00$ | 8.7590-02 | $1.1940+01$ |
| $8.710^{00}+01$ | 2. 595000 | $-6.1130+00$ | $8.8880 \% 02$ | $1.5450+01$ |
| $8.8430+01$ | 5.5320 -00 | $6.5910+00$ | 9.018.0.02 | $1.096 m+01$ |
| $8.9700+01$ | $5.07110 \% 00$ | 6.47c0 00 | 9. $14880=02$ | $1 \cdot 9480+01$ |
| $9.0980+01$ | 5.8110+00 | $6.3560+00$ | $9.278=02$ | 2. 4000401 |
| 9.220.01 | $5.9530+00$ | $\bigcirc 6.247 .00$ | -9.40800.02 | 2.15 $500+01$ |
| 9:3530+01 | $0.0970+00$ | $\because 6.1390+00$ | 9.538 .002 | 2-107\%+01 |
| 9.481:01 | $0.243 x+00$ | 6.03500 | 9.0690-02 | co. $1020+01$ |
| 1.07702 | $7.0000+00$ | 5.146-00 | 1.0980-01 | 2. $147 x+01$ |
| 1-207020 | 9.5360+00 | $\therefore 4.4700+00$ | 1.2310001 | $3.402 *+01$ |
| $1.3380+02$ | 1.1450*01 | $3.9420+00$ | 1.3640001 | 4.1200+01 |

PARTICLE DENSITY $=5.0$ GRAMS PER CUBIC CENTIMETEH

MANETEK
VELUCITY
RE
$1.469+02$
$1.6000+02$
$1.7310+02$
1.862**02
1.993.*02
$2.123 \mu+02$
$2.2530+02$
$2.382 n+02$
$2.5110+02$
$2.638 .+02$
$2.7650+02$
$2.8920+02$
$3.0170+02$
3. $142 \times+02$
$3.2650+02$
$3.3800+02$
$3.5100+02$
$3.6320+02$
$3.7520+02$
$3.671 .+02$
$3.9900+02$
$4.107 n+02$
$4.224_{10}+02$
$4.340=02$
$4.455-02$
$4.569+02$
$4.085+02$
$4.795=02$
$4,9070+02$
b. $0180+02$
$5.120+02$
$5.237+02$
5. $942 .+02$
5. $4530+02$
$5.5600+02$ $5.660 x+02$ $5.7710+02$ $5.875 \mathrm{~m}+0^{2}$ $5.979 * 02$ $6.0^{82}+02$
$6.184 \%+02$ $6,2800+02$ $6.387 m+02$ $0.487 \ldots+02$ $0.586=02$ $6.6850+02$

| 1.354n+01 | $3.5226+00$ |
| :---: | :---: |
| $1.5800+01$ | 3.179.000 |
| 1.8240*01 | 2.897-00 |
| 2.0850+01 | $2.6600+00$ |
| 2.362m+01 | 2.459 .00 |
| 2.656n+01 | $2.287 x+00$ |
| 2.967 +01 | $2.130 .+00$ |
| 3.294**01 | $2.0080+00$ |
| 3.637**01 | $1.894 m+00$ |
| 3,996n*01 | 1.7930*00 |
| 4.3700001 | 1.703000 |
| $4,7600 * 01$ | 1.6220000 |
| $5.1650 * 01$ | $1.5500 * 00$ |
| 5,586w+01 | $1.484=00$ |
| 0.021-* 01 | $1.4250+00$ |
| $6.470 \times+01$ | 1.3700000 |
| 0,9350+01 | $1.321=00$ |
| 7.413.*01 | 1.275m*00 |
| $7.906=-01$ | 1.233.*00 |
| 8.4120*01 | $1.195 w+00$ |
| $8.9320 \times 01$ | $1.159+00$ |
| 9.4660.01 | 1.125000 |
| 1.0010*02 | $1.0950+00$ |
| 1.0570002 | 1.050 .00 |
| $1.1150+02$ | 1.039n+00 |
| 1.173\% 02 | 1.0130+00 |
| 1.233**02 | 9.097-01 |
| 1.2950*02 | 9.674001 |
| 1. 557.02 | 9.464m=01 |
| $1.4210 * 02$ | $9,<600001$ |
| $1.4860=02$ | 9.079.01 |
| 1.552n*02 | 8.902001 |
| 1.619.02 | 8.735001 |
| 1.688**02 | 8.5700001 |
| 1,757-02 | 8,425-01 |
| 1.828:020 | 8.2820=01 |
| 1,900-*02 | 8, 140=01 |
| 1.973n*02 | 8.010.001 |
| 2.047-02 | 7.09<6-01 |
| 2.123-02 | 7.773=01 |
| 2,199n*02 | 7:060=01 |
| 2,276.*02 | 7:552001 |
| 2,355x*02 | 7.449-01 |
| 2,435x+02 | 7.350=01 |
| 2,515=02 | 7.255=01 |
| 2;597-02 | 7,1630m |

relax Tlme
.90 DIST

| 1.498.001 | 4. $4150+01$ |
| :---: | :---: |
| 1.631-01 | $5.170 \mathrm{~m}+01$ |
| $1.76 .5-01$ | $6.088+01$ |
| 1.8990001 | $7.0670+01$ |
| 2.0320.01 | $8.1050+01$ |
| 2.1650\%01 | $9.0000+01$ |
| 2.2970.01 | $1.4950+02$ |
| 2.429-01 | 1. $2160+02$ |
| 2,5600\%01 | $1.5410+02$ |
| 2.691001 | $1.472=02$ |
| 2.8200001 | -1.0080*02 |
| 2.9.49x-01 | $1.14 .90+02$ |
| 3.077=01 | $1.5940+02$ |
| 3.2040001 | 2. 4 43** 02 |
| 3.3300001 | 2. $1970+02$ |
| 3.4550.01 | 2. $3550+02$ |
| 3.5800"01 | 2. $3180+02$ |
| $3.7030=01$ | $2.0840+02$ |
| 3.826 .01 | 2.054**02 |
| $3.9480=01$ | 3. $4270+02$ |
| 4.069 0 - 01 | 3. $2050+02$ |
| 4,189-01 | 3. $9850+02$ |
| $4.308=01$ | 3.5700002 |
| 4.426.01 | 3.157=022 |
| 4.543. $=01$ | S. $4480+02$ |
| $4.6600=01$ | 4. $1410+02$ |
| 4,775:01 | 4. $538 \pm+02$ |
| $4.8900=01$ | 4. $2380+02$ |
| 5.0040=01 | 4. $1400+02$ |
| 5.117.01 | 4. y $460+02$ |
| 5.2290001 | 5. $1530+02$ |
| 5.340001 | $5.3640 * 02$ |
| 5.451001 | 5. 277 - 02 |
| $5.5610=01$ | $5.1930+02$ |
| 5.669001 | 6. $1110+02$ |
| 5.7780001 | 6. $2310+02$ |
| 5,885-01 | $6.4530+02$ |
| 5,9910001 | $6.078 w+02$ |
| 6.0970-01 | 6. $7050+02$ |
| $6.202 \times 001$ | 7.1340*02 |
| 6.3000001 | 7.965-* 02 |
| 6.4100001 | 7.398-02 |
| $6.513=01$ | 7.0320+02 |
| $6.6150=01$ | 8.106900+02 |
| $0.716=01$ | 8. $308=02$ |
| $6,617 x=01$ | 8. $248=+$ |

PARTICLE DENSITY $=5.0$ GRAMS PER CUBIC CENTIMETER

## LIAMETEK

| $0.000 x+02$ | 6.783n+02 |
| :---: | :---: |
| -. $100 x+02$ | 6,8800*02 |
| $0.200=+02$ | $0.9770+02$ |
| $0.300 x+02$ | 7.073. 02 |
| -. $4000+02$ | 7.168.02 |
| $0.500=02$ | 7.263*02 |
| $0.600=0{ }^{2}$ | 7.357**2 |
| $0.7000^{+02}$ | $7.4500+02$ |
| $0.800 x+02$ | 7.543 .02 |
| $0.9000+02$ | $7.6350+02$ |
| $\%$ \% 000 $0+02$ | $7.7270+02$ |
| 7. $1000+02$ | $7.818=02$ |
| 7.200\%*02 | $7.900_{0}+02$ |
| $7.300 x+02$ | 7.998.02 |
| 7.400x+02 | 8.087m*02 |
| $7.500=02$ | $8.1760+02$ |
| $7.600=+1{ }^{2}$ | 8.264 .02 |
| $7.700 x+02$ | $8.352 \pm+02$ |
| $7.800 \times 02$ | 8.439 = 02 |
| \%.900x+02 | 8.525 .02 |
| 0.000x+02 | $8,0110+02$ |
| 8. $100+02$ | $8.0970+02$ |
| $0.200 \sim+02$ | $8.7820+02$ |
| -.300x+02 | 8,860-02 |
| $8,400 x+172$ | $8.9500+02$ |
| ¢. $2000+02$ | 9.0330*02 |
| $0.600=+02$ | 9.1100+02 |
| $0.700 x+02$ | $9.199+02$ |
| $0.6000+02$ | $9 \cdot 2^{815+02}$ |
| $6.900=+02$ | $9.362 .+02$ |
| צ.000= +02 | $9.443 x+02$ |
| Y. $1000+02$ | 9,523.02 |
| 5. $2000 \times 02$ | $9.600_{0}+02$ |
| $9.300 x+02$ | 9,6830+02 |
| $4.400 x+02$ | 9,7620+02 |
| $9.500=+02$ | 9.8410+02 |
| $4.600=022$ | $9.9190+02$ |
| $9.700 x+02$ | $9.990 \pm+02$ |
| $4.8000+02$ | 1.0070+03 |
| 9.900x+02 | $1.0150+05$ |
| 1.000= 03 | 1.023\% 03 |
| $1.010 x+0^{3}$ | 1.0300+03 |
| 1.020x+03 | 1.0.38.0.03 |
| $1.030 x+03$ | 1.0450 03 |
| 1.040x+03 | 1.053.0 05 |
| 1.050x+03 | $1.0600+03$ |

RE

dRAG COEF RELAX TIME .9a dIST
$7.0700=01$
$6.992=01$
$6.911=01$
$6.833=01$
$0.758=01$
$6.0860=01$
6.616001
0.549**01
$6.484=01$
6.421001
$6.3610=01$
$6.3020=01$
6.240 mOO
$6.191=01$
6.1380001
$6.087=01$
6.037 .01
$5.989=01$
$5.9420=01$
$5.897 \times 01$
5.8530001
$5.010^{\circ}=01$
$5.769-01$
$5.72^{8.000} 01$
5.689001
$5.051=01$
$5,014=01$
$5.578=01$
5. $2430=01$
$5.50^{9}=01$
$5.470=01$
$5.444=01$
$5.412=01$
$5.3810=01$
5.352001
5. $5220=01$
5.294=01
5. $2660=01$
5.239.-01
$5.213=01$
$5.187=01$
5. $1620=01$
5.1370001
$50113=01$
$5.090=01$
$5.067=01$

| 6,9170 $=01$ | 8. $1900+02$ |
| :---: | :---: |
| 7.016001 | 9.433w+02 |
| 7.1150=01 | 9. $4790+02$ |
| $7.2120=01$ | 9. $225=02$ |
| 7.310 .001 | 9.1740+02 |
| $7.4060=01$ | 1. $4020+0^{3}$ |
| 7.5020-01 | 1. $12880+03$ |
| 7.597=01 | $1 \cdot 453=+03$ |
| $7.6920=01$ | $1.147800+03$ |
| 7.7800=01 | $1.1040+05$ |
| 7,8800\% 01 | 1.1290+03 |
| 7.9720001 | 1.1550003 |
| 8.0650 $=01$ | 1. $8^{8} 10003$ |
| 8,156001 | 1. $20700+03$ |
| 8,2470.01 | $1.233 x+03$ |
| 8, 338=01 | 1. $<^{6} 0^{4 \sim}+0^{3}$ |
| 8.4280001 | $1 \cdot 2^{86}+03$ |
| 8,5,7m-01 | $1.213 n+03$ |
| $8.6060=01$ | 1.3390003 |
| 8.6940"01 | 1. $3660+05$ |
| 8.7820-01 | 1.3930+03 |
| 8.8690"01 | 1.420000 |
| 8.955-01 | $1.4470+03$ |
| 9.0410001 | $1.4740+0^{3}$ |
| 9.1270001 | $1.5010+03$ |
| 9.2120001 | $1 \cdot 228 \pm+0^{3}$ |
| 9.296-01 | $1.3560 * 03$ |
| 9,3800-01 | $1.3830+03$ |
| $9.4640=01$ | $1.0110+03$ |
| 9.547001 | $1.0380+03$ |
| 9.629001 | $1.06610+03$ |
| 9.7120-01 | $1.09410+05$ |
| 9,7930.01 | $1.1220+03$ |
| 9,874.01 | 1. $1500+03$ |
| 9,955.01 | 1.1780+03 |
| 1.004x+10 | $1.5060+03$ |
| 1.0110000 | $1.8340+03$ |
| $1.0190+00$ | 1.s620+03 |
| 1.0270+00 | 1. 5900000 |
| 1.035000 | 1.9180003 |
| $1.0430 * 00$ | $1 . \times 470+03$ |
| 1.0510+00 | 1.975** 03 |
| 1.0580000 | 2. $4040+03$ |
| 1.066:00 | 2, $11320+03$ |
| $1.0740+00$ | $2 \cdot u^{6} 1 \pm 0{ }^{+0}$ |
| 1.0810+00 | 2.4890*03 |

LUIANETER
VELOCITY
RE
DKAG COEF
RELAX TIME
. y 8 UIST



1.8510005
2.2370 0.05
$2.059-05$
$3.117=05$
$3.612 n=05$
$4.143=05$
$4,711=05$
$5,3150=05$
$5.9550-05$
6,632m-05
$7.346=05$
$8.0950=05$
$8.881=05$
$9.704=05$
1.056 .04
$1.146=04$
$1.239=04$
$1.330=04$
$1.436=04$
$1.540=04$
$1.048=04$
$1.7600=10^{4}$
$1.8750=04$
$1.993 x=04$
2. $1100-04$
2. 2420004

2, 5710=04
$2.5040=04 \quad 1.0880=04$
$2.6410=04 \quad 1.0770004$
$2.782=04 \quad 2.0^{82=04}$
$\begin{array}{ll}2.920=04 & 2.303=04 \\ 3.074=04 & 2.342=04\end{array}$
$\begin{array}{ll}3.0740=04 & 2.342=04 \\ 3.2250=04 & 2.198=04\end{array}$
3. $580=04 \quad 3 \cdot 0^{74=0} 04$
$3.539=04 \quad 3.369=00^{4}$
$3,701=04 \quad 3.085=04$
$3.667 m-04 \quad 4 . j 231=04$
$4.037=04 \quad 4.084=04$
4.2101004 $4.168=04$
4. $387=04 \quad 5.177=04$
$4.568=04 \quad 5.011=04$
4.7520-04 6. $072=04$
$4,9400=04 \quad 6.7620=04$
$5.131=04 \quad 7 \cdot u^{8} 0=04$
5.320004
$5.5250=04$
9. $1230=07$
$1.334=06$
$1.0880=06$
2. $2990-06$
3.4930 .06
$4.000=06$
5. $451=00$
9.521-06
1.1810005
$1.4500=05$
$1 \cdot 1610005$
$2.1200-05$
$2 \cdot 320=05$
3. $101=05$
3. 3 310-05
4. $1300=05$
4.8010005
$5.250=05$
6. $9840=05$
8. $331=05$
9. 45600.05
$1 \cdot u^{69}=04$

1. $2040=04$
2. $95.2=04$
1.2130-04
$2.1980=04$
$3.1440=04$
$3.569=04$
$3.085=04$
$4.168=04$
$5 ., 177=04$
$5.011=04$
$6.42=04$
$7 \cdot u^{8} 0=04$
$7.028=04$
3. $207=04$

Particle lensity $\quad 0.0$ grams per cubic centimeter

| UIAMETEK | VELUCITY | RE | DRAG CEEF | helax time | . 9 - DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $5.0000+00$ | $5,0,0000$ | 2.0710=03 | 1.1520+04 | 5.727-04 | 8.0190004 |
| b. $700 * 00$ | 5.8180001 | 2.184. ${ }^{-103}$ | $1.0930+04$ | 5.933004 | 9.464-04 |
| -. $000 \times 00$ | 6.0240001 | 2.3010003 | 1.038 .04 | 6. $1430=04$ | $1.4140 \pi 03$ |
| 5.900x+00 | 6.233.01 | 2.421-03 | 9,860~*03 | $6,356=04$ | $1.1186=03$ |
| 6.000s+00 | $0.446=01$ | 2.547.003 | $9.3760+03$ | $6.5730=04$ | 1.1610003 |
| -. 100**00 | $0.662=01$ | 2,676.03 | 8.924 .03 | $0.794 x=04$ | $1.0^{4} / 0=03$ |
| 6.200:+00 | 6,8820-01 | 2.809 .03 | $8.501=03$ | 7.0180\% 04 | $1.524=03$ |
| n. $300 \times+00$ | 7.105.01 | 2,947-03 | $8.1040+03$ | $7.2450=04$ | 1.411000 |
| 0. $400=00$ | 7.3320001 | 3. $0900=03$ | 7.731000 | $7.4770=04$ | 1.3030003 |
| $6.500=+00$ | 7.562.01 | 3. $2370=03$ | 7.381 .003 | $7.712=04$ | 1. 2980003 |
| $6.600=+00$ | 7.796年=01 | S, 388=03 | 7.0520*03 | $7.9500=04$ | 1.0990003 |
| 6. $700=000$ | 8.0340001 | S.544=03 | $6.7410 * 03$ | $8.1930=04$ | $1.5040=03$ |
| $6.800=000$ | 8.275=01 | $3.705=03$ | 6.449 .03 | $8.439=04$ | $1 . \pm 140003$ |
| $0.900 \times 00$ | 8,520.01 | $3.671=03$ | $6.174 n+03$ | $8,088=04$ | 2.0280-03 |
| 7.000-00 | $8.768=01$ | 4.04100 03 | $5.9140+03$ | $8,941 x=04$ | 2. 148003 |
| $\% 1000+00$ | $9.020 \mathrm{~m}-01$ | $4.217=03$ | $5.668 .0 \pm 03$ | 9.198=04 | $2 \cdot 2730-03$ |
| \%.200**00 | 9.275.01 | 4,597-03 | $5.430 .0+03$ | 9,459=04 | 2.4040003 |
| $7.300=+00$ | $9.53410=01$ | 4.583= - 03 | 5.217000 | $9,723 m=04$ | $2.340 \times 03$ |
| $7.4000+00$ | $9.797=01$ | 4.774**03 | $5,00^{9}-03$ | 9.9900004 | 2.082*-03 |
| 1.500=+00 | 1.00000 | $4.969 x=03$ | 4.012 .003 | $1.0260=03$ | 2.9290003 |
| 1.000x+00 | $1.0330+00$ | 2.17100 03 | $4,025=03$ | 1.0540=03 | $2.983 \pm 0$ |
| 1.700x+00 | $1.061 .0+00$ | 2.377-03 | 4,4.48. +03 | $1 \cdot 0^{810}=03$ | 3.1420003 |
| 7.000=*00 | 1.088 .00 | 5.5890-03 | $4.279 n+03$ | 1.1100.03 | 3.3080003 |
| 7.900 000 | 1.1100000 | $5.806=03$ | 4.1200+0.3 | 1.1380003 | $3.481=03$ |
| C.000 $0+00$ | 1.1450+00 | 6.029=03 | $3.967 .0+03$ | $1.167=03$ | 3.0600003 |
| -. 100x+00 | 1.175000 | 6.258=03 | $3.0230+03$ | 1.1900\% 03 | $3.040 \mathrm{~m}=03$ |
| 2.200x+00 | $1.2020+00$ | $0.492=03$ | $3.6850+03$ | 1.2260003 | 4. $13910 \cdot 03$ |
| - $5000+00$ | 1. $2.32 x+00$ | $0.732=03$ | $3.5540+03$ | 1.2500\% $0^{3}$ | 4. 2390003 |
| $0.400 x+00$ | 1.2620+00 | $0.4780=03$ | 3.429 .03 | $1.2870 \cdot 03$ | 4.4470003 |
| - $200 \times+00$ | 1.2920*00 | $7.230=03$ | $3.310 . * 03$ | 1.3170003 | 4.062003 |
| b. $6000+00$ | 1.3260+00 | 7.488.-03 | 3.190n+03 | 1,3480\% $0^{3}$ | 4.084-0.3 |
| $8.700 \times+00$ | 1.353\%+00 | 7.75.2*"03 | 3.088 .003 | $1.380=03$ | 5.115=03 |
| $8.8000+40$ | $1.384 * 00$ | $8.0210 \% 03$ | 2.984n+ 03 | $1,412=00^{3}$ | 5. $3540=03$ |
| $8.900 x+00$ | $1.4100+00$ | $8.298=03$ | $2.8850+03$ | $1.444=03$ | $5.000 \% 03$ |
| 4.000x+100 | 1.440 + 00 | $8.280=03$ | $2.7900+03$ | $1.476=03$ | $5.056=03$ |
| 4.100x+110 | 1.4800*00 | $8.8690=03$ | 2.700 .003 | $1.5090=03$ | -.1200-03 |
| Y. $2000 \times 00$ | 1, $2130+00$ | 9.164"003 | $2.6150+03$ | 1. $5430=03$ | 6. 9.92900 |
| Y.300x* 110 | 1,5400*00 | 9.4650003 | 2.5300*03 | 1. $5760=03$ | 6.074003 |
| 4.400x+00 | 1.5790*00 | 9,773=03 | $2,4.500+03$ | $1.0100=03$ | $6.4650=03$ |
| $4.500=00$ | 1.613 .00 | $1.009=0{ }^{\text {1 }}$ | $2.374 n+03$ | $1.645=03$ | 7.266-05 |
| 4.600x+00 | 1.047 .00 | 1.0410=02 | 2,301=+05 | 1.079003 | $7.276=03$ |
| $5.700 x+.100$ | 1.6810*00 | 1.0740\%02 | 2.231.403 | $1.7 .140^{-0} 0^{3}$ | $7.5950=03$ |
| y. $8000 \times 00$ | 1.710000 | .1.1070-02 | 2.164n+03 | 1.750003 |  |
| 9.9.00x + 00 | 1.751 .00 | 1.141-02 | 2.099x+03 | 1,785=03 | 8, $5650=03$ |
| 1.000\% +1.1 | $1.780 n+00$ | $1.176=02$ | 2.037n+03 | 1.8220.03 | 8.91600003 |
| $1.100 x+01$ | 2.160\% 00 | 1.5650-02 | $1.5330+03$ | 2.203003 | 1. 3040002 |

PARTICLE DENSITY = O.O GRAMS PER CUBIC CENTIMETER

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| 1.1826+03 | $2.019=03$ | 1.0450002 |
| :---: | :---: | :---: |
| $9.317=02$ | $3.072-03$ | $2.7400=02$ |
| 7.475=+02 | 3,559003 | 3.4140-02 |
| 6.091-02 | 4.081003 | 4.495-02 |
| $5.0310+02$ | $4.638 \%=03$ | 5.016002 |
| 4.2060* 02 | 5,2290003 | 7.407002 |
| 3.554n+02 | $5,853=03$ | 9.9050002 |
| $3.032=02$ | 6.511003 | 1.1540-01 |
| $2.0090+02$ | 7.201: 03 | 1.4170001 |
| $2.2630+02$ | 7.924:03 | 1.121=01 |
| 1.9700+02 | 8,6780 03 | 2.10720001 |
| $1.138 m+02$ | 9.4620003 | 2.4740001 |
| 1.5370+02 | 1.028-02 | $2, y 32=01$ |
| $1.3680+02$ | 1.1120"02 | 3.451-01 |
| 1.2230+02 | 1.199002 | 4.y360001 |
| $1.099 n+02$ | 1.289=02 | 4.0910 .01 |
| $9.9220+01$ | 1.3820002 | 5.4240-01 |
| $8.9950+01$ | $1.4770 \cdot 02$ | 6. $239-01$ |
| 8.187m*01 | 1.575002 | 7. 1400001 |
| 7.4800*01 | 1.675=02 | 8. $4^{890001}$ |
| 6.8580*01 | 1.777.002 | 9.495000 |
| 6.3100+01 | 1.8810002 | 1.4160+00 |
| 5.8320001 | $1.9870=02$ | $1.1300+00$ |
| 5. $5990+01$ | 2,095-02 | $1.2510+00$ |
| 5.0120+01 | 2.205x-02 | 1.978*00 |
| 4,0650+01 | $2,317 \times 02$ | 1.2130+00 |
| 4, 5540+01 | 2.431002 | $1.055=+00$ |
| 4.074n+01 | 2. 246002 | 1.0040000 |
| 3.621.01 | 2.0620002 | $1.9610+00$ |
| 3.591 .01 | 2.7400=02 | 2. 1260+00 |
| 3, $5820+01$ | 2,0990002 | 2. $499=00$ |
| 3.1920+01 | 3,0200"02 | 2.4790*00 |
| $3.0190+01$ | 3.141=02 | 2.0670*00 |
| 2.054-01 | 3,2040002 | $2.063 x+00$ |
| $2.7130+01$ | 3.3480.02 | 3. $4670+00$ |
| 2.579.01 | 3,513002 | 3. $2^{8} 0^{+\infty+00}$ |
| 2.4540+01 | . $3.6390-12$ | 3. $3000+00$ |
| 2. 5.39 - 01 | $3.766 \pm 02$ | 3.129-+00 |
| 2.2330*01 | 3.8940*02 | $3.760 \times 00$ |
| 2.1330*01 | 4:0230002 | 4. $2110+00$ |
| 2.041-* 01 | 4.1530*02 | 4.465=*00 |
| 1.954.0.01 | 4.2850.02 | 4, 127w*00 |
| $1.0750+01$ | 4.418000 | $4.998=+00$ |
| 1.797.01 | 4,552.02 | 5.2770+00 |
| 1.725x+01 | $4.088 \pm 02$ | $5.9650+00$ |
| 1.057**01 | 4.825 .02 | $5.0610+00$ |

## PARTICLE DENSITY $=0.0$ GRAMS PER CUEIC CENTIMETER

DIANETER

| $2.800 x+01$ | 4,868* 01 |
| :---: | :---: |
| 5.900x+01 | 5.006**01 |
| 0.000x+01 | 5.146.0.01 |
| 6.100x+01 | 5.288. +01 |
| $0.200 x+01$ | $5.432 \ldots * 01$ |
| $6.300 x+01$ | $5.579+01$ |
| $6.400 \times 01$ | $5.727 * 01$ |
| 6.500**01 | $5.8770+01$ |
| $6.6000+01$ | $0.02^{9} x+01$ |
| $6.700 \times 01$ | 6.183n+01 |
| $0.800=+101$ | $6,3380 * 01$ |
| $0.900=+111$ | 6.495**01 |
| $7.000 x+01$ | 0,652m 01 |
| 7.100= 01 | $6.809 \%+01$ |
| 7.200**01 | 6,965 0 - 01 |
| $7.3000+01$ | 7.1190+01 |
| $7.400 x+01$ | $7.2700 * 01$ |
| $7.500 \times+01$ | $7.4100+01$ |
| $7.000 \times+11$ | 7.556**01 |
| $7.700=+01$ | 7.686**01 |
| 7.8000+01 | 7,777.01 |
| $7.900 x+01$ | 7.9180001 |
| 8.0000+01 | 8.059 .01 |
| - $1000+61$ | $8.2000 * 01$ |
| 0.200:*01 | 8.342n+01 |
| b. $3000 \times 01$ | $8.483 .+01$ |
| B.400x+01 | 8.626\% 01 |
| 6.500x+101 | $8.768 \pm 01$ |
| $6.600 .+01$ | 8.911-0.1 |
| -.700x+01 | 9.054.01 |
| 0.000x+111 | 9.197.01 |
| $8,900 \times+01$ | $9.3400+01$ |
| $4.000=0$ - 1 | 9.484**01 |
| 9.1000+01 | 9.6280+01 |
| $4.200 x+01$ | 9,772.01 |
| 9.300x+01 | 9.9 .16001 |
| $4.400 x+111$ | $1.0000+02$ |
| $9.5000+01$ | $1.0210+02$ |
| 4.600x+01 | $1.0350+02$ |
| 9,700is+ 111 | $1.0500+02$ |
| $9,800 x+01$ | $1.0640+02$ |
| $9.400 x+0.1$ | 1.0790+02 |
| 1.000x +12 | 1,093.*02 |
| $1.100 x+02$ |  |
| $1.2000+02$ | $1.387 \infty+02$ |
| $1.300 x+02$ | 1, 235 \% 02 |

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| 1.859m*00 | $1.5930+01$ | 4.964= 02 | 6. $166 \pm 00$ |
| :---: | :---: | :---: | :---: |
| 1.945m*00 | $1.5320+01$ | 5.1050"02 | $6.480^{0+0} 0$ |
| 2, $0330+00$ | $1.4750+01$ | 5.2480=02 | $6.0020+00$ |
| 2.124n+00 | 1.4200001 | $5.3930-02$ | 7.133**00 |
| 2.218.00 | 1,5600*01 | 5.540000 | $7.473=00$ |
| 2, $314=00$ | 1.5180001 | $5.6890=02$ | $7.021=00$ |
| 2.413000 | 1.2700*01 | $5.8400=02$ | 8, 1780+00 |
| 2.5150*00 | 1.225.001 | $5.993 \sim 02$ | 8.9440*00 |
| 2.020000 | $1.1820+01$ | $6.1480=02$ | 8. Y 19**00 |
| 2.728000 | $1.1410+01$ | 6.305000 | 9. $3022^{\text {m }}+00$ |
| 2.838 .00 | $1.1020+01$ | 6,464= 02 | $9.0950+00$ |
| $2.9510+00$ | 1.065 .01 | 6.623:"02 | $1 \cdot 0100^{+0} 01$ |
| 3.066. +00 | 1.0300001 | $6,7830=02$ | $1 \cdot 0^{5} 10+01$ |
| $3.183 n+00$ | 9.970000 | $6.943=02$ | $1 \cdot 0^{9} 2 *+01$ |
| S, Su2. 00 | 9.062.00 | 7.1030=02 | 1.1350+01 |
| 3.4220+00 | 9.377000 | 7.2600-02 | 1.1790+01 |
| $3,543 n+00$ | 9.1150*00 | $7.414 m=02$ | 1.223**01 |
| 5.6630+00 | 8.8780+00 | 7.5630*02 | 1.269**01 |
| 3.781=*00 | 8,667**0 | 7.7050-02 | 1.315**01 |
| 3.897 - 00 | 8.486=*00 | 7.838000 | 1.362m+01 |
| 3,9950*00 | 8.395 .00 | 7.9310002 | $1.410^{*+01}$ |
| 4.119=* 00 | 8.203000 | $8.075=02$ | $1.4590+01$ |
| 4.245.00 | $8.0190+00$ | 8.218000 | 1.3090*01 |
| 4,574=*00 | 7.042000 | 8.362000 | $1.3600 * 01$ |
| 4,204=*00 | $7.07<000$ | $8.507=02$ | 1.012**01 |
| 4.636. +00 | 7.2000000 | 8.6510002 | 1.064 **01 |
| 4.7710+00 | 7.3500.00 | 8,796002 | 1.1180*01 |
| 4.907.+ 00 | $7.1980+00$ | 8.941000 | 1.1720+01 |
| 5.046.00 | $7.0520+00$ | 9.087-02 | 1.5270*01 |
| ל,186**00 | $6.9100+00$ | 9.2320-02 | 1.4830+01 |
| 5,329. +00 | $6.7740+00$ | 9,3780-02 |  |
| $5.47 .4 n * 00$ | 0.3420000 | 9.525002 | 1.4980*01 |
| $5.6200+00$ | 6.515 .00 | $9.6710=02$ | 2.0560+01 |
| 5.769000 | 6. $3920+00$ | 9.818.022 | 2. $1160+01$ |
| 勺.9200*00 | $6.273 m+00$ | 9,965-02 | $2.1760+01$ |
| 0.072\% 00 | $6.158=00$ | 1.0110001 | 2. $2380+01$ |
| 6.227-00 | 6.040w+00 | 1.02600. 0.1 | 2. $000 \pm 01$ |
| 0,384. +00 | 5.939.00 | 1.0410*01 | 2. $3630+01$ |
| $0.543=00$ | 5.034**0 | 1.05500 01 | 2.427** 01 |
| $0,703 m+00$ | 5.7.33x+00 | 1.0700001 | 2.4910001 |
| 6.066n+00 | $5.635 \pm 00$ | 1.0850001 | 2. $5570+01$ |
| 7.03.10*00 | $5.2400+00$ | 1.1000001 | 2.023**01 |
| 7.198.00 | 5.446000 | $1.1150=01$ | $2.0910+01$ |
| 8.978.00 | $4.0620 \% 00$ | 1.2640\%01 | $3.4120+01$ |
| $1.0960+01$ | 4. 1 - $6200 * 80$ | $1.4140=01$ | 4.217x+01 |
| $1.314 \times+01$ | 3.5930+00 | 1.5650001 | 5.1040+01 |

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| $1.400=+02$ | $1.0830+02$ | $1.551=01$ | 3．2180＋00 | 1．710．001 | $6 \cdot 4710+01$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.500=00^{2}$ | 1.831 .002 | $1.8090+01$ | $2.912 \varphi+00$ | 1.8670 .01 | 7．11．600＋01 |
| $1.600 x+0^{2}$ | 1．979．02 | 2．085．01 | 2．059．000 | 2．018＝01 | 8． $4370+01$ |
| $1.700 \times 02$ | 2．127．02 | $2.3810+01$ | $2.4470+00$ | 2．169001 | $9.4300+01$ |
| $1.800 x+02$ | $2.274 n+02$ | 2．695－01 | $2.2600+00$ | $2.319=01$ | 1．4690－02 |
| $1.400 x+02$ | 2，420．02 | 3．028＊＊01 | 2．112＊＋00 | 2.468 .01 | 1． 2030002 |
| $2.000=+02$ | 2．566＊＊2 | 3．3790＊01 | 1.9780000 | 2.617001 | $1.543=+02$ |
| $2.100 x+02$ | $2.7110+02$ | 3，749＋+01 | 1． $0600+00$ | 2.7640 .01 | 1.4890 －02 |
| 2． $2000+02$ | 2.855 ＊ 02 | $4,136-01$ | 1．757＊00 | 2.9110001 | $1.0420+02$ |
| $2.300=+02$ | $2.998 \pm 02$ | $4.540 \times+01$ | 1．0600＊00 | $3.057-01$ | $1.000 \pm+02$ |
| $2.400 \times 00^{2}$ | 3．140\％ 02 | $4,962 \omega * 01$ | 1，5850000 | $3.2020=01$ | 1．y $65=02$ |
| $2.500 \times 02$ | $3.2810+02$ | 5，4020＋01 | 1．5120＊00 | 3，3460－01 | 2． $1350+02$ |
| c． $600=+02$ | $3.4210+02$ | $5,858 m * 01$ | $1.446=00$ | 3，489m＝01 | 2． $1100+02$ |
| 2． $700=+02$ | $3.56110+02$ | $6.3300+01$ | 1．5870＋00 | 3.6310001 | 2.491002 |
| $2.600=+0^{2}$ | 3．699．＊2 | 0．819．001 | $1.333 \% 00$ | 3，7720001 | $2.077 \times+02$ |
| 2． $400=+02$ | $3.836 \mathrm{~m}+02$ | 7，324n＊01 | 1．283000 | 3,9110001 | 2． 068 － 02 |
| S． $000=+12$ | 3．972w＋02 | $7.846 n+01$ | $1.2380+00$ | 4．0500＊01 | 3． $1640+02$ |
| S． $100 x+12^{2}$ | 4．107．02 | $8.3830+01$ | 1．1970＋00 | 4，1880001 | 3． $2640+02$ |
| 土，200 $0+02$ | $4.2400+02$ | $8.935 \% 01$ | $1.1590+0.0$ | 4．3240－01 | $3.469=02$ |
| 3． $3000+02$ | 4，373， 02 | 9，503．001 | 1．1230＋00 | 4，4600 01 | 3．0780＋02 |
| $3,400 x+02$ | 4．505．02 | 1．009＊＊ 0 | $1.0910+00$ | 4．594x－01 | $3.0910+02$ |
| $3.500 x+12$ | $4.6300+02$ | 1．068 ${ }^{*}+02$ | $1.050=00$ | 4.727001 | 4．109：02 |
| $5.000 \mathrm{~L}+12$ | $4.765_{0}+02$ | $1.1300+02$ | 1．032－00 | $4.8600=01$ | $4.330 \pm+02$ |
| $0.700=1.2$ | $4.8940+02$ | 1．1920＋02 | 1．006－00 | $4.9910 \% 01$ | 4． $5550+02$ |
| $9.800 x+12$ | $5.0220+02$ | 1．257m＋02 | 9.0100001 | 5．1210＝01 | 4．184＊＊ 02 |
| S．400\％＋12 | 5．14800 02 | 1． $522 \underline{02}$ | 9．279－01 | $5.2500=01$ | 5． $417 m+02$ |
| $4.000 \times+12$ | $5.274 \pm+02$ | 1．389\％＊02 | 9．3640001 | $5.3780=01$ | 5． $2530+02$ |
| 4． $100 \mathrm{x}+12$ | 5.399 .02 | $1.457 n+0 \%$ | 9．158001 | $5.5050=01$ | $5.492=+02$ |
| 4， $2000 \times 12$ | $5.5220+02$ | 1．527m＋02 | 8.9600001 | $5.6310=01$ | 5．1350＋02 |
| 4． $300 \mathrm{x}+12$ | 勺，6450002 | 1．5980＋02 | 8．785－01 | 5．7570001 | 5． $4810+02$ |
| $4.400 x+2$ | 5．767－02 | $1.0710 * 02$ | $8.014=01$ | 5.0810 mol | $6.4300+02$ |
| 4． $2000 \times 1{ }^{\prime \prime}$ | 5.8880002 | $1.7450+02$ | 8．452．001 | 6.0040001 | $6.4820+02$ |
| 4．000x＋12 | $6.007+02$ | $1.8200 * 02$ | 8．298001 | $0.120=01$ | $6.1380+02$ |
| $4,700 x+1{ }^{2}$ | $0.126+02$ | 1．8960002 | $8.150 \times 01$ | 6．24\％．01 | 6． $7950+02$ |
| $4.600 x+12$ | c． $2440+02$ | 1．974x＋02 | 8.315001 | 6． 3680001 | 7． $2560+02$ |
| 4．900x＋1：2 | $0.3610+02$ | 2．0520＋02 | 7．685＝01 | 6．487－01 | $7.520^{10+} 02$ |
| b． $0000 x+c$ | 6.478 .02 | 2． $1330+02$ | 7，750－01 | 6.600001 | 7．18500 02 |
| と． $1000 \times$ | $0,593.02$ | 2．2140＋02 | 7．039－01 | 6．723n－01 | $8 \cdot 0540+02$ |
| 勺．200x＋12 | 6.707 .02 | C． $297+02$ | 7．5250001 | 6.840001 | 8.5250002 |
| 勺． $500 \times+13$ | 6．621． 0.02 | $2.3800+02$ | 7．4170001 | 6.456001 | 8．，998－02 |
| 5，400x＋12 | $6.934 \ldots+02$ | 2．465＝02 | 7．5150＝01 | 7．0710－01 | 8.8740002 |
| b． $2000 \times+12$ | 7.046 .02 | $2.5520+02$ | 7．2130－01 | 7．185．01 | 9．1520＊02 |
| $2.6000+12$ | 7．1570＋02 | 2，6390＊02 | 7．1100001 | 7． 2980001 | $9.4320+02$ |
| 2．7000＊ | 7．267．＊02 | 2，727．02 | 7．027－01 | 7，4100＝01 | $9.115=+02$ |
| $2.600 n+6$ | $7.3760+02$ | 2．817．02 | 0.940001 | 7，522m01 | 9．499．0＋02 |
| $2.900 x+02$ | $7.485-02$ | 2.908 .02 | 6．050－01 | 7．033．m01 | 1.429000 |

# PARTICLE DENSITY = 6.0 GRAMS PER CUBIC CENTIMEIER 

II AMETEH
VELOCITY
$.000 x+42$
$6.100 x+02$
$0.2001+122$
$6.300 x+12$
0. $4000+112$
$0.500 x+112$
$0.600 x+12$
$6,700 \times 00^{2}$
$0.800 x+02$
c. $400 x+02$
7. $0000+02$
7. $100 x+02$
7. $200 x+02$
$7.300 x+12$
7. $400 x+12$
7. $200 x+42$
$7.000 x+1^{2}$
$7.700 x+12$
$7.000=+02$
$7.900=+02$
$0.000=+02$
$0.100 x+02$
E. $200 x+0^{2}$
$0.300=+11^{2}$
$0.400=+02$
$0.500 x+02$
$0.600=+02$
$0.700=+122$
$0.600=+02$
-. $900 x+12$
4.000x+122
-100x+ 12
$4.200 x+12$
$4.300 x+12$
$4.400 x+02$
$4.500 x+42$
$4.000 x+112$
$4.700 x+122$
$4.000=+112$
Y. 400x+112
1.000x+0s
1.010=* 13
$1.020=+03$
$1.050=+0^{3}$
$1.040 x+03$
$1.050+13$
$7.593 .+02$
$7.70000+02$
$7.8060+02$
$7.9120+02$
$8.017=02$
8. $1210+02$
$8.2240+02$
8.327 .02
$8.429+02$
$8.5300+02$
$8.6310+02$
$8.7310+02$
$8.830=02$
$8.928=02$
9. $026+02$
$9,1240+02$
$9.2200+02$
$9.3100+02$
$9,4,2=+02$
$9.50^{0} 0+02$
$9.6010+02$
$9.6940+02$
$9.7870+02$
$9.879+02$
$9.9710+02$
$1.00^{6}+03$
$1.0150+03$
$1.0240+03$
$1.033_{0}+03$
$1.0^{42}+03$
$1.0510+03$
$1.060=+03$
$1.069 \div 03$
$1.077+03$
$1.086 .+03$
$1.094=+03$
$1.10^{3}+03$
$1.112=03$
$1,1200 \% 03$
$1.128=03$
-1.137.+03
$1.145 * 03$
$1.153=03$
$1.1610 * 03$

1. $1700+03$
1.178 .03

RE
5, 0000+02
3,0930-02
3. $187=02$
3. $282 \pi+02$
5.378. 02
$3.4760 * 02$
$3.574=02$
$3.674=+02$
3.876**02
3.978 +02
4.0820*02
4. $186 x+02$
$4.2920+02$
$4,398=02$
$4,5060+02$
$4,6140+02$
$4.6140+02$
$4.7240+02$
$4.834=02$
4.945:*02
$5.057=02$
5. $1700+02$
5. $2840+02$
5.399: 0 0
5. $515 \mu+0.2$
$5.032=+02$
$5.7500+02$
$5,668+02$
5,987
$0,1080+02$
$0.2290+02$
o. $251=0.02$
$6.473 m+02$
$0.5970+02$
6.72100 .02
$0.047 .+0 c$
$0.973 n+02$
7. 0.99= 0 02
7.2.270-02
$7,3560+02$
$7.485 .+02$
7.615. +02
7.746=
7.877.
$8.009 \div \div 02$
$8.1430+02$
dRAG COEF RELAX TIME
.90 DIST
6.770001

| 7.7430001 | $1 \cdot 4570+03$ |
| :---: | :---: |
| 7,8520=01 | 1.4860*03 |
| $7.961=01$ | 1. $1160+03$ |
| 8.068.01 | 1. $145=03$ |
| 8,175001 | 1. $175 * 03$ |
| 8.2810.01 | $1.204 \%+03$ |
| 8,387001 | $1.2340+03$ |
| 8.4910001 | $1.2640+0^{3}$ |
| 8.5950-01 | 1. $2950 * 03$ |
| $8.699 \%=01$ | 1. $325 m * 03$ |
| 8.8010001 | 1. 355 * 03 |
| 8.9030001 | 1.586m+03 |
| 9.0040001 | $1.4170+03$ |
| 9.105*01 | $1.4480 * 0^{3}$ |
| $9.2050-01$ | 1.4790*03 |
| 9.3040001 | $1.3100+03$ |
| 9,4020-01 | $1.242=+03$ |
| $9.5000=01$ | $1.3730+03$ |
| 9.598=01 | 1.0050003 |
| 9.694-01 | $1.0360+03$ |
| 9.790001 | 1.06800 .03 |
| 9,886=01 | 1.1000003 |
| $9.980=01$ | $1.1320 * 03$ |
| 1.007**00 | 1.1640+03 |
| 1.0170*00 | 1.1960*03 |
| 1.026**00 | 1.8290*03 |

$1.0610+03$
$1.0940+03$
$1.4260+03$
$1.4590+03$
$1.9920+03$
2. $4250+03$
2. $4580+03$
$2.4910+05$
2. $124 x+03$
2. 157. +03
2. $1900+03$
2. $224=+03$
2. $2570+03$
2. $\angle^{9} 0$ 0 +03
2. $324 * * 3$
2. $9.5818 * 03$
2. $9910+03$
2. $4250+03$
2. $4590+03$
$2.4930+03$

## grams per cubic centimeter

## UIAMETFK

$1.000=00$
$1.100 x+010$
$1.200 x+00$
1．500x＋00
$1.400 x+00$
1．500x＊00
$1,600 * 00$
$1.700 x+00$
$1.800=+00$
1．900＊＊00
2．000＊＊00
$2.100 \times 00$
$2.200 x+00$
c． $500 \times+00$
c． $400=+110$

$2.600 \times+110$
6． $700 \times+00$
く． $6005+00$
$2,900 x+00$
s．000x＋00
3． $100 x+100$
S，c00世＋00
3． $300 \times * 00$
$3.400 x+00$

3．600 $6+10$
$5.7110 x+010$
－6．600\％＋ 00
$5.900=40$
4． $000 \mathrm{x}+40$
4． $100 x+00$
$4 \cdot 200=00$
$4.300 \times+00$
$4.400 x+100$
$4.500 x+00$
$4.600 x+00$
$4.7100 x+100$
$4.800+110$
$4.900 \%+110$
2． $000 x+110$
2． $100 \times+00$
2． $200=100$
$2.300 x+00$
2，400x＋00
シ，ל00x＋し0

VELOCITY
$2.1180=02$ $2.559=02$ 3．042：－02 $3.566=02$ 4．132．$=02$
4．74010 02 $5.389 m=02$ $6.0^{80} 0=02$ $6.813=02$ $7.588=02$ $8.40^{4} 002$ $9.261=02$
$1.010=01$
$1.1100=01$
$1.20^{8} 001$
$1.3110=01$
$1.418=01$
$1.528=01$
$1.043=01$
$1.762 n=01$
$1.880=01$
2． 015001
2． 145001
$2.2^{8} 0=01$
2． $4200=01$
2．565＝01
2．7130＝01
2．865． 01
3．022．001
3.183001

3．347m＝01
$3.517=01$
$3.6900=01$
$3.867=01$
4．049＝01
$4.235 n=01$
$4.424=01$
$4.018=01$
$4,817:=01$
5.019 .01
$5.220=01$
$5.430 m=01$
$2.6510=01$
$5.8700=01$
$6.093=01$
$6.321=01$

RE

1．395． 1.05
$1.854=05$
$2,403=05$
$3.053=05$
$3.809=05$
4．682＝ 05
$5.678=05$
$6.806=05$
8．075～－05
$9.493=05$
$1.107=04$
$1.281=04$
$1.472=04$
$1.681=04$
$1.910 \%=04$
2． $158=04$
$2.427=04$
$2.717=04$
3．030＝ 04
3． $565 .{ }^{24}$
$3.725=04$
$4.109=04$
$4,519 n-0^{4}$
$4,955.00^{4}$
$5,419=04$
5，910～＂04
$0.431 .0=04$
$0.981=04$
7．2610004
6．1730＂04
$8.817=04$
$9.494=04$
$1.1 .200=03$
$1.095=03$
1．173．$=03$
1．255＝＂03
1． $540=03$
$1.4 .29=03$
$1.222=03$
$1,619=03$
1.720 .003
$1.826=03$
$1.935=05$
2．049：03
$2.167=03$
2．289～003
drag cuef relax time ．90 dist
$1.060 .+06$
$1,2570 * 06$
$9.719 x+05$
$7.060 .+05$
$6.150 .+05$
5.016 .05

4．142＝005
$3.4590+05$
$2.919 x+05$
$2.4850+05$
$2.134=+05$
$1.0450+05$
$1.0070+05$
$1.4070+05$
$1.2400 * 05$
$1.198=05$
$9.760 \%-04$
$8.7270+04$
$7.830=04$
$7.0520+04$
$6,37.4=* 04$
$5.780=04$
$5.257 n+04$
$4.796=+04$
4． $5870+04$
$4.025=04$
$3.099=04$
$3,408=04$
3．147．＋04
$2.912 m+04$
$2.700 n+114$
$2.208=+04$
$2.344+04$
$2.170=+04$
2．031＝＊04
$1.699 \%+04$
$1.779=04$
$1.058 . * 04$
$1.566 .+04$
$1.472 x+04$
$1.586 \omega+04$
$1.50^{70}+104$
$1 .<33 m+04$
$1.165=+04$
$1.1010+04$
$1.043=+04$


PARTICLE DENSITY $=7.0$ GRAMS PER CUBIC CENTIMETER

| DIANETER | velecity | RE | OHAG COEF | retax ! Ime | -8 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2.600000 | 6.552.0.01 | 2,416.003 | 9,679.*03 | 6.0820004 |  |
| 2.7000+00 | 6,788.001 | 2,548=03 | $9.370 .0+03$ | 6.922.0.04 | 1.398 m |
| $5.8000+00$ | 7.027.01 | 2,684n-03 | 8, त950+03 | 7. $1060=04$ | $1.499 \times 1$ |
| $5.9000+00$ | 7.271.001 | 2,8250003 | 8.4520003 | 7.415.-04 | 1.004 |
| -, 000**00 | 7.5190001 | 2,971-03 | $8.0380+03$ | 7.668 .04 | $1.1160=0$ |
| 100-to0 | 7.772.001 | 3,122=03 | $7.6500+03$ | $7.925=04$ | $1.033=0$ |
| $6.200=+00$ | 8.028.001 | 3,277=03 | 7. $2870+03$ | 8.187 .04 | 1.955000 |
| $6.3000+00$ | 8.289=01 | 3,4380003 | $6,947 m+03$ | 8.4520004 | 2. $\mathrm{y}^{8} 40=03$ |
| $0.400=00$ | 8.553 .01 | 3,605=03 | 6.62880*03 | $8.722 .0{ }^{4}$ | 2. 219000 |
| 500000 | $8,822=01$ | $3.7760=03$ | 6.327 **03 | 8,996004 | 2. $261=03$ |
| 600=*00 | $9.0950=01$ | 3.9530.03 | $6.045 \mathrm{n}+03$ | 9.2750 04 | 2. $2090=03$ |
| $7000+00$ | 9,3720-01 | 4, 135.-03 | 5,7790*03 | 9,557.04 | 2.065-03 |
| $8000+00$ | 9.6540001 | 4. 3220003 | 5,529n+03 | 9,844m=04 | 2. $227=03$ |
| $900 * 00$ | $9.939 n=01$ | $4.5160=03$ | 5,2930+03 | 1.0140003 | 2, 4960.03 |
| 000**00 | 1.023.00 | $4.715=03$ | $5.0700+03$ | $1.043 n=03$ | 3.173=03 |
| $1000+00$ | $1.0520+00$ | 4,919n*03 | $4.8600+03$ | $1.0730 \cdot 03$ | 3. 558.003 |
| 200**00 | $1.082 \times+00$ | $5.1300=03$ | $4.06110+03$ | $1.1030=03$ | 3.3510003 |
| 300= +00 | 1.112 .000 | 5.346 .003 | $4.4720+03$ | 1.134me 03 | 3.1520003 |
| $400=+00$ | $1.145 \mathrm{~m}+00$ | $5.569=03$ | 4.294=03 | 1.165 .003 | 3.4610003 |
| $500 \times+10$ | $1.174=00$ | 5,797-03 | 4.125 .003 | 1.1970003 | 4.1790005 |
| 600x+00 | 1.205=*00 | 6.032.03 | 3,965-0 03 | 1.229.003 | 4.4060003 |
| $700=+00$ | 1.237**00 | 6,272.03 | $3.8130+03$ | 1,2620-03 | 4.0420003 |
| $800 \cdot+00$ | $1.2690+00$ | $6.520 \mathrm{mo3}$ | 3.0690*03 | $1.294=03$ | $4.887 \times 03$ |
| $900=+00$ | $1.3020+00$ | 6,773.03 | 3,5320403 | 1.328 .003 | 5.1420003 |
| 000*+00 | 1.335000 | 7.033.03 | $3.402 n * 03$ | 1,3620003 | $5.406=03$ |
| 100 +00 | $1.369+00$ | $7.3000=03$ | 3.2780003 | $1.3960=03$ | 2.081=03 |
| 200x+00 | 1.403000 | 7.573.-05 | 3.160.0 03 | 1.4500003 | 03 |
| $300 \times+00$ | $1.437{ }^{+00}$ | 7.853.03 | 3.047 .003 | 1.465 .003 | 0.4620 .03 |
| $400 \times+00$ | 1.472000 | 8.140 .03 | $2.9400+03$ | 1.5010003 | 6.2680003 |
| 500*+40 | $1.5070+00$ | $8.4340=0 \leq$ | 2.0360003 | 1.5370003 | 6.5860003 |
| 00*+00 | $1.5420+00$ | $8.734=03$ | 2.741 m* 03 | $1.573=03$ | 7. <150003 |
| 00*+10 | 1.578000 | $9 \cdot 042 n=03$ | 2.0480003 | 1.0100003 | 7. 2550003 |
| 800=+00 | 1.015000 | 9.357.0S | 2.559m*03 | 1.6470 .03 | 7.40810003 |
| 00- 00 | 1.652000 | 9.679=03 | 2.4740 + 03 | $1.684 m=03$ | 8. 2 $^{7} 30=03$ |
| 000**00 | 1.689**00 | 1.001: 02 | 2.393**3 | 1.722003 | 8.050003 |
| 00x+100 | 1.726"+00 | 1.0340\%02 | 2.315.03 | 1.7600003 |  |
| - +00 | 1.764**00 | 1.069=02 | 2.241 .603 | $1.799 p-03$ | $9.4430=03$ |
| 00**00 | $1.80{ }^{3}=+00$ | 1.104=-02 | 2.1690*03 | 1.838000 0 | 9.059m-03 |
| $400+40$ | 1.842000 | 1.140.0.02 | 2.1010+03 | 1.078 .03 | 1.4291000 02 |
| 5000+00 | 1.881 .000 | 1.177.02 | 2.1400*03 | $1,918=03$ | 1. 4730002 |
| 600n+40 | 1.921 .000 | 1.214.0.02 | 1.9730003 | 1.959=03 | $1.1190=0{ }^{\text {c }}$ |
| 700**00 | $1.96100+00$ | 1.252m=02 | $1 \cdot 930003$ | $1.999 \% 0^{3}$ | 1.1660902 |
| 800000 | 2.001a*00 | 1.2910=02 | $1.055 m+03$ | 2.0410005 | 1. 2150002 |
| , $9000+00$ | $2.042 n+00$ | 1.331\%*02 | 1.0060+03 | 2, 083.005 | 1. 2650002 |
| . $0000+01$ | 2.083 .000 | 1.372.0.02 | 1.74\%**3 | 2, 125:03 | 1.3170-02 |
| 100*+11) | 2.5190+00 | 1.825 .02 | $1.3150 * 03$ | 2,569.03 | 1. 7261002 |

PARTICLE DENSITY $=7.0$ GRAMS PER CUBIC CENTIMETER

| U\AMETEK | VELOCITY | HE | DRAG COEF | RELAX TIME | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.200=+01$ | 2.995000 | $2.5670 \cdot 02$ | $1.0190+03$ | 3,0550*03 | 2.126-02 |
| $1.300 \times+101$ | 3.5120*00 | 3.006"0'2 | $7.995+02$ | 3.5810-03 | 3.152=-02 |
| $1.400=01$ | 4.069 .00 | 3.751:"02 | 6.410002 | 4,149.0.03 | $5 \cdot u^{4} 2=0$ |
| 1.500x+01 | 4.665.00 | $4,608=02$ | 5.230 - 02 | 4,757=03 | 6.3400-02 |
| $1.600=01$ | $5.3000+00$ | 5.584=.02 | $4.5210+02$ | 5.405003 | 8. 2910002 |
| 1.7000*01 | $5.9740+00$ | 0.088002 | $3.0140+02$ | 6.0920=03 | $1 \cdot 1.0^{94} \times 0=01$ |
| $1.800 x+01$ | $0.0860+00$ | 7.925-02 | 3.0550*02 | $6.819 \%=03$ | $1.374 \mathrm{~m}=01$ |
| 1,900=01 | $7.4360+00$ | $9.3030 m 02$ | $2,6080+02$ | 7.583000 | 1.1050001 |
| 2.000x+01 | 8.222000 | 1.083 .01 | 2, <450*02 | 8,384m=03 | 2.093-01 |
| C. $100 x+01$ | $9.044 m+00$ | $1.2510-01$ | $1.9490+02$ | 9,2230.03 | 2.2420=01 |
| $2.200=+11$ | $9.9010+00$ | 1.434-0.01 | 1.703002 | 1.010-02 | $3.061-01$ |
| 2. $300 \times+01$ | $1.0790+01$ | $1.634=01$ | 1.499**02 | 1.101002 | 3.0550001 |
| $2.400+01$ | 1.1720+01 | 1.852.001 | 1.321**02 | 1.195.02 | 4.9310001 |
| <. $5000+101$ | 1.267*01 | 2.086001 | $1.1810+02$ | 1.2920002 | 5. $498=01$ |
| <.000x+01 | 1.5660*01 | 2.3390001 | $1.0500+02$ | $1.3930=02$ | $5.961=01$ |
| <.700.0.15 | 1.468001 | 2.6100001 | 9.5120+01 | 1.497002 | 6.930 OMO |
| 2.000u+ 01 | $1.5720+01$ | 2.899*-01 | $8.5900+01$ | $1.6040=02$ | 8. 4050001 |
| <.900~+01 | 1.6800001 | 3. $208=01$ | 7.001-01 | $1.7130=02$ | 9.1420-01 |
| $\therefore .000 x+11$ | $1.7900+01$ | S. $536=01$ | $7.10^{8 m+01}$ | $1.825 x=02$ | 1. $1.350+00$ |
| $3.100 \times+01$ | $1.9020+01$ | 3, $883=01$ | $6.502 m+01$ | 1.9400002 | $1.1650+00$ |
| 3. $2000 \times 101$ | 2.0170+01 | 4.2510=01 | 5.469** 01 | 2.057002 | $1.30310+00$ |
| 3. $0110 x+11$ | 2.135n+01 | 4.038 .001 | $5.498=01$ | 2.177-02 | 1.4500000 |
| S. $4000 \times 11$ | 2. 255.01 | h.044-01 | $5.0888+01$ | 2.297-02 | $1.0060+00$ |
| S. $200 x+11$ | 2,574n+01 | 5.471001 | $4.717 .+01$ | 2.421-02 | $1.1710+00$ |
| 3.600x+01 | 2.497m+01 | 5,920=01 | 4.38う* 01 | 2. $547 \mathrm{~F}=02$ | 1. 4400000 |
| S. $100 x+01$ | $2.022=01$ | $6.589 \times 01$ | 4.1870+01 | 2.074-02 | 2. $1310+00$ |
| $3.600 x+01$ | $2,7490+01$ | 6.878=01 | $3.6200+01$ | 2.003**2 | 2. $9250+00$ |
| $3.400 x+1$ | 2.8770+01 | 7.3880-01 | 3.579x+ 01 | $2.9340=02$ | 2. 329 -00 |
| 4.000x+01 | 5.007-01 | 7.4190-01 | 3.3610+01 | 3.060-02 | $2.1430+00$ |
| 4. $100 x+11$ | 3.130.001 | 8.4710001 | 3.1630+01 | S.2000*02 | 2.767 - 00 |
| $4.200 x+1$ | 3.2700+01 | 9.044001 | 2.983 $0+01$ | 3. 335002 | 3. $2010+00$ |
| 4. $500 x+01$ | $3.400^{4}+01$ | $9.637 \mathrm{~m}-01$ | $2.019 n+01$ | $3.4710-02$ | $3.4460+00$ |
| $4.400 x+11$ | $3.5390+01$ | 1.0250+00 | $2.069 * 01$ | 3.6090002 | 3.101*+00 |
| $4.600 \times+11$ | 3,675:01 | $1.0889+00$ | 2. $2310+01$ | 3.7470002 | $3 .+670+00$ |
| $4.600 \times+101$ | $3.8120+01$ | 1,1550+00 | $2.40^{4 n+01}$ | 3.887002 | 4. $443 \mathrm{l}+00$ |
| $4.700=+11$ | 3.9510001 | $1.223 n+00$ | 2.<87m+01 | 4,029n-02 | 4. 3290000 |
| 4.600x+ 1 | $4.0900+01$ | $1.2930+00$ | 2.179001 | 4.171=02 | 4.927x+00 |
| $4.500 x+01$ | $4.2310+01$ | $1.365 n+00$ | 2.0790*01 | 4. 515000 | 5. $1350+00$ |
| 2.000x +11 | 4.374 .01 | $1.4400 * 00$ | $1.9850+01$ | $4.4600 * 02$ | $5.454 p+00$ |
| 2. $100 x+91$ | $4.510+01$ | 1.517 .000 | $1.0980+01$ | 4.007-02 | b. $1840+00$ |
| 2. $200 \mathrm{x}+1$ | 4.603.01 | 1. 297 - 00 | 1.0100001 | 4,756=02 | 6. 125000 |
| 2. $300 x+01$ | $4.8110+01$ | 1.6790*00 | $1.739 \times 01$ | 4.900002 | 6.476000 |
| b.400x+01 | $4.960 \times 01$ | $1.7640+00$ | 1.067*01 | 5.058002 | -.03910+00 |
| 2.500x+61 | 5.111 .001 | $1.851=00$ | 1.299 5 +01 | $5.2120=02$ | $7.2130+00$ |
| 2. $600 \mathrm{0}+01$ | $5.2030+01$ | 1.941000 | $1.5350+01$ | $5.368=02$ | 7. $2980+00$ |
| 2.700- + 1 | $5.41^{9} x+01$ | 2.034~+00 | 1.475x+01 | $5,5 \% 6002$ | $7.994=00$ |

PARTICLE DENSITY: 7.0 GRAMS PER CUBIC CENTIMETER

| UIAMETEK | VELOCITY | RE | DRAG CQEF | RELAX TIME | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2,8000+01 | 5.576 2001 | 2, 1300*00 | $1.4170 * 01$ | 5,6860-02 | $8.4010+00$ |
| $5.9000+01$ | 5,736.01 | 2.228=00 | 1.362.0.01 | 5.849 .02 | $8.0200+00$ |
| $6,000=+01$ | $5,898 * 01$ | 2,330**00 | $1.510=001$ | 6.015002 | 9.<49*+00 |
| -100. 101 | 6.063-01 | 2. $435=00$ | $1.2610+01$ | $6.183=02$ | $9.0900+00$ |
| 6.200**01 | $6.230 m+01$. | $2.543 \%+00$ | $1,2130+01$ | 6.353 .02 | 1.4140*01 |
| $6.300=+101$ | $6.399 n+01$ | 2,654m*00 | 1.169. 01 | $6,5250=02$ | $1.400^{6}+01$ |
| $0.400=+01$ | $0.5700+01$ | 2.769.*00 | 1.126.*01 | 6.700002 | 1. $10800+01$ |
| $0.5000+01$ | 6.7430+01 | 2.886. +00 | $1.0800+01$ | 6,8760-02 | 1.157w+01 |
| $0.000=+01$ | 6.917.01 | 3: $006=00$ | $1.0480 * 01$ | 7.0530-02 | 1. $2060+01$ |
| $0.700=01$ | $7.0910+01$ | 3.128x*00 | 1.0120*01 | $7.2310=02$ | $1.2570+01$ |
| $6.800=01$ | $7.2640+01$ | 3,253**00 | $9.7870+00$ | $7.408=02$ | $1 \cdot 5090+01$ |
| $0.9000+01$ | 7.436x 01 | S.379**00 | 9.478000 | 7.583-02 | $1.0620+01$ |
| $\% .000=01$ | 7.605001 | $3,505=00$ | 9.1930+00 | 7.755002 | 1.9160*01 |
| $7.100=+01$ | 7.768 .01 | 3.632.*00 | $8.936 \mathrm{~m}+00$ | $7.9220=02$ | $1.4720+01$ |
| $7.2000+01$ | 7.925001 | $3.757 .+00$ | $8.7080+00$ | $8,0810=02$ | 1. $22800+01$ |
| \%.300=*01 | 8.071**01 | $3.8800+00$ | $8.5110+00$ | $8,231=02$ | 1. $5860+01$ |
| $7.4000+01$ | $8,20^{5} n+01$ | 3.998 .00 | $8.3500+00$ | 8,367002 | 1.0450001 |
| $7.500=+01$ | 8.329 .01 | $4.113 . * 00$ | $8.212 .+00$ | 8,4930-02 | $1.10500+01$ |
| $7.600+01$ | 8,485-* 01 | $4.2460 * 00$ | 8.018 .00 | $8.653=02$ | 1.1660+01 |
| $7.700=+01$ | 8,641.001 | 4.381= +00 | $7.632=00$ | $8,812 x=02$ | 1.8280+01 |
| $7.800=+01$ | 8.798.01 | 4.519**00 | 7.653000 | $8,972=02$ | 1.891**01 |
| $7.900=01$ | 8.956-01 | $4.659 x+00$ | $7.4820+00$ | 9, 1320-02 | 1.4560+01 |
| -.000-01 | 9,1130*01 | 4.80100 | $7.317 x+00$ | $9.293=02$ | 2.421** 01 |
| -.100=0 11 | $9.2710+01$ | $4.9450+00$ | 7.150000 | 9,454=02 | 2. $4^{88}+01$ |
| 0,200**01 | 9;429**01 | 2.0910+00 | 7.0050*00 | $9.615=02$ | 2.1550*01 |
| -,3000+01 | 9,5880\% 01 | $5.240=00$ | 0.058000 | $9.777=02$ | 2. $2240 * 01$ |
| $8.4000+01$ | 9.746 .01 | $5.3910+00$ | 6.717000 | 9.9390002 | 2. $2^{94 * * 01}$ |
| $0.5000+01$ | 9.905001 | $2.5440+00$ | $6.580=00$ | $1.0100=01$ | 2. $366 m+01$ |
| $8.600 \times+01$ | $1.000^{6}+02$ | 勺.699=*00 | $6.440 \cdot * 00$ | 1.020-01 | 2.43800*01 |
| 6.7002+01 | 1.022000 | 5,8570+00 | $0.3210+00$ | $1.043=01$ | 2.5110+01 |
| 万.600m+01 | 1.0380+02 | $6.017 n+00$ | $6.199 x+00$ | 1.059=01 | 2. $3860+01$ |
| $0.900 x+01$ | $1.054=02$ | $0.179=00$ | $6.0^{8} 0-00$ | 1.0.75p=01 | 2.0610*01 |
| 4. $0000 \times 01$ | 1:0700*02 | $6.34 .4=00$ | 5.960 .000 | 1.0920001 | 2.1380+01 |
| y. 100x+01 | 1.086*02 | $0.510 \%+00$ | $5,8550+00$ | 1.108p=01 | 2.0160*01 |
| Y. $2000+01$ | $1: 1030+02$ | $6.679 .0+00$ | 5.7400+00 | 1. $124=01$ | $2.09510+01$ |
| Y. $5000 x+01$ | 1.1.190+02 | 6.850000 | 5.645000 | 1-1410001 | 2. $4750+01$ |
| $9.400 x+01$ | 1.1350+02 | 7.024~*00 | $5.544 \times 00$ | $1 \cdot 1570001$ | 3. $4560+01$ |
| $4.500 x+01$ | 1.151m+02 | 7.199**0 | $5.44 .7 n+00$ | 1, 1740=01 | 3. $138 \pm 01$ |
| 4.000x+01 | 1.1670*02 | 7.3770+00 | $5.5530+00$ | 1.1900=01 | 3. $2210+01$ |
| $9.7000+01$ | $1.183-02$ | 7.557* 00 | $5.262 .+00$ | 1.207 .01 | $3.9060+01$ |
| $4.0000+01$ | 1.199**2 | 7.7400+00 | 5.1740*00 | 1.223.01 | 3. $3910 * 01$ |
| Y. $900 x+01$ | 1.2100*02 | $7.9240+00$ | 5.099000 | 1.2400=01 | 3.478**01 |
| 1.000x+02 | 1: $23.2 n+02$ | $8.1110+00$ | 5.1000.00 | 1.2560\%01 | 3.306** 01 |
| 1:100x+02 | 1:395. 02 | $1.0100+01$ | 4.295.000 | 1.4220.01 | 4. 2020001 |
| $1.200 x+02$ | 1.558** 02 | 1.2310*01 | 3.75s* 00 | 1.5890001 | 5.2430*01 |
| $1.300=+02$ | - $1.7230+02$ | $1.4750+01$ | - $3.3270+00$ | 10757001 | $6.0880+01$ |

## Particle densify $=7.0$ grams per cubic Centimeter

| DIAMETFR | Velocity | RE | DRAG COEF | relax time | . 90 D15.7 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.400 x+02$ | $1.8870+02$ | 1.7390*01 | $2.9870+00$ | 1.9240 $=01$ | $7 . \times 31-+01$ |
| $1.500=00^{2}$ | $2.0510+02$ | 2.026**01 | 2.708000 | 2.092-01 | 9.4710*01 |
| $1.600=+02$ | 2.215.0+02 | 2,3330+01 | 2.478.*00 | 2.258.01 | 1. ${ }^{7} 00+02$ |
| $1.700 x+02$ | $2.3780+02$ | $2.062 p+01$ | . 2.2840*00 | 2.425-01 | 1. $2230+02$ |
| $1.600 x+02$ | $2.540 n+02$ | $3.0110 * 01$ | $2.119 \% 00$ | 2,5900001 | 1. 5840 * 02 |
| $1.900 x+02$ | $2.7020+02$ | $3.3800+01$ | $\therefore 1,977000$ | 2.7550001 | 1.253-02 |
| c. $000 \pm+02$ | $2.862 \%+02$ | 3.769 ${ }^{+1} 01$ | 1.854000 | 2.9190001 | 1.1310002 |
| C. $100 \times+02$ | 3.022\%+02 | 4.1780*01 | 1. $1.970 * 00$ | 3.081001 | $1.9100+02$ |
| *.200x+12 | 3.180. 02 | 4,607**01 | 1.0520+00 | $3.243 m=01$ | 2. $1090+02$ |
| c. $300 \times+02$ | $3.337 \% * 02$ | 与.054-*01 | $1.5680+00$ | $3.4030=01$ | $2.309 * 02$ |
| 2.400w+02 | 3,494n*02 | $5.5210+01$ | $1.4940 * 00$ | $3.563=-01$ | 2.316**02 |
| c. $5000+02$ | 3.649**02 | 6.006\%*01 | 1.426000 | $3.7210=01$ | $2 \cdot 130+02$ |
| C. $600=+02$ | $3.8020 * 02$ | 6.3100001 | 1.360x*00 | 3.877.01 | 2.4500+02 |
| 2.700=+02 | 3.955. 02 | 7.0310*01 | 1.3110+00 | 4.03310-01 | 3.1770+02 |
| $2.000=+02$ | $4.1000+02$ | $7.5710+01$ | 1.261=000 | $4.1870=01$ | 3.4100+02 |
| $2.9000+02$ | $4.250 .+02$ | $8.128 \pm+01$ | $1.2100+00$ | $4.3400 \cdot 01$ | 3.04900 02 |
| S.000=+02 | $4,40^{5}+02$ | $8.7020+01$ | 1.1740*00 | 4,4920-01 | $3.5930+02$ |
| 3.100**02 | $4,553 n * 02$ | 9, $2940 * 01$ | 1.1300*00 | $4.6430=01$ | 4. $144 \pm+02$ |
| S. $2000+02$ | 4,699 $=02$ | 9,9020*01 | 1.101=000 | 4,792p-01 | 4.3990*02 |
| v. $300=+02$ | $4,845 .+02$ | 1.053.*2 | 1.068\% 00 | 4.9400001 | 4.0590+02 |
| S. $400=+02$ | 4,989 $0+02$ | 1.1170*02 | $1.0380+00$ | 5,0870-01 | 4. y $2500+02$ |
| S. $2000+02$ | $5.1310+02$ | $1.183 m * 02$ | 1.0100+00 | $5.233=01$ | 5. $1950+02$ |
| $3.600 x+12$ | $5.2730+02$ | 1.2500+02 | 9.034- $=01$ | $5.377=01$ | $5.4700+02$ |
| $3.700 x+12$ | $5,4150+02$ | $1.3190+02$ | 9.290001 | 5.5200001 | $5.1500+02$ |
| $5.000 x+12$ | 5.553 .02 | $1.389 \%+02$ | $9.561=01$ | $5,6620=01$ | 6. $1340+02$ |
| 3.500x+02 | 5.691. +02 | $1.4610+02$ | 9.147\% 01 | $5,8030=01$ | 6. $5220+02$ |
| $4.000 x+42$ | $5,0280+02$ | 1. $2350+02$ | $8,940=01$ | 5.943001 | $6.0140+02$ |
| 4. $1000+12$ | $5.9630+02$ | $1.0100+02$ | 8.757 .01 | 6.081=01 | 6. $4110 * 02$ |
| 4.2000+10 | 6.096m+02 | $1.686 m+02$ | 8.5780001 | 6.2190001 | 7. $211=+02$ |
| 4;300x+12 | 0.2320+02 | 1.764n+02 | 8.4100001 | 6.355001 | 7. $2150+02$ |
| $4.400 \times+02$ | $0.3640+02$ | $1.8440 * 02$ | $8.251=01$ | $6,490=01$ | 7.422m+02 |
| 4. $5000+0$ | 6.4900+02 | $1.925=02$ | 8.1010001 | $6.024=01$ | 8. $133=02$ |
| $4.600 x+12$ | $0.620 m+02$ | 2. $007 \pm+02$ | 7.950.01 | 6.757001 | 8. 4470 - 02 |
| $4.7000+12$ | $0.755_{0}+02$ | 2.0910+02 | 7.623001 | $6.889 \times 0.1$ | $8.765=02$ |
| $4.800 x+12$ | $6.8840+02$ | 2. $1760+02$ | 7.0940001 | 7.0200001 | 9. $4860+02$ |
| $4.9010 x+12$ | 7.0110+02 | $2.262 * * 02$ | 7.572x-01 | 7.1490001 | $9.410^{*+02}$ |
| 2.000x+02 | 7.137:02 | 2.3500+02 | $7.455=01$ | $7.2780=01$ | 9.137. 02 |
| 5. $100 x+42$ | 7.262.02 | 2.4390+02 | $7.344=01$ | 7,4060=01 | 1.4070+03 |
| 5.200: 20 | $7,3870+02$ | 2,529\%+02 | 7.2390001 | $7.533 x=01$ | $1 \cdot 1^{4} 0^{*}=0{ }^{3}$ |
| 5. $500 \pm+12$ | 7.510.0+02 | 2,0210*02 | 7.130 .01 | 7,658-71 | 1.1.173*+03 |
| $2.400 x+12$ | $7.6320+02$ | 2, $314 n+02$ | 7.0410001 | 7.7830=01 | 1.107=+03 |
| 2. $200 x+02$ | 7.75402 | $2.8080+02$ | $6.946=01$ | 7.9070001 | $1.1410+03$ |
| 2.000x+112 | 7.874m+02 | $2.9040+0{ }^{2}$ | 6,0600001 | 8.0300001 | 1.170**03 |
| $5.700=+02$ | $7.9940+02$ | 3.0000+02 | 6.775.01 | $8.1520-01$ | 1.2100*03 |
| $2.000 x+02$ | $8.1120+02$ | S.0980*02 | 6,0940001 | 8.2730001 | 1. $6^{450+03}$ |
| -.900x+02 | $8.2300+02$ | 3, 19.7 +02 | 6.6100001 | 8.393001 | $1.2800+03$ |


| UIAMETEK | velocity | RE | DRAG COFF | kelax time | .95 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.000 \pm+112$ | 8. $347.0+02$ | 3.2980*02 | 6.5410=01 | $8.5120=01$ | 1. 5150003 |
| $0.1000+112$ | $8.4630+02$ | 3,399**02 | 6.469=01 | 8,6300001 | $1.3510 \pm 0^{3}$ |
| $0.200 x+02$ | $8.57810+02$ | 3.502**02 | $0.594=01$ | 8,748.01 | 1.5860+03 |
| $0.500 x+112$ | 8.693 .02 | $3.6060+02$ | 6.533.01 | $8,864=01$ | $1.4220+03$ |
| 6.400w 0 02 | $8.8068+02$ | $3.7110+02$ | 6.2000001 | 8.9800001 | $1.4580+03$ |
| 6. $2000+02$ | $8.919+02$ | $3.817 \times 02$ | $6.200=01$ | 9,0950-01 | $1.4950+03$ |
| $0.600 x+112$ | 9.0310+02 | $3.9250 * 02$ | $6.1470=01$ | 9,209001 | $1.5310+03$ |
| $0.700 x+12^{2}$ | 9.142n+02 | 4.033 .02 | 0.089001 | $9,3230=01$ | $1.2680+03$ |
| $0.600 x+112$ | 9,252m*02 | 4.143.*02 | 6.034 mm | 9.4350001 | $1.0040+0^{3}$ |
| -.800- 012 | 9.362n+02 | 4, 253.*02 | $5.980=01$ | 9,547-01 | $1.041 * 03$ |
| 1.000~+ 12 | 9.470.02 | 4,3650*02 | 5.920 .01 | $9.658=01$ | $1.079 x+03$ |
| 1.1000+ 12 | 9.578.02 | 4,478x*02 | 5.870.001 | 9,7680=01 | 1.1160*03 |
| \%.200\% +12 | 9,686** 02 | 4,5920*02 | $5.8290=01$ | 9,8770001 | 1.1530*03 |
| \%.300x+022 | 9,792**02 | 4,707.02 | 5.7820=01 | 9,9860001 | 1.1910003 |
| 7.400x+122 | 9,898. 02 | 4,823.02 | 5,737.001 | 1.009 +00 | 1.0290*03 |
| $7.500 x+112$ | 1.0000*03 | 4,9400*02 | 5.093.01 | 1.0200+00 | $1.067=03$ |
| $7.600 x+1^{2}$ | $1.011=+03$ | 5.058-02 | 5.0500001 | 1.0.310+00 | 1.9050003 |
| $7.700 x+112$ | $1.0210+03$ | $5.177 .+02$ | 5.609001 | $1.0410 * 00$ | $1.443 x+03$ |
| $7.800 x+12$ | $1.0310+03$ | 5.297 .02 | 5.269.001 | 1.0520*00 | $1.4810 \pm 03$ |
| $7.900 x+02$ | 1.0420+03 | 5.419n+02 | 5.230001 | 1.0620*00 | 2.419-4 03 |
| $8 \cdot 000 \times 12$ | $1.0520+03$ | $5.541=02$ | 5,4930\%01 | 1.0730+00 | $2 \cdot 4580+03$ |
| $8.100 x+02$ | 1.0620*03 | 5,6640*02 | 5.450.001 | 1.0830+00 | $2 \cdot 4^{970+03}$ |
| $6.200 x+02$ | 1.0720+03 | 5,788**02 | 5.4200001 | $1.0930+00$ | 2.1350* $0^{3}$ |
| $8.300 x+112$ | $1.00^{82 m+03}$ | 5.913 .02 | 5,580-01 | $1.1030+00$ | 2.1740+03 |
| $8.400 x+02$ | 1.092000 | $6.039 \pm+02$ | 5.3520001 | $1.113 \infty+00$ | 2.213=*03 |
| $0.500 x+12$ | 1.1020+03 | 6.166n+02 | $5.3200=01$ | 1.12300+00 | 2. $2520+03$ |
| $0.6001+12$ | 1.1110*03 | $6.294 n+02$ | 5.280"01 | $1.1330+00$ | 2. $2^{9} 20 \pm \square^{-1}$ |
| $0.700 x+102$ | 1. $1210+03$ | 6,423n+02 | 5.2570001 | 1. $1430+00$ | 2. $3310+03$ |
| $0.8000+012$ | $1.1310+03$ | $6.552 n+02$ | 5.227*01 | $1.1530+00$ | 2. $3^{7} 0^{+0+03}$ |
| $0.900 x+12$ | 1.1400*03 | $6.6830+02$ | 5.1980001 | $1.1630+00$ | $2.410^{m+03}$ |
| 4.000 $0+02$ | 1.150x+03 | $6.8150+02$ | 5.1700001 | 1.173000 | 2.449.0.03 |
| Y. $100 x+0{ }^{2}$ | 1.159n+03 | $6.9470+02$ | 5.1420=01 | $1.1820+00$ | 2.489**03 |
| $9.200 x+42$ | 1.1690*03 | 7.080.0* 02 | 5.1150001 | 1.1920*00 | 2. 529 - 03 |
| $4.300 \times 02$ | 1. $1.780+03$ | 7.215m*02 | $5.40^{89}=01$ | 1.2010+00 | 2. $3690 * 05$ |
| $9.400 x+02$ | 1.187-03 | $7.3500+02$ | 5.063=01 | 1.211000 | 2.009 0 +03 |
| ¢. $500 \times 0$ (02 | 1.197*+03 | 7.486000 | 5.039-01 | 1.2200+00 | 2.049 - 0 - 3 |
| $9.600 \times+02$ | $1.2000+03$ | $7.623 n+02$ | 5.0140=01 | 1. 2300000 | 2.08910*03 |
| $4.700 \times+1.2$ | $1.2150+03$ | $7.761=02$ | 4.9910001 | $1.239 x+00$ | 2. $1290+03$ |
| $4.800 x+02$ | $1.224 n+03$ | 7.8990+02 | 4.967-01 | $1,248 \pm+00$ | 2. $1690+03$ |
| $9,900=02$ | $1.233 n+03$ | 8.039 0 + 02 | 4.9450001 | 1.2580000 | 2. 6090003 |
| 1.000x+05 | 1.242**03 | 8.179n+02 | 4.923.01 | 1.267**0 | $2.8500+03$ |
| 1.0100+03 | $1.2510+03$ | $8.3200+02$ | $4.901=01$ | 1.2760*00 | 2.0900003 |
| 1.020x+03 | 1.2600*03 | 8,462- 02 | $4.881=01$ | 1.2850+00 | $2 \cdot \pm 31 \pm+03$ |
| 1.030x+03 | 1.269n+03 | $8.605=02$ | 4.6600001 | 1.2940*00 |  |
| $1.040 \times+03$ | 1.278 ${ }^{10}+03$ | 8,748.02 | $4.640 \times 01$ | $1.3030+00$ | 3. $4120+03$ |
| 1.050x+03 | 1.286.05 | $8.893 m+02$ | 4.8210001 | 1.3120*00 | 3. $u^{5} 20+03$ |

Particle uensity \# d.o grams per cubic centimetth

UIAMETEK

velucity
2.421002 2.925.02 3.470." 02 4.070.022 4.722" 02

5,417." 02 $6.159=02$ 6.949. $=02$ 7.780. $=02$ $8.6710=02$ $9.60^{4}=02$ $1.058=01$ $1.161=01$ 1.269001 $1.381=01$ 1.498 .01 1.6200001 1.747. 01 1.878."01 2.014n=01 2.155="01 2.301.001 2.451 .01 2.606001 $2,760=01$ 2.931. $=01$ 3.100. $=01$ 3.2740001 3.453. 01
$3.637=01$
$3.826=01$
4.019 .01
$4.217=01$
4.420.001
$4.627=01$
4.839 .01
$5.056=01$
$5.278=01$
$5.505=01$
5.730 .01
$5.972=01$
6.213 .01
$6.458_{0}=01$
$6,708=01$
$6.963=01$
7.223.0.01
kt
$1.594 \times 05$
$2.118=05$
2,747=05
$3.489=05$
$4.353=05$
$5.350=05$
0.489. 0.05
7.779.* 05
9.229-05
$1.085 x=04$
1.265 .04
$1.464=04$
1.682=04
$1.922=04$
2.1830=04
$2.4660=04$
2.174."04
3.105:04
S.462.004
3.040 = 04

4, 257n=04
4.096.0.04
5. 1650=04
$5.063=04$
6. 193 $=04$
$6.155_{0}=04$
7. $349 \cdot 04$
$7.978=04$
$0.041=04$
9,340m=04
$1.000=05$
$1.0850=03$
$1.160=03$
1.251 .03
$1.5410=03$
1.434=03
1.232.003
1.633000
$1.740=03$
$1.851 \mathrm{~m}=03$
$1,966=03$
2.086 .03
2.2110-03
2.341 10.03
$2.476=03$
$2.616 .=03$
drag cgef relax time
.90 DIST

| $1.450 x+06$ |  | 1.1360006 |
| :---: | :---: | :---: |
| $1.10000+06$ | 2.9820005 | 2.,399.00 |
| $8.504 m+75$ | 3,545.0.05 | 3.293**06 |
| 6.709 .05 | 4,1560005 | 4.745w=06 |
| 5. $58.60+05$ | 4.816005 | 6.047-06 |
| 4,389**05 | 5,5240005 | 8.1530.06 |
| $3.0240+05$ | 6,2810005 | $1.132=05$ |
| $3.027 \%+05$ | 7.086.05 | $1.442 m=05$ |
| $2.554 n+75$ | $7.9400-05$ | 1.0120005 |
| 2.1750005 | $8.843=05$ | 2.448-05 |
| $1.0670+05$ | 9,7940005 | 2.1580005 |
| 1.0150005 | 1.079004 | 3.35'10005 |
| 1.400 .05 | 1,184.004 | 4.0350005 |
| 1.2310*05 | 1.294m=04 | 4.8180005 |
| $1.0850+05$ | 1.4080004 | 5.1090005 |
| 9.6050+04 | 1, 5280004 | 6.119=05 |
| $8.546 * 04$ | $1.6520 \cdot 04$ | 7.058 .05 |
| 7.030 .404 | 1.7810004 | 9.1350.05 |
| 6.051004 | 1.9150004 | $1 \cdot 456 \mathrm{~mm} 04$ |
| 6.1710004 | 2.054n-04 | 1. 2150004 |
| 5.577**04 | 2.1980\% 04 | 1.39100.04 |
| 5.057 .04 | 2.346-0.04 | 1.5850004 |
| $4.0000+04$ | 2.4990=04 | 1.1990004 |
| 4.190 .04 | $2,658=04$ | 2. 3 340-04 |
| $3.039+04$ | $2.821=04$ | 2. $2^{9} 20=04$ |
| 3,520=+04 | 2,989-04 | 2. 3730004 |
| $3.2360+04$ | 3.1620-04 | 2.079p-04 |
| 2.986m+04 | 3. 3390004 | 3. 2110004 |
| 2.754n+04 | 3.5220\% 04 | 3.9720-04 |
| $2.54000+14$ | 3. $709_{000} 0^{4}$ | 3. $462=04$ |
| 2,563.*04 | 3.9010004 | $4.3836=04$ |
| 2.195.*04 | 4.098. 04 | 4.0370004 |
| 2. $10420+04$ | 4.3000=04 | 5. 325.04 |
| $1.9040+04$ | 4.507 .004 | 5.849-04 |
| $1.7770+04$ | 4.7190004 | 6.4110-04 |
| 1.662n+04 | 4,935004 | 7.4120=04 |
| $1.556 p+04$ | $5.1560=04$ | 7.0550004 |
| $1.459 .0+04$ | 勺, 3820004 | 8.9410004 |
| $1.3700+04$ | 5,6130004 | 9.3724004 |
| 1.289 .04 | $5,849 \mathrm{~m}=04$ | 9.8500 .04 |
| $1.2130 * 04$ | $6.0900=04$ |  |
| 1.143 .04 | 6.3350004 | $1.155=03$ |
| $1.079 n+04$ | 6.5860004 | 1. 4 49-03 |
| 1.019 .04 | $6.0410=04$ | $1.347=03$ |
| 9.036 .003 | 7.1010004 | 1.451003 |
| 9.1250*03 | 7,366m=04 | 1.2620-03 |

## PARTICLE UENSITY 8.0 GRAMS PER CUBIC CENTIMETER

## UIAMATER

| $+00$ | 7 |
| :---: | :---: |
| b, $700=00$ | 7.757.01 |
| b. $800 x+100$ | 8,0310001 |
| b, $9000+100$ | $8.31010=01$ |
| - 000000 | $8,593=01$ |
| -.100\%+00 | $8.881=01$ |
| $0.200=00$ | 9.174.001 |
| 0.300x+00 | $9.4720=01$ |
| 0.400 $0+00$ | 9,775-01 |
| $6.500=+00$ | $1.00^{80 *} 00$ |
| $0,6000+00$ | $1.00^{39} 0+00$ |
| 6.700x+00 | 1.0710*00 |
| $6.800=+00$ | 1.1030+00 |
| - $9000+00$ | 1.136**0 |
| 7.000=+00 | 1.169.00 |
| 7.100: 00 | 1.2020+00 |
| $7.200 x+00$ | 1.236000 |
| $7,300=00$ | 1.2710000 |
| $7.4000+00$ | 1.3060*00 |
| $7.500 x+00$ | $1.341 .+00$ |
| $7.600-00$ | 1.377.00 |
| 7.7000+00 | $1.4140+00$ |
| $7.600 x+00$ | $1.451=00$ |
| 1.900: 000 | 1.486*00 |
| 6. $0000+00$ | $1.5200+00$ |
| 0.1.00x+00 | 1.564-00 |
| 6. $2000 \times 00$ | 1.603 .00 |
| $0.300 n+110$ | 1.642.00 |
| ¢. $4000 \times 00$ | $1.6820+00$ |
| $6.500 x+00$ | 1.722000 |
| $6.600=00$ | 1.762.*00 |
| $8.700 \times 00$ | $1.800^{4}+00$ |
| 万. $8000 x+00$ | $1.645 * 00$ |
| 6. $9000+00$ | 1.887m-00 |
| 4.000x+00 | $1.9300+00$ |
| Y. $100 x+00$ | $1.973 \% 00$ |
| $9.200 x+100$ | $2.0160+00$ |
| $4.300 \pm \pm 00$ | $2.060=00$ |
| $9.400+00$ | $2.10^{4}=00$ |
| $4.5000+00$ | 2.149x+00 |
| $9.600 x+00$ | $2.195 * 00$ |
| $4.700 x+00$ | $2.2400+00$ |
| צ. $\mathrm{HOLO}+00$ | $2.2870+00$ |
| $9.900 \times+00$ | $2.333+00$ |
| 1.000 0 - 01 | $2.380 .+00$ |
| 1.100x+01 | $2.878 \% 00$ |

RE
$2.7610=03$ $2.911=03$ 3.0670=03 3, 2280.03 3.395=03 3.567.003 3,745="03
$3,929=03$ 4. 119:=03 $4.3150=03$ $4.517=03$ $4,725=03$ $4,940-03$ 5. $160=003$
$5,388=03$ 5.6219"03 5.8620003 $6.109=03$
$6.363=03$ 6.624:"03 $6.893=03$ $7.450=03$ $7.740=03$ 8.037=03

## $8.342=03$

$8.654=03$
$8.974=05$
9.3010-03
$9.637=03$
9,980=703
$1.033=02$
1.059.002
i. 106=502
$1.144 n=02$ 1.182.002 1.2210002 1.261=02 $1.503=02$ $1.344=02$ $1.387=02$ $1.431=02$ 1.476002 1.521002 1.5670-02 2.085m=02

## drag ceef

8.0.450+03
8. $1990+03$
$7.7840+03$
$7,396+03$
$7.034 \%+03$
$6.695=+03$
$6.377 \% 03$
6. 079 - 03
$5.800=03$
$5.537+03$
$5.2900+0.3$
5, 058.003
$4.8390+03$
4,032:03
$4.437 n+03$
$4.253 .+03$
$4.0790+03$
$3,914=03$
$3.7580+03$
$3.6100+03$
3.470 中 +13
3.537
$3.537 n+03$
$3.2110+03$
3. $0910+03$
$2.9770+13$
$2.0690+03$
$2.1600+03$
$2.067=+03$
$2.5750+03$
2. $484+03$
$2.399+03$
$2.317=03$
2. $4400+03$
$2 \cdot 165 n+03$
2.194-0 03
2. $0200+03$
$1.9610+03$
$1.899=03$
$1.8390+03$
$1.78<-03$
$1.7270+03$
$1.675 m * 03$
$1.024 n+03$
1.570.003
$1.529 n+03$
$1.151 .0+03$

RELAX TIME
.9a D15T

| 6. $=04$ | 1.0780003 |
| :---: | :---: |
| 7.9100004 | 1.9010003 |
| 8.1900.04 | 1.4300=03 |
| $8,474=04$ | 2. $4^{6700003}$ |
| 8.7630004 | 2. 2100003 |
| 9.0570004 | 2.3610-03 |
| 9,356" 04 | 2.3190003 |
| 9.6590004 | 2.0850-03 |
| 9.968.04 | 2,0590=03 |
| 1.0280003 | 3. $u^{4} 1=00^{3}$ |
| 1.060= 03 | 3. $2320000^{3}$ |
| 0920*03 | $3.432=00^{3}$ |
| 1.1250003 | $3.0410=03$ |
| $158=03$ | $3.460^{00} 03$ |
| $1.192 x=03$ | $4.0^{88} 0 \cdot 03$ |
| 1.2260"03 | 4.5260003 |
| 1.2610.03 | 4.2740003 |
| 1.296.03 | 4.4330003 |
| . $332 \times 0{ }^{3}$ | $5.103=03$ |
| $1.3688=03$ | $5.383=00^{3}$ |
| $1.405=03$ | 5.0750003 |
| ,442=003 | 5.4790003 |
| 479\%"03 | 6.2950\% $0^{3}$ |
| $1.5170 \cdot 03$ | $6.023=0{ }^{3}$ |
| 1.556 .03 | $6.964000^{3}$ |
| 1,595=03 | 7.3180003 |
| $1.634=03$ | $7.085=03$ |
| 6740003 | 8. 4600003 |
| .7150=03 | 8.461003 |
| $1.7560 \cdot 03$ | 8.8700003 |
| 1.797003 | 9.294003 |
| $1.839 * 03$ | 9.1330003 |
| 1.682x $00^{3}$ | 1.4190002 |
| $1.924=03$ | $1.466 \times 02$ |
| 1.9680003 | $1.1140=02$ |
| 2.012003 | 1.1640902 |
| 2.056.03 | 1. $2160 \cdot 02$ |
| 2.101-03 | $1 \cdot<700002$ |
| 2. $14.00^{*} 3^{3}$ | 1.925=02 |
| 2.1920\%03 | 1.3830002 |
| $2.2380 \cdot 03$ | 1.4410002 |
| 2.2850\% 03 | 1.3020002 |
| 2.3320\% 03 | 1.5650 m 02 |
| 2, 379-03 | 1.0300002 |
| 2.428.03 | 1.096*02 |
| $2,9350 \cdot 03$ | $2.4810=$ |

## LIAMETTER <br> VELOCIYY

RE
DKaG coef kelax time
. y 8 UISP

| $1.200 x+11$ | 3.422**00 |
| :---: | :---: |
| $1.300 \times+01$ | 4.011000 |
| 1.400x+01 | $4.647 \% 00$ |
| $1.500 x+11$ | 5.327 .00 |
| $1.600 \%+101$ | 0.051 .000 |
| $1.700 x+01$ | $6.8190+00$ |
| $1.800 x+01$ | 7.630000 |
| $1.900 x+111$ | $8.4830+00$ |
| c. $0000+11$ | $9.3770+00$ |
| c. $1000+01$ | 1.0310+01 |
| 2.200x+01 | $1.129 \%+01$ |
| 2. $300 \times+01$ | $1.2300+01$ |
| <. $400 \times+01$ | $1.334 \pm+01$ |
| c. $500 \mathrm{x}+01$ | $1.4430+01$ |
| $2.600 \times+01$ | $1.555_{\infty}+01$ |
| $2.7000+91$ | 1.6700001 |
| <, $0000 \times 01$ | 1.7880001 |
| <.900x+01 | $1.9090+01$ |
| $3.000 x+11$ | $2.0330+01$ |
| 3.100x+01 | 2.1590+01 |
| $5.200 x+1$ | $2.2880+01$ |
| S. $500 x+11$ | 2.420 .001 |
| 3,400w+11 | $2.5520+01$ |
| $3.500 \times+11$ | 2.686* 01 |
| 3,600x+il | 2.0200*01 |
| $3.700 \times+1$ | 2.965.01 |
| $3.800 x+01$ | 3.1070*01 |
| $3.900 x+01$ | 3.250x+01 |
| $4,000=+01$ | 3.394.0+01 |
| 4.100x+11 | $3.5400+01$ |
| $4.200 x+i 1$ | $3.6870+01$ |
| 4,300n+ 41 | $3.636 \pm+01$ |
| $4.400 x+61$ | 3.980**01 |
| $4 ; 500 x+01$ | 4.1370+01 |
| $4.600 x+11$ | $4.29010+01$ |
| $4.700 \pm+1$ | 4.445 .01 |
| $4.6000+01$ | 4.6010001 |
| $4.900 x+81$ | $4,7580+01$ |
| 勺.000- 0 - 1 | $4,9180+01$ |
| 2.1000+01 | b.079 0 + 01 |
| -.200x+ 11 | $5.243_{0+01}$ |
| 5.300x+01 | $5.40^{4} * 01$ |
| 2.400n+61 | 5.577 .01 |
| -, ל000*01 | 5,7480+01 |
| $5.000 \times 01$ | 5,52110+01 |
| 2.7000+01 | 0.097n+0! |

2.704m"02
$3,434=0$ 4.283-02 $5,261=02$ 6,375=-02 $7.633=02$ 9;044:02 1.0610=01 $1,235=01$ $1.426=01$
$1.635=01$
1.8620=01
2. 109:001
$2.3750=01$
$2.6610=01$
2.968=01
3.296-01
$3.6450=01$
4.016=01
$4.4080-01$
4.822-01
5.258.001
$5.714=01$
0. 1950-01
0.699me 01
7.225-01
7.1740-01
$0.345=01$
$0,939=01$
9.5570=01
1.0200*00
1.086=*00
$1.155 x+00$
$1.2260 * 00$
$1.3000+00$
$1.576=00$
$1.454 * 00$

1. $235 x+00$
$1.6190+00$
$1.7060 * 00$
$1.7950+00$
$1.8980+00$
$1.983=00$
$2.0^{3} 20+00$
c, 183.000

8.085002
7.004n*02
$5.6220+02$
$4.584-02$
3.189.0+12
$3.1700+02$
2.081 .022
$2.2900+02$
$1.9730+02$
$1.7150+02$
$1.498 m * 02$
$1.3190 * 02$
$1.169 m+02$
$1.0420 * 02$
9.333**01
$8.403=01$
$7.001=01$
$6.9050+01$
6.299.*01
$5.7680+01$
$5.5010+01$
$4.089 .+01$
2. 230 - 01
4.204.0.01
3. $9130 * 01$
$3.652=+01$
$3.410 .0+01$
$3.2060+01$
$3.0140+01$
$2.0400+01$
$2.0820+01$
$2.537 * 01$
2.404n+01
4. $2820+01$
5. $169+01$
2.065. 0.01
$1.966=01$
$1.878 x+01$
$1.194=01$
$1.1100+01$
$1.6420+01$
1.5730*01
6. $2070+01$
$1.445 * 01$
1.380 .011
$1,3310+01$

| 3,4890003 | 3.2110002 |
| :---: | :---: |
| $4.0910=03$ | 4.033*02 |
| 4,738.03 | 6.4950.02 |
| 5,4320003 | 8.254= 02 |
| $6.1710=03$ | 1.107000 |
| $6.9540 \cdot 03$ | $1.409 \%=01$ |
| 7.781-03 | 1.1700001 |
| 8,6510*03 | 2. $197=0$ |
| 9,5630 $=03$ | 2.0960-01 |
| 1.0520\% 02 | $3.2750=01$ |
| 1.1510002 | 3.9430001 |
| 1.254n*02 | 4.108-01 |
| 1.3610002 | 5.579*-01 |
| 1.4710*02 | 6.566m01 |
| $1.5850 \cdot 02$ | 7.079=001 |
| 1.703心-02 | 8. 7060 |
| 1.8230002 | 1-121**00 |
| 1.9470002 | 1.160*00 |
| 2.0730-02 | 1. $5090+00$ |
| 2.2020*02 | $1.468=00$ |
| 2,334=002 | $1.0380+00$ |
| 2,4680*02 | 1.0190*00 |
| 2,603002 | 2. $1100+00$ |
| 2.741002 | 2. $2130+00$ |
| 2.882002 | 2. $4280+00$ |
| 3.024-02 | 2.0530+00 |
| 3. 168000 | 2.0910+00 |
| $3.3140=02$ | 3. $141=+00$ |
| 3.4610=02 | $3.4020+00$ |
| 3.6100002 | $3.0750+00$ |
| $3.7000=02$ | $3.461=00$ |
| 3,9120-02 | 4.259x+00 |
| 4.4650.02 | $4.370-00$ |
| 4.219-02 | $4.0930+00$ |
| 4,3750=02 | 5. $228=00$ |
| 4. $2330-02$ | $5.276 \pm+00$ |
| 4.0920"02 | $5.9370+00$ |
| 4.8520-02 | 6.9110+00 |
| 5.0150002 | 6.0980000 |
| 5.180002 | 7, $\mathrm{U}^{9} 7 \mathrm{mo}+0$ |
| 5.347 \% 0'2 $^{\circ}$ | 7. $1100+00$ |
| 5.216000 | $7.4350+00$ |
| $5.687 m=02$ | $8.374 * * 0$ |
| 5.0610002 | $8.625 \%+00$ |
| 6.038 .02 | $9.490^{ \pm+00}$ |
| 6,210.02 | $9.16810+00$ |

HAKTICLE DENSITY $=8.0$ GRAMS PER CUBIC CENTIMETER

## UIAMETEK

VELOCITY
RE

| $2.8000+01$ | $6.2760+01$ | 2,3970+00 |
| :---: | :---: | :---: |
| $2.900 x+01$ | 6,4580+01 | 2.5090*00 |
| $6.000=+01$ | 6.0420+01 | 2,6240+00 |
| - $100 x+101$ | $0.829 x+01$ | $2,7430+00$ |
| $6.200 \%+01$ | 7.017-01 | $2.8650+00$ |
| $6.500 x+111$ | 7.2070+01 | 2,990**0 |
| $0.4000+61$ | $7.59810+01$ | 3.1180*00 |
| $0.500 \times+01$ | 7.5870+01 | 3.247**00 |
| $0.600=01$ | $7.7750+01$ | 3.3790+00 |
| $0.700 x+61$ | $7.9600+01$ | 3,512m+00 |
| 0.800x* 01 | 8. $1380+01$ | 3.644n+00 |
|  | $8.3080+01$ | $3.7750+00$ |
| 7.000~+01 | $8.460 .0+01$ | 3.902**00 |
| 7.100x+ 11 | $8.5830+01$ | 4.013. 00 |
| 7.2000+01 | $8.7530+01$ | 4.150000 |
| $7.300=+11$ | $8.924=01$ | $4.2900+00$ |
| $7.400 x+01$ | 9.095 .01 | 4.432-*00 |
| \%. $000 \times 01$ | $9.2670+01$ | 4,576\%*00 |
| \%.600.+01 | 9.439 .01 | $4.7230+00$ |
| 7.700\% + 01 | $9.6110+01$ | 4.873**00 |
| ソ.800-01 | $9.7840+01$ | 5.0250*00 |
| $7.900 x+01$ | $9.9570+01$ | $5.1800+00$ |
| -.000x+01 | $1.01510+02$ | 5, 3360 - 00 |
| c. $100 \times+01$ | 1.0300+02 | ל.4960+00 |
| $0.200 x+01$ | $1.0480+02$ | 5.658**00 |
| $0.300 x+01$ | 1.065:02 | 5.8220+00 |
| $8.400 x+01$ | 1.083500 02 | 5,989 ${ }^{\text {c }}$ - 00 |
| $\square \cdot 500 x+01$ | 1.1000+02 | 6.158= 00 |
| $0.000 x+01$ | $1.1100+02$ | $6.3300+00$ |
| $8.700 \times 01$ | 1.135\% 02 | $0.5040+00$ |
| 6.000.0-11 | 1.153m+02 | $0.6800+00$ |
| $0.900 x+41$ | 1.1700+02 | -.859\%*0 |
| 4.000x+01 | 1.18800 02 | 7.041~*00 |
| $4 \cdot 100 x+01$ | $1.2060+02$ | 7.225=00 |
| 4,200x+01 | 1.223**02 | 7.4110*00 |
| 9. $5000 \times 01$ | $1.241 \pm+02$ | $7,60.00+00$ |
| $4.400 x+111$ | $1.259 \%+02$ | 7.791-00 |
| $9.500 x+01$ | 1.2760+02 | $7.985=00$ |
| $9.600 x+01$ | 1.2940+02 | 8,181:-00 |
| $4.7000+01$ | $1.3120+02$ | 8.379 .00 |
| $4.000 x+11$ | $1.3300+02$ | $8.5800+00$ |
| $4.900 x+1$ | $1.5470+02$ | 8,784000 |
| 1.000x+02 | 1.365: 2.02 | $8.990=00$ |
| $1.100 x+0{ }^{2}$ | 1.544.0* 02 | 1.1180001 |
| $1.2000+12$ | 1.723 .02 | 1,362=*01 |
| $1.3000+62$ | 1.99030+02 | 1.02,90001 |

DRAG COEF HELAX TIME
.9y DIST
$1.2700+01$
1.220 + 01
$1.1800+01$

1. $1350+01$
$1.0950+01$
$1.0530+01$
$1.3150+01$
$9.001=00$
$9.470=00$
2. $1800+00$
$8 . \dot{4} 130+00$
8.078 .00
$8.4780+00$
$8.3670+00$
*. 157.00
$7.95 \%+00$
7.165.*00
$7.5810 * 00$
$7.405 .0+00$
$7.230=+00$
7.073x*00
$6.917+00$
$6.1670+00$
$6.0220+00$
$6.483 x+00$
$6.3490+00$
3. $2200 * 00$
6.095. 00
$5.5750+00$
$5.059+00$
$5.7400+00$
$5.039+00$
$5.3350 * 00$
$5,43.4=00$
5.330 .000
$5 .<42 \div+00$
$5.150+00$
5.061 .40
$4.975 \% 00$
4.0.92.+00
$4.011=00$
$4.7330 * 00$
$4.0 .57-00$
4. $0.06 x+00$
$3.500=+00$
3.117×*00
$6.4000=02$
$6.586=02$
$6.774 \omega 02$
$6.9640-02$
7.156002
7.550002
$7,544=02$
$7.7370=02$
$7.929-02$
8.117:02
$8.299-02$
8.4720002
$8.633=02$
8.7520.02
8.92600 02
$9.1000=02$
$9.2750=02$
$\begin{array}{ll}9.4500=02 & 2.4640+01 \\ 9.6250=02 & 2.1370+01\end{array}$
$\begin{array}{ll}9.6250=02 & 2.1370 * 01 \\ 9.8010=02 & 2.2110 * 01\end{array}$
$9.977 n-02 \quad 2.287 m+01$
$\begin{array}{ll}9.977=02 & 2.287 * * 01 \\ 1.0150=01 & 2.3640 * 01\end{array}$
1.0330-01 2.4420*01
$1.051=01 \quad 2.0210+01$
$1.009=01 \quad 2.0020+01$
$\begin{array}{ll}1.086 * 01 & 2.0850+01 \\ 1.1040=01 & 2.1680+01\end{array}$
$1.1220=01 \quad 2.0530+01$
$1.1400=01 \quad 2.4390+01$
1.158001 3. $260+01$
$1.1700=013.1150+01$
$\begin{array}{ll}1.194 \infty=01 & 3 .<05 *+01 \\ 1.2120-01 & 3.2960 * 01\end{array}$
$1.230001 \quad 3.9890+01$
$1.2480=01 \quad 3.483 x+01$
$1.2600 * 01 \quad 3.378 * 01$
1.2840-01 3.0750+01
$1.3020=01 \quad 3.1720+01$
$1.37000013 .0710+01$
$1.530001 \quad 3.47200+01$
$1.3500-01 \quad 4.0730+01$
$1.3740=01 \quad 4.1760+01$
$1.39<\infty=01 \quad 4 \cdot<80^{\infty}+01$
$1.574 \times 01 \quad 5.3900+01$
$1.757-01 \quad 0.021 m+01$
$1.94000017 .9720+01$
1.4260*01
5. $y^{76 * *} 01$
1.128=*01
$1 \cdot 1^{810+01}$
$1.236=+01$
$1.2910+01$
$1.9480+01$
$1.4070+01$
$1.4660+01$
6. $227 * 01$
$1.290^{0+01}$
$1.054=+01$
$1.1190+01$
$1.1850+01$
$1.0530+01$
7. $4220+01$
$1.492 n+01$
8. $1260+01$
$3.115=01$
$3.389 w+01$
$3.4830+01$
$3.1720+01$
$3.8710+01$

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PARTICLE DENSITY $=8.0$ GRAMS PER CUBIC CENTIMETER

UIAMETER
$1.400=+02$
$1.500=+02$
$1.600=+02$
$1.700 x+02$
$1.800 x+02$
$1.900=+02$
$<.000=+12$
2. $100 \times+02$
$2.200 x+02$
$<.300 x+02$
$2.400 x+02$
$2.500 x+02$
$2.000 n+02$
$2.700 x+02$
$2.8000+02$
$2,900=+02$
$3.000=+02$
3. 100x*02
$3.200=+02$
$5.300=+02$
$3.400=+12^{2}$
s. $500 \mathrm{x}+02$
s. $600 x+02$
0.700= 012
$3.000 x+12$
S. $400 \mathrm{~L}+112$
4. 000x+02
4. $100=+0^{2}$
4. $200 \times+02$
$4.300=+02$
$4.400=+02$
$4.500=+0.2$
$4.000=+12$
$4.700=+02$
$4.000 x+02$
$4.900 x+02$
と. $000 \mathrm{j}+\mathrm{j} 2$
$\therefore$ - $100=02$
$2.200=+02$
$\because \cdot 500 x+02$
$2.4110+02$
$\because .500 x+02$
$2.000 x+02$
2. $700 x+02$
5. $600=02$
$3.400 x+122$

VELOCITY
$2.082 \pm+02$ $2,2610+02$ $2.4400+02$ $2.6170+02$ $2.794 m+02$ $2.970 \%+02$ $3.1440+02$ $3.318 .+02$
$3.490=02$ $3.6600+0.2$ $3.8300+02$ $3.997 .+02$ 4.164 .02 $4.329=02$ $4.493 \mathrm{~m}+02$ 4.6550 * 02 $4.8100+02$ $4.976 x+02$
$5.1340+02$
$5.291=02$
$5.446 .+02$
$5,600 .+02$
$5.7530+02$
$5.90^{4} x+02$
$6.0540+02$
$0.2030+02$
$0.351=02$
$6.4970+02$
6.642 .02
$0.785=02$
6.928 .02
7.069.0 0 02
$7.20^{9} x+02$
$7.348 x+02$
7.486 .02
$7.6230+02$
7.759 .02
$7.093+02$
8.020.022
8.159 .02
$8.2900+02$
$8.420=02$
$8.5490+02$
$8.678=02$
$8.80^{5}=02$
$0.9310+02$

RE

| 9x*01 | $2.8030+00$ |
| :---: | :---: |
| 2,233.*01 | $2.546=00$ |
| 2,570-*01 | $2.3330 * 00$ |
| $2,9300+01$ | $2.1540+00$ |
| 3,312=01 | $2.0010+00$ |
| 3.715**01 | $1.8700+00$ |
| 4.1410*01 | 1,750m+00 |
| 4,587**01 | 1. $1.050 \mathrm{~m}+00$ |
| 5, 055m*01 | 1.568 .000 |
| $5,5430 * 01$ | $1.4900+00$ |
| $6.0520 * 01$ | 1.4210*00 |
| $6.581=01$ | $1.358=0$ |
| 7.129p+01 | 1.302\%*00 |
| 7,697-01 | $1.2510+00$ |
| $8.284 .+01$ | 1.2040000 |
| $8.8900+01$ | 1. $162 \times 00$ |
| 9.514**01 | 1.1230+00 |
| $1.0160+02$ | 1.087*00 |
| 1.082.*02 | 1.054.000 |
| 1.1500*02 | 1.023-00 |
| $1.219 x+02$ | 9.951.01 |
| 1.291.*02 | 9.088.0.01 |
| $1.364 * * 2$ | 9.4420*01 |
| 1.438=* 02 | 9.2130001 |
| $1.515 m+02$ | 8.994*01 |
| $1.593 .+02$ | 8.798 .01 |
| $1.673+02$ | 8.010001 |
| $1.7540+02$ | 8.432-01 |
| $1.837+02$ | 8.265.0.01 |
| 1.9210*02 | 8.107001 |
| 2.007**2 | 7.958001 |
| 2.0950*02 | $7.8100=01$ |
| 2.1840+02 | 7,08く0.01 |
| 2.2740*02 | 7.5550=01 |
| 2.3660*02 | 7.435.01 |
| $2.4600 * 02$ | 7. 3200001 |
| 2,554n*02 | 7.2100001 |
| $2.6510 * 02$ | 7.100.001 |
| 2,1480*02 | 7.007001 |
| 2,847**02 | 6.412m=01 |
| 2.948-02 | 6.021000 |
| 3.0490+02 | 6,734~01 |
| S. 153-02 | $0.651=01$ |
| 5,257n+02 | 6.571001 |
| $3.5630 * 02$ | 6.4940m01 |
| 5.4700*02 |  |


| 2.1230001 | $9.437 \mathrm{~m}+01$ |
| :---: | :---: |
| 2.306 .01 | $1.101=02$ |
| 2,4880001 | 1. $2690+02$ |
| 2.0690001 | $1.448 m+02$ |
| 2.849.001 | $1.0360+02$ |
| 3.0280001 | $1.834=+02$ |
| $3,2060=01$ | 2.142-02 |
| 3,383-01 | 2. $2580+02$ |
| 3,556.01 | $2.4820+02$ |
| 3,733n=01 | 2.1150+02 |
| 3.9050001 | $2.956 m+02$ |
| 4.076-01 | 3. $2050+02$ |
| 4.2460001 | 3.4610002 |
| 4,4150001 | 3,124=02 |
| 4,582=01 | $3,994 \%+02$ |
| 4.7470001 | $4.2700+02$ |
| 4.911**01 | 4. $253=+02$ |
| 5.0740.01 | 4.0430+02 |
| 5.235.01 | 5. $138 \ldots+02$ |
| 5.395:01 | $5.4390+02$ |
| 5,5540*01 | 5.145=+02 |
| $5.7110=01$ | 0.057 * 02 |
| 5.867-01 | 6.574 io +02 |
| 6.021. $=01$ | $6.0960+02$ |
| 6.1740-01 | 7.4230+02 |
| $6,3260=01$ | $7.3550+02$ |
| 6.4700001 | 7.0910*02 |
| $6.6250=01$ | 8. $1^{3} 10 * 02$ |
| 6.7730*01 | 8. $3760 \times 02$ |
| 6.920.001 | $8.1250+02$ |
| 7.0650001 | 9. $\mathrm{y}^{\text {7 }}$ - $0+02$ |
| 7.209=01 | $9.4350+02$ |
| 7.3520*01 | 9.1950*02 |
| 7.494-01 | 1.4100+03 |
| 7.6340001 | 1.453**03 |
| 7.7740=01 | 1. $1^{9} 0^{50+} 0^{3}$ |
| 7.9120001 | 1.127n+03 |
| 8.049 .01 | 1.1650+03 |
| 8.185001 | 1. $203=+03$ |
| $8.320=01$ | 1. 2410003 |
| 8,454*-01 | $1.2800+03$ |
| $8.587 \% 01$ | 1.3190+03 |
| 8,718=01 | $1.5580+03$ |
| 8,8490-01 | 1.5980003 |
| 8.979 .01 | $1.4370+03$ |
| $9.1080=01$ | 1.47700 .03 |

PARTICLE DENSITY $=\quad 0.0$ GRAMS PER CUBIC CENIIMETER

| HIAMETEK | VELOCITY | RE | DRAG COEF | helax time | , 90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.000x+42 | 9.050 .02 | S. $5780+02$ | 6.5500001 | 9.2350=01 | 1.2180*03 |
| b. $100 \times+02$ | 9.181**02 | 3,688-02 | 6.2820=01 | 9,3620.01 | 1. $558 \mathrm{m*} 0^{3}$ |
| $0.200 x+02$ | $9.300^{40} 02$ | 3,798:02 | $0.217=01$ | 9,488.01 | 1.5990*03 |
| $0.300=02$ | $9.4200+02$ | 3.9100*02 | 6.155001 | 9.6130001 | 1.040 ** 0 |
| 6. $400 x+02$ | $9.5480+02$ | 4.024=*02 | 6, 0940=01 | 9,737.01 | $1.0810=03$ |
| $0,500 x+02$ | 9,669 0 +02 | 4.138n* 02 | 6,0300001 | 9.860001 | $1.122=03$ |
| $0.600=02$ | 9.78802 | 4.254 .02 | 5.980=01 | 9.982 .01 | 1.1640.03 |
| $0.700 x+02$ | $9.9070+02$ | $4.3710{ }^{\circ} 02$ | 5.925001 | $1.0100+00$ | $1.0050+03$ |
| $6.800=02$ | 1.003** $0^{3}$ | $4,489 \times 02$ | 5,8730=01 | 1.0220*00 | $1.047 m+03$ |
| $\bigcirc{ }^{9} 000 \times 02$ | 1.0140+03 | $4.608=02$ | 5.023=01 | 1.034**00 | $1.6890 * 03$ |
| \%.000x+02 | 1.026 $0 \cdot 03$ | 4.728**02 | 5.774m=01 | 1.0460*00 | 1.431003 |
| 7. $1000+0{ }^{2}$ | $1.037=03$ | $4.8500+02$ | 5,727.01 | 1.058*00 | $1.474=+03$ |
| 7.200- +112 | $1.049 \%+03$ | 4.973.*02 | 5.0810"01 | $1.0700+00$ | 2. $1160 * 03$ |
| 7. $5000+02$ | 1.0600+03 | 5.096.02 | 5.037=01 | $1.0810+00$ | 2.4590*03 |
| 1.400x+02 | $1.0720+03$ | $5.2210+02$ | 5.594-01 | $1.0930+00$ | 2. $1020 * 03$ |
| $\cdots$ \% $2000 x+02$ | 1.083 $0+03$ | $5.347=02$ | $5.5530=01$ | $1.1040+00$ | 2.1450*03 |
| $7.000 \times 1{ }^{2}$ | $1.0940+0^{3}$ | 勺,474**02 | $5.513=01$ | $1.116 * 00$ | 2.1880+03 |
| $7.700 x+2^{2}$ | 1.1050+03 | $5.603 n+02$ | 5.4740001 | 1-127**0 | $2.232-03$ |
| \%, $000 \times+02$ | $1.1100+03$ | $5.7320+02$ | $5.430=01$ | 1.138*00 | $2.2750 * 03$ |
| $7.900 x+02$ | 1.127m+03 | 5,8620*02 | 5,400-01 | $1.1490+00$ | $2.3190+03$ |
| $0.000 x+12$ | 1.138 1403 | 5.994**02 | 5. $564 \times 01$ | 1.1600*00 | 2.9620+03 |
| b. $1000+02$ | 1.149**03 | 0,126**02 | 5.3300001 | $1.1710+00$ | $2.4060+03$ |
| $6.200=02$ | 1.159*03 | $0.2590+02$ | 5.797-01 | 1.1820*00 | 2.4500*03 |
| $8.300 \%+12$ | 1.1700+03 | 0.394x+02 | 5.264w=01 | 1.193**0 | $2.4940+03$ |
| $8.400 x+12$ | 1.180*+03 | 0.529** 02 | 5.233=01 | $1.2040+00$ | 2, $2390+03$ |
| $8.200 x+11 \%$ | $1.1910+03$ | 6.666 * 02 | 5.2020-01 | $1.214 x+00$ | 2.2830*03 |
| $0.600=+6$ | $1.6010+03$ | $0.8030 * 02$ | 5.172=01 | 1.2250*00 | 2.0270+03 |
| $8.7000+0$ | $1.2120+03$ | $0.942=+02$ | 5.1430=01 | 1.2360*00 | 2.0720+03 |
| $0.600 x+0{ }^{\circ}$ | $1.2220+05$ | 7.0810*02 | 5.1150001 | 1.240**00 | $2.1160+03$ |
| 6. $400 x+02$ | $1.2320+03$ | 7.2220*02 | 5.0800001 | 1.2ち70*00 | 2.1610003 |
| 9.000x+02 | 1.242n+03 | 7.3630*02 | 5.0610001 | 1,2670+00 | 2.00600+03 |
| $9.100 x+02$ | 1.253 .03 | 7.5050*02 | 5.035001 | 1,277*00 | 2.351m+03 |
| $4.200 x+112$ | 1. $2630+03$ | $7.649 \ldots+02$ | 5.0100001 | 1,288*00 | 2. $0960+03$ |
| $4.300 x+12$ | $1.273 n+03$ | 7.793.*22 | 4.985-01 | 1,298+00 | 2. $y^{41}+0 \cdot 0$ |
| $4,400 x+02$ | 1.2820 03 | 7.938w +02 | $4.9610=01$ | $1.3080+00$ | 2. $4860+03$ |
| $4.500 x+102$ | 1.29200 03 | 8,084**02 | 4.9380=01 | 1.3180+00 | 3.4310+03 |
| $9.000 x+112$ | 1. $5020+03$ | 8,231=02 | 4.915 .01 | 1.5280+00 | 3. $0^{770+03}$ |
| $4.700 x+12^{2}$ | 1.5120*03 | $8.379 n+02$ | 4,093-01 | 1.3380*00 | 3. $1220+03$ |
| $9.000 x+02$ | 1. $5220+03$ | $8.5280+02$ | $4.0710=01$ | $1.348 \pm+00$ | 3. $1680+0$. |
| $4.900 \pm+02$ | $1.33110+0.3$ | 8,677m.02 | 4.050.001 | 1,357* 00 | 3.813m+03 |
| 1.000x*03 | $1,3410+03$ | $8,828=+02$ | 4.829=01 | $1.3670+00$ | 3. $2^{59} 0+0$. |
| 1.010. 0 +is | $1.3500+03$ | $8.980 \sim+02$ | 4. $\times 090=01$ | $1.3770+00$ | 3. $50410+03$ |
| $1.020 x+0{ }^{3}$ | 1.360**03 | 9.1320*02 | 4.790001 | $1.3870+00$ | 3. $550+03$ |
| 1.0.30\% + 0 | 1.369\%*03 | 9.285x+02 | 4.7700001 | 1.396x+00 | 3.596* 03 |
| $1.040 x+03$ | 1.378 .03 | 9.439.*02 | 4.75\%0001 | 1.406x+00 | 3.4420*03 |
| $1.050 x+10^{3}$ | 1. $5888+03$ | 9,594**02 | 4.733=01 | $1.4150+00$ | 3.487w+03 |

PARTICLE UENSITY $=9.0$ GRAMS PER CUBIC CENTIMEIER

| UIAMETEK | velucity | RE | drag ceef | relax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.000**00 | 2.723002 | 1.793.05 | 1.296-*06 | 2.7770.05 | 2.2230006 |
| $1.100 \times 00$ | 3,2900022 | 2,383.0.05 | 9.778**05 | 3,355.0.05 | $3.451 \times 06$ |
| $1.200 x+00$ | 3.911.002 | 3.090005 | 7,559**5 | 3,988.-05 | 4.0010006 |
| $1.3000+00$ | 4.585=02 | 3,925-705 | 5.964**05 | 4,676005 | 6.332=-06 |
| $1.400 x+00$ | 5.3130002 | 4.898.05 | 4.788**05 | 5.418 .05 | 8.3100006 |
| $1.500 x+00$ | 6.094-02 | 6.019005 | $3.9020+05$ | $0.215=05$ | 1.1210.05 |
| $1.600 \%+00$ | 6.929=02 | 7.300-05 | 3.2210*05 | 7.066.05 | 1.4500005 |
| $1.700 x+00$ | 7.810 .02 | 8.151 .05 | 2.691**05 | $7.972=05$ | 1.047=0.05 |
| $1.800 \times+100$ | 8.7600-02 | 1.038.04 | 2.2700*05 | 8.933 .05 | 2.320-05 |
| 1,900"+00 | 9.755m=02 | 1.220-004 | 1.933 \#* 05 | 9,948.0.05 | 2.078=05 |
| 2,000x+00 | 1.0800001 | 1.423.0.04 | 1.659** 05 | $1.1020=04$ | 3.3320005 |
| 2.100x+00 | 1.191.001 | 1.647 .04 | 1.4350*05 | $1.214 n=04$ | 4. 910 $^{\text {100 }} 05$ |
| 2.200~*00 | 1.3000001 | 1.6920"04 | $1.2500+05$ | $1.3320 \cdot 04$ | 5.1660.05 |
| 2.300x+110 | 1.427.01 | 2.1620.04 | $1.095 \%+05$ | $1.456=04$ | 6.1680005 |
| 2, $400 \mathrm{x}+00$ | $1.5540=01$ | 2.455004 | 9,643.*04 | 1.5840004 | 7.510005 |
| 2.500~+00 | 1.685.0101 | 2.1750004 | 8.538.*04 | $1.719=04$ | 8.003005 |
| $2.000 x+00$ | 1.823.001 | $3.120000^{4}$ | $7.5900 * 04$ | 1.859.004 | 1.406=04 |
| 2.700x+00 | 1.965. $=01$ | 3.493n=04 | $6.7880+04$ | 2,004m=04 | 1.1700004 |
| $2.800 \times+00$ | 2.113.001 | 3,895-04 | $6.0900+04$ | 2.154.004 | 1.9520 .04 |
| <, 9000+40 | 2.200.001 | 4.327=04 | 5,4850* 04 | $2.311=00^{4}$ | 1.5550004 |
| S. $0000 \times 00$ | 2.424m01 | 4,789."04 | 4.957.04 | 2,4720*04 | $1 \cdot 181=04$ |
| $3.100 x+00$ | 2.588.001 | 5.283 .004 | 4.495 .04 | 2,639n" $0^{4}$ | $2 \cdot u^{3} 0^{-0} 04$ |
| $3.200 x+00$ | 2.757.001 | 5.8100004 | 4.089.0.04 | $2.8120=04$ | 2. $504=04$ |
| $3.300 x+00$ | 2.932=01 | 6,371=04 | $3.7300+04$ | 2,9900-04 | 2.005004 |
| $3.400 x+00$ | 3.1120 $=01$ | 6,9670=04 | 3, 4/200+04 | 3.1730004 | 2.934m=04 |
| $3.500 x+00$ | 3.297=01 | 7,5990\% 04 | 3.1290004 | 3, $3620=04$ | 3. $4^{94 m 0004}$ |
| $3.000 \times+00$ | 5.488.01 | 8,268.004 | 2.8770+ 04 | 3.557m"04 | 3.086m0 04 |
| s. $7000 \times 00$ | 3.684.001 | 8.975 .04 | 2.0510*04 | 3.757m 04 | 4.1120004 |
| $3.800 x+00$ | 3.885\% $=01$ | 9.721 .004 | 2.440.404 | 3,9620=04 | 4.5730004 |
| 9.900x+00 | 4, 0920001 | 1.051 .003 | 2. $2650+04$ | 4, 173n=04 | 5. $\mathrm{y}^{7300} 04$ |
| $4.000 x+00$ | 4.304 .001 | 1.1340=03 | 2.1000* 04 | 4,3890004 | $5.012=04$ |
| $4.100 x+100$ | 4,5 ? 1.001 | 1.221.003 | 1.951 .404 | 4,6100004 | 6.1930 .04 |
| $4.200 \sim+100$ | 4.744001 | 1.3120-03 | $1.8150+04$ | $4,838=04$ | 6.0180004 |
| $4,300 x+00$ | 4.972.01 | 1.4080003 | $1.0920 * 04$ | 5.070004 | 7.489=04 |
| $4.400 \times+00$ | 5, <05:01 | $1.508=03$ | $1.580 \times 04$ | 5.308 .04 | 8. $2080=04$ |
| $4.500 x+00$ | $5.4440=01$ | 1.613.03 | 1.4770004 | 5. 5520004 | $8.978=04$ |
| $4.000 x+00$ | $5.688=01$ | 1,723=03 | 1.583 .004 | 5,0010004 | 9.0010-04 |
| $4.700 \sim+00$ | $5.938=01$ | 1.838=03 | 1.297.04 | 6.0550-04 | 1. 568003 |
| $4.800 x+00$ | $6.1930=01$ | 1,957-03 | 1.2100*04 | 0,315004 | $1.162=03$ |
| $4.900 x+00$ | 6,453.001 | 2, $0^{82}$ - 003 | 1.1450*04 | 0.580004 | 1. 261003 |
| b.000-*00 | $0.718=01$ | 2,212=003 | 1.078 .04 | $6.851 .00^{4}$ | 1.567 -03 |
| b.100**00 | 6.989 0.01 | 2,347:03 | 1.0100004 | 7.127.04 | 1.479003 |
| $5.200 \times+00$ | 7.265 .01 | 2,488:03 | 9,2900*03 | 7,409 - 04 | 1.5990003 |
| b. $300 \times+00$ | 7.547.01 | 2,634** 03 | $9.0600+03$ | 7,696m"04 | 1.1250003 |
| 2.400-+00 | 7.634.001 | 2,785=03 | 8.560 .03 | 7,988=04 | 1.858 .03 |
| b, $5000+00$ | 8.1200001 | 2,9430.03 | $8.1100 * 03$ | $8.2860=04$ | 2. 4000003 |

## PARTICLE DENSITY = $\quad 9.0$ GRAMS PER CUBIC CENIIMETER

| UlAMETFK | velucity | RE | DRAG COEF | helax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.600 x+00$ | 8.4230=01 | S. $1060 \cdot 03$ | 7.685** 03 | 8.590-04 | 2.1490003 |
| $5.700 x+00$ | $8.736=01$ | 3,275.03 | $7.289 \times 03$ | 8.899\%04 | 2. 306003 |
| $5.800=+00$ | 9.034. $=01$ | $3.450=03$ | $6.9200+03$ | $9.213=04$ | 2.4710003 |
| $2.900=00$ | $9.348=01$ | 5,632=03 | 6.575n+03 | $9.5330=04$ | 2.0460003 |
| -. $0000+00$ | 9,667.01 | $3,819=03$ | 6.253 .403 | 9, 8580004 | 2.029-03 |
| $0.100 x+00$ | 9.9910001 | $4.013=03$ | $5.952 \times 03$ | 1.019.03 | 3. $422=03$ |
| $0.200 x+00$ | 1.0320+00 | 4.2130-03 | 5.669*03 | 1.052=03 | 3. 225 - 03 |
| $6.500 x+00$ | $1.0660+00$ | 4,420=03 | $5.405 * 03$ | 1:087* 03 | 3.4380003 |
| -, $400 x+00$ | 1.1000+00 | $4,634=03$ | 5.150**03 | 1.1210003 | 3.0600003 |
| $0.500 x+00$ | 1.1340*00 | 4.854=03 | $4.9250+03$ | $1.157 \times 03$ | 3. $2940=03$ |
| $0.000 x+40$ | 1.1690*00 | 5.081- 03 | $4.7030+03$ | 1.1920=03 | 4.1390003 |
| $0.700 \times+00$ | $1.200^{5}+00$ | $5,315.03$ | 4,496\%*03 | -1,2290=03 | 4. $395=03$ |
| $6.6000+00$ | $1.2410+00$ | $5.557=03$ | $4.302 x+03$ | 1.265 .03 | $4.062=03$ |
| 6.900 .400 | $1.278 \% 00$ | $5,805=03$ | 4.118.0 03 | $1.303=03$ | 4. $742=03$ |
| 7.000x+00 | 1.315000 | $0.061=03$ | $3,945 .+03$ | 1.3410003 | 5. $234=003$ |
| 1.100 $=+10$ | 1.353 .00 | 6, 324=03 | 3.781-*03 | $1.379=03$ | 5. $239=03$ |
| $7.200=00$ | 1.391.*00 | 6.594m=03 | 3.626 .003 | $1.418=03$ | 5.056=03 |
| $7.500=+00$ | $1.4300+00$ | 6.872m-03 | 3.4800003 | 1.4580003 | $0.188=03$ |
| $7.400=+10$ | 1.469\% 00 | 7,158=03 | 3.3410*03 | $1.498 .0{ }^{3}$ | 6. 2330003 |
| \%. $500 \times+00$ | 1.5090+00 | 7.452=03 | $3.210 x+03$ | 1.5390003 | $0.0920=03$ |
| $7.600 \%+00$ | $1.549 \sim 00$ | 7.753-03 | 3.0850*03 | $1.580=03$ | 7.266-03 |
| 1.700x+00 | $1.5900+00$ | 8.063003 | $2.9670+03$ | $1.622 .00^{3}$ | $7.0561000^{3}$ |
| 1.600x+ 10 | 1.632\%+00 | $0.3800=03$ | $2.0550+03$ | 1.6640-03 | $8.4^{6} 0 \times 000$ |
| 7.900x+00 | 1.074**00 | $8.706=03$ | $2.1460+03$ | 1.707003 | 8.480000 |
| b. $000 \times+00$ | $1.7100+00$ | 9.040-703 | 2.047 .003 | $1.7500=03$ | $8.4170=03$ |
| -. $100 x+00$ | $1.759+00$ | 9.383x-03 | 2.5510+03 | 1.7940-03 | 9.3700003 |
| -. $200 \mathrm{c}+00$ | $1.6035+00$ | 9,734= 03 | $2.4590+03$ | $1.038=03$ | $9.0400=03$ |
| a. $300 x+010$ | $1.047 \pm 00$ | 1.009-02 | 2. $5720+03$ | 1.883003 | $1 . u^{3} 30=02$ |
| \%. $400 x+10$ | 1.892000 | 1.046=02 |  | $1.929=03$ | 1.4830002 |
| b. $200 x+00$ | $1.937 * 00$ | 1.084=02 | 2. 209.003 | 1.975003 | $1.136=02$ |
| -.000-100 | 1.9820+00 | 1.123.02 | 2.133-*3 | 2.022:03 | 1.1900002 |
| c. $700 x+00$ | 2.029*00 | 1.162-02 | 2.061p*03 | 2.069.03 | 1. $2460=02$ |
| -.0000x+U0 | 2,0750000 | 1.203 .02 | $1.4920 * 03$ | 2. $1100=03$ | 1.5040002 |
| $0.900 x+00$ | 2.1230+00 | 1.244002 | 1.9250003 | 2.165 .03 | $1.5640=02$ |
| 4. $000 \mathrm{x}+00$ | C, 1700+00 | 1.286-02 | 1.0620*03 | $2.213=03$ | 1.427002 |
| $\because 100 x+110$ | $2.2190+00$ | $1.329 \times 02$ | $1.002 x+03$ | 2, $2630=03$ | 1.4910002 |
| $4.200 x+00$ | $2.2680+00$ | 1.374-02 | 1.7440*03 | 2.5120=03 | $1.2570 \cdot 02$ |
| $4.300 x+00$ | $2.317=00$ | 1.419.002 | 1.689** 03 | $2,3630=03$ | 1.0260002 |
| Y.400x+00 | 2.567*00 | 1.4650-02 | $1.630 \times 03$ | 2,4140\% 03 | 1.09710002 |
| y. $2000+00$ | $2.417 \#+00$ | 1.5120002 | $1.5850+03$ | $2.465=03$ | $1.170=02$ |
| $4.600 x+00$ | $2.468 \%+00$ | 1.5600"02 | $1.350 \% 03$ | 2,5170003 | 1.8400=02 |
| Y,700x+10 | $2.520 \pm 00$ | 1.6090-02 | $1.4890+03$ | 2.570000 | 1.y $24 x=02$ |
| $4.800 x+100$ | $2.5720+00$ | 1.0600002 | $1.4450+03$ | 2.623=03 | 2. 004 e=02 |
| $4.900 x+00$ | 2.624000 | $1.711=90$ | $1.4020 * 03$ | 2.676=03 | 2. 4870002 |
| 1.000x+01 | 2.677000 | 1.7630902 | $1.5600+03$ | 2.730003 | 2.1720002 |
| $1.100 x+01$ | $3.237+00$ | 2,344-02 | 1.024n+03 | 3.301003 | 3.17750.02 |

PARTICLE DENSITY $\quad 9.0$ GRAMS PER CUBIC CENTIMETER

| UIAMETER | VELOCITY | RE | DRAG COEF |
| :---: | :---: | :---: | :---: |
| $1.200 x+01$ | 3.848.000 | $3.040 \times 02$ | $7.9050+02$ |
| $1.300 x+01$ | 4.510.*00 | $3.861=02$ | $6.2350+02$ |
| $1.400 x+01$ | 5.224 .00 | 4,815=022 | 5.0030+02 |
| 1. $200 x+01$ | $5.987+00$ | 5,914=0 02 | 4.0.820+02 |
| $1.000 x+01$ | $6.8000+00$ | 7.164-02 | 3.375.02 |
| $1.700 \times+1$ | $7.662 \pm+00$ | 8.577-02 | 2.825 .02 |
| $1.000 \times+11$ | $8.5710+00$ | 1.016=01 | 2.5910+02 |
| $1.900=+111$ | $9.527 * 00$ | 1.192.01 | $2.0430+02$ |
| C.0000+11 | 1.053**01 | 1,386** 01 | $1.7610+72$ |
| $2.100 \times+1$ | 1.157*+01 | 1.600=01 | 1.230.*02 |
| c. $200 \times+101$ | 1.2600+01 | 1.8340001 | 1.3390*02 |
| c. $500 x+01$ | 1.379n*01 | 2.0890001 | 1.190-02 |
| c. $400 \times+01$ | 1.496** 01 | 2.364-01 | 1.040**02 |
| <. $500 \times+01$ | 1.017*01 | 2.662.01 | 9, 332001 |
| 2.000x+01 | 1.741n*01 | 2.9810=01 | $8.3670+01$ |
| $2,700 x+01$ | $1.869 x+01$ | 3.324*-01 | $7.540 \pm+01$ |
| $2.8002+01$ | 2.0015*01 | 3.689=01 | $6.827 \times 01$ |
| $2.900+01$ | 2. $1350+01$ | 4.077-01 | $6.2080+01$ |
| $3.000=+01$ | 2. $2750+01$ | 4,489=01 | $5.669 * 01$ |
| 3. $100 x+01$ | $2.4130+01$ | 4,925x"01 | 5.197n+01 |
| $3.200 x+01$ | 2.556 .01 | 5, 385\% 01 | 4.7820*01 |
| S. $300 \mathrm{x}+11$ | 2.701日*01 | 5,869-01 | $4.4150+01$ |
| $5.400 \mu+111$ | $2.847 \pm 01$ | 6.375-m01 | 4.095.01 |
| $3.5000+61$ | 2.997n*01 | 0,9070001 | 3.805 0 +01 |
| 3, 000x+ 01 | 3,149x+01 | 7.4640001 | 3,540.*01 |
| $3.700 x+01$ | 3. $3020+01$ | $8,046=01$ | 3.3130+01 |
| 3,8002+61 | $3,4580+01$ | $8.652=01$ | 3.1040+01 |
| S.900w+1, | $3.6150+01$ | 9,283-501 | $2.9140 * 01$ |
| 4, $0000 \times 1$ | 3.7740+01 | 9.939-01 | 2,743n*01 |
| 4. $1000 x+01$ | 3.9340*01 | 1.0620*00 | 2.587**01 |
| $4 \cdot 200 x+1.1$ | 4.0960+01 | 1.133000 | $2.4450+01$ |
| $4.300 n+61$ | $4.259 . * 01$ | 1.206-00 | $2.5150+01$ |
| 4.400x+01 | $4.424 n+01$ | 1.2820*00 | 2.1950+01 |
| 4. $200 x+01$ | $4.5910+01$ | $1.3600+00$ | 2.085**1 |
| $4.600 x+1$ | $4.759+01$ | $1.4420+00$ | $1.985=+01$ |
| $4.700 x+11$ | 4.9300001 | 1.526 .00 | 1.689 .01 |
| $4,8000+11$ | 5.1020+01 | 1.613 .00 | 1.8010* 01 |
| $4.900 x+61$ | $5.27010+01$ | $1.7020+00$ | 1.719 .01 |
| 2.000x+11 | $5.453 n+01$ | 1.7950+00 | $1.0420+01$ |
| -. $1000+31$ | $5.633+01$ | 1.892.00 | 1.5700001 |
| b. $2000 x+11$ | $5.0150+01$ | 1.991.000 | 1.502** 01 |
| $3.300 x+11$ | 0.0000+01 | 2.094n+00 | $1.438 \mathrm{~m}+01$ |
| 2.400x+01 | $0.1880+01$ | 2.2000+00 | 1.3770*01 |
| b. $200 \mathrm{x}+11$ | 0.579 .01 | 2.3100+00 | $1.320 \times+01$ |
| 5.600x+01 | $0.5750+01$ | 2.424n+00 | $1.260 n+01$ |
| $2.700 x+11$ | 6.7710+01 | 2,5410+00 | $1.214 \infty+01$ |

RELAX TIME .90 DIST
$3.924=03 \quad 4.4960=02$
$4,599=03 \quad 6.1870=02$
$5.327=03 \quad 8.316=02$
$6.106=03 \quad 1 \cdot 095=01$
$6.935=03 \quad 1.417=01$
$7.8130=031.405=01$
$8.740=03 \quad 2.267=01$
$9.7150003 \quad 2.0130=01$
$1.074=02 \quad 3.451=01$
$1.1800010^{2} \quad 4.193=01$
$1.291=025.448001$
$1.406=02$
$1.526=02$
$1.649=02$
1.776=002
$1.900=02$
$2.040=02$
2. $177=02$
$2.318=02$
2.461:"02
$2,006=02$ 2.754.0.02 2.904n-02
3. 056" 02
3. $211=02$

3, $368=02$
$3,520=02$
3.686 .02
$3,648=02$
4, 012=02
4. 177.02
4. $343=02$
$4,512=02$
4,6820=02
4.853. 02
$5.027=02$
$5,20^{3}=02$
5. 3 रे $=02$
$5.361=02$
$5.744 m=02$
$5.9300=02$
$6.118=02$
0.5100002
$6.505=02$
$6.703=02$
$6.904=02$
$1.197 w+01$

## Particle lensity a 9.0 ghams per cubic centimeter

| liametek | velucity | re | drag cemf | relax time | -90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.800 x+01$ | 6.97100 01 | 2,062n*00 | 1.160 .001 | 7.1080-02 | 1. $2560+01$ |
| $2.9000+101$ | 7.1730+01 | 2,787.*00 | 1.120 + 1 1 | 7,3150=02 | $1.3170+01$ |
| 2.000x+01 | 7.378 .01 | 2,9150*00 | 1.070** 01 | 7.5240=02 | $1.0^{80} 0+01$ |
| 0.100001 | $7.5830+01$ | S.046n*00 | $1.0360+01$ | 7.733.02 | 1,444m*01 |
| $0.200=+41$ | $7.7890+01$ | 3.180**00 | $9.979+00$ | $7.943 \% 02$ | $1.3100+01$ |
| $0.300 x+61$ | $7.9940+01$ | 3,316000 | 9.620 .00 | 8.152002 | 1,378x+01 |
| 6. $400 \mathrm{x}+101$ | 8.195.01 | 3,4540*00 | $9.3000+00$ | $8.357=02$ | 1.047m+01 |
| 6.500u+01 | $8.391 .+01$ | 3.591-*00 | 9.015000 | 8.557-02 | 1.1170+01 |
| 6. $0000 \times 11$ | $8.579{ }^{0}+01$ | $3.7280 * 00$ | 8.7500000 | 8.748002 | 1.189x+01 |
| $0.7000+41$ | $8.754 n+01$ | 3.8620*00 | 8.5300000 | 8.927=02 | $1.0630+01$ |
| $0.800 \times+01$ | $8.915{ }_{0}+01$ | 3.9910*00 | 8, $3500 * 00$ | 9.090002 | $1.9380+01$ |
| $0.900 x+01$ | 9.0620*01 | $4.1170+00$ | $8.2000+00$ | 9,241002 | 2.0150*01 |
| $\% .000 x+01$ | $9.240{ }_{0}+01$ | 4.262**00 | 7.996.000 | 9,429w-02 | 2. $4940 * 01$ |
| 1.100x+01 | 9,4310+01 | 4,409-00 | $7.7950+00$ | 9,618n=02 | 2.1740+01 |
| 1.200x+61 | $9.617 .+01$ | 4,559.*00 | $7.6030+00$ | $9.807=02$ | 2. 2550 * 01 |
| 1.300x+01 | $9.800_{0}+01$ | 4.712000 | 7.410 .000 | 9,997*02 | 2.3390*01 |
| $7.400 a+01$ | 9,989**01 | 4,867**00 | 7.2420*00 | 1.019.001 | 2.4230*01 |
| $7.500 x+01$ | $1.0180+02$ | ち.026-00 | 7,0730+ 10 | 1.038.01 | 2.5100*01 |
| $1.600 x+01$ | $1.0360+02$ | 5.186.000 | 6.910000 | 1.057.0.01 | 2,598**01 |
| 1.700x+61 | $1.055=+02$ | $5.3500 * 00$ | 6.755m+00 | 1.076.01 | 2.0870*01 |
| 1.600x+01 | 1.074 .02 | $5.516=00$ | 6.005000 | 1.095 .01 | 2.1780001 |
| $7.900 x+01$ | $1.093=02$ | 5.684**00 | $6.461 \mathrm{~m}+00$ | $1.114=01$ | 2.0710001 |
| 6.000x+1:1 | $1.1120+02$ | $5,856 \%+00$ | 6.5220000 | 1.134\%=01 | 2.4650001 |
| 6. $100 \times+101$ | $1.131 .+02$ | $0,0300 * 00$ | 6.189 .400 | 1.153 .01 | 3.461**01 |
| $8.200 x+61$ | 1.149 .02 | $0.206 .+00$ | 6.061.700 | 1.1720001 | 3.1580+01 |
| 6, 5000+101 | 1.168 .02 | 6, 3860*00 | 5.737 .00 | 1.191001 | 3.257n+01 |
| n. $4000+01$ | 1.187 .02 | 6.568.00 | 5.010 .400 | 1.2110001 | 3, 5570001 |
| $8.500 x+011$ | $1.2060+02$ | 6,752n*00 | 5, $100_{0}+00$ | 1.2300001 | 3,459m*01 |
| $8.600 \times+111$ | 1.225.+02 | 6.939**00 | 5. $293 .+00$ | 1.250 .01 | 3.3620*01 |
| $8.700 \mathrm{c}+01$ | 1,2440+02 | 7.129n*00 | $5.480 . * 00$ | 1.2690\% 01 | 3.067m*01 |
| $8.800 x+(1)$ | 1.2640+02 | 7.322n+00 | $5.3820 * 00$ | $1.289=01$ | 3.174**01 |
| -.900x+01 | $1.283 n+02$ | 7.517000 | 5. $2820 \times 70$ | 1.3080=01 | 3.0820*01 |
| 4.000x+01 | $1.3020+02$ | 7.715000 | 5.180.*00 | 1.320-01 | 3.4920*01 |
| $4.100 x+01$ | $1.321 .+02$ | 7.91.50.00 | 5.0930+00 | 1.3470001 | 4. $103^{+6+01}$ |
| y. 200x+01 | 1.340w+02 | 8.119-00 | 5.00c**0 | 1.367001 | $4 .<1500+01$ |
| $4.3000+01$ | $1.3590+02$ | 6.324* 00 | 4.9150000 | 1.3860001 | 4.3290*01 |
| 4.400:+01 | $1.3790+0.2$ | 8.533 n +00 | 4.8300000 | $1.4000=01$ | 4.4450+01 |
| Y.500x+01 | $1.398=02$ | 8.744.700 | $4.7480+10$ | 1.425-01 | 4.362**01 |
| $4.600 x+11$ | 1.417 .002 | 8,957n*00 | 4.069000 | 1.445 .01 | $4.0810+01$ |
| $4.7000+41$ | 1.436.+02 | 9.174.*00 | 4.7920*00 | 1.4650.01 | $4.0010+01$ |
| $4.000 x+01$ | 1.456 .02 | 9,393.*00 | 4.5170*00 | 1.4840.01 | 4. 722 "*01 |
| $9.900 x+01$ | $1.4750+02$ | $9.614 * * 00$ | $4.445 n+00$ | 1.5040001 | 5.,460**01 |
| 1.000x*02 | $1.494=02$ | 9,838.*00 | 4.374n+00 | 1.524.0.01 | 5.1700*01 |
| 1. $1000+12$ | $1.0880+02$ | 1.2220+01 | 3.7710*00 | 1.72.10001 | $6.4970+01$ |
| 1. $2000 x+02$ | 1,882n+02 | 1.487.*01 | 3. 009 mp 00 | 1.919n-01 | $7.96700+01$ |
| 1.300x+102 | $2.076 \times 02$ | . 777 | 2.945 | 2,11 | 27 |

PARTICLE DENSITY $=4.0$ GRAMS PER CUBIC CENTIMETER

UIAMETEK
VELOCITY
RE
2.093 * 01
$2.4330+01$
2.798-01
$3.1870 * 01$
$3,001=01$
$4,037=01$
4.497 .01
$4,979 *+01$
$5.484 m+01$
$6.011=+01$
$6.560 \%+01$
7. $1290+01$
$7.720=+01$
$8.332=+01$
$8.332=+01$
$8.964=+01$
9.616 .01
$1.029=02$
$1.098=02$
1.169. +02
$1.242 x+02$
$1.317=02$

1. $594 n+02$
$1.472 x+02$
2. $1.520 * 02$
$1.6340+02$
$1.7180+02$
$1.004 x+02$
1.091.*02
$1.980=+02$
3. $0700+02$
4. 162.*02
$2.256=02$
5. $352 n+02$
$2.448 n+02$
2.547"*02
$2.647=02$
2.748**02
$2.452 x+02$
$2.956 \%+02$
6. $0620+02$
7. $1890+02$

3, 278: 02
5. 388 . 02
$3.500=+02$
$5.013 n+02$
$5.728=+02$

DRAG COEF RELAX TIME :90 DIST
$2.0530 * 00$

| . 515.001 | $20+02$ |
| :---: | :---: |
| 2.5120001 | $1.3190+02$ |
| 2.708*-01 | 1.3190*02 |
| 2,9040=01 | 1.1300+02 |
| 3.098.01 | 1.453-02 |
| 3.2910\%01 | 2.187** 02 |
| 3.482.0.01 | $2.4320 * 02$ |
| 3,672.01 | 2.087 .02 |
| 3.8600 .01 | $2.4520+02$ |
| 4.047.01 | 3.4270*02 |
| $4.2330=01$ | $3.310 \pm+02$ |
| 4,417m=01 | 3.003- +02 |
| $4.5990=01$ | 4.1040+02 |
| 4.779.-01 | $4.4130+02$ |
| 4.9580001 | $4.130^{0+02}$ |
| 5.1350001 | 5.0540+02 |
| 5.311 .001 | $5.38600+02$ |
| 5.485001 | 5.1250+02 |
| 5.658001 | 6. $1^{711+02}$ |
| 5.8290001 | $6.4230+02$ |
| 5.998.01 | 6.1820+02 |
| 6.166001 | 7. $1470+02$ |
| 6.3320001 | 7.5180+02 |
| 6,497\%-01 | $7.094-02$ |
| 6.661 .01 | 8. $2760+02$ |
| 6.823 .01 | $8.0630+02$ |
| 6,983001 | 9. $4550+02$ |
| 7.142.01 | $9.453 \mathrm{la}+02$ |
| 7,300-01 | 9.4550+02 |
| 7.456.01 | 1. $4260+03$ |
| $7.0110=01$ | 1. $y^{67 m+03}$ |
| 7.7650.01 | 1.109503 |
| 7,917001 | 1.15100+03 |
| 8.0680001 | 1.193*+03 |
| 8,217=01 | $1.23000+03$ |
| 8,366=01 | 1. $4790+03$ |
| $8,5130=01$ | 1. $52300+03$ |
| 8,659-01 | $1.96700+03$ |
| $8.0040=01$ | $1.411 w+0^{3}$ |
| 8.847001 | $1.4550+03$ |
| 9.0701001 | 1.2000*03 |
| 9.23.10001 | 1.346m+03 |
| 9.3710-01 | $1.2910+03$ |
| 9,5100001 | $1.0370+03$ |
| 9,648=01 | $1.083 x+03$ |
| 9.784.01 | 1.12910 |

PARTICLE DENSITY = 9.0 gRamS PER CUBIC CENTIMETER

| HIAMETEK | velucity | RE | drag cuef | relax time | ,90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.000 a+102$ | 9.728002 | $3.043 n+02$ | $6.1920=01$ | 9.920 .01 | 1.1760005 |
| 6. $1000 x+1.2$ | $9,8600+02$ | 3,9600*02 | 6.1270001 | $1.005 n+00$ | $1.02300+03$ |
| $0.200 x+62$ | $9.9910+02$ | 4,079n*02 | 6.060.01 01 | $1.0190+00$ | $1.8700+03$ |
| $0.300 x+42$ | $1.012{ }^{-1}+03$ | $4,199 n * 02$ | 6.000001 | $1.0320+00$ | $1.4170+03$ |
| $0.400 x+42$ | 1.025003 | 4, 320-*2 | $5.949=01$ | $1.0450+00$ | $1.465 x+03$ |
| $0.500 x+42$ | $1.00^{38} 00^{3}$ | 4, 442n+02 | $5.894=01$ | 1.058000 | 2.0130+03 |
| $0.0000+112$ | 1.050003 | $4.565 n+02$ | 5.0410-01 | 1.071000 | 2. $U^{6} 10 \pm 00^{3}$ |
| $0.700 \times+12$ | $1.0630+03$ | $4,690 \times 02$ | $5.7890=01$ | $1.084 n+00$ | $19^{90+} 0^{3}$ |
| $\bigcirc .800 \times+{ }^{2}$ | 1.076 .03 | $4.816 \mathrm{n}+02$ | $5.7400=01$ | $1.0970+00$ |  |
| C. $9000+12$ | $1.0^{88} 0+03$ | 4, $9.43 n+02$ | 5.6920001 | $1.110 x+00$ 1.122000 $1.132+00$ | $\begin{aligned} & 2 \cdot<0^{6 m+03} \\ & 2 \cdot<55 m+03 \end{aligned}$ |
| $\% .000+02$ | $1.1000+03$ | 5.072n*02 | $5.040 \times=01$ 5.001001 | 1.122 .000 1.135 .00 | $\begin{aligned} & \text { 2. } 255 m+03 \\ & 2.504 m+03 \end{aligned}$ |
| $7.100 x+02$ | $1.113 .0{ }^{3}$ | 5, $2020 * 02$ | 5.0010001 5.558 .01 | $1.135=00$ $1.147 \%+00$ | 2. $0^{4 n+03}$ 2. $553 n+03$ |
| $7.200 x+02$ $7.300 x+112$ | $1.125 *+03$ 1.13703 | 5, $3330 * 02$ $5,465.02$ | $5.5580=01$ 5.5160001 | $1.147 * 00$ $1.159 \% * 0$ | 2. $553 * * 03$ $2.4030 * 03$ |
| $1.300 x+42$ $7.400 x+12$ | $1.1370+03$ $1.149 \%+03$ | $5,465=02$ $5,598.02$ | $5.516=01$ 5.4750001 | $1,159 * 00$ $1,1720+00$ | $2.4030 * 03$ $2.452 p+0^{3}$ |
| 1.200x+02 | 1.161 .003 | 5.732-*02 | $5.436=01$ | $1.184 n+00$ | $2.3020+03$ |
| 1.000x+122 | $1.173 .+03$ | 5,8680*02 | 5,3980001 | 1.196**00 | $2.35200+03$ |
| $1.700 x+12$ | 1.184 .003 | $6.005 \times 02$ | 5.36 .10001 | $1.2080+00$ | $2.0020+03$ |
| \%.000x+182 | $1.190 * 03$ | 6.142.*02 | 5.326.-01 | $1.2700+00$ | $2.05200+03$ |
| $1.900 x+12$ | $1.207 * 03$ | $0.281 \times 02$ | 5.291=01 | 1.2310*00 | $2.1030+03$ |
| $8.000 x+2$ | 1.219 .03 | $0.421=02$ | 5.2500001 | $1.243 n+00$ | $2.153 x+03$ |
| 6.100x+12 | $1.2300+03$ | 6.562.702 | $5.2250=01$ | 1.255 .00 | O $04 \times \pm+{ }^{\text {a }}$ |
| -. $2000 \times 42$ | 1.242 .003 | $0.7050+02$ | 5.1930001 | 1.260 - 00 | 054m+03 |
| $0.300 \times+8$ | 1.253 .003 | 6.848.02 | 5.1030001 | 1.278-00 | $2.7050+03$ |
| b.400x+18 | $1.264 m+03$ | 6,9920*02 | 5.133 .001 | $1.289 w^{+} 00$ | 2.4560003 |
| 万. $2000+2$ | 1.275.03 | 7.138.*02 | 5.1040001 | $1.3000+00$ | $3 \cdot 4070+03$ |
| $6.600 \times+2$ | 1.280 +03 | 7,284**02 | 5.0760001 | $1.3120+00$ | $3 \cdot 459 n+03$ |
| $0.700 x+6$ | $1.2970+03$ | 7.432 .002 | 5.0400001 | $1.323=00$ | $3.110^{\infty+03}$ |
| $0.600 \times+2$ | 1.3080003 | $7.5800+02$ | 5.0220001 | 1. $334 \mathrm{n}+00$ | $3.1610+03$ |
| $8.9000+112$ | $1.319{ }^{9}+03$ | $7.7300 * 02$ | 4.990.001 | $1.3450+00$ | $3.4130+03$ |
| Y. $0000+12$ | $1.3300+03$ | 7.8800002 |  | $1.3500+00$ 1.367000 | 3. $165=+03$ <br> 3. $3100+03$ |
| Y. $1000+02$ | 1.3400003 | $\begin{aligned} & 8,0320+02 \\ & 8,184=+02 \end{aligned}$ | 4.9460001 4.920001 | 1.367 .000 1.378 .00 | 3. $5100+03$ $3.5080+03$ |
| $4.2000+42$ | $1.3510+03$ | $8,184 n+02$ $8,338=+02$ | 4.9200001 4.0990001 | $1.378+00$ 1.988 .00 | 3. $42000+03$ |
| $4.300 x+102$ $4.4000+02$ | $1.362 w+03$ 1.372 .03 | $8,3380+02$ $8.4930+02$ | 4.0990001 4.070001 | $1.3880+00$ $1.399 \%+00$ | 3.4200*03 |
| 4. $5000 \mathrm{x}+02$ | $1.3820+03$ | 8,648.02 | 4.054.001 | $1.4100+00$ | 3. 2440003 |
| 4.000x+42 | -1.3930+03 | $8,804 \times+02$ | 4.033 .01 | $1.4200+00$ | 3. 9760003 |
| צ.700x+112 | $1.400_{00+03}$ | 8.962w*02 | 4.8120001 | $1.4310+00$ | 3.0280003 |
| Y. $0000 x+02$ | $1.4150+03$ | $9.1200+0{ }^{\text {c }}$ | 4.191.001 | $1.4410+00$ | 3.0810003 |
| $4.900 x+42$ | $1.4230+03$ | $9.2800+02$ | 4.1711001 | 1,4520+00 | 3.13300 03 |
| $1.0000+13$ | $1.434 m+03$ | 9,4400*02 | 4.1540001 | $1.4620+110$ $1.4720+00$ | 3. 1860003 |
| $1.0100+03$ | $1.444 * 03$ | $9.6010 * 02$ | $4.735=01$ | $1.4720+100$ | 03 |
| $1.020 \times+10$ | $1.454 n+03$ | 9.763.*02 | 4.7140001 | 1.4820+00 | 3.0910005 $3.4430+03$ |
| $1.050 \times+13$ | $1.464 m+03$ | 9,920.*02 | $4.090 x=01$ | $\begin{aligned} & 1.492 x+00 \\ & 1.503 m+00 \end{aligned}$ | $3.4430+03$ $3.4960+03$ |
| $1.040 x+8$ | $1.473 m+03$ | 1.009.*03 | $4.078=01$ | $1.5030+00$ $1.5120+00$ | 3.4960+03 |
| $1.050 x+y^{3}$ | $1.483 .+03$ | $1.025 \times 03$ | 4.0610001 | $1.5120+00$ | $4 \cdot 1498003$ |

UlAMETEK
VELOCITY
RE

| 3.020.0.02 | 1.992005 |
| :---: | :---: |
| 3,650-02 | 2,648=05 |
| 4,345n-02 | 3,434=05 |
| 5.094-02 | 4.3610.05 |
| 5.903002 | 5.442.05 |
| 6.771002 | $6.688 \cdot 05$ |
| 7.6990"02 | $8.111=05$ |
| 8,686-02 | $9.723=05$ |
| $9.733=02$ | 1.154=04 |
| 1.084-01 | 1.356\% 04 |
| 1.201.001 | $1.5810{ }^{\circ \prime} 04$ |
| 1.323.01 | 1.8300004 |
| . 452.01 | $2.1030 \cdot 04$ |
| 1.586=01 | 2.4020=04 |
| $1.726=01$ | 2.728."04 |
| 1.8730001 | $3.083=04$ |
| 2.025-01 | $3.467=04$ |
| 2.183.01 | 3,0820.04 |
| 2.347**01 | 4, 328: $0^{4}$ |
| 2.610001 | $4,408=04$ |
| 2.094=001 | 5, 321m=04 |
| 2.076.01 | $2.8700=04$ |
| 3.064**01 | 6.456. 304 |
| 3. 2580001 | 7.079-04 |
| 3.450 01 | 7.741=04 |
| $3.063 \times 01$ | 8.4430 .04 |
| 3.875001 | 9.1800.04 |
| 4.093*01 | 9.972:04 |
| 4.317.01 | 1.080003 |
| 4, 540w 01 | 1.168.*03 |
| 4.7820-01 | 1.259-03 |
| $5.023^{10}=01$ | 1.356000 |
| 5.2710001 | 1.458= $=03$ |
| 5, 2 24.001 | 1.5640-03 |
| 5.784.01 | 1.676.03 |
| 0.049\% 01 | 1.7920=03 |
| 6,3200001 | 1.9140003 |
| 0.597001 | 2.042x*03 |
| 0,580:01 | 2.175x=03 |
| 7.169-01 | 2.3130=03 |
| 7.404.001 | 2.458=03 |
| 7.765.01 | $2.008=03$ |
| 8.072001 | 2.764=03 |
| 8.385 .01 | 2,9260=03 |
| 8.704001 | 3.095-05 |
| 9.020:01 | 5,2700*03 |

drag coef relax time
. 90 DlST

PARTICLE DENSITY = 10.0 GRAMS PER CURIC CENTIMETER

| WIAMETEK | velucity | RE | drag coef | relax time | .9\% DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.000 x+00$ | $9.359=01$ | 3,4510003 | $6.917 .0+03$ | 9.5440-04 | 2.082=03 |
| $3.700 x+40$ | $9.095=01$ | 3,639n=03 | 6.5610+03 | $9.887=04$ | 2.07800.03 |
| $2.6000+100$ | 1.004.0+00 | 3,834-0 0 | 6. c29. $^{59}+03$ | 1.024-03 | 3. $0850=03$ |
| 5.900x+40 | $1.039{ }^{\text {a }}$ +00 | 4,035**03 | $5.4100+03$ | $1.059 .0{ }^{-1}$ | 3. 5030003 |
| $0.000 x+40$ | 1.074 .00 | 4,243n=03 | $5.0200+03$ | $1.095=03$ | $3.532=03$ |
| -. 100x+00 | 1.1100+00 | 4.4590.03 | 5.357.**3 | 1,132m=03 | 3.1730003 |
| $\bigcirc \cdot 200 x+60$ | $1.147 *+00$ | 4.0810003 | $5.1010+03$ | $1.169 m=03$ | 4. $\mathrm{y}^{26000} 03$ |
| $0.300 x+110$ | $1.1840+00$ | $4.9110=03$ | $4.0650+03$ | 1.207003 | 4. 2910003 |
| $0.400 x+110$ | 1.2220*00 | 5.14800.03 | $4.0410+03$ | 1.240.03 | $4.5690=03$ |
| $\bigcirc .500 x+00$ | $1.2680+00$ | 5, 3930003 | $4.4310+03$ | $1.28500{ }^{3}$ | 4,0610003 |
| -. $600 x+00$ | $1.299 * 00$ | 5,645-03 | 4.2330003 | $1.325000^{3}$ | 5,16600 03 |
| $6.700 x+00$ | $1.3390+00$ | $5.905=03$ | 4.047w+03 | 1.365003 | 5.48600\% ${ }^{3}$ |
| $0.800 \times+00$ | 1.379 m 00 | 6.173=03 | $3.876 n+03$ | 1.4060003 | $5.020 \% 03$ |
| $\bigcirc \cdot 900 * 00$ | $1.4190+00$ | 6, 449= 03 | $3.7070+03$ | 1.4480003 | 0.169 .03 |
| - 000x+00 | $1.4610+00$ | 6, 733=03 | $3.551 .+03$ | $1.4900=03$ | -. 3 34=03 |
| ¢-100**00 | $1.503 .+00$ | 7.026.03 | $3.4040 * 03$ | $1.532000^{3}$ | 6.4140.03 |
| \% 2000* 110 | $1.545=00$ | 7,326m-03 | 3.264.*03 | 1.5760003 | 7.311003 |
| ?. $3000 \mathrm{c}+100$ | 1, $5888=00$ | 7.635.-03 | 3.133n+03 | $1.020=03$ | 7.1244003 |
| 1.400.00 | 1,6320+00 | 7,953=03 | 3.008 .003 | $1.664 \times 03$ | $8.155=03$ |
| $1.600 x+00$ | $1.6700+00$ | $8.279=03$ | 2,0900+03 | $1.709 \times 03$ | 8.0040003 |
| $\% .600 x+100$ | 1.7210*00 | $8.614=03$ | 2.770 .03 | 1.755 .03 | $9.071=03$ |
| \%.700- 00 | 1.767.+00 | 8,957-03 | 2.671.* 03 | 1.6020 .03 | 9,557=0 03 |
| \%.600s+100 | 1.813.00 | 9.5100003 | 2.570** 03 | 1.649003 | 1. $4060=02$ |
| \%900x+10 | $1.859 \% 00$ | 9.672-0.3 | $2,474 m+03$ | 1,096m=03 | $1 \cdot 4590=02$ |
| -. $0000 \times 60$ | 1.907:00 | 1,004=02 | 2.3930*03 | 1,944=03 | 1.1130002 |
| $8 \cdot 100 a+100$ | 1.954:00 | 1.0420-02 | $2.2960+03$ | 1.9930003 | 1.1700002 |
| $8,200 x+10$ | $2.003_{\infty}+00$ | 1.081.002 | 2.214 .003 | 2.042003 | 1. 2280002 |
| $8.300 x+10$ | 2.052.000 | 1.121.0.02 | 2.135.0.03 | 2,092003 | 1. 4890002 |
| $8,400 \times 40$ | 2.1010*00 | 1.162.0.02 | 2.060.0.03 | 2.143n=03 | 1.3520002 |
| -. $2000+10$ | 2.1520000 | 1.2040-02 | 1.589 $5+03$ | 2.194m03 | $1.418=02$ |
| $8.600 x+100$ | 2, $2020+00$ | 1.247-02 | $1.4200+03$ | 2, $2400 \cdot 03$ | 1.4850 .02 |
| $\bigcirc .700 \times 00$ | 2. $254 \%+00$ | 1.291-002 | $1.055 n+03$ | 2. 2980003 | 1. 5 56000 02 |
| ¢.800x+100 | $2.3060+00$ | 1.336m=02 | $1.793 .0{ }^{\text {a }}$ | 2.3510003 | 1.028 .02 |
| -, 400x+00 | 2.350, 2.00 | $1.3820=02$ | $1.1340 * 03$ | 2, 4050003 | 1.103002 |
| 4.000x+60 | $2.411 .+00$ | 1.4290002 | 1.0770003 | 2,459.03 | 1.1810002 |
| Y. 100x+100 | 2.465.000 | 1.477.02 02 | 1.0220003 | 2.213.03 | 1.061002 |
| $4.200 x+00$ | $2.5190+00$ | 1.526m"02 | $1.5700+03$ | 2.569.0.03 | 1.9440002 |
| Y. $300 \times+100$ | 2,574**00 | 1.576.0.42 | $1.3210+03$ | 2.625003 | 2.4300"02 |
| Y.400x*00 | 2,029 ${ }^{2}+00$ | 1,627.60 | $1.4730+03$ | 2.68100 ${ }^{3}$ | 2.11800 02 |
| $4.500 \times+110$ | 2.0850*00 | 1.680 .06 | 1.4270003 | 2.738.03 | 2. 6100002 |
| 4. $6000 x+10$ | 2.742n*00 | 1.733.702 | $1.383_{0+03}$ | 2.196.03 | 2. 5040002 |
| $9.700 \times+00$ | $2.799 * 00$ | 1.7880002 | $1.3410+03$ | 2.854.003 | 2.401002 |
| $4.8000+00$ | $2.0570+00$ | $1.843 m=02$ | 1.5010*03 | $2.9130=03$ | 2.2010002 |
| ¢, 9000x+00 | $2.915 m+00$ | $1.900=02$ | 1.7620+03 | 2.973.03 | 2.005me02 |
| 1.000x+61 | $2.974 m+00$ | 1.958=-02 | 1. 2250 * 03 | 3.0.33.03 | 2.1110002 |
| $1.100 \times+61$ | $3.595 \pm+00$ | 2.6040002 | 9. $2220+02$ | 3.066003 | $3.966 \times 0$ |

PARTICLE DENSITY $=10,0$ GRAMS PER CUBIC CENTIMETER

| uiametek | velucity | RE | drag ceef | relaix time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 200x+01 | 4.273.00 | 3.577.02 | 7.121.002 | 4.358 .03 | 5.0120-02 |
| . $3000+01$ | 5.009000 | 4.287-02 | $5.010 .0+02$ | 5.1070003 | 7.124-102 |
| $1,400 x+01$ | $5.8000+00$ | 5.347.0.0 | 4.2110*02 | 5.915000 | $1 \cdot 4380001$ |
| $1.500 x+01$ | $6.647 .+00$ | 0,565-02 | $3.0800+02$ | $0.778=03$ | 1.5670001 |
| $1.600 \times+131$ | 7.548.00 | 7.952.02 | 3.044n+02 | 7.697-03 | 1.1690001 |
| $1.700 \times+01$ | $8.5020+00$ | 9,5180.02 | 2.5440* $\mathrm{n}^{2}$ | $8.6700=03$ | 2.4530=01 |
| $1.8000+01$ | 9,509**00 | 1,127-01 | $2.1500+02$ | 9,097=03 | 2.8300=01 |
| $1.900 \times+11$ | $1.057 m+01$ | 1,322=001 | $1.5450+02$ | 1.078=02 | 3.311-0 |
| $2.000 x+01$ | $1.167 \ldots 01$ | 1,5370001 | 1.2910*02 | 1.190 .02 | 4.3080.01 |
| 2.100F+01 | 1.2830*01 | 1.7740001 | $1.5830+02$ | 1.3080002 | $5.434=01$ |
| C. $2000 \times+01$ | $1.4030+01$ | 2.033-01 | 1.2120+02 | $1.4310=02$ | 6.9020001 |
| <.300x+1) | $1.5280+01$ | 2,3140001 | $1.0680+02$ | 1.5580002 | 7. 2 25-01 |
| C, 400x+111 | 1.657.*01 | 2.6180001 | $9.481 \times+01$ | 1.6900002 | 8.8180 .01 |
| c. $500 \mathrm{c}+131$ | 1.790**01 | 2,946-01 | $8.4620+0.1$ | 1.825:02 | $1 \cdot 4480 \cdot 00$ |
| $2,600 x+111$ | 1.927.001 | 3.2990\%01 | 7.594**01 | 1,965:02 | 1.4130+00 |
| c.700x+111 | 2.0680*01 | 3,670=011 | 6.0490001 | $2.108 m=02$ | 1.9920+00 |
| c. $600 \times+61$ | 2.2120*01 | 4.078.01 | $6.207 .+01$ | 2, $2550=02$ | $1.984 m+00$ |
| 6.900x+01 | $2.359 .+01$ | 4,5050001 | $5.6500+01$ | 2, 406002 | 1.1910+00 |
| $3.000 \times+01$ | $2.51000+01$ | 4,9580001 | $5.1650 * 01$ | 2,5590-02 | 2. $1120+00$ |
| $3.100 x+01$ | $2.6630+01$ | 5.437001 | 4.739 .01 | 2,7100*02 | 2. $480 \times 00$ |
| 3, $2000 \times 01$ | 2.820n+01 | 5.9410001 | $4.3650+01$ | 2,875002 | $2 \cdot 300^{* *} 00$ |
| 0.300x+01 | 2,9780+01 | 6.4720.01 | 4.035001 | 3,037n=02 | 2.167**00 |
| $3,400 x+01$ | 3.13800*01 | 7.025.01 | 3.7470+01 | 3, $200 \times 02$ | $3.4500+00$ |
| $3.200 \times 31$ | 3.3010**01 | 7,608.01 | $3.4850+01$ | 3,366\% 02 | 3. $3490+00$ |
| 5.000.0.11 | 3.4606* +01 | 8, 217=01 | $3.2510+01$ | $3,535=02$ | $3.0640+00$ |
|  | 3.034n+01 | $0,8530=01$ | $3.8410+01$ | $3.706 n=02$ | 3. $49600+00$ |
| S. $6000 \times 01$ | $3.800^{2}+01$ | 4, 5150001 | 2.0510+01 | $3.878 \cdot 02$ | 4. $4440+00$ |
| 5.400x+01 | 3.974m+01 | 1.020**00 | $2.080 m+01$ | 4,0520-02 | 4. $1090+00$ |
| $4.000 x+01$ | 4.146.001 | 1.092m+00 | $2.5250+01$ | $4.228=02$ | 5.1991000 |
| $4.100 x+01$ | $4,321{ }^{+0} 01$ | 1.166**00 | 2, $380_{n}+01$ | 4.406002 | $5.4910+00$ |
| $4.200 x+101$ | $4.497+01$ | 1,244**00 | 2.254x+01 | 4, 280.0.02 | $5.9070 * 00$ |
| $4.300 x+01$ | 4.675 .01 | 1.324n+00 | 2. $\|35 p+0\|$ | 4.767.02 | 6. $54100+00$ |
| $4,400 x+111$ | 4,855n*01 | 1,406.00 | 2.020**1 | $4.9500=02$ | $0.192^{x}+00$ |
| $4.500 x+101$ | 5.036 .01 | 1,4920*00 | $1,4250+01$ | $5.130 x=02$ | 7. $2610+00$ |
| $4.000 x+101$ | 5, 2700+01 | $1.5810+00$ | 1.0310001 | $5.3 \% 40002$ | 7.1480+00 |
| $4.700 x+61$ | $5.407 .+01$ | 1.073000 | $1.74400+01$ |  | $8.45200+00$ |
| 4.000. $0^{4} 1$ | 5.590 .01 | $1.769{ }^{\text {c }}$ +00 | 1.0630+01 | 5.700002 | $8.1740+00$ |
| $4.900 x+131$ | 5.780, +01 | 1.8670+00 | 1.2870001 | $5.4020=02$ | $9.5140+00$ |
| -1000x+11 | 5,98<.0+01 | 1.9700*00 | $1.3100+01$ | 6.1010002 | 9.0730000 |
| $5.100 x+1$ | 0.180001 | 2.075n+00 | 1.449 .001 | 6, 30, $0^{60} 02$ | 1.0450001 |
| 2,800x+11 | $0.581 \times 01$ | $2.185 n+00$ | $1.58000+01$ | 6, 2070*02 | $1.10400+01$ |
| $2.300 \times+1$ | 0.586 .01 | 2.298.000 | 1.520.001 | 0.7100002 | $1.16000+01$ |
| 2.4000*01 | 0,794m*01 | 2,416=*00 | 1,2690+01 | 6.928002 | $1 .<290+01$ |
| 2.500x+31 | $7.000 \times 01$ | 2,537*00 | $1,6100^{+101}$ | 7.144-02 | 1. $295 m+01$ |
| $2.000 \times 01$ | $7.220 n+01$ | $2.0620+00$ | 1.1600001 | 7.3630.02 | $1.36000+01$ |
| $2.1000+01$ | 7,438=01 | $2.7920+00$ | 1.1100001 | 7.285.02 | $1.429 .0+01$ |

## PAPTICLE DENSITY＝ 10.0 GHAMS PER CUBIL CENTIMETER

LIAMETER

| 9．800x＋01 | 7.657 ＊ 01 | 2．9240＋00 |
| :---: | :---: | :---: |
| $3.900=01$ | 7．878．01 | 3．0610＋00 |
| －． $0000+01$ | 8.0980001 | $3.2000+00$ |
| 6． $100 x+01$ | $8.3170+01$ | 3,341000 |
| $6.200 .+01$ | 8．532．＋01 | 3，483． 00 |
| $6.300 x+01$ | $8.7410+01$ | $3.6260+00$ |
| $0.400 x+01$ | $8.9390+01$ | 3．7670＋00 |
| $0.500 x+01$ | 9．122n＋01 | 3．9040＊00 |
| $0.000 x+01$ | $9.2630+01$ | 4．026．＊00 |
| 0．700x＋01 | 9．4610＊01 | 4．174＊＊0 |
| $0.8000+01$ | 9.659 .01 | 4．325：＊00 |
| 6．900＊＊01 | 9.858 .001 | 4．4790＊00 |
| 7．000x＋01 | 1．006＝02 | 4．036．＊00 |
| 7．100x＋01 | 1.026 .02 | 4．795．+00 |
| $7.200 x+01$ | $1.0460+02$ | 4，9580＋00 |
| 7．300＝ 01 | 1．0660＊02 | 5．1230＋00 |
| $7.400 x+01$ | 1．086m＊02 | 5.291000 |
| 7．500x＋01 | 1．106＊＊02 | 5．462．＊00 |
| $7.600=01$ | 1．126\％＊02 | $5.6360 * 00$ |
| 1．7000＋01 | 1．146n＊02 | 5.813 .00 |
| \％．000x＋01 | 1．167＊＊02 | 5，993＊＊0 |
| $7.900 x+01$ | 1.1870002 | 6．1750＋00 |
| $8.000 x+111$ | $1.2070+02$ | $0.3600 * 00$ |
| －．1000x＋01 | 1．228．02 | 6．548＝＊00 |
| $8.200 x+01$ | 1．2480＋02 | $6.7390+00$ |
| $8.3000+101$ | 1．269 +02 | $6.9330 * 00$ |
| e．400x＋ 01 | 1．289＊＊02 | 7．1300＊00 |
| $0.200 x+101$ | $1.310 x+02$ | 7．329＊＊00 |
| b． $6000+101$ | $1.3300+02$ | 7．532． 00 |
| b． $7000+111$ | $1.3510+02$ | $7.737=00$ |
| $0.6000+01$ | $1.3710+02$ | 7．945\％+00 |
| 6．9000＋31 | $1.3920+02$ | 8．156\％＊0 |
| 4．000x＋01 | $1.412 n * 02$ | 8，369．00 |
| 9． $1000+01$ | $1.4350+02$ | 8，5860－0．0 |
| 4． $2000+01$ | 1.4530002 | 8,805000 |
| 9．3000＋ 11 | $1.4740+02$ | 9．027．＊00 |
| 9．400世＊ | 1.495002 | 9．2520＊00 |
| ¢． $2000 x+01$ | 1．2120＋02 | 9.480000 |
| 4．000w＋ 01 | 1，23000 02 | $9.711=00$ |
| y， $100 x+01$ | 1． $.5570+02$ | $9.944 * * 0$ |
| 9．600x＋01 | $1.5780+02$ | $1.0180+01$ |
| 4．900：+01 | $1.5980+02$ | 1．0420＋01 |
| 1．000x＋ 12 | $1.6180+02$ | 1．0600＊01 |
| 1．1000＋02 | $1.8270+02$ | 1．3230＊01 |
| $1.200 n+32$ | 2．0350002 | 1．00800．0．1 |
| 1． $300 x+02$ | $2.2440+02$ | 1．421－＊01 |

DRAG CUEF RELAX TIME ．90 UلST
$1.073 x+01$
$1.0320+01$
$9.420 x+00$
9． $2680+00$
9． 240 0． 00
$8.947 m+00$
$8.091=00$
$8.475=00$
$8,3400=00$
8． $1220+00$
7． $90060+00$
$7.7040+00$
$7.5090+00$
$7.5230+00$
7．144＝＋00
$6.9730+00$
$6.8090+00$
$0.6520+00$
$6.5010+00$
$6.3500+00$
$6.217 \infty+00$
$6 \cdot 0^{835}+00$
$5.9550+00$
$5.0310+0$
$5.0310+00$
5.71100
$5.7110+00$
$5.2960+00$
5．48ち
5.370 .00
$5.275=00$
$5.170=00$
$5.0^{79}=+00$
$4.480=00$
$4.0900+00$
4． $80.9 n+00$
$4.725 n+00$
$4.044 m+00$
$4.5650+00$
$4.4804+70$
4．414＊＊0
$4,3420+00$
4． $2720+00$
$4 .<00^{5}+00$
4． $139 x+00$
3． $570 x+00$
3． $145=00$
$2.00<0+00$

| 7．0080－02 | 1.4990001 |
| :---: | :---: |
| 8．0330－02 | 1.571000 |
| 8．259－02 | $1.0450+01$ |
| $8.482=02$ | 1．121＝00 |
| $8,701=02$ | 1．199000 |
| $8,9140=02$ | 1． $0780+0$ |
| 9．11000 02 | 1．460＊＊0 |
| $9,3030=02$ | 2． $4.43 x+0$ |
| $9.4460=02$ | 2． $1280 * 01$ |
| 9.6480 .02 | 2． $\mathrm{Cl}^{150+0}$ |
| 9.850002 | 2． $903 \times 0$ |
| 1．0050001 | 2．394＝＊01 |
| 1．020．001 | $2.4860 * 01$ |
| 1．046－0 01 | $2.5800+01$ |
| 1．060．00 01 | 2．0760＊01 |
| 1．087－01 | 2．1740＊0 |
| 1．107．01 | 2．8740＋01 |
| 1．128＝01 | 2．4750＊01 |
| 1．149．001 | 3．${ }^{780 * 0}$ |
| 1.1690001 | 3.183001 |
| 1．1900001 | $3.2 c^{9} 0^{+0} 01$ |
| 1．2110＂01 | 3． $5990+01$ |
| 1．231＝01 | 3．909 ${ }^{-101}$ |
| 1．2520001 | 3.021000 |
| 1．2730001 | $3.135 * 01$ |
| 1.2940001 | $3.8510+0$ |
| 1．315－01 | 3．4690001 |
| 1．3350－01 | 4． $\mathrm{U}^{88}=0$ |
| 1．350001 | 4． $4090+0$ |
| 1．3770＝01 | 4．3320＊0 |
| 1．5900＊ 01 | 4．4570＊0 |
| 1，4190＊01 | 4．5830＋0 |
| 1.440001 | 4.111000 |
| $\cdots .461001$ | 4．0410＊0 |
| $1.4820 \cdot 0.1$ | $4.9730+01$ |
| 1.503000 .1 | 5．106＊＊0 |
| 1．5240\％01 | $5.2410+0$ |
| 1.5450001 | 5．578＊＊0 |
| 1．567．01 | 5．317in＋01 |
| 1．5880001 | 5．0570＊0 |
| 1.609 .001 | 5．199＊＊01 |
| 1.6300001 | 5.4430001 |
| 1.651 .000 | 6．488＂＋01 |
| 1.8030001 | 7．035＊01 |
| 2．0760001 | 9． $3460+01$ |
| 2，2880＊0．1 | 1．1220＋42 |

PARTICLE UENSITY $=10.0$ GRAMS PER CUBIC CENTIMETEK

| UIAMETER | velucity | RE | drag ceef | helax time | .90 ulst |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.4000+13^{2}$ | $2.4510+02$ | $2.2600 * 01$ | 2.5200+100 | 00e=01 | 1. $3240+02$ |
| $1.5000+02$ | 2,058 $0+02$ | 2.626.*01 | $2.3030+00$ | 2.711-01 | $1.5410+02$ |
| $1.600 \%+0^{2}$ | $2,8640+02$ | 3.018001 | 2.110000 | 2,921001 | 1.1710002 |
| $1.700 x+0{ }^{2}$ | 3.069**02 | $3.436 \%+01$ | 1.950.000 | 3.1500=0.1 | 2. 1100002 |
| $1.8000+02$ | $3.273 m+02$ | 3,879n*01 | $1.8240 * 00$ | 3.337.001 | $2.4740+02$ |
| $1.9000+02$ | $3.474 .0+02$ | 4.347n*01 | 1.708.00 | 3,543m=01 | 2.3440*02 |
| 2.00000 02 | $3.0750+02$ | $4.839 \ldots+01$ | 1.607-00 | 3,747m=01 | 2.026**02 |
| 2.1000*02 | 3,873n+02 | 5.356\%*01 | 1.519n*00 | 3.9500001 | 3.1190.02 |
| 2.200:402 | $4.0700+02$ | 5,097.0.01 | 1.441.+00 | 4.151.01 | 3.4240*02 |
| 2.3000+02 | $4,260{ }^{2}+02$ | 6,460**01 | 1.371.200 | 4.3500001 | $3.1400+02$ |
| $2.4000+0{ }^{2}$ | 4,459** 02 | 7.047n*01 | 1.3100*00 | 4,547.001 | 4.0650+02 |
| 2. $2000+0{ }^{2}$ | $4.651 .0+02$ | 7,657m*01 | 1, 254=*00 | $4,743=01$ | $4.4010+02$ |
| 2,6000*02 | $4.841{ }^{+0} 02$ | $8,2888+01$ | 1.2040+00 | 4,937m=01 | $4.14000+02$ |
| $2.7000+02$ | 5.029 ${ }^{\text {a }}+02$ | 8,942n*01 | 1.1580*00 | 5.129ヵ\% 01 | 5. 1000002 |
| $2.800 x+02$ | $5.210_{10}+02$ | 9,617.*01 | 1.117m*00 | 5,319p=01 | $5.4630 * 02$ |
| $2.900 x+102$ | 5,4010*02 | 1.0310*02 | 1.079n+00 | $5.508=01$ | 5.0350002 |
| $3.000 x+02$ | 5.584 .02 | 1.103**02 | 1.0440*00 | 5.694n=01 | $6.4140 * 02$ |
| 3. $100 \times+02$ | b. 765 w+02 | 1.177n*02 | 1.0120+00 | 5.879.01 | $6.002^{*+}+02$ |
| 3.200x+02 | $5.9450+02$ | 1.253. +02 | 9,824m=01 | 6.062 .001 | $6.497 \%+02$ |
| $3.300 x+02$ | 6.125 .02 | 1.5300*02 | 9.551 .001 | 6.244 .01 | 7.0990*02 |
| S. $4000 x+42$ | $6.299+02$ | 1.4100002 | 9,2970001 | $6.424=01$ | $7.0090+02$ |
| $3.5000+02$ | $6,474 n+02$ | 1.492m*02 | $9.0610=01$ | $6.602 m=01$ | 8. $2250+02$ |
| $5.600 x+02$ | 0.647 \% +02 | $1.5760+02$ | 8.841.001 | 6.778 .01 | 8.048.*02 |
| $\leq .700 x+12$ | $0.01800+02$ | $1.661 .0+02$ | 8.030 .01 | 6.953.01 | $9 \cdot .470+02$ |
| S. $610 x+112$ | $0.9800+02$ | 1.149n*02 | $8.4430=01$ | 7,1760\%01 | 9.3120+02 |
| $3.5010 x+108$ | 7. 150.02 | 1.6380* 02 | $8.2630=01$ | 7.2980-01 | 9. $5530+02$ |
| $4.000 \mathrm{c}+12$ | 7, 523 ${ }^{\text {m }}+02$ | 1.929**02 | 8.093001 | 7.468.01 | 1.1.1400* $0^{3}$ |
| $4.100 \cdot+12$ | $7,4880+02$ | 2,022.*02 | 7.434.0.01 | $7.636=01$ | $1 \cdot 0^{850003}$ |
| $4.200 x+02$ | 7.052 .02 | $2.1100+02$ | 7.783=01 | 7.803 .01 | $1.1310+03$ |
| $4.500=+12$ | 7.814 .002 | 2, <13**02 | 7.641.0.01 | 7.969.01 | 1.1770005 |
| $4.400 x+1^{2}$ | 7.975002 | 2.311.*02 | 7,507-01 | 8.1330001 | 1. $2240+03$ |
| $4.500 x+13^{2}$ | $0.134 .+02$ | 2,4100*02 | 7.379-01 | 8.295 .01 | 1.2710003 |
| $4.000 x+0^{2}$ | $8.2920+02$ | 2,5120+02 | 7.259.001 | 8.450.0101 | $1.919000^{3}$ |
| $4.700 x+02$ | $8.447_{n}+02$ | $2.0150+02$ | 7.144.001 | 8.610 .001 | $1.9670+03$ |
| $4,800 x+02$ | $8.00^{4 n+02}$ | $2.7190+02$ | 7.035.0.01 | 8,774.01 | 1.4100403 |
| $4.900 x+112$ | $8,758 \%+02$ | 2,826**02 | 6.4320001 | $8.9310=01$ | $1.4650+03$ |
| b. $00.00+6{ }^{\text {a }}$ | 8.911 .002 | 2.934.02 | $6.035=01$ | 9.047.01 | $1.3140+03$ |
| 2.100x+02 | $9.0620+02$ | 3.043**02 | 6.739 .001 | 9,241.001 | $1.264 i 0+03$ |
| b. $2000+0{ }^{2}$ | $9.2120+02$ | 3.154=*02 | $0.049 \times 01$ | 9, 3940\%01 | $1.014=003$ |
| 2, $300 x+0{ }^{2}$ | $9.3600+02$ | 3.267.*02 | 6,2640001 | 9,5450-01 | $1.0640+03$ |
| $2.400 x+1{ }^{2}$ | 9.5080002 | 3.3810+02 | $6.4820=01$ | 9.690001 | $1.11500+03$ |
| 2. $200 \mathrm{p}+112$ | 9.654 .02 | 3,496.*02 | 6.4050001 | 9,845x=01 | $1.1660+03$ |
| $2.000 n+112$ | 9.794002 | $3.613 n+02$ | $6.328=01$ | 9,993m-01 | 1.01810003 |
| $\therefore .7000+12$ | $9.9430+02$ | 3.732w+02 | $6,250=01$ | 1.0140+00 | 1.070\%*03 |
| 勺. $0000 \times 10{ }^{\text {c }}$ | $1.009 \mathrm{~m}+03$ | 3,8520+02 | 6.187 .01 | $1,0280+00$ | $1 .+22 w+03$ |
| 2.400n+12 | $1.020_{0}+03$ | 3,9730*02 | 6.1210001 | $1.0430 * 00$ | $1.4740+03$ |

DIAMETFH
0.000 $0+02$
o. $100 x+112$
-. $2000+02$
$0.300 x+112$
$0.400 x+12$
$0.5000+122$
$0.000 x+12^{2}$
$6.100 x+62$
$0.000 x+02$
$6.900^{2+(12}$
7.000: +12
\% 1 1 0 0 $x+02$
$7.200 x+02$
7. $3000+0^{2}$
$7.400=+1^{2}$
7.500. +0.02
$7.000=+12$
$7.700 x+12^{2}$
$7.000 x+02$
$7.900+02$
$6.000 x+102$
h. $1000+112$
e. $2000 \times 12$
b. 500 $0+02$
c. $4000+18$
-.200x+ii2
o. $6000+12$
6.700p+12
$6.800 x+02$
c. $900 \times+2$

و. $0000 x+10$ c
$9.100 \%+12$
4. $2000+02$
$9.500=+12$
$4.400=002$
4. $2000+02$
$4.000 \times+02$
$4.700 x+02$
$9.800 x+02$
$4.900=+02$
$1.000 x+00$
$1.010 \times 00$
1.020x+03
$1.030 x+115$
$1.0^{4} 0 x+05$
1.050*+00
vELOCITY
$1 \cdot 037.03$
1.051 .03
$1.0640+03$
$1.078=03$
$1.092 \%+03$
$1.10^{5} 0+03$
$1.119+03$
$1.1320+03$
1.1450+03
$1.158 * 03$
$1.1710+03$
$1.184 \infty+03$
$1.197 n+03$
$1.210=03$
$1.2220+03$
$1.2350+03$
$1.2470+03$
$1.2600+03$
$1.2720+03$
$1.284 \infty+03$
$1.290 * * 03$
$1.300^{8}+03$
$1.3200+03$
$1.332=03$
$1.344 .+03$
$1,355 \infty+03$
$1.367=03$
$1.578+05$
$1.390=+03$
$1.401 x+03$
$1.413=+03$
$1.4240+03$
$1.4350+03$
$1.4400+03$
$1.4570+03$
$1.468+03$
$1.4790+03$
$1.4900+05$
$1.5000+03$
$1.5110+03$
$1.5220+03$
$1.5320+03$
$1.543: 03$
1.553 .03
$1.563 \%+03$
$1.574 \%+03$

RE
4.0960*02
4. 220:*02
4. $3460+02$
$4.4730+02$
$4,601=02$
$4,7310+02$
$4,862 n+02$
$4.994 n+02$
5. $128.2+02$
5. $263 m+02$
$5.399 n+02$
$5.536=02$
$5,675=02$
$5.815=02$
$5,956=02$
$6.098 n+02$
$6.242=+02$
$6.387=02$
$6,532=02$
$0.680=02$
6.828=*02
$6.977 * 02$
7.128.0. 0
7.279 .02
7.432:*02
7. $586=02$
7.741. +02
7.897**02
8.054- 02
$8.2120+02$
$8,371=02$
$8,5320=02$
$4,69.3=02$
$8.855 m+02$
9. $019 \%+02$
9.183 .02
9.349=*02
9.5150*02
$9.682+02$
$9.8510+02$
1.002.0.03
1.019:*03
1.036.0.03
$1.053=03$
$1.0710 * 03$
$1.088 * 03$
drag ceef helax time
6.057. $=01$

. 90
DIST
2. $427 *+03$
2. $4^{8} 0^{*}=0^{3}$
2. $133=03$

2, $187=03$
2. $2^{4} 1=00^{3}$
2. $2950+03$
2. $149 * 03$
2. $40^{4 m=03}$
2. 458 - 03
2.313**03
$2,568=+03$
$2.024 *+03$
$2.079 x+03$
2. $135=03$
$2.79100^{3}$
$2.847=03$
$2.403=03$
2. 4600003
$3.0160=03$
3.473=*03
3. $1300+03$
$3.187 x+03$
3. $2440+03$
$3.50110+03$
$3.559: 03$
$3.4160+03$
$3.4740+03$
3.2310*03
$3.589 \ldots+03$
$3.047 \infty+03$
$3.105 \pm+03$
$5.163=+03$
3.522-*03
3. $0800+03$
3. $438-03$
3. $497=* 03$
4. $15560+03$
$4 \cdot 114 \pm+03$
4. $1730+03$
$4.2321+0^{3}$
4. $2910+03$
4. $94900+03$
4. $4.080 * 03$
$4.468 * * 03$
4.527**03
4. $286 * * 03$

## Particle density - 11.0 grams per cubic centimeter

| UlAMETEK | VELOCITY | RE | DRAG COEF | relax time | ;90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.000~+00 | 3.328=02 | 2,1920*05 | 1.0600+00 | $3,394=05$ | 3.5530-00 |
| 1.100x+00 | 4.0210=02 | 2.913=05 | $8.0000+05$ | 4.101005 | 4.y04=06 |
| 1.200x+00 | 4.780=02 | 3,777005 | 6.185 .05 | $4.8740-05$ | $6 . y 390006$ |
| 1.500x+00 | 5.004002 | 4,7970-05 | 4.8800+05 | 5.715 .05 | 9.,5500=06 |
| $1.400 x+00$ | 6.493=02 | $5.986=05$ | $3.917 x+05$ | 6.6220-05 | 1.284"00 |
| $1.500 x+00$ | 7,448\% 02 | 7.357-05 | 3.1920*05 | 7.590005 | 1.090000 |
| $1.600=00$ | 8.469 = 02 | 8.922000 | 2.630 $0+05$ | $8.636 \sim 05$ | 2.1870.05 |
| $1.700 \times 00$ | 9.55bo 02 | 1.0700*04 | $2.2010+05$ | 9.7440-05 | 2. $1850=05$ |
| $1.600 x+00$ | 1.071-01 | 1.2690004 | 1.857m+05 | 1.0920004 | 3.499-05 |
| 1.400x+00 | 1.192=01 | 1.4920004 | $1.5820+05$ | 1.2160004 | 4.9410005 |
| $2.000 x+00$ | 1.321=01 | 1.739-704 | $1.3580 \pm 05$ | $1.347=04$ | $5.5270 \times 05$ |
| <, 100x+ 00 | 1.455=01 | 2.012=04 | 1.1740*05 | $1.484=04$ | $6.472=05$ |
| 4.200x+00 | 1.597.01 | $2.313=04$ | 1.0220*05 | 1.6780004 | 7.192-05 |
| C.300x+00 | 1.745-01 | 2.6420=04 | $8.950 x+04$ | $1.779=04$ | 9. 3040 \% 05 |
| 2.400x+00 | 1.899-01 | 3,0010=04 | 7.8900+04 | 1.937004 | 1.1030-04 |
| $2.500 x+00$ | 2.00000001 | $3.3910=04$ | $6.9800+04$ | 2,10.1-04 | 1.298-04 |
| $2.000=+00$ | 2.228.001 |  | $6.2150 * 04$ | 2.2720-04 | 1.3170=04 |
| c. $700 \times+00$ | 2.4020-01 | 4,2700=04 | 5.2540*04 | 2.449004 | 1.1640004 |
| $2 . t 00=000$ | 2.582=01 | 4.761-04 | 4.983s+04 | 2,6330-04 | 2. $u^{4} 0=04$ |
| C. $9000+00$ | 2.769.01 | 5.288.-04 | $4,4868+04$ | 2,8240=04 | 2.9460004 |
| $\leq .000 x+00$ | 2.963=01 | $5.8530 \cdot 04$ | 4.050p+04 | 3.0220*04 | 2.0860004 |
| S. $100 x+00$ | 3.163.01 | 6.457-04 | 3.070 .04 | $3.226=04$ | 3. $\mathrm{y}^{6} 1004$ |
| S. $2000 x+00$ | 3.3700001 | 7.1010\% 04 | 3. 340.04 | $3.437 \mathrm{~m}=04$ | 3.4750-04 |
| $3.5110 x+00$ | $3.583 \mathrm{~m}=01$ | 7.787004 | 3.05cu*04 | $3.6540=04$ | 3. 4290004 |
| $3.400 x+00$ | $3.003 m=01$ | 8,515=04 | 2,79 604 | 3,878=04 | 4.4261004 |
| 3, $2010 x+40$ | 4.0300-01 | 9.287-04 | 2. 261.044 | 4. $1090=04$ | 4. $y 68 \mathrm{w}=04$ |
| S. $600 \mathrm{c}+10$ | 4.263001 | 1.0100003 | 2. 554.04 | 4.347n=04 | 5. 259004 |
| S. $/ 000 \mathrm{c}+10$ | 4. לociol 01 | 1.097.03 | 2.169x+04 | 4,5910004 | 0. $6020=04$ |
| $3.6000+00$ | 4.748-01 | 1.188.03 | 2.0030+04 | $4,8420 \cdot 04$ | $0.998-04$ |
| S. $9000+00$ | 2.001=01 | 1.284**03 | $1.054 x+04$ | 5,1000004 | $7.0510=04$ |
| 4. $0000 x+60$ | $5.2600=01$ | 1.3850 $=03$ | $1.719+04$ | 5. 3640004 | 8.464004 |
| $4.100 x+10$ | 5.520 = 01 | 1.492000 0 | $1.3900+04$ | $5.035=04$ | 9. 3410004 |
| 4.200 .00 | 5.798=01 | $1.603=03$ | 1.4800*04 | $5,912 x=04$ | 1. 1280003 |
| $4.5000+00$ | 6.077-01 | $1.721=03$ | 1.585x*04 | $6.1970=04$ | $1.130=03$ |
| 4.400x+10 | 0.3620 .01 | 1.0430003 | 1. 1950004 | $6.4880 * 0^{4}$ | 1.2380003 |
| $4.200 x+00$ | 0.054001 | 1.972000 | $1 .<0^{y}=+0^{4}$ | 0.785004 | 1.354000 |
| $4.000 x+110$ | 0.9520001 | 2. 106-03 | 1. $1320+04$ | $7.0^{89}=04$ | 1.478000 |
| $4.700 x+00$ | 7.2570-01 | 2, $246=03$ | $1.0620+04$ | $7.4000 \cdot 04$ | 1.0110003 |
| $4,0000+10$ | 7.560 00001 | 2. $592=03$ | $9.9600+03$ | 7.7180004 | 1.1520003 |
| $4.400 x+60$ | 7.880\%-01 | 2. $244=03$ | $9.973 * 03$ | 8.0420004 | 1.402005 |
| $=.000 x+00$ | $0.2110=01$ | 2.703003 | $8.0240+03$ | 8.3730004 | $2 \cdot 4^{6} 20003$ |
| 2. $1000 \times 60$ | 0. $242=01$ | 2.868-03 | $8.3170+03$ | 8.7100004 | $2 \cdot 2310003$ |
| $2.200 x+00$ | $0.079=01$ | S.0400=03 | 7.840.0 03 | 9.05410004 | 2.41110003 |
| $2.300 x+150$ | $9.220=01$ | 3.219=03 | 7.414.0+03 | 9, $4_{0} 50004$ | 2.0021003 |
| $2.400 x+00$ | 9.574: 01 | $3.404=03$ | 7.0110000 | 9.7630004 | 2.0030003 |
| $2.5008+150$ | 9.931001 | S.596=0 | $6.0370+03$ | 1.013.03 | $3.116=03$ |

PARTICLE LENSITY: II.O GKAMS PER CUBIC CENIIMETEK

| UIAMETEH | velucity | RE | DRAG COEF | relax time | .9ヵ DJST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.600 x+00$ | 1.029000 | 3.1960003 | 6.2890+03 | 1.0500003 | 3. $2410=0 \leq$ |
| $2.700=00$ | $1.0600+00$ | $4.0030=03$ | $5.965 n+03$ | 1.0880003 | $3.478=03$ |
| 2.600x+00 | $1.100^{4}+00$ | 4,217=003 | 5,063** 0 | $1.1260=03$ | 3, $288=03$ |
| $2.900 x+00$ | 1.1420+00 | 4,4380-03 | 5. $5810+03$ | 1. 1650003 | 3. 4910003 |
| $0.000 \times+00$ | $1.1810+00$ | 4,667.003 | 5.1170*03 | $1,2050=03$ | 4. $2688=03$ |
| $0.100 \times+00$ | 1.221000 | $4.904=03$ | 4.6710003 | $1.245=00^{3}$ | 4. $2590=03$ |
| $0.2000+10$ | 1.201 .000 | $5,149 \sim 03$ | 4.6400003 | 1.2860003 | 4.0640-03 |
| $\because 200 x+00$ | $1.3020+00$ | $5.402=03$ | $4.4230 * 03$ | 1.528003 | 5.18500 03 |
| $0.400 x+100$ | 1.344. +00 | $5.663=03$ | 4.2200*03 | $1.370=03$ | 5.3210003 |
| $6.500 x+100$ | 1. $3800+00$ | 2.932=03 | 4.029**03 | 1.4130003 | 5. $4740=03$ |
| $0.600=00$ | 1.42900 | 6,209.03 | $3.6490+03$ | 1.4570003 | 6.2430003 |
| $0.700 x+00$ | $1.4720+00$ | $0.495-03$ | $3.6800+03$ | 1.2010003 | 6.02900 $=03$ |
| -.000x+60 | 1.5160000 | 0.7900003 | 3.5210+03 | $1.546=03$ | 7. $0^{32} 2=03$ |
| 勺. $4000+00$ | 1.5610000 | $7.094=003$ | 3.3710003 | $1,5920=03$ | 7.4540003 |
| 7.000x+00 | 1.607000 | 7.406003 | $3.2290+03$ | $1.039 \times 03$ | 7.09.4-03 |
| \%.100x+00 | $1.6530+00$ | 7.727m03 | 3.095-03 | $1.686=03$ | 8. $554 \times 0 \cdot 0$ |
| ?. $0000 \times 00$ | $1.7000+00$ | 8.058=03 | 2.9580003 | $1.7330=03$ | $8.6340=03$ |
| $7.300 \times 100$ | 1.747000 | 8.3980003 | 2.0480*03 | $1.782=003$ | 9., $350=03$ |
| 1.400x+00 | $1.79 b_{0}+00$ | $0.747=03$ | 2.7350*03 | 1.8310003 | 9.054-03 |
| 7,200=000 | $1.044 \pm+00$ | 9.106.03 | 2,627:*03 | 1.8800003 | $1 \cdot u^{4} 00002$ |
| $7.000 x+00$ | 1.093000 | 9.474=03 | 2.5200*03 | $1.4310=03$ | $1.4960=02$ |
| $7.700 \times+00$ | 1.845000 | 9.052.-03 | $2.429 * 03$ | $1.9820=03$ | 1.1550.02 |
| $7.000 x+00$ | 1.994*00 | 1.0240-02 | 2.537**3 | $2 \cdot 033 \cdot 03$ | 1. $2160=02$ |
| $7.400 x+00$ | 2.04510+00 | 1.0640"02 | 2. $5500 * 03$ | 2.0850 $0^{8}$ | 1. 1 $^{79}=02$ |
| $0.000 \times+00$ | $2.097+00$ | 1.102.02 | 2.167-03 | 2.138* 03 | 1.945-022 |
| -100 10000 | $2.1500+00$ | $1.146=0{ }^{\circ}$ | 2.0800003 | 2.1920003 | 1,413002 |
| c. $2000+00$ | $2 \cdot 20{ }^{3}+00$ | 1.1890"02 | $2.0130+03$ | $2.2460=03$ | 1.4840002 |
| \%. $5000 \times 00$ | 2.257 in 00 | $1.233=02$ | $1.94<0+03$ | 2. $3010=03$ | 1. 2580002 |
| c. $400 x+60$ | 2.3110000 | 1.278.002 | $1.873 x+03$ | $2.557 * 0^{3}$ | $1.034=02$ |
| $0.300 x+00$ | $2.3600+00$ | 1.524-02 | $1.00^{0}+03$ | $2.413 x=03$ | 1.1130002 |
| c. 000000 | $2.4220+00$ | 1.3720002 | 1.746 .03 | $2.470=03$ | $1.1950 \cdot 02$ |
| -. $1000+00$ | 2.479 +00 | 1.4200002 | $1.087 x+03$ | 2. 5.28003 | 1.0800000 |
| $0.000 x+00$ | $2.5300+00$ | 1.469 .02 | 1.031003 | 2.586 .03 | 1.76700 0.2 |
| - $400 \mathrm{C}+00$ | 2.593000 | 1.5200002 | $1.577=03$ | 2.6450003 | 2. $458=02$ |
| y. 0000000 | $2.6520+00$ | 1,5710=02 | 1.5250003 | 2.7040003 | 2.152w-02 |
| 4. 100000 | $2.7110+00$ | 1.624i=02 | $1 \because 4750+03$ | 2. 7640003 | 2. $<49 \mathrm{~m}=02$ |
| 9.200x+00 | $2.7700+00$ | $1.678=02$ | 1.42800.03 | 2.0250003 | 2. $34910=02$ |
| \%. $500 \mathrm{x}+30$ | $2.8310+00$ | 1.733n=02 | 1. $5830+03$ | 2.087**03 | 2.4530-02 |
| $4.400 \times 00$ | 2.8920+00 | $1.790 \% 02$ | $1.5390+03$ | $2.949=03$ | 2.360002 |
| 9. $2000+00$ | $2.9550+00$ | $1.0470=02$ | 1.2980*03 | 3.0120003 | $2.5700=02$ |
| 4. $6000 \mathrm{x}+00$ | 3.0150*00 | $1.906=02$ | 1.2580*03 | 3.0750=03 | 2.184002 |
| $4.700 x+00$ | 3.0705000 | $1.9660 \cdot 02$ | 1.220-* 03 | 3. 1390003 | 2. $701=02$ |
| $4.800 x+00$ | 3. $1420+00$ | 2.027-02 | $1.183=+03$ | 3. 2040003 | 3.4230=02 |
| $4.900=+00$ | 3. $20010+00$ | 2,090~*02 | $1.1480+03$ | 3.2690003 | 3. 1470002 |
| $1.000 \times 01$ | 3.2710000 | 2.154=-02 | $1.114=+03$ | 3.3350003 | $3.2760=02$ |
| $1.100 x+01$ | 3.953.00 | $2.863 \%-02$ | 8.389** 02 | 4.031003 | 4.1920*02 |

PAKTICLE DENSITY $=11.0$ GRAMS PER CUBIC CENIIMEIEK

UIAMETEK
velocity
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. 90 Dis

| $0 x+01$ | 4,098.00 | 3.713 .02 |
| :---: | :---: | :---: |
| $1.300 x+01$ | 5.5000+00 | 4.713.02 |
| $1.400 x+01$ | $6.377_{00} 00$ | 与.8770.02 |
| $1 \cdot 500 \times+11$ | $7.300^{50} 00$ | 7.2150 .02 |
| $1.600=+01$ | 8.294 .000 | 8.738 .02 |
| $1.700 x+1$ | $9.3410+00$ | $1.046=01$ |
| $1.800=+01$ | 1.044 .01 | 1.238 .01 |
| 1.900x+01 | $1.1600+01$ | 1.4520.01 |
| 2.000-01 | 1.282.01 | 1.688.91 |
| <.100\%+01 | $1.40^{80}+01$ | 1.947 .01 |
| $2 \cdot 200 x+01$ | $1.539 * 01$ | 2.230001 |
| $2.300 x+01$ | $1.670_{\text {m }}+01$ | $2.538=01$ |
| $2.400 x+01$ | 1.8100001 | 2.0700=01 |
| 2. $5000+01$ | 1.961.01 | 3,229=01 |
| 2.600\%* 11 | 2.1110*01 | 3.6140001 |
| $2.700 \pm+01$ | 2. 26410 * 01 | 4,0250001 |
| C.840x+111 | $2.42110+01$ | 4,463=701 |
| 2.9000* 01 | 2.581 .001 | $4.928=01$ |
| 3.000x+01 | $2.744 * 01$ | 5.4210001 |
| $3.100 x+01$ | 2.911 .01 | 5.942=01 |
| S.200x+01 | 3.0800+01 | $0.4900=01$ |
| S.300x+61 | 3.2520*01 | 7.066- 01. |
| 0,400x+01 | $3.4240+01$ | 7.666001 |
| S. $2000 \times 11$ | $3.0010+01$ | 8.2980.01 |
| 3.000x+01 | $3.7740+01$ | 0.959=01 |
| 3.700x+01 | 3,960.001 | 9.047.01 |
| 3.600x+61 | 4.142.0+01 | 1.036000 |
| 3.9000+61 | $4.5270+01$ | $1.111=00$ |
| 4.000x+61 | $4.5130+01$ | 1.189\%*00 |
| 4.100\%*01 | 4,701:01 | 1, 269.000 |
| $4.200 x+01$ | 4.691.0.01 | 1.353 .00 |
| 4. $500 \mathrm{O}+01$ | 3.084**01 | 1.439**0 |
| $4.400 x+01$ | 5.279001 | 1.529m+00 |
| 4. $500 \mathrm{x}+01$ | 5.470w+01 | $1.6230 * 00$ |
| $4.0008+11$ | $5.670=01$ | 1.719000 |
| $4.700 x+01$ | $5.8700+01$ | $1.8190+00$ |
| $4.600 x+01$ | 6.0840+0.1 | $1.923 \mu+00$ |
| $4.900 \pm+01$ | 0.294n+01 | 2.031.000 |
| $2.000 \times+01$ | $6.5070+01$ | 2,1420*00 |
| $2 \cdot 100 x+01$ | $6.7230+01$ | 2.2580+00 |
| 2. $2000 x+01$ | $0.9440+01$ | 2.378.00 |
| 2. $300 x+101$ | 7, 100** 01 | 2, 2020000 |
| $2,400 x+61$ | 7.390 ${ }^{\text {\% }}$ + 01 | 2.6300000 |
| -. $5000+01$ | 7.627 .01 | 2.7620*00 |
| $2.000 x+01$ | 7.061001 | 2.0990-00 |
| -,700x+101 | 0.090**01 | 3.039**00 |


| $6.4790 * 02$ | 4,1910003 | 6.181=02 |
| :---: | :---: | :---: |
| 5.1110002 | $5.615 \pm 00$ | 9.,533**2 |
| $4.1060 * 02$ | 6.501-03 | $1 .<54 \mathrm{mos} 01$ |
| 3.3510+02 | 7.4490003 | 1.0520001 |
| 2.7730+02 | $8.4580 \cdot 03$ | 2. $1370=01$ |
| $2.3230 * 02$ | $9.525=03$ | 2.1220.01 |
| 1.9680+02 | 1.065 .02 | $3.41910=01$ |
| $1.0830+02$ | 1. 1830002 | 4.442=01 |
| 1.452x+02 | 1.307-02 | 5. 1060001 |
| 1.263.4.02 | 1.4360002 | 6. 225001 |
| 1.107-02 | 1.5700002 | 7.015001 |
| 9.771.*01 | 1.709002 | 9.492=01 |
| 8.077 ** 01 | 1.852002 | 1.077m+00 |
| 7.7510*01 | $2.0000=02$ | $1 .<5700+00$ |
| $6.9610+01$ | $2.152 x-02$ | $1.450^{00+00}$ |
| $0.284 n+01$ | $2.3090=02$ | $1.059 \pm 00$ |
| $5.7000 * 01$ | $2.4680=02$ | 1.5850000 |
| 5.194m+01 | $2.0320=02$ | 2. $1200+00$ |
| 4.7520+01 | 2.799002 | 2. $5850+00$ |
| 4.365.001 | $2.9680 \cdot 02$ | 2.06110+00 |
| 4.024m*01 | 3.1410002 | 2.455000 |
| 3.123.01 | 3.3160002 | 3. $267-00$ |
| 3.4610001 | 3,492p-02 | $3.797 m+00$ |
| 3.2220+01 | 3,672002 | $3.945 m+00$ |
| 3,0000.01 | 3.854p-02 | 4. $1150+00$ |
| 2.0170+01 | 4.038.02 | $4.0990+00$ |
| $2.0400+01$ | 4.224mm 0 | 5. $104 \pm 00$ |
| 2.48) 01 | 4,4120*02 | 5. $328 \pm+00$ |
| 2. $5440+01$ | 4,00200-02 | 5. $+72 w+00$ |
| 2, <140001 | 4.7940-02 | $0.9360+00$ |
| 2.09 $0 \times 01$ | 4,9880-02 | 6. $4190 * 00$ |
| $1.480 n+01$ | 5.184** 92 | $7.4230+00$ |
| 1.085 .01 | 5.3830"02 | 7.4460-00 |
| 1.1910001 | 5, 5¢40*02 | $8.4890+00$ |
| $1.7040 * 01$ | 5,78800.02 | 9.4530+00 |
| $1.0200+01$ | 5,995002 | $9.0360+00$ |
| $1.5400+01$ | 6.205070 | $1 \cdot 424 x+01$ |
| $1.4700+01$ | $6.4180=02$ | $1.14870+01$ |
| $1.4100+01$ | 6, 6, 35-02 | $1.1510 \pm 01$ |
| 1.0470+01 | $6.0500 * 02$ | $1.2180+01$ |
| $1.28 \%$ + 01 | 7,0810.02 | 1. $2800+01$ |
| $1 .<310+01$ | 7.5100002 | 1.5570+01 |
| 1.1780001 | 7. 2420002 | $1.4300+01$ |
| 1.129000! | 7.778002 | 1. $5040+01$ |
| $1.0820+01$ | 8.0100002 | $1.9810+01$ |
| 1.0300001 | 8.2500002 | $1.06000+01$ |

PARTICLE UENSITY＝ 11.0 GHAMS PER CUBIC CENTIMETER

| hlameler | VELOCITY | RE | DRAG COEF | relax TdME | ．90 D．ST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.800 x+01$ | $0.331 .+01$ | S． $1820 * 00$ | 9．47ちゃ＊00 | 8，4950－02 | $1.14100+0$ |
| $2.400 \times+01$ | 8.564 .01 | S，3270＊00 | 9．0010＊00 | 8,1340002 | 1．$\times 2500$ |
| c． $000 \times+01$ | $8.7940+01$ | 3，474＊＊00 | $9.8600+00$ | 8,9080002 | $1.410^{m+0}$ |
| 6． $100 x+11$ | $9.0100+01$ | 3．622＊＊0 | 8.450 .00 | 9.195 .02 | 1．497＊＊0 |
| 0．200x 2111 | 9．228．01 | 3，767．＊00 | 8．691．＊00 | 9.4100002 | 2． $4^{860+0}$ |
| $6,300 \mathrm{c}+\mathrm{il}$ | $9.423 * 01$ | 3，909：000 | $8.464 \pm 00$ | $9,0 y^{9} 9^{*} 02$ | 2．1780＋0 |
| 0．400x＋ 11 | $9.5760+01$ | 4．01350＊00 | 8.531000 | 9，7650－02 | 2． $4^{7} 10$ |
| $0.200 x+11$ | $9.780 \times 01$ | 4．1890＋00 | 8.101000 | $9.9800=02$ | 2． $3670+0$ |
| $6.000 \times+1$ | $9.998 x+01$ | 4．3450＊00 | 7．8810＋00 | 1．0200001 | 2．465400 |
| $0.700 \times+11$ | 1．021：＊ 02 | 4．504＊＊00 | $7.0720+00$ | 1．04 $0^{4}=01$ | $2.364 *+0$ |
| $0.800 x+11$ | 1．042x＋02 | 4，667＊＊00 | $7.472=00$ | 1．06300 $=01$ | $2.0660+01$ |
| $6.900 \times+11$ | $1.00^{640+02}$ | $4,8320+00$ | 7．2810＋00 | 1．0850001 | $2.170^{\circ+01}$ |
| \％．000x +1 | 1．085．02 | 勺， 000000 | 7．099n＋00 | $1.100 \% 01$ | 2． $9700+01$ |
| 7．1000＋01 | $1.1060+02$ | 5．1720＊00 | $6.9240+00$ | 1.1280001 | 2． $4840+01$ |
| $\%$ 2000＋01 | $1.1280+02$ | 5，346．＊00 | 6.757000 | 1.1500001 | 3．$u^{940+01}$ |
| 7．300x＋01 | $1.149=02$ | 5．5240＊00 | $6.597 n+00$ | 1.1720001 | 3． $2060+01$ |
| \％．4000＋ 01 | $1.1710 * 02$ | 勺，7050＊00 | $0.444 \pm 00$ | 1．194．0．01 | $3.3200+01$ |
| $7.500 \times+11$ | 1.192000 | 5，8880＊00 | 6．2970＋00 | $1.210 \times 01$ | 3．4370＋01 |
| \％．0000＋ij | 1．2140＋02 | 6，075：＊00 | $6.1500+00$ | 1．238－01 | 3．255＊＊01 |
| 7．700n＋i11 | $1.2300+02$ | $6,265.00$ | $6.020 \times 00$ | 1.2600001 | $3.075 \pm 01$ |
| $7.800 \times+01$ | 1．257＊02 | 6．457－00 | $5.890=00$ | 1．2820001 | 3．198＊＋01 |
| \％．900x＋ 11 | 1．2790＋02 | 0．053－00 | 5，7640＋00 | 1． 5040001 | 3．422－01 |
| e．000x＋ 01 | $1.3010+02$ | 6．852\％＊00 | $5.044 \times 00$ | 1，3700001 | 4．11490＊01 |
| c． $100 x+01$ | $1.3220+02$ | 7．0540＊00 | 5．520．000 | 1.3490001 | 4．1770＋01 |
| $8.200=+01$ | $1.544 n+02$ | 7．259－＊00 | 5.410000 | 1．371＝01 | 4．9070＊01 |
| －，500x＋01 | 1．366－02 | 7．4600＊00 | 5． 500000 | 1．393－01 | $4.440^{10+}+01$ |
| $0.400 x+111$ | $1.388 \pm 02$ | 7．677－00 | $5.60^{4 * * 00}$ | 1．4150001 | 4． $27410+01$ |
| 6． $600 \times+01$ | $1.4100+02$ | 7．091．＊00 | b． $1040 * 00$ | 1.430001 | 4．1110＋0 |
| c． $2000+01$ | $1.4320+02$ | 8.108000 | 5．007．00 | 1.4600001 | $4.849 m+01$ |
| c．700x＋01 | $1.454 n+02$ | －1，328＊＊0 | $4,913.000$ | 1．4820＝01 | $4 . \pm 90+01$ |
| $0.000 x+01$ | $1.4700+02$ | $8.5510+00$ | 4．7230＊00 | 1．505－01 | 5．1320＊01 |
| $0.400=+41$ | $1.4980 * 02$ | $8.777 \%+00$ | 4.730 .000 | 1．5270001 | 5． $2770+01$ |
| Y．000x＋01 | 1，520．02 | 9，006－00 | $4.6510+00$ | 1．2500001 | $5.4230+0$ |
| Y． $1000+01$ | $1.540_{0}+02$ | 9.238 .00 | 4.5700000 | 1.5720001 | $5.371=+0$ |
| Y，200x＋71 | 1．564n＋02 | 9，473．＋00 | $4.4900+00$ | $1.5950=01$ | 5．1220＋0 |
| $4.300 x+01$ | －1．580 +02 | 9.711000 | 4．414．400 | 1．0170＝01 | 5． $274=+0$ |
| 4，400x＋01 | $1.6000+0.2$ | $9.952=00$ | 4，5400＋00 | $1.0 .40 x=01$ | 6． $\mathrm{u}^{28} 8+01$ |
| 9． $2000+01$ | 1．6300＋02 | 1．0200＋01 | 4，2600000 | $1.0 .62=01$ | $0.1850+0$ |
| y， $6000+01$ | 1．052n＋02 | 1．044．0．01 | 4．196．00 | 1．6850001 | 0． $94300+01$ |
| $4.700 x+01$ | 1．074n +02 | 1．069．＊01 | 4．131．000 | $1.7070-01$ | 6． $203 \mathrm{m+01}$ |
| $4.6000+01$ | $1.090 \%+02$ | 1．0950．01 | 4.065000 | 1．7300＊0．1 | $0.0 .65 x+01$ |
| $4.900 \pm+01$ | 1．7180＊02 | 1．1200＊01 | 4．0010＊00 | 1．7520－01 | $6.9290+01$ |
| 1．000x＋02 | 1．741．02 | 1．146．＊01 | $3.4400+00$ | 1．7．750＊01 | $0.4940+01$ |
| 1．100x＋02 | $1.9620+02$ | $1.4210+01$ | $3.4090+00$ | 2．0010＂01 | $8.156 *+01$ |
| 1， $2000+02$ | 2． $184 * * 02$ | 1：7200＊01 | $3.00<0 * 00$ | 2．2780001 | 1．4700＊02 |
| $1.300 x+52$ | $2.406 \pm+02$ | 2．0600＊01 | 2，0800＋00 | 2，454m＝01 | 1．2820＋02 |


| UIAMETER | VELUCITY | RE | DRAG COEF | relax time | . 90 D/ST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.4000+12$ | $2.627=+02$ | 2.4220*01 | 2.4210*00 | 2,0790001 | 1.212**02 |
| $1.500 x+0{ }^{2}$ | 2.8470+02 | 2.8.120-01 | 2.2080000 | 2,904n-01 | 1.157\% + 02 |
| $1.600=02$ | $3.0660+02$ | 3,2300*01 | $2.031=00$ | 3.127.01 | 2. $4190 * 02$ |
| 1.700.+0'2 | 3,284m*02 | $3.676 m+01$ | $1.0820+00$ | 3,3480.01 | 2. $2950+02$ |
| $1.0000 * 02$ | 3.4990*02 | 4,1480*01 | 1.754**00 | 3,5690001 | 2. $3860+02$ |
| $1.900=+12$ | $3.7140+02$ | 4,6460*01 | $1.0440 * 00$ | $3.787 m=01$ | 2.891-02 |
| c.000= 02 | $3.920_{0}+02$ | 5.170.*01 | $1.549 x+00$ | 4,004-01 | 3. $\angle 090+02$ |
| <.100x*02 | $4.1360+02$ | 5.720-*01 | 1.465.*00 | 4,218001 | 3.240**02 |
| 2.200x+02 | 4.345\%+02 | 0.295:*01 | $1.3910+00$ | $4.431-01$ | $3.083+02$ |
| 2. $900 x+12^{2}$ | 4.552 .02 | 6.6940+01 | $1.325=00$ | 4, $6420=01$ | 4. $4380+02$ |
| 2.400x+02 | $4.7570 * 02$ | 7.5170001 | 1.2600*00 | 4,8510001 | $4.0050+02$ |
| c. $200 x+02$ | $4.9600+02$ | 8,1650*01 | 1.2130+00 | 5.058.01 | 4.y82-* 02 |
| 2.600x+02 | 5.161m+02 | $8.835 \mathrm{m*}$ - 01 | $1.1650+00$ | 5.2630-01 | 5. $569 \%+02$ |
| $2.700 x+02$ | 5.3600+02 | 9,529**1 | $1.1220+00$ | $5.4660=01$ | 5. $1670+02$ |
| $2.800=02^{2}$ | 5.557 .02 | 1.025**02 | $1.0820+00$ | 5,667001 | $6.174=02$ |
| 2.900x+02 | $5.7520+02$ | 1.098**02 | 1.0400*00 | 5.8660001 | $6.5910 * 02$ |
| $3.000=+112$ | $5.9460 \times 02$ | 1.1740-02 | 1.013.000 | 6.063-01 | 7.4170+02 |
| - 100x+ 122 | 6.137m+02 | 1.2530*02 | 9.024-01 | 6.258.01 | 7.4510+02 |
| $3.200 x+02$ | 6.327.02 | 1.3330*02 | 9.5420001 | $6.4520=01$ | $7.0930 * 02$ |
| S. $300 x+42$ | 0.514 .02 | $1.416 m * 02$ | 9.2810001 | 6,0.430 01 | 8. $344 *+02$ |
| $3.400 x+02$ | 0.700 .02 | 1.5000002 | 9.039-01 | $6.833=01$ | $8.002 \pm+02$ |
| 5.500x+02 | $6.8840+02$ | $1.287 \% * 2$ | 8,8140=01 | 7.021:01 | $9.267-02$ |
| $5.000=+0^{2}$ | $7.0670+02$ | 1.6750+02 | 8.004001 | 7.207.01 | $9.1400+02$ |
| 3.700x+02 | $7.248+02$ | 1.760002 | 8.4070 .01 | 7.391001 | 1. $\mathrm{y}^{2} 20+03$ |
| 5.800x+02 | $7.427 n+02$ | $1.8580 * 02$ | $8.224=01$ | 7,5730001 | $1.4710+03$ |
| $5.900 x+02$ | $7.6040+02$ | $1.953 n * 02$ | 8.051 .001 | 7,754-01 | -. 1200003 |
| 4, $0000+02$ | 7.7790+02 | 2.049p+02 | 7.089001 | 7.9330001 | 1. $1700+0 \leq$ |
| 4. $100 x+12$ | 7.953 .02 | 2.147\%*02 | 7.730-01 | 8.1110001 | $1 \cdot<2 a^{x+03}$ |
| $4.2000+0{ }^{2}$ | 8.126. +02 | 2.2470*02 | 7.29\%001 | $8,286000!$ | $1.2710+03$ |
| $4,300=+02$ | $8.290 \pm+02$ | 2,349\% 02 | 7.4500001 | 8.4000001 | 1.9?30+03 |
| $4.400 \times+12$ | 8.460 .02 | 2.453n+02 | 7.320.01 | 8.633 m 0.01 | $1.9750+03$ |
| $4.500 \pm+1{ }^{2}$ | $8.6330+02$ | 2.558.*02 | 7.2000001 | 8,804m=01 | 1.4780+03 |
| $4.600 x+02$ | $8.800 x+02$ | 2,665=* 02 | 7.091001 | $8.973 \times 01$ | $1.4810+03$ |
| $4.700 \times 02$ | 8.964-02 | 2,774**02 | 6,481= 01 | 9.141001 | $1.2340+03$ |
| 4.600- 02 | 9.127.02 | 2, 885w+02 | $0.0 .770=01$ | 9, $3_{0} 8_{m}=01$ | 1.28800 03 |
| $4.400 \cdot+0^{2}$ | $9.289-02$ | 2.997**02 | 6.770.0.1 | 9.4730-01 | $1.0 .430+03$ |
| $2.000=02$ | 9.449 +02 | 3.1110*02 | $6.683 \times 01$ | $9.636=01$ | $1.0980+03$ |
| $2.100 x+02$ | 9.000 .02 | 3.2270*02 | 6,5.93=01 | $9.798=01$ | $1.1530+03$ |
| - $2000 x+02$ | $9.760 * 02$ | 3.344**02 | 6.5080001 | 9.959001 | 1.0090003 |
| 2. $5000+02$ | 9.9220+02 | 3.4630+02 | $0.42^{5}=01$ | 1.012x+00 | 1.06500 03 |
| 5.400x+12 | $1.0080+03$ | $3.583 \% * 02$ | $6.347 \times 01$ | 1.0281000 | $1.4220+03$ |
| 2. $2000 \times 02$ | 1.023**03 | 3.705-02 | 0.272001 | $1.0430+00$ | 1.9790+03 |
| 2.000x+02 | 1.030.03 | 3.8290+02 | 6. $2000=01$ | 1.059 0 + 00 | 2. $\mathrm{U}^{360+03}$ |
| 2,700x+012 | 1.050:03 | 3.9540+02 | $6.1310=01$ | 1.074m+0.0 | 2.4930+03 |
| 2.000-02 | 1.060.03 | 4.0800+02 | 0.065-01 | 1.0890+00 | 2. $\mathrm{S}^{100+03}$ |
| $2.900 x+12$ | $1.0830+03$ | $4,2080+02$ | 0.001-01 | $1.1050+00$ | $2.21010+03$ |

PARTICLE DENSITY $=11.0$
HIAMETEK
VELUCITY
RE
gRams per cubic centimeter

| HIAMETEK | Veldecity | RE |
| :---: | :---: | :---: |
| 0.000x+02 | 1.098 $0+03$ | 4, 338.402 |
| O. $1000 x+102$ | 1.1130+03 | 4.469m+02 |
| 6. $2000 x+122$ | 1.127.03 | $4.0010+02$ |
| $0.500 x+12$ | $1.1410+03$ | $4.1350+02$ |
| $0.400 m+02$ | 1.156.05 | 4, 670 - 02 |
| $0.200 x+0{ }^{2}$ | $1.1700+03$ | $5.007 \%+02$ |
| 6. $0000 \mathrm{x}+02$ | $1.1840+03$ | 5.145-02 |
| $0.700 \mathrm{c}+12$ | 1.1980+03 | 5.2850*02 |
| $6,6000+102$ | $1.2120+03$ | $5.425=02$ |
| $6.400 x+02$ | $1.2250+03$ | 5, $2680 \times 02$ |
| 7.000x+02 | 1.239.03 | 5.7110*02 |
| $7.100 x+12$ | 1.2530+03 | 5.856 .02 |
| 7.200x+12 | $1.2600+03$ | 0.0020*02 |
| 7. $300 x+122$ | 1.279*03 | 0.149 .02 |
| $7.400 x+02$ | 1.2920*03 | 6,298.02 |
| 1.200x+02 | $1.3000+03$ | 0.4480+02 |
| 7.000x+02 | $1.319+03$ | 6.599=02 |
| \%.700x+0¢ | $1.3320+03$ | 6.751.*02 |
| $7.800 x+02$ | $1.34410+03$ | $0.9050+02$ |
| 7.900x+02 | $1.357+03$ | 7.060-*02 |
| -.000 + 02 | $1.3700+03$ | $7.216=* 02$ |
| -. $100 x+02$ | $1.3820+03$ | 7.373 .02 |
| $0.200 x+12$ | $1.392+03$ | 7.5310*02 |
| $0.500 x+12$ | 1.407 .03 | $7.0910+02$ |
| $0.400 \times+12$ | 1.420x+03 | $7.6520+02$ |
| -. $500 x+12$ | $1.4320+03$ | $0.0140+02$ |
| $8.600 x+182$ | $1.444 x+03$ | - $0.177 n+02$ |
| \%. $70000+12$ | $1.450+03$ | $0.3410+02$ |
| -600x+02 | $1.4000+03$ | $8.506 x+02$ |
| ¢. $9000 \times+12$ | 1.480*03 | $8.673=02$ |
| Y. $000 x+02$ | 1.492603 | $6.8400+02$ |
| $4.100 x+10$ | 1.503.03 | 9.009=+02 |
| $4.200 .0+02$ | $1.515+03$ | 9.178**2 |
| $4.300=+42$ | 1.52.7:03 | 9.549.-02 |
| $4.400 x+10$ | $1.5300+03$ | $4.521=02$ |
| 勺. $5000 \times+02$ | 1,550:203 | 9.694**02 |
| 4. $0000 x+02$ | $1.5610+03$ | 9.067**.02 |
| $4.700 \%+12$ | 1,5720+03 | 1.004n+03 |
| Y. $0000 \mathrm{x}+12$ | 1, $5830+03$ | 1.0220*03 |
| 4.900w+12 | 1.2950+03 | 1.040003 |
| 1.000x+03 | $1.0060+03$ | $1.057 x+05$ |
| $1.0100+15$ | 1.617503 | 1.075** 0 |
| 1.020-02 | 1102800 03 | 1.093:03 |
| $1.0300+105$ | $1.6390+03$ | 1.1110+03 |
| 1.040.0.03 | 1.049503 | 1.129x+03 |
| 1-050x 0 | $1.6600+03$ | 1.1480*03 |

DRAG COEF RELAX TIME .9O DIST
$5.4400=01 \quad 1.1200+00 \quad 2.268 * 03$
5.0820001 1.1550+00
$5.0200=01$
5.771001

5,719001
5.669.01
5.6200001
$5.573=01$
$5.528=01$
$5.484 \infty 01$
$5.4420=01$
$5.4020=01$
$5.362=01$
$5.324=01$
$5.287=01$
5.251=01
$5.2170=01$
$5.183=01$
$5.183=01$
5.1510001
5.119.001
$5.089=01$
$5.059=01$
$5.0300=01$
$5.0020=01$
$4.975=01$
$4.875=01$
$4.949=01$
$4.925=01$
$4.925=01$
4.090 .001
$4.0740=01$
4.0510001
$4.020=01$
$4,002=01$
$4.802=-01$
$4.784=01$
$4.763=01$
$4.7420=01$
$4.7260=01$
4.7020=01
$4.683=-01$
$4.065=01$
$4.047=01$
4.6.29=701
$4,61<0=0$
4.5950=01
$4.579=01$
$4.563=01$
$4.547=01$
$4.5470=01$
$1.1550+00$
$1.1490+00$ $1.1640+00$
$1.1790+00$
$1.193_{\infty}+00$
$1.207 \infty 00$
$1.2220+00$
$1.2360+00$
$1.2500+00$
$1.2640+00$
$1.277 \infty+00$
$1.2910 * 00$
$1.305=00$
$1.3180+00$
$1.3310=00$
$1.3450+00$
$1.358=00$
$1.3710+00$
$1.3840+00$
$1.3970+00$
$1.4100 * 00$
$1.4220+00$
$1.422 x+00$
$1.435 m+00$
$1.448 x+00$
$1,4600+00$
$1.4720+00$
$1.485+00$
$1.497 * 00$
$1.50^{9}+00$
$1.5210+00$
$1.5330+00$
$1.5450 * 00$
$1.557 \infty+00$
$1.5690+00$
$1.5800+00$
$1.5 .92 x+00$
$1.603 x+00$
$1.6 .150+00$
$1.626 x+00$
$1.637 x+00$
$1,049 \pm+00$
$1.660=+00$
$1.671 x+00$
$1.0820+00$
$1.6930+00$
2. $927 \pm+03$
2. $986=03$
$2.446 n+03$
2. $2050+03$
$2.265=+03$
$2.0250+03$
2.0860003
2. $1400+03$
2. $907=+03$
2. 068 ** $0^{3}$
2. $4300+03$
2. $9910+03$
3. $u^{5} 3=00^{3}$
3. 1150003
3. $1770+03$
3. $239=+03$
3. $502 \pm+03$
3. $564=03$
$3.427 \pm+03$
$3.490=+03$
3. $553 x+03$
$3.0160 * 03$
3.079.0*03
$3.143=+03$
3. $0060+03$
3. $270^{10+03}$
3. $y 340+03$
3.498:03
4. $0^{6} 2=+03$
4. 1260003
4. $1900+03$
$4 \cdot<54=+03$
4. 519x*03
$4.583=+03$
$4.4480+03$
4.312x+03
4. $2770+03$
$4.042 * 03$
4.1070+03
4. $1720 * 03$
4.037w+03
$4.402 n+05$
$4.4670+03$
5. $\cup^{32 m+03}$
$5 \cdot 4^{97}+05$

| UJAMETEK | velucity | RE | DRAG COEF | relax time | －9\％DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1．000＊＊00 | 3．631－02 | $2.391=05$ | 9．7100＋05 | 3.703 .005 | 3．747－000 |
| 1．100x＋00 | 4．387＝02 | 3．178＊＊ 05 | 7． $3330+05$ | 4．474n－05 | 5.1740006 |
| 1．200x＋00 | $5.2140=02$ | 4．120＝ 05 | 5．669＊＊05 | 5.5170005 | 8．17000\％00 |
| $1.300=+00$ | 6.1130002 | $5.2330=05$ | 4．4730＋06 | $6.234=05$ | 1．124＝05 |
| $1.400 x+100$ | 7．0840－02 | $6.5300=05$ | 3.5910005 | 7．224＝05 | 1．211＝05 |
| $1.500 x+00$ | 8．120＝02 | 8． $026=05$ | 2，420－05 | 8.286005 | $1 . \pm 900^{00} 05$ |
| $1.000 x+00$ | 9，239．02 | 9．734－105 | $2.4100+05$ | 9，421．05 | 2．5750．05 |
| 1．700－ 110 | 1．0420＝01 | 1．167\％ $0^{\prime \prime}$ | $2.0180 \pm 05$ | $1.063 .00^{4}$ | 3． 2790005 |
| 1．800x＋00 | $1.168=01$ | 1．384－＊04 | $1.7030+05$ | 1.1910004 | 4．1190＝05 |
| 1．900 +00 | 1．3010001 | 1．627．04 04 | $1.4500+05$ | 1.320004 | 5.111005 |
| $2.0002+00$ | 1.4410001 | 1．897－04 | $1.2450+05$ | 1.469004 | $6.272 \pm 0{ }^{\text {2 }}$ |
| c． $1000+00$ | $1.5880=01$ | 2．1950＂04 | $1.0700+05$ | 1．0190004 | 7.020005 |
| c． $200 x+10$ | 1．742．001 | 2， $223=04$ | 9．372＊＊04 | 1.776004 | 9．174＝05 |
| C．300x＋ 00 | $1.90{ }^{3}=01$ | 2．882＝004 | $8.2100+04$ | 1.9410004 | 1．095004 |
| 6．400\％＋00 | 2．072－01 | S．274＝${ }^{\text {c }} 0$ | 7．2320＋04 | 2．1130＊ $0^{4}$ | $1.298-04$ |
| C． $2000+00$ | 2．247．01 | 3．699－04 | $6.4040+04$ | 2．2920＊04 | $1.528=04$ |
| ＜． $0000+00$ | 2．4300＝01 | 4，1600\％ 04 | $5.6970+04$ | 2．4780004 | $1.187=04$ |
| 2，7000＋ 110 | $2.6200=01$ | 4，658：＊ 04 | 5．0910＋04 | 2．6720－04 | 2．077－04 |
| c． $6000+00$ | く．817． 01 | 5．194－04 | 4．2680＋04 | 2．8736－04 | 2．401004 |
| c．900． 90 | 3．021－01 | 2，769＝04 | 4．114．${ }^{\text {a }}$＋04 | 3．0810004 | $2.162=04$ |
| S．000x＋00 | $3.232=01$ | 0，385－＂04 | 3．7100＊04 | 3．296＂ 04 | $3.1620=04$ |
| S．1000＋00 | 3．451\％$=01$ | 7． $044=04$ | $3.57 \leq 0 * 04$ | 3， 2190004 | 3.0040004 |
| S． $2000+00$ | 3，676 $=01$ | 7.7470004 | $3.11670+04$ | 3．749．04 |  |
| 3． $500 \times 00$ | 3．909－01 | 8，494＝ 0 －${ }^{4}$ | $2.1900+04$ | 3．9800．04 | 4.0260004 |
| － $4000+00$ | 4，1490001 | 9．289\％－04 | $2.6590+04$ | 4．231．－104 | 5.2110004 |
| $3.500 x+00$ | 4．390x $=01$ | $1.013=03$ | 2． $347 n+04$ | 4，48360 04 | 5.0500004 |
| S．0000＋ 40 | 4，050．001 | 1．1020m 0 － | ？． $1500+04$ | 4．7420004 | 6． $2460=04$ |
| 3，700x＋00 | 4．9110＊01 | 1．197＝03 | $1.9800 * 04$ | 5．0U9m＊04 | 7． 502004 |
| s．800x＋ 10 | 5．1800 $=01$ | 1．2960＂03 | 1.0360004 | 5． 2820004 | 8． 1220004 |
| S． $9000+00$ | 5.4550 .01 | 1．4010－03 | 1．0990＊04 | 5.5630004 | 9．408＊ 04 |
| $4.000 x+00$ | $5.730=01$ | 1.5110005 | 1．5750＊04 | $5.6510=04$ | 9． $9660=04$ |
| 4．100x＋00 | 0.020 .01 | 1．0270003 | $1.4650+04$ | 6，1470004 | 1．100003 |
| $4.200 x+00$ | 0．5？2＝01 | $1.749=03$ | $1.3620 * 04$ | 0.4500004 | $1.211000^{3}$ |
| 4． $500 \times 00$ | 0．029．001 | 1．877－03 | 1． $269 \times+04$ | 6,7600004 | 1． 3 300003 |
| $4.4000+00$ | 0.9400001 | 2．0110＝03 | 1．195x＋04 | 7．077－04 | 1.4580003 |
| 4． $500 \times 00$ | 7．250：01 | 2．151003 | $1.1000+04$ | 7．4020004 | 1.3940003 |
| $4.600 x+00$ | 7． 284001 | 2．297－03 | $1.0300+04$ | 7．7340004 | 1.1410003 |
| $4.700 \times 00$ | 7，5100001 | $2.4500=03$ | 9．7310＊03 | $8 \cdot 0^{730} 00^{4}$ | $1.897 \times 00^{3}$ |
| $4.800 x+00$ | $8.256=01$ | 2．009－03 | 9.1360003 | $8.4190=04$ | 2．463＊＊ 0 |
| $4.4000+00$ | 8.005001 | 2．776＊ 03 | 8． $5920+03$ | 8.775004 | 2． $4^{4} 0^{*-03}$ |
| $=.000 x+00$ | $8.957=01$ | 2．949＝03 | $8.0890+03$ | 9.134004 | 2．4280－03 |
| $=.100 \times+00$ | $9.510=01$ | 3．1290003 | 7.624 .0 03 | 9.5020004 | 2．027－0．03 |
| こ，＜00x＋00 | 9，086．$=01$ | 3．316．$=03$ | 7．194－＊3 | 9，877004 | 2．039世03 |
| $=.300 \times+00$ | $1.0008+00$ | S．511＝03 | 6．190＊＊03 | 1.026000 | 3．1363inots |
| $=.400 \times+60$ | $1.0440+00$ | 3．113x 03 | 6.427 .03 | 1．065＝03 | 3． 5000005 |
| 2．500x＋00 | 1.085000 | 5，9230＝03 | 6．0184n＋03 | 1．105003 | 3．2510003 |

PARTICLE DENSITY $1 \angle .0$ GRAMS PER CUBIC CENIIMETER
UIAMETEK
VELUCITY
RE
drag cuef kelax time .90 dist
$2.000 x+00$
$2.700 x+00$
2. $600 \mathrm{k}+00$
b. $900 x+00$
6. $000 x+00$
-. $100=+00$
$0.200 n+00$

- $5000+00$
$0.400=+00$
$0.5000+00$
$0.000=+00$
$0.700+00$

6. $800 x+00$
-. $900 x+00$
7.000 +00
7. $100 x+00$
$7.200+00$
$\% .300=+00$
$7.400 x+00$
8. $500 \mathrm{x}+00$
$\% .000 x+00$
1.700**00
7.000 $2+00$
$\% 900=+00$
$0.000 x+00$
$0.100 x+00$
$0.200 x+00$
$0.3002+00$
-. $400 \%+00$
c. $200 \times+00$
-. $000+40$
$0.700 x+00$
c. $6000+00$
$\because \cdot 400 x+00$
Y. $000 x+00$
$4.100=+00$
y. $200 x+00$
Y. $6000+00$

ソ.400e+00
$4.200 x+00$
4. $0.00 \times+00$
ч. $700 \times+00$
$4 \cdot 600 x+00$
$y, 400 x+00$
$1.000 x+01$

1. $100 x+01$
2. $1230+00$
$1.165=00$
$1.2040 * 00$
3. $2460+00$
$1.289+00$
$1.3320+00$
$1.370+00$
$1.420 \%+00$
$1.466+00$
$1.512=00$
$1.5590+00$
$1.606=00$
$1.654=00$
$1.703=00$
$1.753=00$
$1.803=00$
$1.854=00$
$1.90^{6}+00$
$1.958=00$
$2.0110 * 00$
$2.065 *+00$
2.1200+00
2.175**00
$2.2310+00$
$2.287=00$
$2.3450+00$
$2.40^{3}+00$
$2.461 .+00$
2.521.+00
$2.5810 * 00$
$2.042=00$
$2.7030+00$
$2.760=00$
$2.029+00$
$2.8920+00$
$2.957 .+00$
3.0220*00
3.087 $0+00$
3.154. +00
3.221m*00
$3.289+00$
$3.357=+00$
$3.420 n+.00$
$3.496+00$
$3.5670+00$
$4.3 .1 .10+0.0$
4. $1410=03$
$4,360=03$
$4.600=03$
$4.841=03$
$5.350=03$
$5.0170=03$
$5.893=03$
6.177=003
$6.471=03$
$6.773=03$
$7.085=03$
$7.085 x=03$
7.407
7.738.-03

8, 079n-03
$8.429=03$
$8.790=03$
$9.160=03$
$9,541=03$
9.932. -03
$1.033=02$
$1.075=02$
$1.117=02$
1.1600002
$1.2050=02$
$1.251=02$
1.297. 02
1.345.002
1.594-02
$1.4450=02$
$1.496=02$
$1,549=02$
1.605 .02
$1.058=02$
$1.71 .4=02$
1.772002
$1.830=02$
1.091000
1.952-0.02
2.015-92
2. $0790=02$
2.1440 .02
$2.211=02$
$2.279=02$
2.549-" 02
3.122-02

| 5.765x+03 | 1.145000 | 3. 2100003 |
| :---: | :---: | :---: |
| $5.4680+03$ | $1.1800=03$ | 4. $u^{9} 5=03$ |
| 5.192n*03 | 1.2280003 | 4. 9890003 |
| $4.933 .0+03$ | 1.2710.03 | 4.099 .03 |
| 4.6910+03 | 1.3140003 | 5. 1250003 |
| 4.465 0 * 03 | $1.558=03$ | 5. 367 \% 03 |
| 4.2540+03 | 1.4030003 | 5.127=03 |
| 4.055.0.03 | $1.4490 \cdot 03$ | $6.1050=03$ |
| 3.069 0 +03 | 1.495003 | 6.501003 |
| 3.094**03 | 1.2420003 | 6.416003 |
| 3.5290*03 | 1.589003 | 7. 550000 |
| 3.374=*03 | 1.638.03 | $7.004=03$ |
| $3.2280 * 03$ | 1.68700 03 | 8. $2^{8} \mathrm{o}^{-9}=03$ |
| 3.0900+03 | $1.737=03$ | $8.1760-03$ |
| 2.460.*03 | $1.787=03$ | 9. $295=03$ |
| 2.037.0.03 | 1.839000 | $9.436=03$ |
| 2.7210*03 | $1.8910=03$ | $1 \cdot 0^{4} 0=02$ |
| 2.0120*03 | $1.943=03$ | 1.4990002 |
| 2.500.005 | 1.997-03 | $1.1600=02$ |
| $2.40^{9} 0+03$ | 2,0510003 | 1.2240002 |
| 2.510 .03 | $2.100=03$ | 1. 2900002 |
| $2 \cdot<27 \times 03$ | $2.1610=03$ | 1.360002 |
| 2.1430003 | $2.218=03$ | $1.431=02$ |
| $2.0650+03$ | 2.275.03 | 1.9060002 |
| $1.487 m+03$ | 2,3330003 | 1.584002 |
| $1.4150+03$ | 2.3910003 | 1.064002 |
| $1.8400+03$ | 2,4500=03 | 1.148*02 |
| $1.7800+03$ | 2.5100003 | 1.0340002 |
| 1.7100003 | $2,571=03$ | $1.924=002$ |
| $1.6500+03$ | 2,6320-03 | 2. 1770002 |
| 1.6010003 | 2.6940003 | 2. 113000 |
| $1.547 m+03$ | 2.757:03 | 2. 2130002 |
| 1,49ちm*03 | 2,6200003 | 2. 3160002 |
| $1.4460+03$ | 2.884003 | 2.423-02 |
| 1. $3960+03$ | 2.949-03 | 2. 3 34002 |
| 1. $5530+03$ | 3.01500 03 | $2.048=02$ |
| $1.5100+03$ | 3.081003 | 2.106-02 |
| 1.9680*03 | 3,148003 | 2.0880002 |
| 1.c20x+03 | $3.2160=03$ | 3.014* 02 |
| 1.1900003 | 3.285-03 | 3.1440002 |
| 1.1.54x+03 | 3. $5540=03$ | 3. $4^{780002}$ |
| $1.1198+03$ | 3,424=03 | 3.4160002 |
| $1.0850+03$ | 3,4940=03 | 3. 559.002 |
| 1.050x+03 | $3.5050=03$ | 3.10610-02 |
| 1.0260+03 | $3.6 .370=03$ | 3.0570\% 0.2 |
| 7.0900+02 | 4,390.003 | $5.042=02$ |

PARTICLE DENSITY = $1 \angle .0$ GRAMS PER CUBJC CENTIMETER

UIAMETEK
$1.200=+01$
$1.300 x+01$
$1.400=+01$
$1.500 \mathrm{z}+111$
$1.000=+01$
$1.700 \times 01$
$1.800=+01$
$1.900 x+01$
2.000 = + 11
<. $1000+01$
$2.200=+01$
$2.300 x+01$
2.400. 401
c. $200 x+01$
$2.000 \times+01$
$2.700 \times 01$
$2.6000+01$
<. $900 \times+01$
ง. $0000+01$
s. 100 = * 1
s. $200 x+01$
$5.300=+11$
ง.400: 41
$3.2000+111$
2.000 0.111
$5.700 x+61$
ง, $0000+61$
S. $4000+11$
4. $000 \mathrm{0}+01$
4. 100: 01
4. $2000+101$
4. $500 x+111$
$4.4000+01$
$4.205 x+01$
$4.040 x+01$
$4.700 x+13$
$4.600 x+61$
$4.400 x+01$

b. $1000+01$
$2.200 x+1 j 1$
?. $000 x+11$
$2.400=0.1$
2.buox +11

- $2000 \mathrm{x}+1$
2.700x+11

VELOCITY


RE

$$
\begin{aligned}
& \text { 4.048-02 } \\
& 5.139 .02 \\
& 6.4070 * 02 \\
& 7.864=02 \\
& \text { 9.522:-02 } \\
& 1.139001 \\
& 1.348=01 \\
& 1.581 \mathrm{~m}=01 \\
& 1.838 \mathrm{~m}=01 \\
& \text { 2. } 119=01 \\
& 2.420=01 \\
& \text { 2.760-01 } \\
& \text { 3.121:=01 } \\
& 3,509=01 \\
& \text { 3.926-01 } \\
& \text { 4. } 371=01 \\
& 4.845 .01 \\
& \text { 5. } 347=01 \\
& 5,879=01 \\
& 6.441=01 \\
& \text { 7.032-01 } \\
& 7.652 p=01 \\
& 8.299=01 \\
& 8.979 n=01 \\
& 9.089=01 \\
& 1,043 x+00 \\
& \text { 1.120x+00 } \\
& 1.200=00 \\
& 1, \angle 84 x+00 \\
& 1,5700+00 \\
& 1.4600 * 00 \\
& 1,554=* 00 \\
& 1.6510+00 \\
& 1.751 \mathrm{m*} 00 \\
& 1.8560 * 00 \\
& 1.964=00 \\
& \text { 2,076.*00 } \\
& \text { 2. } 195=+00 \\
& 2.514=00 \\
& 2.439 \omega+00 \\
& \text { 2.569.*00 } \\
& \text { 2.703:-00 } \\
& 2.842000 \\
& \text { 2.985:*00 } \\
& 3.131=+00 \\
& \text { 3.280~*00 }
\end{aligned}
$$

DRAG COEF
relax time
.90 UlST

| $5.445=02$ | 5,2250003 | 7.9840m02 |
| :---: | :---: | :---: |
| 4,691.02 | 6.1220003 | 1.1.499=01 |
| 3.770.*02 | 7.087000 | 1.4770\%01 |
| 3.077-02 | 8.119n-03 | 1.7450.01 |
| $2.5480+02$ | 9.217\%-03 | 2.3160001 |
| 2.135 .02 | 1.038-02 | 3. 2050001 |
| 1.809.02 | 1.1600002 | 4.u26-0.01 |
| $1.548 * 02$ | $1.2890 \cdot 02$ | 4. $9950=01$ |
| 1.337 ** 02 | $1.423=02$ | 6. 1290001 |
| 1.1630+02 | 1.563002 | 7.447001 |
| 1.0200002 | $1.708=02$ | 8.4650001 |
| 9,010.*01 | 1,8590\% 02 | $1 \cdot 0^{7} 1+00$ |
| $8.0070+01$ | 2.014002 | 1. $26200+00$ |
| 7.158 .01 | 2.174=02 | $1.4670+00$ |
| $6.4340+01$ | 2.5380\% 0 | $1.0880+00$ |
| 5.613 .01 | $2,5070=02$ | $1.4280+00$ |
| 5.277-01 | 2.680m"02 | 2.1860+00 |
| $4.0130+01$ | 2.856.02 | 2.4630*00 |
| $4.40^{7} .+01$ | 3. 0.3502 | 2.1590+00 |
| 4.052.01 | 3.218-02 | 3. $u^{74 m+00}$ |
| 3.740 mol | $3.4030 \% 02$ | $3.4100+00$ |
| 3.4630001 | 3.591000 | 3.1660+00 |
| 3.2220*01 | 3.780000 | 4.1420+00 |
| 3.0020*01 | $3.9730=02$ | 4.5400*00 |
| 2.000 .01 | 4. $1080 \cdot 02$ | 4. $458 \pm 00$ |
| $2.029 * 01$ | 4,366002 | 5. 5980000 |
| 2.4690*01 | 4,5650-02 | $5.0590+00$ |
| 2.324**01 | 4.767n=02 | 6.3420*00 |
| 2. $192 x+01$ | 4.7700-02 | $6.5470+00$ |
| 2.0720001 | 5.176002 | 7. $3740+00$ |
| 1.961**01 | 5.3850-02 | 7. $7230+00$ |
| $1.0590+01$ | 5, $2900=02$ | 8.494**00 |
| 1.765**01 | 5.810000 | 9. $4^{880+00}$ |
| 1.0770*01 | 0.027* 0.2 | 9.104**00 |
| 1.2900*01 | $6.247-02$ | 1.1.134w+01 |
| 1.220 .001 | $6.4 .71 .50=02$ | 1.1000*01 |
| 1.4400001 | $6,699 m=02$ | 1. $1690+01$ |
| $1.5810+01$ | 6.9310002 | $1 .<40^{m+01}$ |
| 1.3100001 | 7.1670002 | $1.3130+01$ |
| 1.259n+01 | 7.4070 02 | $1.088800+01$ |
| $1.2030+01$ | 7.651 mox 02 | 1.4660+01 |
| 1.1500*01 | 7,0.99x=02 | 1.2460001 |
| $1.1010+01$ | $8.151=02$ | 1.6280*01 |
| $1.0540 * 01$ | 8.404 mm 02 | 1.7120*01 |
| 1.0110*01 | $8.6 .590=02$ | 1.199n+01 |
| 9.710000 | 8,9120*02 | $1.0880+01$ |

HARTICLE DENSITY E 12.0 GRAMS PER CUEIC CENTIMEIER

LIAMETER
VELOCITY
RE
DRAG CUEF KELAX TIME :98 DIST

| $2.000 x+01$ | 8.984**01 | 3.4310*00 | 9. 550.000 | 9.1520=02 | $80^{0+01}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. Y 00x 0 +11 | 9.2220+01 | 3,583.*00 | 9.0320+00 | 9.405* 02 | 2.0. $740+01$ |
| -. $0000+131$ | 9.4500+01 | 3.733 .00 | 8.149000 | $9.636 x=02$ | 2.1700+01 |
| $6.100 x+01$ | $9.6610+01$ | 3.880000 | $8.5100+00$ | 9, 852002 | 2.268**01 |
| $0.200 x+01$ | $9.6190+01$ | 4.0090000 | 8.5730*00 | $1.0010=01$ | 2. $369 \pm+01$ |
| $0.300 \times 01$ | 1.004 .02 | 4.186.*00 | $8.1340+00$ | 1.024-01 | $2.472=+01$ |
| $0,400 x+01$ | $1.027+02$ | 4.327.000 | $7.906=00$ | 1.047001 | 2.578**01 |
| $0.500 x+11$ | 1.049002 | 4,4900*00 | 7.090000 | 1.0700001 | 2.0850*01 |
| -. $0000+01$ | 1.0720*02 | $4,657 n+00$ | 7,483.400 | 1.093001 | 2.195x* 01 |
| $0.700 \leq 01$ | 1.094002 | 4,827=00 | 7.287x+00 | 1.1160\% 01 | 2.9080+01 |
| $0.800 x+01$ | 1.1170+02 | 5.0010*00 | 7.099. 00 | 1.1390001 | 3. $022=01$ |
| $6.900 \times+01$ | 1.139.02 | 5.177. 000 | 6.919.*00 | 1.1620001 | 3.139-+01 |
| \%.000x+01 | 1.162m+02 | 5.357 **0 | 6.748.00 | 1.1850\% 01 | 3. $2580+01$ |
| \%-100x+01 | 1.185w+02 | 5.540000 | $6.583=00$ | 1.2080001 | 3. $9800+01$ |
| $7.200 x+01$ | $1.20{ }^{8}+02$ | $5.7260 * 00$ | 6.426 .00 | $1.2320=01$ | $3.3040+01$ |
| $7.300 x+01$ | $1.2310+02$ | $5.916=00$ | 6.276m*00 | 1.255*-01 | $3.0300+01$ |
| $7.400 x+01$ | 1.2540*02 | 6.108\%*00 | 6.131000 | 1,2780\%01 | 3. $1580+01$ |
| $7.500 x+01$ | 1.277*02 | $6.304=00$ | 5.993-00 | 1.302=-01 | 3.689- + 01 |
| $7.000 \times+191$ | $1.3000+02$ | $6.503=00$ | 5.0600*00 | 1.3250001 | 4.4220*01 |
| $1.700 \times+01$ | 1.3250002 | 6.706000 | $5.732=00$ | 1.349\%01 | 4. $1570+01$ |
| 1.800=01 | $1.3460+02$ | 6.911=*0 | $5.0090+00$ | 1.3700001 | $4.294=+01$ |
| \%,900x*11 | 1.369*02 | 7.120**00 | $5.4910 * 0$ | 1.3900001 | 4.434**01 |
| $0 \cdot 000 x+01$ | 1.3920*02 | 7.332-*0 | $5.5770+00$ | 1.4190001 | 4.3760+01 |
| $0.100 x+11$ | 1.415 .02 | $7.5470+00$ | 5, 268000 | 1.4430001 | 4,1200+01 |
| c. $2000 \times 11$ | 1.430102 | 7.765**00 | 5.162m*00 | 1.4670-01 | 4.0660*01 |
| $0.500 \times-1$ | 1,4610*02 | 7.987m*00 | $5.0600+00$ | 1.4900001 | 5.4150*01 |
| $8.400 x+01$ | 1.485-02 | $8.2120+00$ | $4,46 \% 00$ | 1.5140001 | 5.1660*01 |
| 0, 500x+01 |  | 8,440-00 | 4.060.000 | 1.5380001 | $5.3190+01$ |
| -6.000x+01 | $1.2310+02$ | 8,671=00 | 4.770n+00 | 1.5610001 | $5.4740+01$ |
| $0.700 \times+11$ | $1.5540+02$ | 8.905000 | 4.086**00 | $1.5850=01$ | $5.032=01$ |
| \%.600. 01 | 1.578 .02 | 9.143.*00 | 4,0050*00 | 1.0090001 | $5.1910+01$ |
| $0.900 x+01$ | 1.0010002 | 9. $383=00$ | 4. 320 - 00 | $1.0 .33=01$ | 5.7530001 |
| $4.000 x+01$ | 1.025002 | 9,627=00 | 4;4410+00 | $1.057 \mathrm{~m}=01$ | 0.1170001 |
| Y.1000+01 | 1.0480002 | 9,6740*00 | 4.3630+00 | 1.6800001 | 6. $28.4 *+01$ |
| $4.2000+01$ | 1.071 w+02 | 1.0120*0.1 | 4.289 * 00 | 1.7040001 | $6.4520+01$ |
| 勺. $500 x+01$ | 1.095n+02 | 1.038** 1 | 4.210-000 | 1.7280\%01 | $6.0220+01$ |
| 4.400x+01 | $1.7180+02$ | 1.063.01 | 4.140 .00 | 1.7520001 | $6.1950+01$ |
| $4 \cdot 500 \pm+11$ | $1.7420+02$ | 1.089m*0.1 | 4.0.760*00 | 1.7760=01 | $6.9700+01$ |
| 9,000x+01 | 1.765:02 | 1.110.0.01 | 4.0120*00 | 1, 00000001 | 7.1470*01 |
| $9.700 x+01$ | 1.788. +02 | 1.1.420*01 | 3.4490+00 | 1.8240001 | 7. $326 \times+01$ |
| $9.604 x+6.1$ | $1.812 *+02$ | 1.169.01 | 3.697m+00 | 1,848p=01 | $7.3070+01$ |
| $4.400=+0!$ | $1.835 * 02$ | 1.196=* 11 | 3.020000 | $1.8720=01$ | 7.0910+01 |
| $1.000 x+12$ | $1.859 n+02$ | $1.224=01$ | 3. 160000 | 1.8960.01 | 7.0760+01 |
| 1.100* 112 | $2.0940+02$ | 1.2170001 | 3. 260000 | 2.1360001 | 9.0460+01 |
| $1.200 x+12^{2}$ | 2.329 .02 | 1.0410+01 | $2.6900+00$ | $2.3750=01$ | 1.602=*02 |
| 1.300x+120 | 2.5640+02 | 2.1950*0.1 | 2. $2740 * 00$ | 2.0150001 | $1.438+02$ |

## PARTICLE UENSITY $=1 \angle .0$ GRAMS PER CUBIC CENTIMEIER

| UIAMETER | velocity | RE | DRAG CUEF | relax time | .90 DHST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.400=+02$ | 2,7980+02 | 2.579** | $2.328+00$ | $2.8530-01$ | 1.094 $0+02$ |
| 1.500:*02 | $3.031=02$ | 2,994**1 | 2.120**00 | 3.0910=01 | 1.467** 02 |
| $1.600=+02$ | 3.262x+02 | 3,437=*01 | 1.958 .000 | 3.326"01 | 2. $2580+02$ |
| $1.700=+02$ | 3.492=+02 | $3.908 x+01$ | 1.8100000 | 3;2610=01 | 2.365p+02 |
| $1,600=+0^{2}$ | 3.719 * 02 | 4,4080*01 | $1.6940+00$ | 3.7930001 | 2.088**02 |
| 1.900x+02 | 3.945 0 * 02 | 4,936.*01 | 1.589 .000 | 4.023-01 | 3. $2260+02$ |
| <. $0000=02$ | 4.1690*02 | 5,4910*01 | $1.4980+00$ | 4.2520-01 | 3.5780+02 |
| $2 \cdot 100=+0^{2}$ | $4.3910+02$ | 6,072x*01 | $1.4100+00$ | 4,478.01 | 3. 4450 * 02 |
| $2.200=+02$ | 4.011 .02 | 6.680** | $1.3470+00$ | 4,7020001 | 4. $3240 \pm 02$ |
| 2.300x+ 32 | 4,829n+02 | 7.313=*01 | 1.2840*00 | 4,9240001 | $4.1170+02$ |
| $2.400 x+02$ | $5.0450+02$ | 7.972.01 | $1.2280+00$ | 5.144x001 | 5. $122 \times 02$ |
| 2. $200 x+02$ | $5.2580+02$ | 8,656:*01 | $1.177=00$ | $5.3620=01$ | 5.339 .02 |
| 2.000x+02 | $5.470 x+02$ | 9.364-01 | 1.132=*00 | 5,578=01 | 5.467n+02 |
| 2.700x+02 | $5.679 * 02$ | 1.0100*02 | 1.0900*00 | 5,7910001 | $6.4060 * 02$ |
| 2.600:*02 | 5.886 .02 | 1.085:02 | 1.0500000 | $6.003=01$ | 6.055002 |
| $2.900 \times+02$ | 6.091 .02 | 1.163:02 | $1.0100+00$ | 6.2120001 | 7. $140=02$ |
| S. $000 x+02$ | $6.2950+02$ | 1.243002 | 9.059.01 | 6,4190-01 | 7.183-02 |
| S1100x+022 | $6.490 x+02$ | 1.3260*02 | $9.5600=01$ | 6,6240=01 | $8.262=02$ |
| 5.2000+02 | $6,0950+02$ | $1.4110+02$ | 9.290=01 | 6.827001 | $8.149+02$ |
| $5.500 x+0^{2}$ | 6,892\% 02 | $1.498 * 02$ | 9.0400-01 | 7.028-01 | 9. $\angle 450+02$ |
| 5.400x+02 | 7.087.+02 | 1.5870*02 | 8.614-01 | 7.2270\%01 | 9.1490*02 |
| S.500x+02 | $7.2800+02$ | $1.6780+02$ | $8.590=01$ | 7.424-01 | $1.1426-03$ |
| 5.600x+02 | $7.472 p+02$ | 1.771.02 | 8.596-01 | 7.6200001 | 1.0780+03 |
| 5,700x+02 | $7.0610+02$ | 1.067m*02 | 8.208 .01 | 7.8130.01 | $1 \cdot 1310+03$ |
| $5.800 x+02$ | $7.849 n+02$ | 1.9640+02 | $8.031=01$ | $8.004=01$ | 1,184000 |
| S.400~+12 | $8.035+02$ | 2,063** 02 | 7.066-01 | $8.194=01$ | $1.2380+03$ |
| $4.000=+10$ | $8.219 n+02$ | 2, 1650+02 | 7.7100001 | 8.3810001 | 1. $2930+03$ |
| 4.100x+12 | $8.4010+02$ | 2. 2680000 | 7.2640001 | 8.2670001 | 1.5490*03 |
| $4.200 x+12$ | $8.5820+02$ | 2,5730+02 | 7.425-01 | 8.7510-01 | $1.4050+03$ |
| $4.300 x+12$ | 8.761502 | 2.4810*02 | 7.295=01 | 8.9340001 | 1.4610005 |
| 4,400x+12 | $8.9380+02$ | 2.5900+02 | 7.1710001 | 9, 1150001 | 1., 1800+03 |
| $4.500 x+102$ | $9.114 \pm 02$ | $2.7000+02$ | 7.055.01 | 9.2940001 | $1.5760+03$ |
| $4.600 \times 42$ | 9.280.02 | 2,8130+02 | $6,9440=01$ | $9.4710=01$ | $1.034 m+03$ |
| $4.700 \pm+12$ | 9.4600002 | 2.920.02 | 0.038 .01 | $9.0470=01$ | $1.0934+03$ |
| $4.6000+L^{2}$ | $9.6310+02$ | 3.044**02 | $6.130-01$ | 9.0210-01 | $1.1520 * 03$ |
| $4.4000+62$ | $9.8000+02$ | 3, 162x+02 | $6.0430=01$ | $9.9940=01$ | 1.012*03 |
| 5. $0000 \mathrm{x}+12$ | 9.968 .02 | 5. $2820 \times 02$ | $6.55<0=01$ | $1.0100+00$ | 1.0720*03 |
| 5. $1000 x+0^{2}$ | $1.0130+03$ | 3,403n+02 | 6.460 .01 | $1.033 * * 00$ | $1.4330+03$ |
| b. $2000 \times 0$ | $1.0300+03$ | 3,5260+02 | 0.383001 | 1.0500+00 | $1.494 n+03$ |
| 勺. $0000 \times 0$ | 1.0460003 | 5,651m*02 | 6.1502001 | $1.0670+00$ | 2. $4560+03$ |
| 2.400x+02 | $1.0620+03$ | 3.178x+02 | 6.229001 | 1.0830+00 | 2. 1170003 |
| $2.600 x+62$ | 1.078 .03 | $3.9060+02$ | $6.157=01$ | 1.1000+00 | 2.1800*03 |
| $2.000 x+02$ | $1.0940 \pm 03$ | 4,036.02 | 0.080 .01 | $1.1100+00$ | 2. $242 x+03$ |
| b. $700 \mathrm{c}+\mathrm{U}$ | 1.1100+03 | 4.167.*02 | 6.022=01 | 1.1320000 | 2. $5050+03$ |
| b.800w+02 | 1.1200+03 | 4,3000+02 | 5.558=001 | 1.14800 00 | 2.969x+03 |
| 2. $400 x+02$ | 1.141:03 | 4.434.0.0 | 5.897001 | 1.104x*00 | $2.4320+03$ |

## Particle lensity $=12.0$ grams per cubic centimeter

| UIAMETER | velucity | RE |
| :---: | :---: | :---: |
| $0.000 x+02$ | $1.157 n+03$ | $4.5700 * 02$ |
| 6． $100 x+02$ | 1．172x＋03 | 4．7080002 |
| $0.200+0.2$ | 1．187＊03 | 4．8470＊02 |
| 0． $500 x+02$ | 1．2020＋03 | 4，987\％＊02 |
| $0.400 x+02$ | $1.2170+03$ | 5．129＝02 |
| 0．500\％＋ 012 | $1.2320 * 03$ | 5，2720＊02 |
| $0.600+02$ | $1.247 m+03$ | 5，417m＊02 |
| $0.700 x+02$ | $1.2610+03$ | $5.5640 * 02$ |
| $0.800 x+02$ | 1．276＊＊ 03 | 5.711000 |
| $\bigcirc .9000+02$ | $1.2900+03$ | 5．8600＊02 |
| $7 \cdot 000 x+02$ | $1.304 * 03$ | 6．011． 02 |
| 7． $1000+02$ | 1.318 .03 | 6． $1630=02$ |
| 7．200＝＋02 | $1.3320+03$ | $0.3160 * 02$ |
| 7．300x＋02 | $1.3460+03$ | $6.4700 * 02$ |
| $7.400 x+02$ | 1．3600＋03 | $6.626 p+02$ |
| 7． $2000+02$ | $1.374=03$ | $6.7830+02$ |
| $7.600=00^{2}$ | 1．387－03 | $6.941 \mu+02$ |
| 1．700x＋02 | $1.401=03$ | 7．1010＊02 |
| $7.8000+02$ | 1.414 .03 | $7.262 n * 02$ |
| $7.900 x+02$ | $1.427=03$ | 7．424－＊02 |
| －． $0000 x+12^{2}$ | $1.4400+03$ | $7.588=02$ |
| －100x＋02 | $1.4540+03$ | 7．753＊＊02 |
| $6.200=+02$ | 1．4070＋03 | 7．9190＋02 |
| C． $000 x+12$ | 1．479＋ 03 | $8,086=+02$ |
| $8.400 x+12$ | $1.492 p+03$ | $8,254=02$ |
|  | $1.500_{0}+03$ | 8．424＊＊02 |
| C． $0000 \times 10^{2}$ | $1.5100+03$ | 8， $294=02$ |
| $8.700 \times+02$ | 1．5300＋03 | $8.7600+02$ |
| －． $0000+0^{2}$ | 1．543－03 | $8.939 x+02$ |
| $0.900 p+0<4$ | 1.555 .03 | $9.1130 * 02$ |
| 4． $0000+02$ | 1，5670＋03 | 9．289＊＊02 |
| y． $100 x+02$ | $1.5800+03$ | 9.465 .02 |
| $4.200 x+02$ | 1． $2.920+03$ | 9．643．02 |
| $4.300 x+02$ | $1.6040+03$ | 9．8220＊02 |
| 9， $400 x+02$ | $1.6100+03$ | 1．000－03 |
| $4.500 x+102$ | $1.6280+03$ | 1．018＊＊ 0 |
| $4.000 x+02$ | $1.6400+03$ | 1．036＊＊ 03 |
| $4.700 x+02$ | 1.651 \％ 03 | 1．055：03 |
| y． $800 x+12$ | $1.0630+03$ | 1．073．＊03 |
| צ． $4000+02$ | $1.6750+03$ | $1.092 x+03$ |
| 1．000x＋03 | 1.080000 | 1．110＝＊03 |
| 1．010\％＋0． | 1.698000 | 1．129＊＊03 |
| 1．020x＋03 | $1.709 \pm+03$ | 1．148＊＊03 |
| $1.030 *+03$ | $1.720 n+03$ | 1．167．03 |
| 1．040x＋05 | $1.732 x+03$ | 1．1800＊03 |
| $1.050 \mathrm{n}+0^{3}$ | $1.7430+03$ | 1．405＝＊03 |

## VELUCITY

RE
DRAG COEF HELAX TIME
－9の DIST
$5.8390=01$
$5.782=01$
$5.720=01$
5.720 .01
5.076 .01
5.020 .001

5．577＊01 $1.256 * 00$
$5.531=01$
5．480＝01
5，442＝001
$5.400=001$
$5.3600=01$
$5.321=01$
$5.2830=01$
$5.246=01$
$5.211=01$
5．1770＝01
5． $143=0=01$
$5.111=01$
5．0800－01 $1.442 * 00$
$5.0500=01 \quad 1.4550+00$
$5.020=011.4690+00$
$4.992=01 \quad 1.4820 * 00$
$4.964=01 \quad 1.490 n * 00$
4．937＝01 $1.5090+00$
$4.911=01 \quad 1.522 p+00$
$4.880=01 \quad 1.5350+00$
$4.0620-01 \quad 1.2480+00$
$4.030=01 \quad 1.5600+00$
$4.614001 \quad 1.5730+00$
$4.7920=01 \quad 1.5860+00$
$4.7700=01 \quad 1.598 .+00$
$4.749=01 \quad 1.6110+00$
$4.728=01 \quad 1.6230+00$
$4.708=01 \quad 1.6360+00$
$4.080=01 \quad 1.6480 * 00$
$4.669=01 \quad 1.6600+00$
$4.050=01 \quad 1.6720 * 00$
$4.6320=01 \quad 1.6840 * 00$
4．014＝001 $1.0960+00$
4． $2970=01 \quad 1.708=00$
$1.7190+00$
$\begin{array}{ll}4.580=01 & 1.7190+00 \\ 4.563=01 & 1.7310+00\end{array}$
4．547．001 1．743n＋00
4． $332=01 \quad 1.7540+00$
4．5170＝01 1．766x＊00
$4.502=01 \quad 1.7770+00$
$2.4960 \cdot 03$
$2.361 * 03$
$2.025 *+03$
$2.090^{-03}$
2． $1550+03$
$2.0210+03$
2．0887n＊03
$2.453+03$
3． $4190+03$
3． $455=03$
3． $1520+03$
3．＜19＊＊03
3． $2860+03$
3． $353 x+03$
3．4210＊03
3．488日＋03
$3.256 * 0^{3}$
$3.0240+03$
$3.0920+03$
$3.161 * 03$
3． $5290+03$
3．0980＊03
$3.967+03$
$4, u^{3600+03}$
4．1050＊03
4． 1740 －03
$4.2430+03$
4．313 $10+03$
$4.982 \pm+03$
$4.452=+03$
4．， $222+03$
$4.9920+03$
$4.0620 * 03$
4． $1320+03$
$4.00200+03$
4．072＝403
$4.442=03$
勺．リ $13 *+03$
5． $1830+03$
5．1540＊03
$5.2240 * 03$
5． $4950+05$
5． $965+03$
$5.4360+03$
$5.2070+03$
$5.2780+03$

## Table 2

# Settling Velocity, Reynolds Number, Drag Coefficient, Relaxation Time and Acceleration-Distance as a Function of Diameter for Rigid Spheres Falling Freely in Water. 

Water Data
Temperature ..... $20^{\circ} \mathrm{C}$
Pressure ..... 760 mm Hg
Viscosity .01002 poise
Density ..... $.998{\text { grams } \mathrm{cm}^{-3}}^{-3}$
Particle Parameters
Diameter ..... microns $\left(1---10^{3}\right)$
Velocity ..... $\mathrm{cm} \mathrm{sec}^{-1}$
Re. nondimensional
Drag Coef. ..... nondimensional
Relaxation Time ..... sec
. 98 Dist. ..... cm
Density ..... grams $\mathrm{cm}^{-3}(2---13)$

## Particle density $=2.0$ GRams per cubic centimetek

MIAMETEK
vELOCITY
$5.437=05$
$6.579=05$
1． $000 x+00$
1． $100 x+00$
$1.200 x+40$
$1.300=+00$ $1.400 \times+00$
$1.500=+00$ $1.600 x+00$ $1.700 x+00$ $1.600=+00$ $1.900 \times 00$ $2.000 \times+10$ 2． $100 x+00$ $2.200 x+00$ $2.300=+00$ 2． $400 \times+00$ $2.500 x+00$ 2． $6000 \times 100$ $2.700=+100$ 2．800：＋ 100 $3.900 x+00$ 3． $000 \times+00$
3． $100 x+100$
3． $200 x+00$
S． $300=00$
$5.400 x+00$
$3.500 x+100$
$5.600 x+40$
$3.700=+00$
$3.800^{x+100}$
$3.900^{x+00}$
4． $000 \mathrm{c}+00$
4． $1000+00$
4． $2000+00$
4． $3000+00$
$4.400+00$
$4.500+00$
$4.600 x+00$
$4.700 x+100$
$4.800+00$
4． $900 x+00$
5． $000 \times+00$
2． $100 x+00$
b． $200 x+00$
2． $300 x+00$
$2.400=+00$
2．500＊＊00
$6.579-05$
7.829005
$9.1890=05$
$9.189=05$
$1.066=04$
$1.066=04$
$1.223=04$
$1.392=04$
$1.571=04$
$1.762=04$
$1.963=04$
$2.1750=04$
$2.398=04$
$2.032=04$
$2.876=-04$
$3,132=04$
$3,398=04$
$3.675=04$
$3.964=04$
$4,2630=04$
$4.573_{0}=04$
$4.8930=04$
$5.2250=04$
$5.5670=04$
2．9210＝04
6． $2^{8}$ b＝ 04
$0.6600=04$
$7.0460=04$
$7.44 \mathrm{~S}_{\mathrm{m}}-04$
$7.851=04$
$8.2700=04$
$8.0990=04$
9． $1400=04$
$9.5910=04$
1．005＝$=03$
$1.053=03$
$1 \cdot 1010=03$
1．1500＝03
1． $201=03$
$1.253=03$
$1.30^{5}=03$
$1.414=03$
$1.470=03$
$1.527=03$
1.5850003
$1.045_{10}=03$

RE
$5.426=07$
7．222－ 07
9，376ッ＂07
1．1920＝06
1．489＝00
$1.831=06$
2．223＝06
$2.666=06$
3． $165=00$
3.722000

4．341＝06
5，025： 06
5．778＝06
$0.002=06$
$7.501=06$
$8.478=06$
9．537＝06
$1,068=05$
$1.191=05$
$1.323=05$
$1,4650=05$
$1.0170=05$
1．778．－05
$1.9500-05$
2． $1330=05$
2． $3200 \cdot 05$
2． $232=05$
2． $749=05$
2．9770005
3．2190－05
$3.4730-05$
3．7400＂05
4． $020=05$
4． $314=05$
$4.6220=05$
$4.945=05$
$5.282=05$
$5.2820=05$
$5.034=05$
$6,001=05$
$0.384=05$
$0.783=05$
$7.1980=05$
$7.630=05$
$7.630=05$
$8.078=05$
$6,544=05$
9．028－05
DRAG CUEF KELAX TIME ，9の DIST

| 4．423．0．07 | $5.5440=08$ | 8．149－120 |
| :---: | :---: | :---: |
| 3．3230＊07 | 6.709008 | $1.4^{8} 2=11$ |
| 2．560＊＊07 | 7．9840＂08 | 1．0180．11 |
| $2.0130+07$ | 9.3700008 | 2．3000011 |
| $1.012=+07$ | 1．087007 | $3.5730=11$ |
| $1.3110 * 07$ | 1．2480007 | 4．4490011 |
| 1.0800007 | 1.4190007 | 5．1640m 11 |
| $9.003=00^{6}$ | 1.6020007 | 7．3500－11 |
| 7．584n＋06 | 1．7960007 | 9． $4440=11$ |
| 6．448 $=06$ | 2．0020 07 | 1．148＊－10 |
| 5.529 .000 | 2．2180007 | 1.41100 |
| 4．776＊＊00 | 2.445007 | 1．1150－10 |
| 4．154＝＊06 | 2，6840007 | $2.467-10$ |
| $3.0350+06$ | 2．9330－07 | 2.47100 |
| $3.2000+00$ | 3，1940007 | $2.431=10$ |
| $2.031=06$ | 3．4650 $=07$ | 3．452m－10 |
| $2.517 .+06$ | 3．7480－07 | 4．$u^{4} 0=10$ |
| 2．247m＋00 | 4．0420007 | 4，1010．10 |
| 2． $0150+06$ | $4.347 \times 07$ | $5.439 \sim 10$ |
| $1.8140+06$ | $4,6030=07$ | $6.2610=10$ |
| $1.038=06$ | $4.9900=07$ | 7．1730－10 |
| $1.4850+06$ | 5．3280－07 | 8.18100 |
| $1.3500+06$ | 5．678－07 | 9， $2^{9} 20=10$ |
| 1．2310＊06 | 6.030007 | $1 \cdot u^{5} 1000^{9}$ |
| 1． $1250+06$ | $6.4090=07$ | 1． $1^{85}=09$ |
| $1.0320+00$ | $0.7920 \cdot 07$ | 1.5310009 |
| 9．48000 05 | 7． 1860007 | $1.490^{00} 0^{9}$ |
| $8.7320+05$ | 7.5900007 | $1.063^{000} 09$ |
| 8．061． 05 | 8.006007 | $1.0510=09$ |
| 7．456．+05 | 8.4330007 | 2． 0550009 |
| $6.9110+05$ | 8.8710007 | 2． 2740009 |
| $6.4100+05$ | 9．320007 | 2．5110009 |
| 5．9700＊0b | 9，7800007 | 2．1660－09 |
| $5.5630+05$ | 1．02500 06 | 3． $0^{4} 0 \times 00^{9}$ |
| 5．1920＋05 | 1．0730－06 | 3． 3330009 |
| $4.0540+05$ | 1．123＝06 | 3．5480＊ $0^{9}$ |
| 4． $5440+05$ | $1.173=06$ |  |
| $4.2600+05$ | $1.275=06$ | 4．5430－09 |
| $3.4990 * 05$ | $1.2770^{00} 0^{6}$ | 4．1250－09 |
| 3． $7600 \pm 05$ | 1.3310006 | 勺． 1330009 |
| 3． $3380+05$ | 1,5800006 | 5． 2660009 |
| 3． $3340+05$ | 1．4420＂06 | $6.1260=09$ |
| 3． $140 x+05$ | 1，499006 | 6．2140－09 |
| 2．9710＋ 75 | 1，557mm0 $0^{6}$ | 7．$\cup^{310009}$ |
| $2.8090+05$ | 1，6，7m＝06 | 7． $2790=09$ |
| $2.059 * 05$ | $1.6770 * 06$ | 8． 1570909 |

PARTICLE UENSITY = $\angle .0$ GRAMS PER CUBIC CENIIMETER

| diAMETER | VELUCITY | KE | DRAG COEF | helax time | .90 015 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.000 x+00$ | 1.7050005 | 9. $229 \times 05$ | 2.519.05 | 1.7390700 | $8.169000^{9}$ |
| $2.700 x+00$ | 1.7600003 | 1.005x=04 | 2. $3880+05$ | $1.801=00$ | 9.4140009 |
| $2.800 x+00$ | 1.029 $0=03$ | 1.059=04 | $2 .<67 x+05$ | 1.805000 | 1. 4090008 |
| 2.900 0 + 00 | $1.893=03$ | 1.1140004 | 2. $154=05$ | 1.9300006 | 1.4 $4^{8} 1000^{8}$ |
| -. $0000+00$ | 1.457*03 | 1.1720-04 | $2.0460+05$ | $1.996=06$ | 1.1560-08 |
| 6. $100 x+00$ | 2.0230003 | 1.2320-04 | $1.5490+05$ | 2.0030-06 | 1.2360- $0^{88}$ |
| -.200x+100 | 2.090-03 | 1.2930-04 | $1.6500+05$ | 2. $1310=06$ | $1.919000^{8}$ |
| -.300x+00 | $2.158=03$ | 1.357n=04 | $1.7640+05$ | $2.201000^{6}$ | $1.4060=08$ |
| $0.400 \times 00$ | 2.227-03 | $1.4220=04$ | $1.0870+05$ | $2.271000^{6}$ | $1.4980 \cdot 0^{8}$ |
| -. $200 x+00$ | 2.297000 | 1.490004 | $1.6110+05$ | 2.3420006 | $1.2940-0^{8}$ |
| $0.600 x+100$ | $2.368=03$ | 1.5600004 | $1.5390+05$ | 2.415006 | $1.0950-0^{8}$ |
| -.700x+100 | $2.4410=03$ | $1.632=00^{4}$ | 1.4710005 | 2.489 .06 | $1.000000^{8}$ |
| $0.8000+150$ | 2. $514 \% 03$ | $1.70^{6=0}=04$ | $1.4070+05$ | $2.5640=06$ | $1.811=0^{8}$ |
| $6.400 x+00$ | 2.584-03 | $1.783=04$ | $1.3400+05$ | $2.640=06$ | 2.14260-08 |
| 7.000x+60 | 2.064-03 | 1.8610004 | $1.2900+05$ | $2.717 \times 06$ | 2. $1460=08$ |
| 7. $100 x+00$ | $2.7410=03$ | 1.9420-04 | $1.2360+05$ | 2.795006 | $2.42^{7}=0^{8}$ |
| $7.200 x+00$ | 2.8180003 | 2.025x=04 | 1.1850+05 | 2.8740006 | 2.9030008 |
| $\% .300 x+00$ | 2.097-03 | 2.1110m04 | $1.137=05$ | $2.955 .00^{6}$ | 2.940* $0^{8}$ |
| 7.400** 00 | 2.977.03 | 2.1990004 | $1.092=05$ | 3. $0^{3600} 06$ | 2.082m-08 |
| 1.200x+100 | $3 \cdot 058003$ | 2.2890004 | $1.04800+05$ | $3.1190-06$ | $2.030=08$ |
| $7.000=00$ | 3.140000 | 2.3820004 | 1.00 $0 \cdot 05$ | $3.2020=06$ | $2.485=-0^{8}$ |
| $7.700 x+00$ | $3.224=05$ | 2.477=04 | $9.089+04$ | $3.2870=06$ | 3. $1450=08$ |
| $7.000 \times+00$ | 3.308-03 | 2.575004 | 9.3210+04 | 3.373-06 | 3. $312000^{8}$ |
| $7.900 x+00$ | 3. $5930-03$ | 2.6750004 | $8.9720+04$ | 3,4600006 | 3.486-0 $-0^{8}$ |
| -. $0000+00$ | 3.48000 03 | 2.778004 | $8.0390+04$ | 3,548000 | $3.067000^{8}$ |
| -. 100z+00 | $3.567=05$ | 2,8840004 | $8.5230+04$ | 3.6.38=06 | $3.554=08$ |
| $8.200 x+00$ | 3.650 .03 | 2,9920-04 | $8.0250+04$ | 3,728=06 | 4. $4^{48-0808}$ |
| -. SU0x+00 | $3.745=03$ | 3.1020004 | $7.730-04$ | 3.8190006 | 4. 4500008 |
| $6.400=+100$ | $3.836-03$ | 3.2160-04 | 7.463n+04 | 3.912n-06 | 4.4590008 |
| -. $2000+00$ | 3.928 .03 | 3.3320-04 | $7.2030+04$ | $4.0060=06$ | $4.076100^{8}$ |
| $6.600 \times+00$ | 4.0210-03 | 3.4510004 | $6.954 .0{ }^{4}$ | $4.100000^{6}$ | $4.400^{\circ-108}$ |
| 6. $100 x+00$ | 4.1150003 | $3.5730-04$ | $6.1170+04$ | 4.13600 $0^{6}$ | 5. $1330-0^{8}$ |
| $0.600 x+00$ | 4.2100003 | 3.698-04 | $0.4910+04$ | 4.2930 .06 | $5.5740=0^{8}$ |
| $8.500 x+00$ | $4.30^{6} 0003$ | 5.0250004 | $6.2750+04$ | $4,3920 \cdot 06$ | 5.0230008 |
| 4. $0000 x+00$ | $4.40^{4}=03$ | 3.955-704 | 6.060 .04 | $4.49 \mathrm{~lm}=6$ | 5.0810000 |
| G. $1000+00$ | $4.5020=03$ | 4.089 - 04 | $5.0700+04$ | 4,591000 | 0.14710-08 |
| 4. $2000 \times 00$ | 4.0020 .03 | 4.2250-04 | $5.0810+04$ | $4.6930=06$ | 0.4230008 |
| Y. $500 x+10$ | $4.700^{2} \cdot 03$ | 4.364n-04 | $5.4990 * 04$ | 4.795:06 | $0.1070-08$ |
| $4.400 x+10$ | $4.800^{4.0}=03$ |  | 5. $5200+04$ | 4.0990006 | 7. 001000 |
| 9. $200 x+00$ | $4.90^{7}=03$ | 4.652x-04 | 5.159** $0^{4}$ | 5.004-06 | 7.905-08 |
| $4.600 x+10$ | $5.010000^{3}$ | $4,0000=04$ | 5. 000004 | 5.1090006 | $7.0180-08$ |
| $4.700 x+00$ | $5.115=03$ | 4,952=-04 | $4,: 470+04$ | 5.216000 | 7. 7420008 |
| $4.800 x+00$ | 5.221-03 | 勺. $100^{7}=04$ |  | $5.3750 \cdot 16$ | $8 .<^{7510}-0^{8}$ |
| $9.400 x+110$ | 5.328003 | 5.265-04 | 4,5590+04 | $5.43400=06$ | 8.5190000 |
| 1.000x+11 | 5.4370003 | 3.420 0 - 04 | 4.4.240+04 | 5. 2440006 | $8.9730-0^{8}$ |
| 1. $1000+0 \mid$ | 0.570-03 | 7.2220-04 | 3. $2740+04$ | $6,7-8=06$ | 1.3150007 |

PARTICLE DENSITY $=2.0$ GRAMS PER CUBIC CENTIMETER

UIAMETER


VELUCITY
$1,828=03$
$9.187=03$
$1.065=02$
$1.223=02$
$1.391=02$
$1.571=02$
$1.761=02$
$1.962=02$
$2.174=02$
$2.396=02$
$2.629=02$
$2.874=02$
$3.129=02$
$3.394=02$
$3.071=02$
$3.958=02$
$4.256=02$
$4.564=02$
$4.884=02$
$5.214=02$
$5.554=02$
$5.905=02$
$6.267=02$
$6.640=02$
$7.023=02$
$7.416=02$
$7.820=02$
$8.234=02$
$8.659=02$
$9.094=02$
$9.539=02$
$9.995=02$
$1.046=01$
$1.094=01$
$1.142=01$
$1.192=01$
$1.243=01$
$1.294=01$
$1.347=01$
$1.401=01$
$1.455=01$
$1.511=01$
$1.568=01$
$1.625=01$
$1.684=01$
$1.743=01$
1

RE
9.375.0.04
$1.1920=05$
$1.4890=03$
$1.631=03$
2.2220.05

2,665: 0 03
3. $163 n=03$
3.7200=03
4.338m=03
$5,022=03$ $5.773=03$
$6,596=03$
$7.494=03$
$8.4690 \cdot 03$
$9.525=03$
$1.067=02$
1.189=02
$1.321=02$
$1.4620=02$
$1.013=02$
$1.774 n=02$ $1.945=02$
2.127=" 02 $2.3190^{\circ} 02$ $2.5230=02$ $2.738=02$
2.960" 02
3. $205=02$
3.457=-02
3.7210*02
3.9990*02
4. 289 = 02

4,594-02
$4.912 \infty=02$
5. $2440=02$
$5.5910^{\circ} 02$
$5,953=02$
6. $3300=02$
$0.7220=02$
7.1290-02
$7.5530-02$
$7.9920=02$
8.448 .02
$6.9200=02$
4. 409 = 02
$9,4,60002$

DRAG CUEF
helax time
$2.560-04$
2.014n+04
$1.0130+04$ $1.3110+04$
$1.0800+04$
9. $10^{9}-03$
$7.590=+03$
$6.4550+03$
$5.2350 * 03$
4.78年 103
$4.1600+03$
$3.042 *+03$
$3.20^{6}=03$
$2.037 n+03$
2. 223 n*03
$2.254 x+03$
$2.1210+03$
$1.0200 * 03$
$1.0450 * 03$
$1.4910+03$
$1.350 \%+03$
$1.237=03$
$1.132 x+03$
$1.030+03$
9.5450+02
$8.1970 * 02$
8. $1250+02$
7. $2210+02$
$0.4700+02$
$6.4820+02$
6.035n+02
$5.028 x+02$
5. 257 . 02
$4.9180+02$
$4.0095+02$
4. $3250+02$
4.064**02
3.024. +02
3. $603_{p}+02$
3. $399 .+02$
3. $2100+02$
3. $0350 * 02$
2.673.0 02
2. $1230+02$
2. $583 \%+02$
2. $453 n+02$

| 7.9830006 | 1.0640.07 |
| :---: | :---: |
| 9.3690-06 | 2.370007 |
| 1.080\% 05 | $3.460 \pm 07$ |
| $1.247=05$ | 4.363-07 |
| 1.419005 | 5.411=07 |
| 1.602 .05 | 7.5390=07 |
| 1.7960.05 | 9.481-07 |
| 2.0010-05 | 1.178= $0^{6}$ |
| $2.216=05$ | $1.447=06$ |
| $2.4430=05$ | $1.1590=0{ }^{6}$ |
| 2,681005 | 2.1200006 |
| $2.930=0.5$ | 2.5340006 |
| 3.190005 | 3. 306 - 9.06 |
| 3.4610005 | 3.3410006 |
| $3.743000^{5}$ | 4.1440 060 |
| 4.0360005 | $4.821=00^{6}$ |
| $4.340=05$ | 5.5780006 |
| $4.6550=05$ | 6,4220006 |
| $4.9800=05$ | 7.357-06 |
| 5,3170\% $0^{5}$ | 8. $5910=06$ |
| 5,664\% 05 | 9.531=006 |
| $6.0220=0^{5}$ | $1 \cdot 0^{78=}=0^{5}$ |
| $6.3910=05$ | 1.2150005 |
| $6.7710=0{ }^{5}$ | $1.965=05$ |
| 7.1610005 | $1 \cdot 529$ * $0^{5}$ |
| $7.5620=05$ | 1.1060005 |
| $7.9740=05$ | 1.0990005 |
| 8.397005 | 2.107=-05 |
| 8.83000 .05 | 2. 3330005 |
| 9.274005 | 2.3750=05 |
| $9.728=0{ }^{5}$ | 2.037=05 |
| $1.019800^{4}$ | 3. 1170-05 |
| $1 \cdot 067=04$ | 3.4190005 |
| 1. $1150-0.4$ | $3.1410=05$ |
| 1.165=04 | 4. $y^{86} 6=05$ |
| $1.2100=04$ | $4.4540-05$ |
| 1.2670.04 | 4.8460-05 |
| 1.3200004 | 5. $2640=05$ |
| 1.374 .004 | 5. $1090 \cdot 05$ |
| $1.4280=04$ | 6. 1810005 |
| 1.4840 .04 | 6.681005 |
| 1.5410004 | 7.2120-05 |
| $1.5990000^{4}$ | 7.1730-0 |
| 1.65700 .4 | 8, 3670005 |
| 1.717-04 | 8. 4940005 |
| 1.7780004 | $9.05600{ }^{5}$ |

# PARTICLE DENSITY $=2.0$ GRAMS PER CUBIC CENTIMETER 

| UJAMETEK | VELOCITY | RE | DRAG CUEF | RELAX TIME | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.800 x+01$ | $1.804=01$ | 1.044x=01 | 2.3310+02 | $1.839 \cdot 04$ | $1 \cdot 1350004$ |
| 2.900x+01 | 1.865 .001 | 1.098=01 | $2.2180+02$ | $1.902=00^{4}$ | 1.1090-04 |
| $6.000=+01$ | 1.927.01 | 1.1540001 | 2.1120002 | 1.9650004 | $1.186=04$ |
| - $1000+01$ | 1.9900001 | 1.2120001 | 2.013.*02 | 2.0300-04 | 1. $2670=04$ |
| c. $2000+01$ | 2.055-01 | 1.2710001 | $1.9200+02$ | 2.095:04 | $1.553=00^{4}$ |
| $0.300=+01$ | 2.120 .001 | 1.3330001 | $1.0330+02$ | 2, $162000^{4}$ | $1.443=04$ |
| c. $4000+01$ | 2.186.01 | 1.3961001 | $1.7520+02$ | 2. 229 m004 | 1.537004 |
| -. $2000 \times 01$ | 2.2520-01 | 1.4610001 | $1.6750+02$ | 2. $297000^{4}$ | $1.035=04$ |
| $0.600 x+01$ | 2.320.01 | $1.528 \times 01$ | $1.0030+02$ | $2.366 .00^{4}$ | $1.1380=0^{4}$ |
| $6.700 x+01$ | $2.389=01$ | $1.297-01$ | 1.535 .02 | 2.436" $0^{4}$ | 1.0460004 |
| $0.800+01$ | 2.458-01 | 1.668001 | $1.4710+02$ | 2,5070004 | 1.4600004 |
| $6.900 x+01$ | $2.529=01$ | 1.7410001 | 1.411002 | 2.579004 | $2 \cdot u^{780}=0^{4}$ |
| 7.000 $=01$ | 2.600\% $=01$ | 1.8100001 | $1.3540+02$ | $2.6510 \cdot 04$ | 2. 2010004 |
| $\cdots 100 x+01$ | $2.6720=01$ | $1.893=01$ | $1.3000+02$ | $2 \cdot 725=-14$ | 2. $52810=04$ |
| $7.200 x+01$ | 2.745.01 | 1.9720001 | $1.249 \times 02$ | 2.799* $0^{4}$ | $2.457=04$ |
| \%.300x+01 | 2.819 .001 | 2.0530-01 | $1.2010+02$ | 2.874004 | 2. 9900004 |
| $7.4000+01$ | $2.893=01$ | 2.137-01 | 1. $1560+02$ | $2.9500=04$ | 2. 1250004 |
| $7.5000+01$ | 2.968 .001 | 2.2220=01 | 1.1130*02 | 3.027-0 $0^{4}$ | 2.965w $0^{4}$ |
| $7.600=+01$ | 3. 045001 | 2.309-01 | 1.0720+02 | 3. $10^{5}=0^{4}$ | 3. $40^{8}=04$ |
| !. $700 \times+0.1$ | 3.122m01 | 2.5990001 | $1.03300+02$ | 3.1830\%04 | 3. $155.00^{4}$ |
| $7.000 x+01$ | 3.1990001 | $2.4900=01$ | 9.964n+01 | 3.2620004 | 3. 9060004 |
| $7.500 \%+01$ | 3,278=01 | $2.5840=01$ | $9.01^{5 n+01}$ | 3,3420004 | $3.4620=04$ |
| 6.000x+01 | 3.357* 01 | 2,6800001 | 9.4820001 | $3.4230 \% 04$ | $3.021000^{4}$ |
| -100- 101 | $3.437-01$ | 2,778001 | $8.9600+71$ | $3.505=04$ | $3.1850=04$ |
| c. $200 x+11$ | $3.518=01$ | 2, 6790001 | $8.6850+01$ | $3.587 m=04$ | $3.453=04$ |
| b. $300 x+01$ | $3.599=01$ | $2.981=01$ | $8.378=+01$ | $3.670=04$ | $4.1250=04$ |
| b. $4000+01$ | 3.681-01 | 3.0860001 | $8.10^{5} 0+01$ | $3.7540 \cdot 04$ | 4.301**4 |
| c. $2000 \times 81$ | $3.764=01$ | 3.1930-01 | $7.0450+01$ | $3.838=04$ | $4.482=04$ |
| 6, e00p+is | 3.047=01 | S. 3020001 | $7.2900+01$ | 3.923004 | 4.0670004 |
| $6.700 x+01$ | 3.9320001 | 3.414nm01 | 7.354.01 | 4.009 $0 \cdot 04$ | 4.057004 |
| $0.000=+11$ | 4.010-01 | S.2270-01 | $7.13<0+01$ | 4.096-04 | $5 \cdot 1510004$ |
| $0.900 x+11$ | 4.1020-01 | $3.643=01$ | $6.4100+01$ | $4.1830=04$ | $5.250000^{4}$ |
| $4.000 x+61$ | 4.188=01 | 3.762.01 | $6.7090+01$ | $4.271=04$ | 5.4530004 |
| Y. $100 \mathrm{x}+101$ | 4.275.01 | 3.0820=01 | $6.5110+01$ | 4,359:-04 | 5.0610004 |
| Y. $2000+111$ | 4,3620-01 | 4.0050*01 | 6.5210+01 | 4,4490004 | $5.074=04$ |
| Y. $300 \mathrm{x}+01$ | 4,4500=01 | 4.1310"01 | 6. $140 \mathrm{ju+}+1$ | 4.5380004 | $6.11^{9} 10004$ |
| Y.400x+01 | 4.539=01 | 4.2580=01 | $5.9600+01$ | 4,0290.04 | $6.3130=04$ |
| $9.500 x+01$ | 4.028 .001 | 4,388000 | 5.7940+01 | 4,7200*04 | 0.340004 |
| y. $0000 x+01$ | $4.718=01$ | 4.520000 .1 | $5.639 \pm+01$ | 4.8110004 | 6.1710004 |
| $9.700 x+61$ | $4.800^{8}=01$ | $4.6550-01$ | 5.4800+01 | $4.9030-04$ | 7. $10^{700} 04$ |
| $4.600 x+11$ | 4.899-01 | 4.7920-01 | $5.3360+01$ | 4,9960004 | 7. 2490004 |
| $9,900 x+01$ | $4.9910=01$ | $4.931 \mathrm{~m}=01$ | 5.197m+01 | $5 \cdot 0^{89}=0 \cdot 0$ | 7. 4950004 |
| 1.000x+02 | $5.00^{83}-01$ | $5 \cdot 0^{7} 20=01$ | 5.0610001 | 5. $183 x=0^{4}$ | 7.1400-04 |
| 1.100x+02 | 0.029-01 | 6,0,90001 | 3.450n+01 | 6. $1480=04$ | $1 \cdot 1530003$ |
| 1.200x+02 | $7 \cdot 018=01$ | 8.4050001 | 3.1850+01 | $7 \cdot 157 x=04$ | $1 \cdot 983000$ |
| $1.5000^{+0} 0$ | 8.043.01 | $1.0430 * 00$ | $2.6200+01$ | 8. $2020 \times 0^{4}$ | 1.167:0 - 3 |

PARTICLE DENSITY: C.O GRAMS PER CUBIC CENTIMETER

| UIAMETEK | VELOCITY | KE | DRAG CUEF | RELAX TIME | -90 D\ST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.400 x+02$ | 9.099.01 | 1.2710*00 | 2.2110*01 | 9.2790.04 | $2 \cdot 2070 m 03$ |
| $1.500 x+02$ | 1.019=00 | 1.525:00 | 1.089**01 | 1.039-03 | 2.1030003 |
| $1.000 x+02$ | $1.1320+00$ | $1.8080+00$ | 1.0320001 | 1.154x=03 | 3.259-0 0 |
| $1.700=02$ | 1.2500*00 | 2. $12.20+00$ | $1.4210+01$ | 1,275=03 | 3.0730-0S |
| $1.800 x+112$ | 1.3750+00 | $2.4700+00$ | 1, $2450+01$ | $1.4020=03$ | 4, $247=03$ |
| $1.900 x+02$ | 1.505000 | 2.8540*00 | 1.090001 | $1.535=03$ | $5.2820=03$ |
| c. $0000 \times 02$ | 1.63800 | $3.2700+00$ | 9.143=*00 | $1.671=03$ | $6.079=03$ |
| $2.100 x+1^{2}$ | 1.760x+00 | $3.700 \times 00$ | $8.8080+00$ | 1.8010003 | 6.937003 |
| $2 \cdot 200 x+1{ }^{2}$ | 1,870x*00 | $4.107 \sim 00$ | 8.2220+00 | $1.907-03$ | 7.45700.03 |
|  | $1.9900+00$ | 4.56.9x*00 | 7.291-+00 | 2.0300003 | $8.839=03$ |
| $2.400=+02$ | 2.111 .000 | $5.0570+00$ | 7.0410*00 | $2.153=03$ | 9.0830005 |
| $2.500 x+12$ | $2.2330+00$ | 5.571 .00 | $6.5570+00$ | 2,277-03 | 1.4990-02 |
| $2.600=+02$ | $2.355+00$ | 6.1110+00 | $6.129=00$ | $2.4020=03$ | 1.216002 |
| $2.700 x+42$ | 2.478000 | $6.677 \% 00$ | $5.7500+00$ | $2.527-03$ | $1.539=02$ |
| C.600x+02 | $2.0010+00$ | 7,269:00 | $5.4100+00$ | $2.653=03$ | 1.4680002 |
| $2.900 x+02$ | $2.725=00$ | 7,8.87**00 | $5.1050+00$ | $2.779=03$ | 1.004-02 |
| S. $0000 x+02$ | $2.8500+00$ | 8,531000 | $4.4310+00$ | $2.906=03$ | 1.1450002 |
| 3, 100x+02 | $2.9740+00$ | 9.2010+00 | 4.5820+00 | 3.033:-03 | 1.0930002 |
| $5.200 x+12$ | 3.099 $=00$ | $9.8970+00$ | 4.350 .000 | 3.160. $=03$ | 2. $1477=02$ |
| $3.300 x+02$ | 3.224 .00 | $1.0620+01$ | 4,1500*00 | $3,2880=03$ | 2. $2070-02$ |
| S. $4000+12$ | $3.3500+00$ | 1.137** 01 | 3,9620+00 | 3.416.03 | 2.5730002 |
| 2.5000+02 | 3.475. +00 | 1.214n*01 | 3.1890+00 | $3.544 x=03$ | 2. 3450002 |
| S. $6000 x+02$ | $3.6010+00$ | 1.2940+01 | $3.0300+00$ | $3.6720=03$ | 2.1230002 |
| $3.700=+12$ | 3.727.00 | 1.376x+01 | 3.4840+00 | 3.8000003 | 2. $406=02$ |
| $5.800 x+12^{2}$ | 3.852000 | 1.4610001 | $3.5400+00$ | 3.929.03 | 3. 0960002 |
| S.900x+12 | 3.978 .00 | 1.548001 | $3 .<2<0+00$ | 4.0570=03 | 3. $2^{9} 2^{-0-02}$ |
| $4.000 x+12$ | 4. $10^{40+00}$ | 1.6380001 | 3. $100^{50} 00$ | 4.1850-03 | 3.493002 |
| 4. $100 x+02$ | 4.2300+00 | 1.1310001 | 2.4900*00 | $4,313=03$ | 3. $100000{ }^{10}$ |
| 4.200*+02 | 4. $5500 * 00$ | $1.0200+01$ | $2.6950+00$ | 4.4420003 | 3.4130002 |
| 4.300x+02 | 4,4810+00 | 1.4230*01 | $2.0000 * 00$ | 4,5700003 | 4. $132^{\text {mo }} 02$ |
| $4.400 x+12$ | $4.00^{7}+00$ | 2.0230*01 | $2.7110+00$ | 4,698.03 | 4. 5560002 |
| $4.500 x+02$ | $4.7320+00$ | 2. $1250+01$ | $2.62^{70+00}$ | $4.826=03$ | 4. $9860=02$ |
| $4.600 x+0{ }^{2}$ | 4,858.000 | $2 \cdot 2300+01$ | $2.5490+00$ | $4,9,54=0 \cdot 3$ | $4.022^{10}=02$ |
| $4.700 x+12$ | $4.9830+00$ | $2.33 .70+01$ | $2.4750+00$ | 5. $0^{8} 10003$ | 5. $4^{6} 2^{x-0} 02$ |
| $4.800 x+0^{2}$ | 5. $10^{8}+00$ | $2.4470+01$ | $2.400^{5}=00$ | 5,2090003 | 5. $50^{900}=02$ |
| $4.9000 \times 18$ | -5. $2330+00$ | 2.5590*01 | 2. $5400+00$ | $5,3,36003$ | 5.36100-02 |
| 2.000x + 12 | 5.357m+00 | $2.6730+01$ | 2. 2780 | $5.4630-03$ | 5.81800 .02 |
| $\because \cdot 100 x+12$ | $5.4820+00$ | $2.7900+01$ | 2. 219000 | $5.5900=03$ | $6.4^{8} 0 x-02$ |
| $2.200 x+42$ | $5.6066+00$ | 2.909-01 | 2.1.63-00 | $5.717=03$ | 0.34800.02 |
| 2. 50000 | $2.7300+00$ | 3.03.10+01 | 2. $1100+00$ | 5.844000 | 6.0210-02 |
| 2.400x+ 0.6 | 5, $8540+00$ | 3.1550*01 | 2.13600+00 | $5.970=0.03$ | $6 . y 00^{\omega-02}$ |
| b.500w+02 | 5.9780 +00 | 5.2810+01 | 2.0120+00 | $6.0960 \cdot 03$ | :7.183=02 |
| 2. $600 x+02$ | 0.101 .00 | $3.410 x+01$ | 1.4.670+00 | 6.2220003 | 7.4710-02 |
| $2.700 x+02$ | $6,224 m+00$ | $3.5410+0.1$ | $1.924=+00$ | $6.347{ }^{\circ} 0^{3}$ | 7.1650.02 |
| 2.600n+02 | $0.347 \pm+00$ | $3.674 \times 01$ | $1.0820+00$ | $6.473=03$ | 8.10040002 |
| 5.900x+02 | 6.47010 | $5.6100 * 01$ | $1.8430+00$ | 6.598 .03 | $8.3670-02$ |

-article density $=2.0$ grams per cubic centimeter

| UIAMETER | velucity | RE | drag ceef | relay time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.000 x+02$ | 6.592m+00 | 3.947.0.01 | 1.8050000 | 6.7220003 | 8.0760. |
| -. $100 \times 02$ | 6.7140+00 | 4,087**01 | $1.769 \mathrm{~m} * 00$ | 6.847 .03 | 8.9890002 |
| -.200x+02 | 6.836 .00 | $4.2300+01$ | 1.735000 | 6,971.0.03 | 9. 9080002 |
| $0.300 x+02$ | 0.958 .00 | $4.374 m+01$ | $1.7020+00$ | 7.095003 | 9.0310 .02 |
| $0.400 x+02$ | 7.079.00 | 4.5210001 | 1.670000 | 7.219-03 | $9.4590=02$ |
| $0.500 x+02$ | $7.2000+00$ | $4.6 .700+01$ | $1.0400+00$ | 7.342-03 | 1.4290-01 |
| $0.600 x+02$ | $7.3200+00$ | $4.8220 * 01$ | $1.6100+00$ | 7:465:03 | 1.063001 |
| $0.700 \% 0^{2}$ | 7.441.000 | 4,9750*01 | 1.5820*00 | 7.588 .03 | $1.00^{97-01}$ |
| $6.800 x+02$ | 7.561.000 | 5.1310+01 | 1.555.000 | 7.710003 | 1.132001 |
| $0.900 \times 02$ | $7.6800+00$ | $5.2890 * 01$ | 1.529000 | $7.832=03$ | 1.1670001 |
| $7.000 \times+02$ | $7.8000+00$ | 5,449 = 01 | 1.5040*00 | 7,9540=03 | $1.2020=01$ |
| \%,100x+02 | $7.9190+00$ | 5,0110001 | 1.4800000 | 8.075.03 | $1 .<38000.1$ |
| \%.200x 0 U2 | 8.038000 | 5.776**01 | $1.457 \times 00$ | 8.197.03 | 1.4750-01 |
| 7. $500 \mathrm{x}+02$ | $8.1560+00$ | 5,942**01 | 1.435000 | 8.3170 .03 | 1.3120-0.1 |
| $1.400 x+02$ | 8.275.00 0 | -1.11=*01 | 1.4.130*00 | 8.438003 | 1.9490001 |
| $7.5000+02$ | 8,392.+00 | $6.2820+01$ | 1. $5.920+00$ | $8.558=0.03$ | 1.387 .01 |
| $7.600 x+02$ | $8.5100+00$ | 6,455.*01 | 1. 372000 | $8,678=03$ | 1.4250001 |
| $\% 7000+02$ | 8.027 .000 | 6,6300**01 | 1.553000 | 8.7980003 | 1.4640001 |
| $7.8000+02$ | 8,744.*00 | $0.867=01$ | 1.3340000 | $8,9,17003$ | 1.3030001 |
| 7.900 ${ }^{\text {c }}$ + 0.2 | $8.861 \mathrm{~m}+00$ | 6,9860*01 | $1.3100 * 00$ | $9 \cdot 0.360=03$ | 1.742001 |
| $8.000 \times+02$ | 8.9 .77 .00 | 7.167**01 | 1.2980 +00 | $9.154 m=03$ | 1.9820001 |
| c. $1000 \times+02$ | $9.093{ }_{0}+00$ | 7.351**01 | 1.2810+00 | $9,273=03$ | 1.0 .23 =01 |
| b. $2000+02$ | 9.209000 | 7.536.*01 | 1. $2644_{s+00}$ | 9,3910003 | 1.063001 |
| -. $5000+132$ | 9.324 .00 | 7.7230001 | $1.2400+00$ | $9,508=03$ | . $1040=01$ |
| $0.400=+12^{2}$ | 9.439 .00 | 7.9130*01 | $1.2350+00$ | 9.626 .03 | 1.1460001 |
| -. $5000 x+{ }^{2}$ | 9.554 .00 | $8.10400+01$ | 1.2180+00 | $9.742 m=03$ | 1.1880-01 |
| $x .000 x+.12$ | 9.668 .00 | $8.29 .80+01$ | $1.2030+00$ | 9.859 .03 | 1.5300001 |
| $0.700 x+0{ }^{2}$ | $9.7820+00$ | $8.493 \times+01$ | $1.1890+00$ | 9.975\% 03 | 1.0730001 |
| $0.000=+102$ | 9.896 .00 | $8.0910 * 01$ | $1.1750+00$ | 1.0090002 | 1.8160001 |
| -. $9000 \times+1{ }^{2}$ | 1.001 .001 | $8.8900+01$ | $1.1620+00$ | 1.0210002 | $1.4590=01$ |
| $4.000=02$ | 1.0120+01 | $9.0920+01$ | 1.1480*00 | 1.0320-02 | 2.0030001 |
| $4.100 x+02$ | $1.024 \times 01$ | $9.295 n+01$ | 1.136n+ 10 | 1.0440=02 | 2.4470001 |
| $4.200 x+12$ | $1.035 n+01$ | 9.50100+01 | 1.123000 | $1.055=02$ | 2.4920-01 |
| $9.300 x+2^{2}$ | 1.046**01 | 9.708 .01 | $1.11100+00$ | 1.0670*02 | 2.1370001 |
| $4.4000+0^{2}$ | $1.057+01$ | $9.9170 * 01$ | $1.1000+00$ | 1.078 .02 | $2.182^{2001}$ |
| 与. $2000 \times 1{ }^{2}$ | 1.0680001 | 1.0130*02 | $1.080 \times 00$ | $1 \cdot 0890002$ | 2. $\mathrm{c}^{880001}$ |
| $4.000 x+12^{2}$ | $1.0790+01$ | 1.0340+02 | 1.0770+00 | $1.1010=02$ |  |
| $4.7004+8{ }^{2}$ | $1.090+01$ | 1.0500** 02 | $1.67 n+00$ | 1.1120002 | 2. 2 210001 |
| $4.600 x+02$ | $1 \cdot 1020+01$ | 1.077.02 | $1.0560+00$ | 1-1230\% 02 | 2. 568.701 |
| $4.5000+12^{2}$ | $1.113{ }^{1}+01$ | 1.099**02 | $1.0400+00$ | $1 \cdot 135=02$ | 2.41500.01 |
| $1.0000^{*}+105$ | $1.124 n+01$ | $1.1210+02$ | $1.0300+00$ | 1.146.02 | 2.46.20.0.1 |
| $1.0100+0{ }^{3}$ | $1.135+01$ | 1.144x+02 | 1.0200*00 | $1.157 \times 02$ | $2.310^{100} 01$ |
| $1.020 x+0^{3}$ | 1.1450*01 | 1.166 .02 | $1.0160+00$ | $1.1580=02$ | 2.2580.01 |
| $1.050 x+63$ | 1. $1500^{+}+01$ | 1.18.9m+02 | 1.407m+00 | 1.179m=02 | 2.0070001 |
| $1.040 x+j{ }^{4}$ | $1.167{ }^{\text {c }}$ + 01 | $1.21110+02$ | 9.981 .001 | $1 \cdot 1^{9} 0=02$ | 2.0.50=01 |
| $1.050 x+0{ }^{5}$ | $1.178 x^{+01}$ | 1.234n*02 | 9.0920001 | 1.2010002 | 209050901 |

## PARTICLE DENSITY $=3.0$ GRAMS PER CUBIC CENTIMETER

| UIAMETEK | VELOCITY | RE | DRAG CUEF | helax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.000x+00 | 1.0870-04 | 1.085x"00 | 2.2120*07 | $1.1090=07$ | $3.2080 \% 11$ |
| 1.100\%+00 | 1.3100004 | 1.444=00 | $1.062 .0+07$ | $1.3420=07$ | 5. $\mathrm{A}^{4} 1 \mathrm{~m}=11$ |
| $1.200 x+00$ | $1.5600=04$ | 1.8750006 | $1.2800+07$ | 1.597007 | 7.2890-11 |
| $1.300 \times 00$ | 1.838-04 | 2,3840-06 | $1.007 .0+07$ | 1.874= 07 | 1.405=-10 |
| $1.400 x+00$ | 2. $131=04$ | 2.978.06 | 8.059-06 | 2.173.07 | $1.553=10$ |
| 1.500x+00 | 2.447=04 | 3.6630-06 | $6.5530 * 06$ | 2.495:-07 | $1.184=10$ |
| $1.000=00$ | 2,784=004 | 4.445. - 06 | 5.399.06 06 | 2.8390=07 | 2.3110.10 |
| $1.700 x+00$ | 3.143.04 | 5.3320000 | 4. 2010000 | $3.2050-07$ | 2.947-10 |
| $1.800=+00$ | $3.523=00^{4}$ | $6.329=06$ | 3.792.*06 | $3,593=07$ | 3.1060010 |
| $1.900 x+00$ | 3.926m.04 | $7.444=00$ | 3. $2240+06$ | 4. $00^{3} 0=07$ | $4.0040=10$ |
| 2.000=*00 | $4.3500=04$ | $8.682=00^{6}$ | 2.764**06 | 4.4360007 | $5.056=10$ |
| 2.100=*00 | 4,795=04 | 1.005:05 | $2.3880+06$ | 4.890 .07 | 6.8780-10 |
| 2.200= 00 | $5.263=04$. | 1.156-05 | 2.0770+06 | 5.367-07 | $8.2890-10$ |
| 2. $300=+00$ | 5.7520=04 | 1.3200*05 | 1.818 .006 | 5.866007 | 9.8070 .10 |
| $2.400=00$ | $0.2630=04$ | 1.500005 | 1.6000*06 | 6,387=07 | 1.175=09 |
| C. $5000+00$ | 6,796=04 | $1.696=05$ | $1.4150+06$ | $6.931=07$ | $1.384=09$ |
| $2.600 \times+00$ | 7.351: 04 | $1.9070=05$ | $1.2580+06$ | $7.4960 \cdot 07$ | 1.0200009 |
| <. $700=00$ | 7.9270 $=04$ | 2.136-05 | 1.1240*06 | $8.0840=07$ | $1.0850=09$ |
| C. $8000+00$ | $8.525=04$ | 2.3820-05 | $1.0070+06$ | 8,694=07 | 2. $181 \times 09$ |
| $2.900=+00$ | 9.145=04 | 2.647.05 | 9.068**05 | $9.3260=07$ | 2. 2100009 |
| 3.000\% + 00 | 9.787=04 | 2.9300"05 | $8.1910+05$ | $9.9800=07$ | 2.0760009 |
| 3.100x+00 | $1.045=03$ | $3.2330=05$ | $7.4230 * 05$ | 1.066 .06 | 3. $2^{8} 00-09$ |
| S. $200 x+00$ | 1.113003 | 3.556.05 | $6.749 \sim 05$ | 1.136006 | 3. 1260009 |
| $3.300 k+00$ | $1.184 \% 0^{3}$ | $3.900 \cdot 05$ | $6.154 x * 05$ | 1.208006 | 4. <150-09 |
| S.400 $=00$ | $1.2570-03$ | 4.265:05 | 5.627 .05 | 1.2820006 | 4.1510009 |
| S. $2000+00$ | $1.3320 \cdot 03$ | $4.6530 \cdot 05$ | 5.158.*05 | 1.358 .06 | $5.5370=09$ |
| S. $600 x+00$ | 1.409-03 | 5.0630-05 | 4.740.*05 | 1.437.006 | 5. $4750-09$ |
| S.700: 000 | $1.489=03$ | 2.4970*05 | 4. $5600+05$ | 1.5180006 | 6.0700009 |
| $3.8000+00$ | 1.570003 | 5.955:05 | 4.0300*05 | $1.0510=06$ | $7.4230=09$ |
| 3.900-*00 | 1.654m"03 | $6.4370 \cdot 05$ | 3.7280+05 | 1.6870006 | 8. $238000^{9}$ |
| 4. $000 x+00$ | 1.740 .003 | 6.9450005 | 3.4500* 05 | $1.7740 \cdot 06$ | 9. $118^{10}-0^{9}$ |
| 4. $1000+00$ | 1.828003 | 7.479m=05 | 3.209=*05 | $1.8040=06$ | 1. $11074=08$ |
| 4. $2000 x+00$ | 1.918 .03 | 8.040005 | 2.9850+05 | 1.9500006 | 1.109-08 |
| $4,300 x+00$ | 2.011000 | $8.628=05$ | 2,7820*05 | 2.0500006 | $1.219000^{8}$ |
| $4.400=+00$ | 2. $10^{5}=03$ | 9.2440-05 | 2.590**05 | 2. $1470 \cdot 06$ | $1.3360=0^{8}$ |
| $4.5000+00$ | $2,2020=03$ | 9,889m-05 | 2.427w+05 | 2.2450006 | $1.4620-0^{8}$ |
| 4.6000+60 | 2. $3010=03$ | 1.056.04 | 2. $2720+05$ | 2. 346006 | $1.2970=0^{8}$ |
| $4.700 x+00$ | $2.402=03$ | $1.1270 \cdot 0.4$ | 2. 1300005 | 2.450= 06 | $1.141000^{8}$ |
| 4. $8000=+10$ | 2.505003 | 1,2000004 | 2. $00000+05$ | 2. 555000 | 1.0950 .00 |
| 4.900x+ 00 | 2.0110003 | 1.277=04 | $1.8800+05$ | 2. 0620006 | 2.4580008 $0^{8}$ |
| 5.000x+00 | 2.718003 | $1.557=04$ | $1.769 \sim+05$ | $2 \cdot 7.720=06$ | 2. $2320=0{ }^{8}$ |
| 5. $100 x+00$ | 2.828-03 | 1.4400004 | $1.067 * 05$ | 2.884=-06 | $2.416=00^{8}$ |
| 2. $2000+00$ | 2.940.03 | 1.526=04 | 1. $5730+05$ | $2.998=06$ | 2.0120008 |
| $2.300 \%+00$ | 3. 054000 | 1.616004 | 1.486w+05 | 3.115006 | 2. 5190008 |
| 2.400x+00 | 3.1710=03 | 1,7090004 | $1.400^{5}+05$ | 3. $2330 \% 00$ | 3.1139=-08 |
| $2.5000+40$ | 3. $289 \% 0^{3}$ | $1.800^{609} 04$ | -1.329 $=+05$ | 3. $3540=06$ | 3. $2^{7} 1000^{88}$ |

PARTICLE DENSITY $=3.0$ GRAMS PER CUBIC CENTIMETER

| UlAMETEK | VELOCITY | RE | DRAG CEEF | RELAX TIME | . 90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.000 \times+00$ | 3.4100 $=03$ | 1.906 9004 | 1.2590*05 | $3.477-06$ | 3.216-08 |
| 2.700:+00 | 3,533=03 | 2.0100004 | 1.1940+05 | $3.6030=06$ | $3.174000^{8}$ |
| $2.800 \times+00$ | 3.658-03 | 2.117=04 | 1.134**05 | $3.730=06$ | 4.U47- $0^{8}$ |
| 2.900= 00 | 3,785-03 | 2.229 = " 04 | 1.077**05 | 3.8600006 | 4. $334000^{8}$ |
| -. $000 x+00$ | $3.9,5=03$ | 2,344x=04 | 1.0240*05 | 3,99.20 $=06$ | 4.0370 .08 |
| 0.100x+00 | 4.046 .03 | 2,463= 04 | 9.744n+04 | 4, 1260006 | $4.455=08$ |
| $0.200 \times+00$ | 4, 180. 003 | 2.5860*04 | 9.2800* 04 | 4,2620:06 | $5.2880 \cdot 08$ |
| $0.300 x+00$ | $4.316=00^{3}$ | 2.713=04 | 8.045m*04 | 4.4010006 | $5.039=00^{8}$ |
| 0.400\% + 00 | 4.454=03 | 2,845m"04 | $8.437 \mathrm{~m}+04$ | 4.5420006 | $6.00^{70}=0^{8}$ |
| $0.500 \times 00$ | 4.594-05 | 2.9800.04 | $8.053 .0+04$ | 4.6850 .06 | 6.5920008 |
| $0.600=+40$ | 4,737-03 | 3.1200\% 04 | 7.0930*04 | 4.8300-06 | 6.196008 |
| $0.700 \times 00$ | 4.881-03 | 3.2640004 | 7.354m*04 | 4.978w 06 | 7. $2180 \% .08$ |
| $0.800 \times 00$ | 5.028=03 | 3.4120-04 | 7.13400+04 | 5.1270 06 | 7.060008 |
| $0.9000+00$ | 5. 177\% 03 | 3.5650-04 | 6. $1330+04$ | 5.279.-06 | 8.1220-08 |
| 1.000x+00 | $5.328=03$ | S. $722 \times 04$ | $6.448 m+04$ | $5.4330 \cdot 06$ | 8.005008 |
| 7.100x-00 | 5.481. $=03$ | 3.884= 04 | 6.1800+04 | $5.5900-06$ | 9.108-08 |
| $\% 200 x+00$ | 5.637 .003 | 4.0500=04 | 5. $4260+04$ | $5.748 \mathrm{~m}=06$ | $9.0340 \cdot 08$ |
| $7.300 x+00$ | 5.794 .03 | 4.222=04 | 5.085 ¢ +04 | $5,90^{9} x=0^{6}$ | $1.41^{800}=07$ |
| $7.400 x+100$ | $5.954=03$ | 4. $597=04$ | $5.4560+04$ | 6.072=06 | $1 \cdot .4750-07$ |
| 1.500x+00 | 6.1100"03 | 4.578."04 | $5.243 x+04$ | $6.2,370100$ | 1.1350-07 |
| $7.600 \times+00$ | $6.2800=03$ | 4,7640-04 | 5.039.0.04 | 6.405000 | 1.197=07 |
| $\cdots 700=00$ | 6.447= 03 | 4. 954004 | $4.6450+04$ | $6.574=00$ | $1 \cdot 201007$ |
| \%.800x+00 | $6.0,5 x=03$ | 5.1500004 | $4.0610+04$ | $6.746=06$ | 1. $328=07$ |
| 7.900x+00 | $6.786=03$ | $2.3500-04$ | $4.4800+04$ | 6.7200-06 | 1.5980-07 |
| -. 00000 | 6,959=03 | $5.556000^{4}$ | $4.3200+04$ | 7.096.06 | 1.470000 |
| $8.100 x+00$ | 7.134-03 | 5.767004 | $4.1620+04$ | $7.2750=106$ | 1.2450007 |
| $8.200 \%+00$ | 7.311=03 | 3.9830004 | 4.0120004 | $7.456=06$ | 1.023007 |
| $0.300=+10$ | $7.491=03$ | $6.2050 \cdot 04$ | $3.568 m+04$ | $7.039=06$ | 1.104007 |
| $8.400 x+00$ | 7,6720*03 | 0.432-0.4 | $3.7320+04$ | 7,824-06 | $1.188 \mathrm{~m}=07$ |
| ¢. $500 x+00$ | 7.8560-03 | 0.6640904 | $3.0 .020+04$ | 8.0110006 | $1.0750=07$ |
| $8.600 .+00$ | 8.0420-03 | 0.902004 | $3.4780+04$ | 8.2010006 | 1.4650001 |
| $6.700=+00$ | $8.23010=03$ | 7. $14600^{4}$ | $3.3590+04$ | 8.3920000 | 2. $0^{58000} 0$ |
| $8.800 \times+10$ | $8.4200=03$ | 7.5950004 | 3. $240 x+04$ | $8.586=06$ | 2.1550-a7 |
| $6.900 x+00$ | $8.6120=03$ | $7.0500 \times 04$ | 3.1380+04 | $8.7830=10$ | 2. $2540=07$ |
| y. $0000+00$ | 8.807 .93 | 7.9110004 | 3.034x+04 | 8.9810006 | 2.9580-07 |
| y. $100 x+10$ | 9.004= 03 | $8.177-04$ | $2.935 ⿻+04$ | $9.1 \times 20=06$ | 2.4650-07 |
| $4.200 x+00$ | 9,203.03 | $8.4500=04$ | 2.041= 04 | 9.365006 | 2. 2750007 |
| 4.300x+00 | 9.404003 | $8.728=04$ | $2.7500+04$ | 9, - $^{9} 000000$ | 2.0890-07 |
| Y. $4000 x+00$ | 9.607. 03 | 9.6130-04 | $2.0630+04$ | 9.19.7=06 | 2. $0070=07$ |
| Y. $5.00 \mathrm{x}+00$ | 9.813003 | $9.503-04$ | 2,5800+04 | 1.0010005 | 2. 4 29x-07 |
| $4.600 x+00$ | 1.002.02 | $9.0000-04$ | 2. $2000+04$ | 1.0220005 | 3. $4540=07$ |
| $9.700 x+00$ | $1.023_{0}=02$ | $9.9030=04$ | 2. $42^{4} p+04$ | 1-043- $0^{5}$ | 3. $1840=07$ |
| $9.800 x+110$ | 1.0440 = 02 | 1.0210 03 | 2. $3500+04$ | 1.065-05 | 3. $31^{80}=07$ |
| $9.900 x+10$ | $1.00^{60}=02$ | 1.6530003 | $2.22^{800+04}$ | 1.0870-05 | $3.45600=07$ |
| 1. $0000 x+11$ | 1.087-02 | 1.08500 03 | 2. 2120004 | $1 \cdot 10^{9} 005$ | 3. 9980007 |
| $1.100 x+01$ | $1.316 x=02$ | 1.4440*03 | $1.0620+04$ | $1.3420-05$ | $5 \cdot 2^{7} 30000^{7}$ |

Particle density $=$ s.o grams per cubic centimeieh

| ujameteh | VELOCITy | RE | drag cuef | relax time | . 9 g pist |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.200: 01 | 1.565.-02 | 1.8750=03 | $1.2800+04$ | 1.5960-0 | 7.476n-07 |
| $1.3000+01$ | 1.837002 | 2,383.03 | $1.0070+04$ | 1.873.05 | 1.4310006 |
| $1.400 \cdot+131$ | 2.130.002 | 2.977-03 | 8.060.0.03 | 2,173.05 | 1.9870006 |
| $1.500 x+131$ | 2, 445m=02 | 3.6610003 | $6.554 .0+03$ | 2.4940\% 05 | $1.030^{100} 00$ |
| $1.600 x+111$ | 2.782m-02 | 4,442me03 | $5.4000+03$ | 2.837. 05 | 2. 5700006 |
| $1.700 x+01$ | 3.140002 | 5.328.0.03 | $4.20800+03$ | 3,2020-05 | 3.4230906 |
| $1.800 x+111$ | 3.520002 | 6.324= $=03$ | 3.7980003 | 3.59 $30 \% 05$ | 3.0010006 |
| $1.900 x+01$ | 3.922.02 | 7.436003 | $3.2310+03$ | $3.9990=05$ | 4.1220006 |
| 2.000x+ul | $4.345=02$ | 8,6720003 | 2.7710003 | 4.4300005 | 5. 5010000 |
| 2.1000+61 | 4,789-0'2 | 1.004=02 | $2.594 n+03$ | $4.884=05$ | 7.0550000 |
| $2.200 x+91$ | $5.255=02$ | 1.1540002 | $2.00^{83}+03$ | $5.359 \times 05$ | 8.3020000 |
| $2.3000+13$ | 5.742.022 | 1.318-02 | 1.024n+03 | $5.850 \cdot 05$ | 1.0160005 |
| $2.400 x+13$ | 6.251-02 | 1,497.02 | $1.0060+03$ | $6.374=05$ | 1.2050007 |
| 2.bu0x+61 | 0.781 .02 | 1.092002 | $1.4220+03$ | $6.915 \times 05$ | 1.4200005 |
| $2.000 x+111$ | 7.332-02 | 1.9030=02 | 1.26500+03 | 7.477:05 | 1.0620005 |
| $2.700 x+111$ | $7.900^{40} 02$ | $2.1300=02$ | $1.1300+03$ | 8.061 .05 | 1.9330005 |
| $2.000 x+1$ | $8.498=02$ | $2.3750=02$ | $1.014 x+03$ | 8.606 .05 | 2. 6370005 |
| 2.400x+ | 9.113.02 | 2.037-02 | 9,1320+02 | $9.293 m=05$ | 2.375-05 |
| S.0uex+ il | 9,748.02 | 2,919-02 | $8.255 .+02$ | $9.9410=05$ | 2.9500005 |
| 3. $1000+111$ | 1.0400001 | 3.2190-02 | 7,488.0.02 | 1.0610004 | 3.3640005 |
| $3.2000+11$ | $1.1080=01$ | 3.539. 0.2 | 6.014n+02 | 1.1300004 | 3.8210005 |
| 3. $3100 x+11$ | 1.178 .01 | 3.8800002 | $6.2100+02$ | 1. 2010004 | 4. 323005 |
| $3.4000+1$ | 1.2500\%01 | 4.2410-02 | $5.091 \times 0.0$ | $1.2750 \cdot 0^{4}$ | 4.8730005 |
| 3.2000 + 31 | $1.324 m=01$ | 4.024-02 | $5.223 n+112$ | $1.350000^{4}$ | 5.4740005 |
| $3.6000+31$ | 1.4000001 | -.0290002 | $4.00500+02$ | $1.427000{ }^{4}$ | $6.129 .00^{5}$ |
| $3.700 \times+1$ | 1,4780001 | 5.4570-02 | $4.4310+02$ | $1.5070 \cdot 0^{4}$ | 6.0410005 |
| S. $6100 \mathrm{c}+11$ | 1.5500001 | $5.908=02$ | 4.095n+02 |  | 7.0130005 |
| 3.900x+41 | 1.040.01 | 0.3820002 | 3.7930+02 | $1.67200^{4}$ | $8.449000^{5}$ |
| $4.000 x+61$ | 1.7240001 | 6.8820-02 | 3.2200+02 | $1.758 \mathrm{~m}=04$ | 9. $552^{20} 05$ |
| $4 \cdot 100 \times+01$ | 1.8100001 | 7.4050002 | $3.4750+02$ | 1.846004 | $1 \cdot 3330004$ |
| 4. $2000 \times 1$ | 1.898m-01 | 7.9550\%02 | 3. $0500+02$ | $1{ }^{8} 350004$ | 1.1370-04 |
| $4 \cdot 300 x^{+11}$ | 1.980.001 | 8.5300002 | 2.040.+ 02 | 2.027m 0104 | 1. $\mathrm{CSO}^{5} \mathrm{om-04}$ |
| $4.4000+61$ | 2, $0^{8} 0 \times 000$ | 9.1320m02 | $2.0610+02$ | 2. 1210004 |  |
| $4.500 x+01$ | 2. $173_{m}=01$ | 9.7600002 | $2.49 .10+02$ | 2. 2100004 | 1. 2000004 |
| $4.000 x+81$ | 2.269.01 | 1.042-0.0 | $2.337 m+02$ | 2. 5140004 | 1.0380004 |
| $4.700 x+11$ | 2. 560000.1 | $1.11 .00=0.1$ | 2. $1950+02$ | 2. $4^{1430004}$ | $1.180000^{4}$ |
| $4.0100 x+01$ | 2.460-01 | $1.1810=01$ | 2. $8^{64 x+02}$ | $2,5150=04$ | 1.9430004 |
| $4.9000+0.1$ | 2.5.670001 | $1.255 x=01$ | $1.544 n+02$ | 2. $01.80 \cdot 04$ | 2. 1110004 |
| 9.000x 01 | 2.6700001 | $1.3320-0.1$ | 1. $1.534 x+\pi 2$ | 2.723m"04 | 2. $8^{8900004}$ |
| 5. $100 x+1$ | 2.775.001 | $1.4150-01$ | $1.1320+02$ | 2.8300004 | 2.4780004 |
| 2. $200 x+61$ | 2,8820.01 | 1.4900001 | $1.0370+02$ | $2.939=04$ | 2.0790004 |
| $2.3004+12$ | 2.9900001 | 1.582000 .1 | $1.2500+02$ | $3.049000^{4}$ | 2.091004 $0^{4}$ |
|  | 3.1000001 | 1.07 .10001 | 1. $4690 * 02$ | $3.1620=04$ | 3.1170004 |
| $2.500 x+41$ | 3.212.-01 | $1.7630-01$ | 1. $5.94 \mathrm{~m}+02$ | 3. $276000^{4}$ | 3. 5550 cos |
| $2.6000+31$ | 3, 326000 | 1.859 .701 | $1.324 n+02$ | 3.3920004 | 3.0000004 |
| $2.700 x+01$ | 3,441m0 01 | 1.9580001 | 1. $2598+02$ | $3.5090 \% 0^{4}$ | $3.562^{\text {m }}$ - 04 |

PARTICLE DENSITY $=3.0$ GRAMS PER CUBIC CENTIMETER

| UIAMETEK | VELOCITy | RF | drag ceef | relax time | , 90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.6000+01$ | 3,558=01 | 2.0600=01 | $1.1980+02$ | $3.629 \times 04$ | $4.126000^{4}$ |
| $3.900 \times+01$ | 3.6770.01 | 2.165=01 | $1.1410+02$ | 3.7500004 | 4.599-04 |
| c. $0000 \times 01$ | 3.797-01 | 2.2740-01 | $1.0880+02$ | $3.872=00^{4}$ | 4.081004 |
| $0.100=+01$ | 3.919-01 | 2,386.01 | $1.039 \mathrm{~m}+02$ | $3.996 .00^{4}$ | $4.4730=04$ |
| $0.200 \times+01$ | $4.0420=01$ | 2.2010001 | $9.9230+01$ | 4, 1220004 | $5 \cdot 276 \times 04$ |
| $0.500=+01$ | 4.167.0.01 | 2.620001 | 9.4880*01 | 4,249m704 | 5.588=04 |
| $0.400 x+01$ | 4,293.01 | 2,142=01 | 9.8800+01 | 4,3780=04 | 5.4110004 |
| $6.500 x+01$ | 4.4210001 | 2,868=01 | 8.090**01 | $4.508=-0^{4}$ | 6.4450004 |
| $0.600 x+01$ | $4.550=01$ | 2.9970001 | $8.335 \times+01$ | 4.6400004 | 6.789 .004 |
| $0.7000+01$ | 4,681.001 | 3,1300001 | 7.4960+01 | 4.774n* 04 | 6. 4 45 $=0.4$ |
| $6.800=01$ | $4,813.01$ | 3,266001 | $7.0700+01$ | $4,9080-04$ | 7.911004 |
| $0.9000+01$ | 4.947.001 | 3.4060001 | 7.374.0.01 | 5.044=004 | 7.0890004 |
| 7. $0000 x+01$ | 5.0810-01 | 3,5500-01 | $7.0900 * 01$ | $5 \cdot 182 n-0^{4}$ | $8 \cdot 4780004$ |
| 1.100x+01 | $5.217=01$ | $3.697 \times 01$ | $6.8210+01$ | $5.320000^{4}$ | $8.4780 \cdot 04$ |
| $1.200 x+01$ | $5.3550=01$ | 3.848.0.01 | 6,2600* 01 | $5,46.10004$ | $8.890^{-104}$ |
| $1.300 x+01$ | $5.493 \times 01$ | 4.0020-01 | $6.32000+01$ | $5.6020=04$ | 9.3140004 |
| $1.400 x+01$ | 5,033.-01 | 4.1600-01 | $6.0980+0.1$ | $5.744=04$ | $9.149 x=04$ |
| $7.500 x+41$ | 5.774.001 | 4.3220\% 01 | $5.082 m+01$ | $5.888 .00^{4}$ | $1 \cdot u^{2} 0^{00} 0^{3}$ |
| $7.600 \times+01$ | 5,9,60-01 | 4.487.01 | $5.0780+01$ | $6.033 \mathrm{~mm} 0^{4}$ | 1. $466=00^{3}$ |
| $7.700 x+01$ | 6,060:-01 | 4.657.01 | $5.484 n+01$ | $6.179=04$ | 1.1130003 |
| $1.800 x+01$ | 0.204 .001 | 4.8300001 | $5.299 m+01$ | 6.327004 | $1 \cdot 1610003$ |
| $1.900 x+01$ | 0.3500001 | b. 0060001 | 5.1240+01 | $6.475=04$ | $1 .<11000^{3}$ |
| -. $000 \mathrm{x}+41$ | 0.490 .01 | 5.187=01 | 4.9570*01 | 6.6250044 | 1.2610003 |
| $0.100 x+111$ | $6.644=01$ | $5.3710=01$ | $4.799+01$ | 6.7750 .44 | 1. 14.40003 |
| C. $200 x+111$ | 0.792001 | 5. 259 = 01 | 4.0400001 | $6.927=0.4$ | 1. $567=03$ |
| B. $500 x+11$ | $6.942 \mathrm{w}=01$ | $5.7500=01$ | $4.204 n+01$ | 7.079n=04 | 1.4210003 |
| $0.400 \times+1$ | 7.092-01 | 5.9460001 | 4.3670 ${ }^{\text {a }} 11$ | 7.2330004 | 1.4770003 |
| $0.500 x+01$ | 7.244**01 | 6.145 .01 | 4.430 +01 | $7.387=04$ | $1.3340=03$ |
| $0.600 x+01$ | 7.396001 | $6.3480-01$ | 4.11.10*01 | 7.5420004 | $1.293000^{3}$ |
| c. $9000 \times 01$ | $7.5490=01$ | 0.5550001 | 3.492x+01 | 7.698 .004 | 1.0530003 |
| c. 0000001 | 7.703m-01 | $0.7650=01$ | 3.15700+011 | 7.856004 | $1.1140-0^{3}$ |
| $0.400 x+01$ | $7.85810=01$ | 6.9800001 | $3.769 *+01$ | 8.013 .004 | 1.1760003 |
| ¢.000x+ 11 | 8.0140001 | 7.198-01 | 3.065001 | $8.1720=04$ | 1.9400003 |
| Y. $1000 \times 01$ | $8.1700 \% 01$ | 7.4200-01 | $3.565 x+01$ | $8.3320000^{4}$ | $1.40^{5100} 0^{3}$ |
| ソ. $2000 \times 11$ | 8.328 .0001 | 7.0460-01 | 3.469 $=01$ | $8.4920=04$ | 1.4710003 |
| y, $500 \mathrm{x}+\mathrm{cil}$ | 8,485:01 | 7.076.001 | 3.5780* 01 | $8.653 .00^{4}$ | 2.1380003 |
| $4.400 x+01$ | $8.644=01$ | $8.1090=01$ | $3.29 .00+01$ | 8.815 .04 | 2.1070003 |
| ', bu0x+61 | $8.800^{4}=01$ | 8.5470001 | 3. $20^{5} 0+01$ | $8.978=04$ | 2.1780-03 |
| $4.0100 x+1$ | $8.964=01$ | 8.5880001 | 3.124x+01 | $9.1410=04$ | 2. $<^{49} \cdot 0=03$ |
| ¢. $7000+61$ | $9.125=01$ | $8.8330=01$ | $3.847 x+01$ | $9 \cdot 3.05=04$ | 2.5230003 |
| $4.000 \times 01$ | 9, $2800=01$ | 9.0820-01 | $2.9720+01$ | 9.470004 | 2. 3970003 |
| Y. $900 x+11$ | 9.4480001 | $9.535=01$ | $2.9000+01$ | $9.635=04$ | 2.473m=03 |
| 1. $0000 \times+1{ }^{2}$ | 9.6110001 | $9.2920=01$ | 2.9310* 01 | $9,8010=04$ | 2. 25 00003 |
| $1.100 x+1{ }^{2}$ | 1.127 .00 | 1.2380000 | $2.2630+01$ | 1.1500005 | 3. 999003 |
| $1.2000+12$ | $1.3000+00$ | 1.557.+00 | $1.0560+01$ | $1.32600=03$ | 4. 99.10003 |
| $1.3000+3{ }^{2}$ | 1.482000 | 1.923000 | $1.2480+01$ | 1.5110003 |  |

PARTICLE DENSIIY $=3.0$ GRAMS PER CUbIC CENTIMEIER

| UIAMETER | velocity | RE | DRAG COEF | Relax time | , 9\% DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.400 x+02$ | 1.075 .00 | 2. 3400000 | 1.3050+01 | $1.700^{80} 00^{3}$ | 6.0200-03 |
| $1.500 x+02$ | $1.8800+00$ | $2.8140+00$ | $1.1100+01$ | $1.9170 \cdot 0^{3}$ | $8.2620 \cdot 03$ |
| $1.600 \times+02$ | $2.090 .+00$ | $3.338=+00$ | 9.5740-00 | 2.1320003 | $9.058=03$ |
| $1.700 x+12^{2}$ | 2.285 .000 | $3.8760+00$ | $8.5100+00$ | 2.3300003 | 1.1610002 |
| $1.800 \times+02$ | $2.459+00$ | $4.4170+00$ | 7.784-000 | 2,508003 | 1. $552=02$ |
| $1.900=02$ | $2.651 \times 00$ | $5.0260+00$ | 7.0720+00 | 2.7030003 | 1.258-02 |
| C. $0000+02$ | 2.844 .000 | $5.6760+00$ | 6.468000 | $2.9000=03$ | $1.180^{10} 02$ |
| 2. $100 x+02$ | 3.038.00 | $6.3167 m+00$ | $5.950=00$ | $3.098=03$ | 2. 1180002 |
| 2.200x+02 | 3.234.00 | 7. 1000000 | $5.5020+00$ | 3, 298.-03 | 2. $2710=02$ |
| 2. $300 x+02$ | $3.4300+00$ | 7.874-00 | 5.1120*00 | 3.498000 | 2. $3400=02$ |
| $2.400 x+02$ | 3.628**00 | $8.689 \% 00$ | 4.769 .000 | 3,699:03 | 2.025-02 |
| 2.500x+02 | 3.826"*00 | 9.545= 00 | 4.467=00 | $3.901=03$ | 3.125-0 02 |
| $2.600=+02$ | 4.024m+00 | $1.0440+01$ | 4.199 .000 | $4,104000^{3}$ | $3.4400=02$ |
| 2.700= +02 | 4.223. +00 | 1.138 .001 | 3.959.+00 | $4,307=03$ | 3.1710002 |
| $2.800=00^{2}$ | $4.422 .+00$ | 1.236 .01 | 3.144n+00 | $4.510 .00^{3}$ | 4.110000 $0^{2}$ |
| $2.900=+02$ | $4.622 m+00$ | $1.338=+01$ | $3.5500+00$ | 4,7130003 | 4.4770.02 |
| 3,000 $+1{ }^{2}$ | 4.822\% +00 | 1.444-01 | 3.574.+00 | 4.9170003 | $4.0520=02$ |
| 3.100 $0+02$ | 5.0210*00 | 1.5540-01 | $3.2150+00$ | 5.121* 03 | 5. 443 -02 |
| $3.200 x+02$ | $5.2210+00$ | $1.667 \infty+01$ | $3.0700+00$ | $5.3240=03$ | $5.048=02$ |
| $3.300 x+02$ | $5.4210+00$ | 1.785 .01 | $2.9370+00$ | $5.528=03$ | 6. $\mathrm{j}^{6} 67002$ |
| $3.400 x+02$ | $5.6200+00$ | $1.907=01$ | 2.015000 | $5.731=03$ | 6. $2010=02$ |
| $3.500 x+112$ | $5.8200+00$ | 2.0330*01 | $2.7020+00$ | $5.935=03$ | 6. 749002 |
| $3.600 x+02$ | $6.0190+00$ | 2.1620+01 | $2.599+00$ | $6,138=03$ | $7.4110=02$ |
| $3.700 x+12$ | 6.210 .00 | 2.290x+01 | $2 \cdot 5030+00$ | $6.3400=03$ | 7.087m=02 |
| $3.8000+02$ | $0.4160+00$ | $2.4330+01$ | 2.414n+00 | 6.543000 | 8.9770002 |
| $5.900 x+012$ | $0.614 \infty+00$ | 2. $274=01$ | 2. $5310+00$ | 0.7450003 | 8.881002 |
| 4.000 $0+02$ | $0.6120+00$ | 2.719x+01 | 2. $2540+00$ | $6.9470=03$ | 9. $998=02$ |
| 4.100x+02 | 7.0100+00 | $2.8680+01$ | 2. 182000 | 7. 1400003 | 9. 929002 |
| 4,200x+02 | $7.2070+00$ | S.0210+01 | 2.1150+00 | 7. $5490-03$ | $1 \cdot 0^{470}=01$ |
| $4.300=+12$ | $7.4030+00$ | 3.1770*01 | 2.052n+00 | 7.5500003 | $1.103^{00} 01$ |
| 4, ${ }^{4} 000 \times 0{ }^{2}$ | 7.594 .00 | 3. $337 \pm 01$ | $1.9920+00$ | 7.7500*03 | $1 \cdot 1600001$ |
| $4.500 x+02$ | 7.79500 | 3.5010+01 | $1.937 .+00$ | 7,9490003 | 1.2180001 |
| $4.600 x+0{ }^{2}$ | 7.490000 | 3.0680+01 | $1.884 m+00$ | $8,1480=03$ | $1 \cdot \mathrm{C}^{7800} 01$ |
| $4.700 x+02$ | $8.18580+00$ | 3.639 ${ }^{\text {a }}$-01 | 1.8350000 | $8,3470=03$ | 1. 3390001 |
| $4.600 x+02$ | 8.3790000 | 4.014n*01 | $1.7880+00$ | $8.3440=03$ | 1.4010001 |
| $4.900 x+12$ | 8.572 .00 | 4. 1920001 | $1.7440+00$ | $8.7420=03$ | 1.46410-01 |
| 3.000x+02 | $8.7650+00$ | $4.374 x+01$ | 1.7020+00 | $8.939=03$ | $1.528=01$ |
| 2. $100 \mathrm{x}+02$ | 8.95800 | 4.559n+01 | $1.6620+00$ | 9, 13500 03 | 1.5940001 |
| b. $2000 x+12$ | 9,14910+00 | 4,7480+01 | 1.624**00 | 9. 3300003 | 1.0610-01 |
| $2.300 x+02$ | $9.3410+00$ | $4.9410+01$ | $1.5890+00$ | 9. 725000 | 1.129-01 |
| b. ${ }^{4} 000 x+0{ }^{2}$ | 9.531 .00 | 5. $1370+01$ | 1.5540+00 | 9.7200:03 | 1.1980001 |
| $5.500 x+02$ | 9.721000 | 5.336.01 | 1.5220+00 | 9.913003 | 1.8690001 |
| $5.000=+02$ | 9.911000 | $5.5390 \sim 01$ | 1.4910+00 | 1.0110*02 | $1 . y^{4} 0^{*} 01$ |
| $2.700 x+02$ | $1.0100+01$ | $5.7450+01$ | $1.4610+00$ | 1.0300002 | 2. $4130-01$ |
| $2.000 x+42$ | $1.02^{9}+01$ | $5.9550+01$ | $1.4330+00$ | 1.0490-02 | 2. $4^{860001}$ |
| $2.900 x+02$ | $1.0460+01$ | 0.1680+01 | $1.4060+00$ | 1.0580-02 | 2.1610-01 |

PARTICLE DENSITY: $\operatorname{SO}$ O GRAMS PER CUBIC CENTIMETER
DIAMETER VELOCITY

| 6. $0000 x+1^{2}$ | 1.0600+01 |
| :---: | :---: |
| -. $1000+0^{2}$ | $1.00^{85}+01$ |
| $0.200=+1{ }^{2}$ | $1.1030+01$ |
| $0.300 x+0{ }^{2}$ | 1.1220+01 |
| $6.400 x+0{ }^{2}$ | $1.1400+01$ |
| $0.500 x+012$ | $1.1590+01$ |
| $0.600 x+12$ | 1.177x+01 |
| 0.700x+02 | 1.195** 01 |
| $0.800 x+02$ | $1.2130+01$ |
| $0.900 x+102$ | $1.2320+01$ |
| $\% .000 x+12$ | $1.250 m+01$ |
| /.100x+02 | 1.2680+01 |
| $7.200 x+12$ | $1.2850+01$ |
| $7.300 x+02$ | $1.3030+01$ |
| $\% .400 x+02$ | 1.3210+01 |
| $7.500 x+02$ | $1.339+01$ |
| $9.600 x+02$ | $1.357 n+01$ |
| $7.700 x+02$ | $1.3740+0.1$ |
| 7,000x+02 | $1.592 \ldots+01$ |
| \%.900x+02 | $1.40^{9} 0+01$ |
| E. $000 x+02$ | $1.427 \times 01$ |
| -. $100 x+02$ | $1.444 n+01$ |
| $8.200 x+02$ | $1.4610+01$ |
| $8.300 \times+02$ | $1.47810+01$ |
| $8.400 \mathrm{c}+02$ | $1.4900+01$ |
| c. $5_{00}=+1{ }^{2}$ | $1.5,30+01$ |
| $6.600=+0^{2}$ | $1.2300+01$ |
| c. $100 x+10^{2}$ | $1.5470+01$ |
| E.800x+02 | $1.5640+01$ |
| $0.900 x+02$ | $1.5800+01$ |
| y. $000 x+12$ | 1.597 .01 |
| y. $100 x+1{ }^{2}$ | $1.6140+01$ |
| $4.200 \times+12$ | 1.631 .01 |
| $4.3000+0^{2}$ | 1.647*01 |
| y. $400 x+12$ | $1.6640+01$ |
| Y. $500 x+02$ | $1.6800+01$ |
| Y. $0000 \mathrm{x}+12$ | 1.697001 |
| y. $700 \times+12$ | 1.713x+01 |
| $9.8000+02$ | $1.730 \mathrm{~m}+01$ |
| $9.9000+02$ | $1.746 * 01$ |
| 1.000x+05 | $1.7620+01$ |
| $1.0100+05$ | $1.778 m+01$ |
| 1.020x+03 | $1.7940+01$ |
| $1.030 \times+0^{3}$ | $1.8100+01$ |
| 1. $0^{4} 0=+0^{5}$ | $1.8200+01$ |
| 1. $0^{5} 0 x+0^{3}$ | $1.8420+01$ |

$R E$
$0.3840+01$
$0.6040 * 01$
$0.827 * 01$
$7.054 n * 01$
$7.283 n+01$
$7.2830+01$
$7.516 .+01$
$7,753 \mu+01$
$7.992 x * 01$
$8.2350 * 01$
$8,2350 * 01$
$8.481=+01$
$8.7300+01$
$4.9820+01$
9.237"+01
$9.495 .+01$
$9.757=01$
$1.002=02$
$1.029 x * 02$
$1.0560+02$
$1.0830+02$
$1.111=* 02$
$1.139 n+02$
$1.167 n+02$
$1.1900+02$
$1.2250+02$
$1.2540+02$
$1.2830+02$
$1.3130+02$
$1.343 n+02$
1, $573=+02$
$1.4040+02$
$1.4350+02$
$1.435 x+02$
1.460 .40
$1.497 x+32$
$1.5290+02$
$1.561=+02$
$1.593 m+02$
$1.0260 * 02$
$1.6590+02$
$1.092=02$
$1.725 x+02$
$1.759 x+02$
$1.792 x+02$
$1.827+02$
$1.8610+02$
$1.8960+02$
$1.896=+02$
$1.931=+32$

URAG CUEF KELAX TIME .90 DIST

| 1.2800000 | 1.087-02 | $2 \cdot<37=01$ |
| :---: | :---: | :---: |
| 1. 5.550000 | $1.106=02$ | 2. 11400 - |
| $1.3320+00$ | 1.125-02 | 2.3920-01 |
| 1. $5080+00$ | 1.144002 | 2.472=01 |
| $1.2870+00$ | $1.1630-02$ | 2.5520001 |
| 1.2600+00 | 1.182=02 | 2.0330.01 |
| $1.2400+00$ | $1.2000=02$ | 2.150001 |
| $1.2200+00$ | 1.2190002 | 2.198001 |
| 1.2080000 | 1.2370002 | $2.083-01$ |
| $1.1900+00$ | 1.2560"02 | 2.y68-01 |
| $1.1720+00$ | 1.274m*02 | 3. $54.5=01$ |
| $1.150 x+00$ | 1.293002 | 3. 141001 |
| $1.1390+00$ | $1.3110=02$ | 3. $230^{* 0001}$ |
| 1. $1240+00$ | 1.329002 | 3. 5190001 |
| 1.1090+00 | 1.347w 02 | 3.4090-01 |
| 1.09 $0^{94+00}$ | $1.3650=02$ | 3. 300001 |
| $1.0800+00$ | 1.3830002 | 3.5920.01 |
| 1.060 $0+00$ | $1.4010^{\circ} 02$ | $3.0840=01$ |
| 1.0530+00 | 1.4190002 | 3.178-01 |
| $1.0400+00$ | 1.437000 | $3,0730=01$ |
| 1.0280+00 | $1.455 x=02$ | 3.4680001 |
| $1.010 \%+00$ | 1.472-02 | $4 \cdot 10640001$ |
| $1.00^{40}+00$ | 1.490002 | 4. $162=01$ |
| 9.4300001 | 1.5080002 | 4. $2^{6} 0^{\circ 00} 01$ |
| 9.820-01 | 1.525002 | 4. 5590001 |
| 9, $1^{4} 0=01$ | $1.5430 \cdot 02$ | 4.4580-01 |
| 9.6100001 | $1.2600=02$ | 4. $2590=01$ |
| 9.2100001 | 1.577002 | $4.060^{*}=01$ |
| 9.4120001 | 1.295002 | 4.162**01 |
| 9.317-01 | $1.6120 \times 02$ | $4.865 *=01$ |
| 9. 2 24-01 | 1,029 02 | $4.9690=01$ |
| 9.134.001 | $1.646 \times 02$ | 5. 4740 m 01 |
| $9.047=01$ | 1.6630002 | 5.1790001 |
| $8.9620=01$ | 1.6800002 | $5.085 m-01$ |
| $8.879=0.1$ | 1.697002 | $5.392 * 01$ |
| 8.798-01 | 1.7140002 | 5. $2000=01$ |
| 8.719001 | 1.7300002 | $5.0080-01$ |
| 8.0420-01 | 1.7470\%02 | 5.1180001 |
| 8.5670001 | 1.764m"02 | 5.0270\%01 |
| 8.4940001 | 1.78000 02 | 5.9380001 |
| 8.4220001 | 1.797002 | $6.44^{49}=01$ |
| $8.3530=01$ | $1.8130=02$ | 6.1610-01 |
| $8.2^{85}=01$ | 1.830002 | 6. $<^{7} 400=01$ |
| 8.218001 | 1.8460002 | 0. $388=01$ |
| 8.1540001 | $1.8620=02$ | 6.2020001 |
| $8.090=01$ | 1.879 .02 | $0.0170=01$ |

## particle density $=4.0$ grams per cubic centimeter

| UIAMETEK | velocity | Rt | drag cuef | relax time | . 90 dtSt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.000x+00 | 1.03110004 | 1.028.06 | 1.474x+07 | 1.0630 .07 | 7.40500 |
| 1.100x+00 | $1.974 x=04$ | 2.167006 | $1.10^{80}+07$ | 2.013.0.07 | 1.1590010 |
| 1.200x+40 | $2.349 \mathrm{~m}=04$ | 2.8130006 | 8.5320+06 | 2.395:07 | $1.0420=10$ |
| $1.300 x+100$ | 2.757m004 | 3.576000 | 6.7110006 | 2.8110007 | $2 \cdot \angle 640010$ |
| 1.400**00 | 3.197.004 | 4.467.00 | $5.5730+06$ | 3.2600007 | 3.0480-10 |
| $1.500 x+00$ | 3.670m=04 | 5.494*-06 | 4.5680*06 | 3,7430-07 | 4, 420 molo |
| $1.600 x+00$ | 4, 176w-04 | 0.668 .706 | 3.599 - 06 | $4,258{ }_{\sim}=07$ | $5 .<0700=10$ |
| $1.700 x+00$ | 4,7140004 | 7.998=00 | 3. $00100+06$ | 4.007007 | 6.0410010 |
| $1.800 \times 00$ | 5.285-04 | 9.494= 06 | 2.520- +06 | 5.389.07 | 8.3520010 |
| $1.900 x+00$ | 5.888=04 | 1.117=05 | 2.149 .06 | $6.005=07$ | 1.437009 |
| $2.000 \times 00$ | 6,524.04 | 1.302 .05 | 1.5430+06 | 6.653 .07 | $1.2740=09$ |
| <. $1000 \times 00$ | 7.1930004 | 1.5080005 | 1.5920+06 | 7.335-07 | $1.3500=09$ |
| $2.200 x+00$ | 7,895:04 | 1.733 .05 | $1.3850+06$ | 8.051 .07 | 1.068:09 09 |
| c. $300 \mathrm{x}+00$ | 8.029 .04 | 1.9810005 | $1 .<120+06$ | $8.799 \times 07$ | 2. $4^{3} 2=00^{9}$ |
| $2.400 x+00$ | 9.595:04 | 2.2500005 | $1.0670+06$ | 9.581007 07 | 2.048-09 |
| $2.500 x+40$ | 1.019 .05 | 2,5440=05 | $9.4300+05$ | 1.0400 060 | 3.119-09 |
| $2.000 x+10$ | 1.1030003 | $2.661=05$ | $8.3800+05$ | 1.124m=06 | $3.0510=09$ |
| C.700~+00 | 1.189 .03 | 3.2040-05 | $7.4900+05$ | 1.2130006 | 4.2470.09 |
| $2.8000+00$ | 1.279.03 | 3.573.05 | $6.716 .+05$ | 1.304-06 | 4.7140 .09 |
| 2.900x+00 | 1.372 .003 | 3.970005 | 6.04500 05 | 1,3990\% 06 | $5.057=09$ |
| 3. $00000+00$ | $1.4680 \cdot 03$ | 4,395:05 | $5.46100+15$ | $1.497 m=06$ | 6.9810009 |
| $3.100 x+60$ | 1.567.03 | $4.849 n=05$ | $4.949 \times+05$ | 1.5980006 | 7.992=09 |
| $3.200 x+00$ | 1.6700003 | 5.3340-05 | 4.499 .05 | 1.7030706 | 8. 996000 |
| $3.300 x+00$ | 1.770.03 | 2,8500"ub | $4.1030+05$ | 1.8110906 | 9.49900 09 |
| $3.400 x+00$ | 1.8800003 | $0.398=05$ | 3.1510+05 | $1.973 x=06$ | $1 \cdot 100^{7}=08$ |
| $5.500 x+00$ | 1.9900=03 | 0.979=05 | 3.439 .05 | 2.038006 | $1 \cdot 203608$ |
| $3.0000+00$ | 2.114.03 | 7.5950.05 | 3.16000 05 | 2.150.06 | 1.347-08 |
| 3. $700 \times+100$ | 2.23300 03 | $8.245=05$ | 2.9110+05 | 2.2770-00 | $1.203^{\text {ma }} 0^{8}$ |
| $3.600 x+60$ | 2. 555.03 | $8.9320=05$ | $2.0870+05$ | 2.402m-06 | 1.073 - 08 |
| $3.900 x+60$ | 2,4810-03 | 9.650. 05 | 2.4800+05 | 2.5300 00 | 1.05600 08 |
| 4. $0000 x+40$ | 2.6100003 | 1.1420704 | 2. $5040 * 05$ | 2.0610006 | 2. $4^{55100} 0^{6}$ |
| $4.100 x+00$ | 2.742m-03 | 1.122=-04 | 2.139.* 05 | 2.7960-06 | 2. 4690008 |
| $4.200 x+00$ | 2.677.03 | 1. 2060004 | 1.9900*05 | 2,934m.06 | 2,499000 |
| 4. $3000+00$ | 3. 1100003 | 1.2940-04 | $1.854 m+05$ | 3.0750-06 | 2.1460-08 |
| $4.400 x+00$ | 3.150, 03 | $1.387=0.4$ | 1.7310+05 | 3.2200006 | 3. $112000^{80}$ |
|  | 3. 305000 | 1, 483: 04 | 1.61800 05 | 3. 568.06 | 3. $29^{9600} 08$ |
| $4.6000+40$ | 3.451.00 03 | $1.5840=0.4$ | 1. $5150+05$ | 3,520000 | 3. $999 \mathrm{~F}=0^{8}$ |
| $4.700 x+00$ | $3.6030-03$ | $1.6900=04$ | 1.4200+05 | 3.674s-06 | 3. 4 24m=08 |
| $4.800 \times+00$ | 3, 750-03 | $1.8000=04$ | 1. $233 \mathrm{l}+05$ | 3, 8320006 | 4. C $^{69} 90000$ |
| $4.900 x+00$ | 3, 910.003 | $1.9150=04$ | 1. $2530+05$ | 3,9440-06 | 4.037.008 |
| $5.000 x+00$ | 4.078 .03 | 2,035-04 | 1.1800*05 | 4. $158=06$ | 5. 3290000 |
| 5. $100 \mathrm{x}+00$ | $4.2420 \cdot 03$ | 2.159-04 | 1.1120+05 | 4.320006 | $5.4450-0^{\circ}$ |
| 5.200x+00 | 4.4100003 | 2.2890-04 | 1.049 $0+05$ | 4.498 .006 | 5.0860008 |
| b. $3000+00$ | $4.5820=03$ | 2.423004 | $9.9040+04$ | 4.0720-06 | 6. 5531008 |
| b, $40.00+00$ | $4,756 x=03$ | 2.5630=04 | 9.364=* 04 | $4.8500^{\circ} 0$ | $6.64700^{\circ}$ |
| b. $2000+00$ | $4.934=03$ | 2.708 .04 | $8.0620+04$ | 5.031006 | 7.5700008 |

## UlAMETEK

## VELOCITY

RE
$5.115=03$
$5.299=0.3$
$5.487=03$
$5.678=03$
$5.872=03$
$6.069=03$
$6.270=03$
$6.474=03$
$6.681=03$
$6.891=03$
$7.105=03$
$7.322=03$
$7.542=03$
$7.765=03$
$7.992=03$
$8.222=03$
$8.455=03$
$8.691=003$
$8.931=0=03$
$9.1740=03$
$9.420=03$
$9.670=03$
$9.923=03$
$1.018=02$

1. $00^{44}=02$
$1.070-02$
$1.097-02$
$1.124=02$
1.151 .02
$1.178=02$
$1.206=02$
$1.234-02$
$1.263=02$
$1.292=02$
1.321 .02
$1.350=02$
$1.5800=02$
$1.410=02$
$1.44 .1=02$
$1.472=02$
$1.505=02$
1.534002
$1.566=02$
$1.598=02$
1.0310002
$1.4730=02$
2.859 .04
3.0150=04
$3.1760=04$
$3.3430=04$
$3.5160=04$
2. $695=04$
3. 8790.04
$4.0700=04$
$4.267=04$
$4,470=04$
$4,470=04$
$4,680=04$
4.8960"04
$5.118=04$
$5.347=04$
b. $583=04$

与. $8.26=04$
$6.0750-04$
$6,3320=04$
6. $596=04$
$6,867=04$
$7,145=04$
$7.431=04$
$7.724=04$
$8.0250=04$
$8.5340=04$
$0.650=04$
$0.9740=04$
$9.5070=0.4$
$9.047=04$
$9.9960=04$
1.035=03
1.072*-03
$1.109-03$

1. $147=03$
2. 187n=03
1.226:0.03
$1.267 x=03$
$1.509=03$
$1.3520=03$
$1.395=03$
$1.440=03$
$1.485 x-03$
$1.532=03$
$1.579=03$
$1.627=03$
$2 \cdot 1660=03$

DRAG COEF HELAX TIME
.90 DDST
8.390.0*04
$7,962=04$
$7.557=04$
$7.179+04$
$6.026=04$
$6.490 \times 04$
$6.187 n+04$
$5.697 n+04$
$5.025 * 0^{4}$
$5.369 m+n 4$
5.129.*04
$4.90^{3 x+04}$
$4.090 w+04$
$4.489 w+04$
4. $2990 * 04$
4. 120=+04
$3.9511+04$
$3.7910+04$
$3.6390+04$
3. $4950+04$
$3.559 n+04$
$3.2300+04$
3. $1.070+044$
$2.991 x+0.4$
$2.080=+04$
$2.7750+04$
$2.7750+04$
$2.0750+04$
$2.579=04$
$2.4800+04$
$2.4010+04$
2. $519 n+04$
$2.140 m+04$
$2.164 n+04$
$2.092 w+04$
$2.023 x+04$
$1.9570+0.4$ $1.8940+04$
$1.034 n+04$
$1.770 n+04$
$1.7200+04$
$1 . \operatorname{c67} 0+04$
$1.0100+04$
$1.2670+04$
$1.2200+04$
$1.475 n+04$
$1.10^{80+04}$


PARTICLE UENSITY $=4.0$ GRAMS PER CUBIC CENTIMETER

## IIIAMETEK

VELUCITY R

RE
drag coef relax time
, 9a DIST

| 1.200z+01 | 2.3480-02 | 2.012- - 03 | 8.5380003 | 2.394n=05 | 1.0850 .00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.300 x+01$ | $2.755=02$ | $3.5750=03$ | $6.7170+03$ | $2.810=05$ | 2. $3220=00$ |
| $1.400 x+01$ | 3. $1950=02$ | 4,464=003 | 5. 579.03 | 3. $2580 \cdot 05$ | 3. 1260000 |
| $1.500 x+01$ | 3,067=02 | $5.4900-03$ | 4.375:* 0 - | 3.740005 | 4. $1230=06$ |
| 1.600= + 01 | 4,172-02 | 6.6620003 | 3.606 .003 | 4.254**05 | $5.3410=0^{6}$ |
| $1.700=+01$ | 4,709.02 | 7,989:03 | 3.007-03 | $4.8020=05$ | 6.0110 $=00$ |
| $1.8000+01$ | $5.278=02$ | 9,482=-03 | 2.534 .03 | 5.3820=05 | 8. $2660=06$ |
| 1.9000+01 | 5.879-02 | 1.1150-02 | 2.156m+03 | $5.9960=05$ | 1.14640 .05 |
| 2.000~+01 | 6.515002 | 1.300=02 | 1.849 .03 | 6.642005 | 1.3071005 |
| 2.100:+01 | 7.179.02 | $1.505=02$ | 1.290.003 | 7.3200005 | 1.39000 |
| $2.200 x+111$ | 7.876-02 | 1.7290-02 | 1,391103 | 8.032 .05 | 1.416005 |
| $2.300 x+11$ | 8.006-02 | 1.9750=02 | 1.218.0* 03 | $8.776=05$ | $2.490000^{5}$ |
| $2.400 \%+01$ | 9.367.02 | 2.244m-02 | 1.073=03 | 9,5520=05 | 2.1160005 |
| $2.200 x+01$ | 1.016.01 | 2,535-02 | 9,5000*02 | $1.030=04$ | 3.199000 |
| $2.600 \%+01$ | 1.098=01 | 2.8500002 | $0.453 n+02$ | $1.1200=04$ | 3.1440005 |
| $2.700 x+01$ | $1.184=01$ | 3.1900002 | 7.555.02 | 1.2070004 | 4.3560005 |
| $2.800 x+01$ | 1.273001 | 3.5560 .02 | $6.781=02$ | $1.298=04$ | 5. $4^{4} 0 \times 05$ |
| C.900x+01 | 1.364*01 | 3.949**02 | 6.110 .02 | $1.3910=04$ | 5.8020005 |
| $5.000 x+01$ | 1.459-01 | 4.36910-02 | $5.5250+02$ | $1.488=04$ | $6.047=05$ |
| S. $100 x+01$ | $1.557 \mathrm{~m}=01$ | 4,018-02 | 5.014x+02 | $1.588=04$ | 7.3810005 |
| S. $2000 \times 01$ | $1.658=01$ | 5.296.02 | $4.564 x * 02$ | $1.6910=04$ | $8.0110=05$ |
| $3.300 \times+01$ | 1.762.01 | $5.8050=02$ | 4.1670+02 | $1.797=04$ | $9.142 \cdots-c^{5}$ |
| $3.400=+01$ | 1.8700*01 | $6.3440 \% 02$ | $3.6100+02$ | $1.9060=04$ | $1 \cdot u^{98-0} 04$ |
| S. $500 \times+11$ | 1.9800001 | 6.915= 02 | $3.500^{30+02}$ | $2.019000^{4}$ | 1. $234 \pm 00^{4}$ |
| $3.600 x+01$ | 2.09 $\mathbf{S m}_{\text {m }}=01$ | 7.5180002 | 3.225-02 | 2. 1340004 | $1.3^{810004}$ |
| $5.700 x+01$ | 2. 209 = 01 | $8.1560=02$ | 2.475 .02 | 2. $2520 \cdot 14$ | 1.2420004 |
| $3.800 x+01$ | $2.328=01$ | 8.827000 | $2.151-02$ | 2.3740004 | $1.116000^{4}$ |
| $3.900 x+01$ | 2.449 $=01$ | 9.533002 | $2.5500+02$ | 2.4980004 | 1.9040004 |
| 4. $000 \mathrm{x}+111$ | 2.574m-01 | 1.0280001 | 2.3680*02 | 2, 6750004 | 2. 1070004 |
| 4.100x+01 | 2.7010-01 | 1.1050-01 | 2. $0040+02$ | 2.7550-14 | 2. $527000^{4}$ |
| $4 \cdot 200 x+01$ | 2.032=01 | 1.187m-01 | 2.0550+02 | 2,888004 | 2.9630004 |
| $4.300 x+01$ | 2.965 -01 | 1,2720-01 | 1.41900 | 3.0230-04 | 2.0170-04 |
| 4.400x+01 | 3. 101io 01 | $1.362=01$ | $1.7950+02$ | 3:1620-04 | 3. $y^{89 x}=0^{4}$ |
| $4.200 x+01$. | 3.239-01 | $1.455=01$ | $1.6820+02$ | $3.3030=04$ | 3. 9800004 |
| 4.000x+ 01 | 3. 3800001 | $1.552 m-01$ | $1.279{ }^{\text {1 }}$ - 02 | 3.44700.04 | 3.092*-04 |
| $4.700 x+111$ | 3.524 .01 | $1.6530=01$ | $1.4850+02$ | 3. $5940=04$ | 4. $424 \pm-04$ |
| 4.000x+ 01. | 3.070001 | 1.758001 | 1. $3900+02$ | $3.7430 \cdot 04$ | 4. $579=-0^{4}$ |
| $4.9000+01$ | 3.8190.01 | 1.8680001 | 1. $5180+02$ | 3,6950.04 | 4. $1550-04$ |
| 2.000x+01 | 3.9710001 | 1.9810001 | 1. $4440+02$ | 4.0490"04 | 5.1420-04 |
| b. $100 x+01$ | 4.125001 | 2.099-01 | 1.170x +02 | 4.206004 | 5: 5 4.2=04 |
| 2. $2000 \times 101$ | 4.2810001 | 2,2220-01 | 1.1130*02 | 4.3600004 | $5.758000^{4}$ |
| 2. $3000+01$ | $4.4400-01$ | 2.3480-01 | 1.05b=*02 | $4.52 .7-0.4$ | $6.990-04$ |
| $2.4000+151$ | 4.6010-01 | 2,4790.01 | 1.0010+02 | $4.6920=04$ | 6. $83910=04$ |
| 勺. $200 x+41$ | $4.7640=01$ | $2.6150=01$ | 9.505.001 | 4.858.0.04 | 7. $5060-04$ |
| 2.600x+01 | 4.9300-01 | 2.7550-01 | 9.330*01 | 5.027-04 | 7.192m-04 |
| 5.700x+01 | 5.098 .01 | 2.900001 | $8.6040 * 01$ | 5.1980* 4 | 8. $2958-04$ |

## Particle density $=4.0$ grams per cubic centimeter

| dianter | velocity | RE | drag coef | relax time | $\theta$ UISt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.800 x+01$ | $5.268=01$ | 3.0490001 | $8.199 n+01$ | 5.3720-04 | 8.017-0.04 |
| $5.900=01$ | 5,440.01 | 3, 2030-01 | 7.0210.01 | $5.5470=04$ | 9.3580004 |
| $6.000 x+11$ | 5.014 .001 | 3.362.01 |  | 5.725004 | 9.9180004 |
| $0.100 x+01$ | 5,790.01 | 3.525.001 | 7.137 .01 | $5.904=04$ | 1.4500-03 |
| $0.2000+01$ | $5.968=01$ | 3.693001 | $6.0280+01$ | 6.086-04 | 1.1100003 |
| $0.300 x+01$ | 6.148. $=01$ | 3,8660001 | 6.5380+01 | 6.2700004 | 1. 17.1000 |
| $0.400=+01$ | $0.330=01$ | 4,043.001 | $6.2650+01$ | $6.455000^{4}$ | 1.435.003 |
| $0.500 x+01$ | 0.5140001 | 4,226.01 | 6.0090+01 | 6,643\% 004 | 1.2010003 |
| $0.600 x+01$ | 0.699001 | 4,413.001 | $5.7680+01$ | 6.832 .044 | 1.3690003 |
| $6.7000+01$ | 0.887.01 | 4,6050.01 | 5,5420001 | 7.0230-04 | 1.439-03 |
| $0.800 *+01$ | 7.075.01 | 4.0020001 | $5.5280+01$ | 7.2150.04 | 1.5111003 |
| 0.900n+01 | 7.266=01 | 5.0040001 | 5.120.0.01 | 7,4100\%04 | 1.9860.03 |
| $7.000 x+01$ | 7.458. 701 | $5.2100=01$ | $4.9360+01$ | $7.6060=04$ | $1.062=03$ |
| $7.100 x+01$ | 7.652m=01 | $5.4220=01$ | 4.757n+01 | 7.8030004 | $1.740 \% 03$ |
| 200x+01 | 7.847.001 | 5.638.01 | 4.287**01 | 8.0020.04 | 1.0210003 |
| $7.300 x+01$ | 8.043-01 | 5.860-701 | $4.426 n+01$ | 8.2020004 | 1.9040003 |
| $7.400 x+01$ | 8.241.-01 | 6.087-01 | $4.474 \times+01$ | 8.4040004 | 1.9890.03 |
| $\cdots .2000+01$ | 8.4410001 | 0.318 .01 | $4.1290+01$ | $8.6080 \cdot 04$ | 2.1476=03 |
| \%.600x+01 | 8,6410-01 | 6.554 .001 | $3.99 .80+01$ | $8.812000^{4}$ | 2.1660003 |
| 7000+01 | $8.843=01$ | 6.796. 01 | $3.0620+01$ | $9.018 .00^{4}$ | 2. 257.003 |
| \%.000+01 | 9.047 0 =01 | 7.0420=01 | 3.1380001 | $9 \cdot 225=04$ | 2. $5^{5} 10003$ |
| $1.900=01$ | $9.251=01$ | 7.29.40001 | 3.02100 01 | 9,434 $=04$ | 2.4470003 |
| $\cdots \cdot 000 \times+01$ | $9.456=01$ | 7.5500001 | $3.200^{y}+01$ | 9.6430004 | 2.9460*03 |
| -. $1000+01$ | $9.663_{n}=01$ | 7,0110=01 | 3, 4030*01 | $9,854 n=04$ | 2.0470003 |
| ¢. $2000 \times 01$ | $9.8710=01$ | $8.078=01$ | $3.0010+01$ | 1.0070003 | 2.1500005 |
| $\bigcirc .300 x+01$ | $1.00^{8}=+00$ | $8.349=01$ | $3 .<00^{4}+01$ | 1.0280003 | 2.8550003 |
| $\therefore .400 x+01$ | $1 \cdot 02^{9}+00$ | $8.626 m 01$ | 3.112m+01 | 1.049.03 | 2.4636003 |
| $6.500 \times+01$ | $1.0500+00$ | $8.908-01$ | 3. $\mathrm{c}^{24 m+01}$ | $1.071000^{3}$ | 3. 4730003 |
| $8.000 \times+01$ | 1.0710000 | $9.194=01$ | $2.9400+01$ | $1 \cdot 0^{9} 20 \cdot 03$ | 3. $1^{850003}$ |
| $0.700 \times+01$ | $1.093 m+00$ | 9.480m-01 | $2.0590+01$ | 1.1140003 | 3. 9000003 |
| $0.0000 \times 01$ | 1.1140000 | 9.183.-01. | $2.7860+01$ | $1.136=03$ | $3.417=03$ |
| $0.900 x+01$ | $1.1350+00$ | 1.0080+00 | $2.7080+01$ | $1.1580=03$ | 3.2370003 |
| $4.000 x+01$ | 1.1570000 | 1.039 .000 | $2.037 \times+0.1$ | $1.1800=03$ | 3.0590003 |
| $4.1000+01$ | 1.1790+00 | $1.8700+00$ | $2.5690+01$ | 1.2020-03 | 3.1830003 |
| $4.200 \times 01$ | $1.2000+00$ | $1.102=00$ | $2.504 n+01$ | $1 \cdot 2240=03$ | 3.410n-03 |
| $4.3000+01$ | 1.222.00 | $1.134 m+00$ | 2.4420001 | $1.246=0.3$ | 4. 1390903 |
| $4.400{ }^{\text {c }}+111$ | $1.244 n+00$ | $1.1670+00$ | 2.3820*01 | 1.2690003 | 4. 7.1 .0003 |
| $4.5000+111$ | $1.260{ }^{*}+00$ | $1.201 .0+00$ | 2.324n*01 | 1.291003 | 4.2050003 |
| $4.6000+01$ | 1.288000 | 1.234n+00 | 2.2680+01 | $1.314 .00^{3}$ | 4.4410003 |
| $4.700 \times 61$ | 1. 3110000 | 1,269. +00 | 2, $21500+01$ | $1.3570 \% 0^{3}$ | 4. 9800003 |
| Y. 0000001 | 1.3331000 | $1.304 m+00$ | 2.103.0* 01 | $1.3590-13$ | $4.122^{\text {m- }} 03$ |
| Y. 900 col | $1.350{ }^{0}+00$ | 1. 539.000 | 2.113 ${ }^{+01}$ | $1.3820-0^{3}$ | 4.0660003 |
| 1.0000x+02 | 1.3780000 | 1. $3.7580+00$ | 2.865n+01 | $1.405 n \% 3$ | 5. 120003 |
| $1.1000+02$ | 1.0100000 | 1.76800 | 1. 6640001 | $1.642 m=03$ | 6.015000 |
| 1.200x+42 | 1.850 .00 | 2. 225 m*00 | 1. $5640+01$ | $1.8940 \% 03$ | $8.4730 \cdot 03$ |
| $1.300 \times+02$ | 2.123000 | 2.755.*00 | 1.131.* 01 | 2.165003 | $1.10590 \cdot 02$ |

PARTICLE UENSITY $=4.0$ GRAAS PER CUBIC CENTIMETEK

| LIAMETEK | velucity | KE | DRAG COEF | helax time | . 90 01ST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.400x+02 | 2.399 $0+00$ | 3.352. +00 | $9.5400+00$ | 2.4470003 | $1 \cdot 4980002$ |
| 1. $2000 x+12$ | 2.0480000 | $3.9630+00$ | 8. $3940+00$ | 2,7000003 | 1.5630002 |
| $1.600 x+02$ | 2.884. 00 | 4.605-00 | $7.5400+00$ | 2.9410003 | 1.055-02 |
| $1.700 \times+02$ | 3. 136000 | $5.3200+00$ | $6.7820+00$ | 3. 1980-03 | 2. $1740=02$ |
| $1.800 x+12$ | $3.5900+00$ | 6.0890*00 | $6.145 x+00$ | 3.457\%-03 | 2.3190902 |
| $1.900 x+02$ | $3.645 \pm 00$ | 6.9120+00 | $5.00^{8}=00$ | 3.717000 | 2.092-02 |
| C.000x+122 | $3.900^{30}+00$ | 7,7900+00 | 5.151 .00 | 3.980 .03 | 3. $4^{9} 1$ - 02 |
| 2.100x+122 | 4.161:00 | 8.721000 | $4.7570+00$ | 4, $2440=03$ | 3.1170-02 |
| $2.200 x+02$ | 4,4710+00 | 9.707000 | $4.4170+00$ | 4.3080003 | 4.170002 |
| $2.300 x+12$ | 4.681.*00 | 1.075001 | $4.1170+00$ | $4,774000^{3}$ | 4.0490002 |
| $2.400 x+12$ | 4.942000 | 1.1840*01 | 3.854 $0+00$ | 5.040003 | $5.1540 \cdot 02$ |
| $2.500 x+02$ | $5.200^{3}=000$ | 1.2980+01 | 3.6220+00 | 5.3060003 | $5.085=02$ |
| 2.000x+02 | 5.4620*00 | $1.4180+01$ | 3.4150+00 | 5,573-03 | $6.84110=02$ |
| $2.700 x+0^{2}$ | 5.7270+00 | 1.543 .01 | 3.229w+00 | 5.8400003 | 6. 023 wo 02 |
| $2.8000+02$ | 5.989 | $1.673 n+01$ | 3.063. +00 | $6.107=03$ | 7.430002 |
| $2.9000+12^{2}$ | $6.2500+00$ | $1.8090+01$ | $2.912 \times 00$ | $6.374=03$ | 8.1562000 |
| $3.000 x+02$ | 6.5120 .00 | $1.9500+01$ | 2.175000 | 6.6400003 | 8.1190 .02 |
| S. $100 x+02$ | -6.773. -00 | 2.0950+01 | $2.651=+00$ | 6.9060003 | 9.400002 |
| S. $200 x+0^{2}$ | $7.0330+00$ | 2.2460+01 | $2.5370+10$ | 7.1720-03 | 1.0110-01 |
| 3. $3000+02$ | 7.2.94**00 | $2.4020+01$ | $2.435=+10$ | 7.4380003 | 1. $\mathrm{U}^{83} 3001$ |
| 3.400x+62 | 7.554 .00 | 2.563x*01 | 2.5370+00 | 7.703003 | 1.159w-01 |
| $3.500 x+02$ | $7.6150+00$ | 2.729x*01 | 2. $249 \pm+00$ | 7.96700 03 | 1.4360001 |
| $3.000 x+02$ | $8.0719+00$ | $2.9000+01$ | 2.1600000 | $8.231=03$ | 1.3160=01 |
| $3.700 x+02$ | $8.3290+00$ | 3.076-01 | 2.0920+00 | 8.4940003 | 1.5980001 |
| $3.600 x+42$ | 8.587 .00 | 3.256.001 | 2.0220*00 | $8.7570-03$ | 1.4830001 |
| $3.900 x+02$ | $8.843_{10+}+0$ | 3.4420+01 | 1.950=000 | $9.0180=03$ | 1.5690001 |
| 4.000: 02 | 9.0990+00 | 5.03200+01 | 1.09000 | 9.2790005 | 1.058001 |
| 4. $100 x+02$ | 9.3540+00 | 3.82800+01 | $1.8300+00$ | $9.539=03$ | 1.1490001 |
| 4, $200 \mathrm{x}+1{ }^{2}$ | $9.00^{9} x+00$ | 4,0280+01 | 1.784000 | 9.799003 | 1.4420.01 |
| $4.300=+12$ | 9.862w+00 | $4.2320+01$ | 1.7340+00 | 1.0060-02 | $1 \cdot \pm 370001$ |
| 4. $4000^{+}+0^{2}$ | 1.0110+01 | $4.4420+01$ | $1.687 \omega+00$ | 1.031m=02 | 2. 4350001 |
| $4.500 x+02$ | 1.03 .01 | 4.656 .01 | 1.043000 | 1.057-020 | 2. 1340001 |
| $4.600 x+12$ | $1.00^{6} 2 x+01$ | $4.8740+01$ | 1.6010+00 | 1.083-02 | 2. 2350001 |
| 4,700x+ $\mathrm{H}^{2}$ | $1.0870+01$ | 2,097n+01 | 1.2610+00 | 1.108000 | 2. 339 mol |
| $4.800 \mathrm{c}+1^{2}$ | $1,1120^{+} 01$ | $5.325 n+01$ | $1.224 x+00$ | 1.134- 1 - ${ }^{2}$ | 2.444-01 |
| $4.9000+132$ | $1.1360+01$ | 2. 5580001 | $\cdots$ - 480000 | 1. 15900.02 | 2. 5520001 |
| 2. $0000 x+12$ | $1.1610+01$ | - $7940+01$ | 1.4550+00 | 1. $1840=02$ | 2.0610001 |
| b. $100 x+02$ | 1.180001 | 6.036\% +01 | 1, 42300 110 | 1. 20.109002 | 2.1720.01 |
| b. $2000 x+02$ | $1.2100+01$ | 6.2810+0.1 | 1.392x+00 | 1.234*-02 | 2,0850001 |
| 5.300x+02 | $1.2350+01$ | $0.5310+01$ | 1. $1.364 n+00$ | 1.2590-02 | 3. 4000001 |
| -. $400 \mathrm{x}+02$ | $1.2590+01$ | 6.7860*01 | $1.330 n+00$ | 1.284* 02 | 3.1170001 |
| 5.500x+112 | 1,2830-01 | 7.044n*01 | 1. 5.1000 | $1.309 n=02$ | 3. 6354001 |
| 2.600\% +12 | 1. $3080+01$ | 7.3080*01 | 1. 285000 | $1.3330=02$ | 3. 5560001 |
| $3.700 \mathrm{n}+02$ | 1.5320-01 | 7.575n+01 | -1.2610+00 | $1.358=02$ | 3.4780=0! |
| 2.800x+ 12 | $1.350 x+01$ | 7.8460*01 | 1. 230000 | $1.382 m=02$ | 3.0020001 |
| b.400: + 12 | $1.3790+01$ | 8.1220*01 | 1.210000 | 1.40702 | 3.1270001 |

UIAMETEK

| 000 $0+02$ | $1.400^{3} 0+01$ |
| :---: | :---: |
| $6.100 x+12$ | $1.4270+01$ |
| b. $2000+02$ | 1.450\%*01 |
| -. $5000+02$ | $1.4740+01$ |
| $0.400=+02$ | 1.497001 |
| $0.500=+0^{2}$ | $1.5210+01$ |
| $0.600 x+1^{2}$ | $1.5440+01$ |
| $6.700=+02$ | 1.567** 01 |
| $0.800 \mathrm{c}+0^{2}$ | 1.5900*01 |
| $0.4000+02$ | $1.613 .0+01$ |
| -.000\% 0 -02 | 1.6360*01 |
| 7.100** 02 | 1.658.0.01 |
| 1.200x+022 | $1.6810+01$ |
| $1.300 x+02$ | $1.700^{3+01}$ |
| 1,400x+02 | 1.7268001 |
| $\% \cdot 200 \sim+02$ | 1.748*01 |
| 1.000x+02 | 1.771001 |
| 7.700w+02 | $1.7930+01$ |
| $7.600 x+02$ | $1.8150+01$ |
| $1.900 x+1^{2}$ | $1.8370+01$ |
| -.000x+02 | $1.859=01$ |
| 勺.100x+ 02 | $1.8800+01$ |
| 5. $2000 \times 02$ | $1.9020+01$ |
| $6.300 x+02$ | 1.924 .01 |
| O. $400 x+02$ | $1.9450+01$ |
| $0.200 x+02$ | 1.967-01 |
| $0.000 x+02$ | 1.9880+01 |
| $0.700 x+12$ | $2.00^{9}+01$ |
| $0.000 x+12$ | 2.031001 |
| $0.900 x+12$ | $2.0520+01$ |
| Y.000x+02 | $2.0730+01$ |
| $4.100 x+12$ | 2.0940*01 |
| $4.200 x+12^{2}$ | 2.115000 |
| 4.300x+62 | $2.1350+01$ |
| $4.400=+102$ | 2.156**01 |
| ソ.2000+ $0^{2}$ | $2.17 .70+01$ |
| $4.600 x+12$ | 2.197. 01 |
| $4.700 x+02$ | 2.2180+01 |
| 4,0000-12 | $2.2380+01$ |
| $4,4000+12$ | $2.2580+01$ |
| $1.000 x+65$ | 2.278001 |
| $1.010 x+0$ | $2.299+01$ |
| $1.0204+0^{3}$ | $2.319+01$ |
| $1.050 x+10$ | $2.339 n+01$ |
| $1.00^{4} 0 x+5$ | $2.359+01$ |
| 1.0900 ${ }^{\text {c }}$ | $2.3780+01$ |


| $8,4020+01$ | $1.1950+00$ | 1.431002 | 3.055-01 |
| :---: | :---: | :---: | :---: |
| 8,686\% 01 | $1.1750+00$ | 1.455002 | 3.4840001 |
| 8,9,750+01 | $1.150 \times 00$ | 1.479002 | 4.1140001 |
| 9.2670*01 | 1.1380000 | $1.503=02$ | A. $4^{4} 4 \mathrm{~m}=01$ |
| $9.15640 * 0.1$ | 1.1200000 | 1.527000 | 4. 5810001 |
| 9.86.4m+01 | 1.1.050*00 | $1.551=02$ | 4.3164*01 |
| 1.017*+02 | $1.0^{800}+00$ | $1.574 x=02$ | $4.0530=01$ |
| 1,0480+02 | 1.0700*00 | 1.598=02 | 4.1920-01 |
| 1.0790+02 | $1.0550+00$ | 1.621002 | $4.932=01$ |
| 1.1110+02 | 1.041-00 | $1.6450=02$ | 5.j $\mathrm{J}^{740}=01$ |
| 1.143w+02 | 1.026m+00 | 1.668=02 | 5.2170001 |
| 1.175=+02 | 1.0130*00 | $1.6910=02$ | 5. 3620 mol |
| 1.208.02 | 9.9950m01 | 1.7140002 | 5. $2009=01$ |
| 1.2410+02 | 9.868.001 | $1.737-02$ | $5.056=01$ |
| 1.2750*02 | 9.744-01 | 1.7600002 | 5.8.06-001 |
| 1:3090+02 | 9.0.23001 | 1.78 .3002 | $5,4560 \% 01$ |
| $1.3430+0.2$ | 9.2100001 | $1.806-02$ | 6.108=01 |
| 1.13780-02 | $9.398=01$ | 1.8280002 | 6.2620001 |
| 1. $1.413 n+02$ | $9.890=01$ | 1.8510002 | $6.416=01$ |
| $1.448 x+02$ | 9.185.01 | 1.873002 | 6.5730001 |
| 1.484\%*02 | 9.084-01 | 1.895002 | 6.1300001 |
| $1.15200+02$ | 8.9450001 | 1.9180=02 | 0.889001 |
| $1.15570 * 02$ | 8.890001 | 1.9400002 | 7. $0^{49 \text { 10 } 00}$ |
| 1.594m+02 | 8.197001 | $1.9620=02$ | 7.2110-01 |
| 1.031 .02 | 8.7010001 | $1.984=02$ | $7.3740-01$ |
| 1.068\% 0.02 | 8.019001 | $2.006=02$ | $7.238 \mathrm{~m}=01$ |
| $1.7{ }_{1 H}^{6}+02$ | 8.5340001 | $2.027-02$ | 7.1030001 |
| $1.7450+02$ | 8.452=011 | 2.049.-02 | 7.069 .001 |
| $1.783 \%+02$ | 8. $5710=01$ | 2.0715002 | $8 \cdot u^{37-01}$ |
| 1.8220*02 | $8.493 n=01$ | 2.092002 | 8. $206 \mathrm{~m}=01$ |
| 1.8620*02 | 8.217-01 | $2.114=02$ | 8.9750001 |
| $1.9010 * 02$ | 8.1430-01 | 2.135-02 | 8. 3480001 |
| 1.9420*02 | 8.0710001 | 2.1500002 | 8.120m=01 |
| 1.9820*02 | $8.000=01$ | 2.1780-02 | $8.594-01$ |
| 2.0230-02 | $7.9320=01$ | $2.199-02$ | 9.13690-01 |
| 2.0640+02 | 7.0650001 | 2.220002 |  |
| $2.1050-02$ | 7.8000001 | $2.2410=02$ | $9.422 w 01$ |
| 2.1470-02 | 7.7370.01 | $2.2610=02$ | 9.0000001 |
| 2.189n*02 | 7.6750-01 | 2.282-02 | 9.180001 |
| 2.2310+02 | $7.6150=01$ | 2.3030002 | $9 . \times 60=01$ |
| 2.274n*0.2 | 7.5.56=01 | $2.324=02$ | 1.J140*00 |
| $2.3170+02$ | 7.496=01 | 2. $3440 \cdot 0.2$ | 1.13 $320+00$ |
| $2,3600 * 02$ | 7.442001 | 2, $3640=02$ | 1.4? $10+00$ |
| $2.4040+02$ | 7.387-01 | 2.385-02 | 1. 469 $5+00$ |
| $2.4480+02$ | 7.334-01 | $2,405-02$ | 1.4880+00 |
| $2.492 x+0.2$ | 7. $2^{81} 1 \times 01$ | 2.425-02 | 1.1070.00 |

PARTICLE DENSITY $=5.0$ GRAMS PER CUBIC CENTIMETER

LIAMETEK
VELOCITY
RE
$1.000=+00$
$1.100 x+00$ $1.200=+00$ $1.300=+00$
$1.400=+00$
$1.500=+00$ $1.600 x+00$ $1.700 x+00$ $1.800 x+00$
$1.900 x+00$
$2.000 x+00$
<. $100 x+00$
c. $200 x+00$
$2.300=+00$
$2.400=+00$
$2.500=+00$
$2.600=+00$
$2.700=+00$
$2.800=+00$
$2.900=00$
3. $000 x+00$
$3.100=+00$
$3.200=+00$
$3.300=+100$
S. $400 x+00$
$3.500 x+00$
$3.600=+00$
s. $700 x+00$
$5.400 x+00$
$3.900=00$
4. $000 \times+00$
$4.100 x+00$
4.200x+00
$4.300+00$
$4.400 x+40$
$4.500=+100$
$4.600=+00$
$4.700 x+00$
$4 \cdot 600 x+00$
4.9.00~+ 00
$2.000 x+00$
b. 100: + 00
5. $200 \mathrm{x}+00$
b. $3000+00$
b. $400 x+00$
$5.500 \times+00$
$2.175=04$
$2.032=04$
$3.132=04$
$3.675=04$
$4.263=04$
$4.893=04$
$5.568=04$
$6.285=04$
$7.046=04$
$7.851=04$
$8.699=04$
$9.591=04$
$1.053=03$
$1.150=03$
$1.253=03$
$1.359=03$
$1.470=03$
$1.585=03$
$1.705=03$
$1.829=03$
$1.957=03$
$2.090=03$
$2.227=03$
$2.368=03$
$2.514=03$
$2.664=03$
$2.819=03$
$2.977=03$
$3.140=03$
$3.308=03$
$3.480=03$
$3.056=03$
$3.836=03$
$4.021=03$
$4.210=03$
$4.404=03$
$4.0020=03$
$4.804=03$
5.011


DRAG COEF
RELAX TIME
.90 015

| $1.1000+07$ | 2. 2180007 |  |
| :---: | :---: | :---: |
| $8.5080+06$ | 2,684m07 | 2.j620-10 |
| 6.399 +06 | 3.1940007 | 2.9230 |
| $5.033=+06$ | $3.748=07$ | $4 \cdot u^{3} 0^{\infty}-10$ |
| $4.0300+06$ | 4.347 .07 | $5.4250-10$ |
| 3.270. +00 | 4.9900007 | 7.1540-10 |
| $2.7000+00$ | 5.678007 | 9. $268 \times \sim 10$ |
| $2.251=006$ | 6.409 .07 | $1.1820-09$ |
| $1.890 n+00$ | $7.186-07$ | 1.4860009 |
| $1.0120+06$ | 8.006 .07 | 1.0460.09 |
| 1.5820+06 | 8.871007 | 2.268.0.09 |
| $1.1940+06$ | $9.780-07$ | 2.1590-09 |
| 1.0300+06 | 1.073.-06 | 3.3240.09 |
| 9.088=05 | 1.173-06 | 3.y730.09 |
| 7.999n+05 | 1.2770=06 | 4.1130-09 |
| 7.077-05 | 1.3860006 | 5.351-09 |
| 6.2910005 | 1.499-06 | 6.497-09 |
| $5.6180+05$ | 1.617006 | 7.5590.09 |
| $5.037 n+05$ | 1.739=06 | 8.1460009 |
| $4.534=+05$ | 1.86ちs=06 | 1.107x-08 |
| $4.0950+05$ | 1.996-06 | 1.1530-08 |
| $3.7120+05$ | 2.1310006 | 1.5100008 |
| 3. $375=05$ | $2.2710=06$ | 1.4940008 |
| 3,0770+05 | 2.4150.06 | 1.0910008 |
| 2.0150*05 | $2.564=-06$ | 1.406008 |
| 2.579.*05 | 2.717000 | 2.1410008 |
| $2.5700+05$ | 2, $8740=00$ | 2.3970008 |
| $2.1830+05$ | 3.0.36-06 | 2.6750-08 |
| $2.0150+05$ | 3,202=06 | 2.9770000 |
| $1.664 * * 05$ | 3,373n=06 | 3.504**08 |
| $1.7200+05$ | 3.548 - 06 | 3.057w-08 |
| $1.00^{4}+00^{5}$ | 3.7280-06 | 4.13380008 |
| 1.4950+05 | 3.9.120-06 | $4.4470 \sim 0^{8}$ |
| $1.391 .0+05$ | 4.101000 | $4.588000^{8}$ |
| 1.2900\% 05 | 4.2940-00 | 5. stome 080 |
| 1. 2140005 | 4.491-06 | 5.965-9 - $0^{8}$ |
| $1.1300+05$ | 4, 69:3n-06 | $6.4060 \cdot 08$ |
| $1.0650+05$ | $4.899 n=06$ | -.y $83=08$ |
| 9. $9.9 .9 n+04$ | 5.1100-06 | 7. 2980008 |
| $9.599 n+04$ | 5.325.06 | 8. $0^{53} 30008$ |
| $8.047 n+04$ | $5.544 .0=06$ | 8.4504-08 |
| 8. $3360+04$ | 5.768006 | $9.090^{10} 00^{8}$ |
| $7.5650+04$ | 5.997\%-06 | $1 \cdot 1047=07$ |
| 7.42600 04 | 6.229000 | 1.131007 |
| 7.0230+04 | 6.4.67:06 | 1.2190007 |
| $6.647 x+04$ | $6.708=00$ | 1.9120007 |

## PARTICLE DENSITY $=5.0$ GRAMS PER CUBIC CENIIMETER

| UIAMETEK | VELOCity | RE | dRAG COEF | helax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.000 x+00$ | 6.8.20 $=03$ | 3.0110004 | $6.2970+04$. | 6.955-06 | 1.4100007 |
| b.700 $2+00$ | 7.060 .03 | 4.0190-04 | $5.9710+04$ | 7,20.50-06 | 1.51.40007 |
| 2. $800 \times 00$ | 7.310 .003 | 4.235-04 | $5.068=+04$ | $7.960 \times 106$ | $1.023=07$ |
| - $900 \times+00$ | 7.570.05 | 4.457-04 | $5.385 \pm+04$ | 7.7200006 | 1.138.0.07 |
| $6.000 x+00$ | $7.829=03$ | 4,688.004 | $5.120=04$ | 7.984=06 | 1.0600007 |
| $6.100 x+00$ | $8.092=03$ | 4.9260004 | 4.0720+04 | 8.252m-06 | 1.487日=07 |
| $6.200 \%+60$ | $8.359=03$ | $5.1720=04$ | $4.6400+04$ | 8.525000 | 2.121-0.07 |
| $6.500=00$ | $8.631=03$ | $5.427 \times 04$ | 4,423.0+04 | $8.802=06$ | 2. $2620=07$ |
| $6.400 x+00$ | 8.907-03 | 5.089-04 | 4.2190004 | 9.083-06 | 2.409-0.07 |
| $0.500 \times+00$ | 9.188 .03 | 5.9600*04 | 4.027 | 9.369 .00 | 2.,5640-07 |
| $0.600 x+10$ | 9.473 .03 | 6.239.04 | 3.0470+04 | $9.6600=06$ | 2.126-07 |
| $6.700=+\cup 0$ | 9.762-03 | 6.527-04 | $3.677 \ldots+04$ | 9.955-06 | .2.495*-07 |
| $0.800 x+00$ | 1.006-02 | 6.024*04 | $3.5170+04$ | 1.025-05 | 3.4720.07 |
| $0.900 x+00$ | 1.035 .02 | 7.1290004 | 3.367. +04 | 1.056-05 | 3.4570007 |
| $7.000 x+00$ | 1.066-02 | 7.444=-04 | 3.224n+04 | $1.087-05$ | 3.4510007 |
| $7.100 x+00$ | 1.096 $0=02$ | 7.7680=04 | $3.0900+04$ | 1.11800 .05 | 3.053-07 |
| $7.200 x+00$ | 1.127=02 | 8.100- 04 | 2.963.0+04 | 1.150-05 | 3.0640007 |
| $7.500 x+00$ | 1.159=02 | 8.443-04 | 2.843n+04 | 1.1820 $=05$ | 4. $\mathbf{y}^{840007}$ |
| $1.400 x+00$ | $1.191 m=02$ | $8.7,940 \times 04$ | $2.7298+04$ | 1.2140005 | 4.3130007 |
| 7.2000+00 | 1.223002 | 9.156-0.4 | 2.6220+04 | 1.247-05 | $4.251-07$ |
| $7.600=+00$ | 1. $2560-02$ | 9.5270-04 | 2.520=*04 | 1.2810005 | 4.00.0-07 |
| $7.700 \times 00$ | 1.289=02 | $\left.{ }^{9}\right)^{8} \mathrm{U}^{8}=-04$ | $2.4230 * 04$ | 1.315005 | 5. $\cup^{58}=0.07$ |
| \%.800x+00 | $1.3230=02$ | 1.0300003 | 2.5310+04 | 1.3490005 | $5.3270=07$ |
| $7.900 x+00$ | $1.357 n-02$ | 1.070 .003 | 2.243n+04 | 1.3840005 | 5.0060007 |
| $6.000 \times+00$ | 1.392x-02 | 1.1.110003 | 2.1600004 | $1.419 n=05$ | 5.0960 .07 |
| $6.100 x+00$ | 1.427-02 | 1.153 .003 | $2.0810+04$ | $1.4550=05$ | $6.197=07$ |
| -.200x+00 | 1.4620002 | 1.197003 | 2.000 $0+04$ | 1.4910005 | 0.2100007 |
| $8.300 x+00$ | 1.4.98-02 | $1.241=03$ | $1.934 \pm+04$ | 1.5280005 | 6.8340007 |
| $6.400 x+10$ | 1.534002 | 1.2860-03 | 1.8600004 | 1.5650-05 | 7.170.07 |
| $6.500=+100$ | 1.571002 | 1.533000 | 1.0010+04 | 1.6020-05 | $7.219=07$ |
| $8.600 x+00$ | 1.6080002 | 1.5800=03 | $1.7390+04$ | 1.0400005 | 7.8800007 |
| c. $700 x+00$ | 1.046.02 | 1.4290003 | $1.080=04$ | $1.678=05$ | $8.2540=07$ |
| $8.800 x+00$ | 1.684-02 | $1.4 .79=03$ | $1.023 n+04$ | $1.717=05$ | 8.041007 |
| $8.900 x+00$ | 1.722-02 | 1.2300003 | $1.569 \pm+04$ | 1.756.05 | $9 \cdot 1^{420-07}$ |
| $9.000 x+100$ | 1.761 .02 | 1. 2.820003 | 1.317x+0.4 | 1,7960005 | $9.456=07$ |
| 4. $100 x+00$ | 1.801002 | $1.0,350 \cdot 03$ | 1.4680*04 | 1,836=05 | 9.0850-07 |
| $4.200=+00$ | 1.8400 .02 | $1.0,900-03$ | $1.4210+04$ | 1.8770005 | 1.14330006 |
| 4. $300 x+00$ | 1.881 -02 | 1.1,450=03 | $1.5750+04$ | 1.9180-05 | 1. 1.0790006 |
| $9.400 x+00$ | 1.921-02 | 1.8020-03 | $1.032 x+04$ | 1.959005 | 1.1260-0.0 |
| y. $500 x+40$ | 1.962002 | 1.8600003 | 1. 2900004 | 2,0010-05 | 1.1750006 |
| $4.600 x+00$ | 2.0040-02 | 1.9200.03 | $1.2500+04$ | 2.043:05 | 1.2250-00 |
| $9.700 \times+00$ | 2.04600 02 | 1.9800-03 | 1.212n*04 | 2.086-05 | 1.277000 |
| $9.600 x+00$ | 2.085002 | $2 \cdot 0,420003$ | 1.175x+04 | 2,129.05 05 | 1.5310000 |
| $9.900 x+00$ | $2.13 .1=02$ | 2. 1105000 | 1.140 1.04 | 2. $1730=05$ | 1.5860006 |
| 1.000 1.001 | 2.174-02 | 2.1,700-03 | $1.1060+04$ | 2,217m*05 | $1.44310 \cdot 06$ |
| 1.100x+0.1 | $2.630=02$ | 2.0,880003 | $8,3140+03$ | $2,6820 \cdot 05$ | 2.115000 |

## LUIANETER VELOCITY

Rt
drag coef relax time
. 48 UIST

| 1.200x+01 | 3.130n=02 |
| :---: | :---: |
| 1.300x+01 | 3,073.02 |
| $1.4000+01$ | 4.259 .02 |
| 1. $2000+01$ | 4.889 - 02 |
| $1.000 x+01$ | 5.561.002 |
| $1.700 x+01$ | $0.276=02$ |
| $1.800 x+01$ | $7.034-02$ |
| $1.800 x+01$ | $7.835-02$ |
| '2.000x+01 | $8.079-02$ |
| <. $100 x+01$ | 9.565-02 |
| $2.200+11$ | $1.049=01$ |
| 2.300x+01 | 1.146.01 |
| 2.400** 1 | 1.246: 01 |
| c. $5000+01$ | 1.3530001 |
| $2.000+01$ | 1.463-01 |
| c. $700 x+01$ | 1.576-01 |
| c.600x+01 | $1.094=01$ |
| 2.900x+01 | 1.8160001 |
| 3.000x+01 | 1.9420001 |
| $5.100 x+01$ | 2.072001 |
| $3.200 x+01$ | 2.206.01 |
| $3.300=+01$ | $2.3440=01$ |
| 3.400x+11 | 2.486.01 |
| $3.500 x+01$ | 2.6310-01 |
| $0.600 \times+11$ | 2.781001 |
| $3.700 \times+01$ | 2.934001 |
| $5.800=+01$ | 3.091m=01 |
| 3.500\% 01 | 3.2520-01 |
| $4 \cdot 000 x+01$ | 3.4100001 |
| $4 \cdot 100 x+61$ | $3.285=01$ |
| $4.200 x+01$ | 3.756.01 |
| $4.3000+01$ | 3.931001 |
| $4.400 x+01$ | 4.110.001 |
| $4.200 x+01$ | 4.291001 |
| $4.0004+1$ | $4.477=01$ |
| $4.700 x+11$ | 4.065-01 |
| $4,000 x+61$ | $4.8 .57=01$ |
| $4.500=+01$ | $5.052 n-01$ |
| b. $0000+0.1$ | 5.2490001 |
| $2.100 \times+11$ | 5.450001 |
| $2.200 x+0.1$ | 5.654x-01 |
| $=.300 x+01$ | 5.8610001 |
| $2.400 x+01$ | 6.070.01 |
| 2. $200 x+31$ | $6.2820=01$ |
| $2.600 x+111$ | $0.497-01$ |
| b. $700 \mathrm{x}+01$ | 6.715.01 |

$6.4050+03$
$5.039 \times+03$
$4.0300+03$
$3.283=+03$
$2.700 .+03$
2.257.*03
1.902 .003
$1.0190+03$
$1.3890+03$
$1.2000+03$
$1.0450+03$
$9.153 .+02$
$8.063=02$
$7.1410+02$
$6,356 m+02$
$5.6820+02$
$5.1020+02$
4.590 - +02
$4.160=02$
$3.776+02$
$3.439 m+02$
$3.141 .+02$
$2.5780+02$
$2.044 n+02$
$2.4350+02$
2. 440 - 0 2
$2.080=02$
$1.429 n+02$
$1.7920+02$
$1.069=02$
$1.557+02$
$1.4550+02$
$1.5630+02$
$1.278 .0+12$
$1.2000+02$
$1.1290+02$
$1.1064=02$
$1.00^{4}=+02$
$9.4900+01$
$8.579=+01$
$8.207 x+01$
$8.0700+01$
$7.0650+01$
$7.280 x+01$
$0.9300+01$
$0.0120+0.1$

| 3.1920.05 | 2. 4 980 $=00$ |
| :---: | :---: |
| 3.746000 | 4.133-06 |
| $4.343 n=05$ | $5.5640=06$ |
| 4.985n-05 | 7. 3 38x-06 |
| 5.671=05 | 9. $2060=06$ |
| 6.4000005 | 1.2120005 |
| 7.1730005 | $1.3250=05$ |
| 7.990005 | 1.0940005 |
| $8.8500=05$ | 2. $326 \times 05$ |
| 9.7540005 | 2.529-0.05 |
| 1.0700004 | 3.4100005 |
| 1.1690004 | 4.4750 .05 |
| 1.2720 .04 | $4.834=00^{5}$ |
| 1.3800004 | 5.0940005 |
| 1,4920-04 | 6.5641005 |
| $1.6080-04$ | 7.1530.05 |
| $1.728=04$ | 8.470005 |
| 1.8520*04 | 1.033-04 |
| 1.9800004 | $1.183=04$ |
| $2.1130=04$ | 1.5490904 |
| 2,2500-04 | 1. $333=04$ |
| $2.590 \pm=04$ | 1.1340004 |
| $2.5350=04$ | 1.454004 |
| $2.683-04$ | 2.1950004 |
| 2,836-04 | 2. $4580 \mathrm{n}=04$ |
| 2.992004 | 2, 1440004 |
| 3.1520-04 | 3.15 $53=04$ |
| $3.31000-04$ | 3. $3890=04$ |
| 3.484m-04 | $3.1510-04$ |
| $3.655000^{4}$ | 4. $1^{4} 10.04$ |
| 3.830004 | 4.3620004 |
| 4.009 004 | $5 \cdot 4150=04$ |
| 4.1910004 | 5.4970-04 |
| $4.376=04$ | 6.007*-04 |
| 4,565:04 | $0.3320=04$ |
| 4:757-04 | 7.079w-04 |
| 4, 453.04 | 7.0510004 |
| 5.151:04 | 8. $2480=04$ |
| 5.353**04 | $8.070 \times 04$ |
| 5.5560 .04 | 9.319x=04 |
| 5.7660004 | 1.41900.03 |
| 5.977-04 | 1.490000 |
| $0.190 \mathrm{~m}-14$ | 1.1630003 |
| 6. $4000=104$ | $1 .<390003$ |
| 6.626-04 | 1.3170003 |
| 6.0470*04 | 1.5990003 |

## PaRticle density = $\quad$.o grams per cubic centimeter

UIAMETEK
velecity
$0.93 .4=01$
$7.157=0.1$
7.381. $=01$
$7.60^{8-01} 01$
7.838.01
8.069-01
$8.3030=01$
8.538.0.01
$8,775=01$
$9.015=01$
9,256.-01
$9.499=01$
$9.743=01$
9.990 .01
$1.02^{4}+00$
$1.049 \div 00$
$1.0740+00$
$1.099 n+00$
$1.12^{4 .}+00$
$1.1500+00$
$1.1760+00$
$1.2010+00$
$1.227 .+00$
$1,253 .+00$
$1.279+00$
$1.306=00$
$1.332_{n}+00$
$1.359{ }^{\circ}+00$
$1.385+00$
$1.412 n+00$
$1.439+00$
$1.466 \times+00$
$1.493 .+00$
1.521 . +00
$1.548 n+00$
$1.5760+00$
$1.60^{4}+00$
$1.032 x+00$
$1.0600+00$
$1.6880+00$
$1.717+00$
$1.7450+00$
$1.7745+00$
$2.0^{75}+00$
$2.4000+00$
2.732 .00

RE
drag coef relax time
,9ヵ DIST

| 4.014-001 | $6.300_{0}+01$ | 7.0710004 | 1.4840003 |
| :---: | :---: | :---: | :---: |
| 4.2140.01 | $6.024 n+01$ | 7,2980004 | 1.2710003 |
| 4,4200.01 | 5.7590+01 | $7.527 n=04$ | 1.0620003 |
| 4,632.001 | $5.51100+01$ | 7.7590-04 | 1.1560003 |
| $4.850 \times-01$ | $5.279 m+01$ | 7.993-74 | 1.0520.03 |
| 5.073.01 | 5.06100+01 | $8,229 \times 04$ | 1.4520003 |
| b, 3030-01 | 4.850.0+01 | 8.467.04 | 2.1555-03 |
| 5,539-01 | $4.0630+01$ | 8.707m04 | 2.161-03 |
| $5.780=01$ | $4.482 m+01$ | 8.949-044 | 2.470n=03 |
| 6.028 .01 | $4.3120+01$ | 9.193.-04 | 2.983-03 |
| 6,281=01 | 4.151 + 01 | 9,439-04 | 2.4980003 |
| $6.541=01$ | $4.0000+01$ | $9.687=04$ | 2.0170.03 |
| $6,807 n-0.1$ | 3.856 .011 | 9,936m-14 | 2.1400003 |
| 7.079.001 | $3.721 n+01$ | $1.019 \pm 03$ | 2.065.0.03 |
| 7.356=01 | 3,5930+01 | 1.044:03 | 2.9940\%03 |
| 7.040001 | 3.4720*01 | 1.0690003 | 3.1260003 |
| 7.9300001 | 3.357n+01 | 1.095003 | 3.c62.0003 |
| 8.226 .01 | $3.2480+01$ | 1,121=03 | $3.401=03$ |
| 8.528=01 | 3.1440+01 | $1.147 \% 0{ }^{\text {a }}$ | 3.2430003 |
| 8.837 .01 | 3.046n*01 | 1.173 .003 | 3.0890003 |
| 9.151=01 | 2,952=01 | 1.199003 | $3.038=03$ |
| 9.472 .001 | 2.863.0.01 | 1,2250003 | 3, 491m-03 |
| 9.798.01 | 2.778-01 | 1.2510003 | 4.147 .003 |
| 1.013.00 | 2,697** | $1.2780 \cdot 03$ | 4.907003 |
| 1.047.00 | 2.02000+01 | 1.3050003 | 4.4700003 |
| $1.0820+00$ | 2. $2400+01$ | 1.332-03 | 4.0370003 |
| 1.117 .000 | $2.4700+01$ | 1.3580003 | 4.807 .003 |
| 1.153 .000 | $2.4080+01$ | $1.3860=03$ | $4.981=03$ |
| 1.189n+00 | 2.3440001 | 1,413003 | $5.158=03$ |
| 1.226**00 | 2.2820+01 | 1.4400003 | 5.539 =03 |
| 1.264=*00 | 2.2220+01 | 1.468.03 | 5.3240003 |
| $1.3020+00$ | 2.165.0.01 | $1.495 n-03$ | 5.1120003 |
| 1.341**00 | 2.1110+01 | 1.523000 | $5.9040=03$ |
| $1.3810+00$ | $2.0500+01$ | 1.5510003 | $6.1000=03$ |
| 1.422.*00 | 2.0070+01 | 1.579.03 | -. 4990003 |
| 1.4630*00 | 1.959 ${ }^{\text {a }}$ +01 | 1.607003 | 0.3020003 |
| 1.5040000 | 1.9.920+01 | 1.035003 | 6.1090003 |
| 1.547p+00 | 1.0660*01 | $1.664=03$ | 6.4190003 |
| $1.5900+00$ | 1.0230001 | 1.0930003 | 7. $133=03$ |
| 1.634*00 | $1.1800+01$ | 1.7210003 | 7.3510003 |
| 1.079**0 | $1.7400+01$ | 1.7500003 | 7.9720003 |
| 1.724**00 | 1.7000001 | 1.780003 | 7.1970 .03 |
| 1.7710+00 | 1.0620+01 | 1.809 - 03 | $8.426 .00^{3}$ |
| 2.278.00 | $1.3300+01$ | 2.1100003 | 1.10520002 |
| 2.874m+00 | $1.0900+01$ | 2,44700 03 | $1.541 \times 02$ |
| 3,544**00 | 9.112000 | 2.786003 | $1.068=02$ |

particle density $=\quad 2.0$ grams per cubic centimeter

| hiameter | velocity | RE | drag ceef | relax time | .90 UIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.400x+02 | 3.0120+00 | 4.208000 | 8.073-00 | 3.071003 | 2.0340002 |
| $1.5000+02$ | 3.315000 | 4.962=00 | 7.139.*00 | $3.3800=03$ | 2.4390-02 |
| $1.6000+12^{2}$ | $3.6210+00$ | 5,783=*00 | 6.380- ${ }^{\text {c }}$ (00 | $3.093=03$ | 2. 0850002 |
| $1.7000+102$ | 3.931 - +00 | $6.6690+00$ | 5,7550*00 | 4.008n=03 | 3.9690002 |
| 1.0000+02 | $4.242 x+00$ | 7.620-00 | 5.232.00 | 4,326~03 | 3.0930002 |
| $1.900 x+102$ | 4.555 .00 | 8.637 .00 | 4.789.000 | 4,6450.03 | 4.456002 |
| $2.0000+02$ | 4.869 m +00 | 9.720**00 | $4.411 .+00$ | $4.966 \sim 03$ | $5.459 \times 02$ |
| $2.100=+(12$ | $5.185 n+00$ | 1.087 .01 | 4.085:00 | 5.2870 $=03$ | 5.0990002 |
| $2.200 x+02$ | 5.501000 | 1.2080001 | $3.002{ }^{2}+00$ | 5.61000113 | 0.5780-02 |
| $2.300 x+02$ | 5.818 .00 | 1,3350+01 | 3,554m+00 | $5.9330=03$ | $7.495 \times 02$ |
| 2. $400 \times+102$ | 6.135000 | 1.4690*01 | 3.335.00 | 0,250.03 | 7.049 .02 |
| 2. $5000 \times 02$ | $0.4520+00$ | $1.6100+01$ | 3.141=+00 | $6,579.03$ | 8.0410002 |
| $2.600 x+02$ | $0.769+00$ | 1.756.01 | $2.9600+00$ | $6.9030=03$ | 9.4690.02 |
| $2.700 \times+12^{2}$ | $7.086+00$ | 1,9090*01 | 2.0130+00 | 7.220.003 | $1.033=01$ |
| $2.000 x+42$ | $7.4020+00$ | 2.0680*01 | $2.0730+00$ | 7.54800.03 | 1.123 .001 |
| \%.900x+02 | $7.718{ }^{1}+00$ | 2.234~*01 | 2. $240 \pm+00$ | 7.8700-03 | 1.2170001 |
| $3.000 x+12^{2}$ | $8.0330+00$ | 2,405**01 | 2.43.10+00 | 8.1920-03 | 1.3140001 |
| 3.100x+02 | $8.348 \%+00$ | 2.583.*01 | 2.326.*00 | $8.5130=03$ | 1.4150001 |
| 3.200**02 | $8.062=+00$ | 2,7600*01 | $2.2310+00$ | $8,833 m-103$ | 1.2190001 |
| 0.300x+02 | $8.975 m+00$ | 2.956 2 *01 | $2.143=+00$ | 9.1520003 | 1.0260001 |
| $3.400 x+02$ | 9,287.00 | 3.151001 | 2.3620000 | $9.4710=03$ | 1.137-01 |
| $3.5000+02$ | $9.599 .+00$ | 3.353 .01 | 1.987-00 | $9.788=03$ | 1.0500001 |
| $3.000 x+112$ | $9.9090+00$ | $3.5600 * 01$ | 1,918000 | 1.0100002 | 1.9680001 |
| $3.700=+112$ | 1.022m+01 | 3.7730001 | 1.053 .000 | 1.042 cos | 2.1880-01 |
| $3.400 x+112$ | $1.0550+01$ | 3,9920+01 | 1.194n+00 | 1.073.02 | 2. 1110001 |
| 3.400\% $+1{ }^{2}$ | $1.00^{83}+01$ | 4,217.01 | 1.738000 | 1.1050002 | 2.338-01 |
| $4.000 x+02$ | $1.1140+01$ | 4,447.01 | $1.0900+00$ | 1.136002 | 2.468.0.01 |
| $4.100 x+102$ | 1.144.00i | $4.6830 * 01$ | 1.0370000 | 1.167.02 | 2.0000001 |
| $4.200 \times 42$ | $1.1750+01$ | 4.925 .01 | 1.5910000 | 1.198002 | 2.1360001 |
| $4.300 x+12^{2}$ | 1.205001 | 5.1720001 | $1.5490+00$ | 1.2290002 | 2.0750001 |
| $4.400 \times+02$ | 1.2350001 | $5.4240 * 01$ | 1.5080000 | 1.2600002 | $3 \cdot 3160=01$ |
| $4.500 \times+12$ | $1.2650+01$ | $5.08200^{+01}$ | 1.4700+00 | 1.2900.02 | 3.1600001 |
| $4.000 x+02$ | $1.2950+01$ | 5,946. 0.1 | $1.4340+00$ | 1.3210002 | 3.9070001 |
| $4.700 \times+112$ | 1.3250001 | 0.2140 .01 | 1.4000000 | 1.3510002 | $3.4570-01$ |
| $4.6000+0{ }^{2}$ | 1.355 .01 | 6.4890*01 | 1.3600000 | 1.3810002 | 3.0100001 |
| $4.900 \times 02$ | $1.384 m+01$ | 0.768.01 | 1.3300+00 | 1.4110002 | 3.16500-01 |
| $5.000 x+02$ | $1.4130+01$ | 7.053.01 | $1.309 n+00$ | 1.4410002 | 3.923001 |
| 2. $100 x+02$ | $1.4430+01$ | 7. $5430+01$ | $1.4820+00$ | 1.471 .02 | 4. $y^{84} 4=01$ |
| $2.200 \%+02$ | 1.4720-01 | 7.638.01 | 1. $2500+00$ | 1.501-02 | 4.4.470-01 |
| 2.3000+0? | $1.5010+0.1$ | 7.938.0*0i | 1.2310*00 | $1.53 \mathrm{~g}=0 \mathrm{n}$ | 4.4130001 |
| $5.4000+02$ | $1.6300+0.1$ | 8.243.0.01 | 1.2070+00 | 1,500.02 | 4.2820001 |
| $5.500 \times 02$ | $1.5580 \times 01$ | $6.554=* 01$ | 1, 18.4=00 | 1.5890002 | 4.1520001 |
| 5.600x+02 | $1,5870+01$ | 0.8690001 | $1.163 n+00$ | 1.6180002 | 4.9260001 |
| $3.700 \times \pm 02$ | 1.015 .01 | 9.190.*01 | . 1.1420000 | 1,647.0.02 | 5.1020001 |
| $5.800 x+0{ }^{2}$ | 1.044.0.01 | 9.5150*01 | 1,1230*00 | $1.676 p=02$ | 5.4800001 |
| 2.900x+02 | $1.6720+01$ | 9.6450001 | $1.1040+00$ | $1.705=02$ | 5.4600001 |

## PARTICLE DENSITY $=\quad$. O GRAMS PER CUBIC CENTIMETER

UIANETER
VELQCITY



| $1.7000+01$ | 1.018.02 |
| :---: | :---: |
| 1.728m+01 | 1.0520*02 |
| 1.756 .01 | 1.087\%*2 |
| $1.7840+01$ | 1.1210+02 |
| $1.8110+01$ | 1.157-02 |
| $1.839 n+01$ | 1, 193m+02 |
| 1.8600\%01 | 1.229m*02 |
| $1.8930+01$ | 1.2660*02 |
| 1.9200+01 | $1.3030+02$ |
| $1.947 m+01$ | $1.341=02$ |
| $1.974 n+01$ | 1.379**02 |
| 2.001-01 | 1.4180002 |
| $2.028 \pm+01$ | $1.457 \%{ }^{\text {¢ }}$ |
| $2.054 n+01$ | 1.496m*02 |
| $2.0800+01$ | $1.536 .+02$ |
| 2.107=01 | 1,577n+02 |
| $2.1330+01$ | 1.618** 02 |
| $2.1590+01$ | 1.659** 02 |
| 2.185. 01 | $1.701 \times 02$ |
| $2.2110+01$ | $1.743 m+02$ |
| 2.236-01 | $1.785=02$ |
| $2.2620+01$ | 1.028n+02 |
| 2.287.01 | 1.8720-02 |
| $2.3130+01$ | 1.916x+02 |
| 2.338.01 | 1.9600*02 |
| $2.3630+01$ | 2.004\%+02 |
| $2.388 \%+01$ | 2.049.*02 |
| $2.413 x+01$ | 2.0950+02 |
| 2.4380+01 | 2.1410+02 |
| 2.4620+01 | 2.187* 02 |
| $2.4870+01$ | 2.234n+02 |
| 2.5110+01 | 2.2810*02 |
| 2.530.0+01 | 2,3280*02 |
| $2.5600+01$ | 2, $5760+02$ |
| $2.5840+01$ | 2.424.02 |
| 2.0000001 | 2.473.02 |
| $2.6320+01$ | $2.522 \pm+02$ |
| $2.656 \pm+01$ | 2.571.002 |
| $2.6800+01$ | $2.6210+02$ |
| $2.7050+01$ | 2.0710+02 |
| $2.727 \pm 01$ | $2.7210+02$ |
| $2.7500+01$ | 2.7720+02 |
| $2.7740+01$ | 2.8240+02 |
| $2.797 n+01$ | $2.875=02$ |
| 2,820.001 | 2,927=+02 |
| $2.8430+01$. | 2.979**2 |

DRAG COEF
RELAX TIME •y8 UIST

| 1.086m+00 | 1.734-02 | 5.0430 .01 |
| :---: | :---: | :---: |
| $1.0680+00$ | 1.762002 | 5. 2280001 |
| $1.0520+00$ | 1.791002 | 6. $415=01$ |
| 1.036-*00 | 1.819-02 | 6.2050001 |
| 1.020-00 | 1.847.022 | 6.997001 |
| 1.000\%00 | 1.875002 | 6.391001 |
| 9.913 .01 | 1.903002 | $6.187=01$ |
| 9,7760001 | 1.931002 | 6.486-01 |
| 9.644001 | 1.958-02 | 7.18610=01 |
| 9.5100-01 | 1.986002 | $7.988=01$ |
| 9.393-01 | 2.013.0.02 | 7.9930011 |
| 9.275.01 | 2.040002 | 7.0000001 |
| 9.1600001 | $2.0680-02$ | 8.0080001 |
| 9;049=01 | 2.095: 02 | 8. 619.01 |
| $8.942 \times 01$ | 2.1220-02 | $8.431 \pm 01$ |
| 8.838-01 | 2.148-02 | 8.0460001 |
| $8.738-01$ | 2.175-02 | $8.062 m-01$ |
| 8.041001 | 2,2010002 | 9. $U^{80} 0=01$ |
| $8.547 \times 01$ | 2,228-02 | 9.3000001 |
| 8.450001 | 2.254-02 | 9.222-01 |
| 8,367-01 | 2.2800002 | 9.1460001 |
| 8,281.01 | $2.3060-02$ | 9.971001 |
| $8.198=01$ | 2.33\%x-02 | 1.4? $0+00$ |
| $8.117=01$ | 2.350-02 | $1.0430+00$ |
| $8.039=01$ | $2.384 x-02$ | $1.4500+00$ |
| 7.9620001 | 2.4100002 | 1.489=00 |
| 7.0800001 | $2.435=02$ | 1.1120000 |
| 7.610001 | 2.4600002 | 1.1360000 |
| 7.7400001 | 2.486 .02 | $1.1600+00$ |
| 7.07801 | $2.511=02$ | $1.1840 * 00$ |
| 7.0110001 | 2.536 .02 | $1 . \angle 080+00$ |
| 7.546-01 | 2.561-02 | $1.4320+00$ |
| 7.483-01 | $2.5860=02$ | 1. $2560+00$ |
| 7.422-01 | 2.6110002 | $1 \cdot \angle 810+00$ |
| 7.3650001 | 2.0350 .42 | $1.9060+00$ |
| 7.504-01 | 2.660002 | 1.3300000 |
| 7.247001 | 2.6840-02 | 1.9550+00 |
| 7.19 \% - 01 | $2.7080=02$ | $1.38010+00$ |
| 7.130.01 | 2.733002 | $1.4060+00$ |
| 7.085001 | 2.7570-02 | $1.4310+00$ |
| 7.035-01 | 2.7810 .02 | 1.457*00 |
| 6.983-01 | 2.005002 | $1.4820+00$ |
| 6.9340001 | 2.829-02 | $1.2080+00$ |
| 6.686.01 | $2.8520-02$ | $1.234=00$ |
| $6.839-01$ | 2.876002 | 1.3000000 |
| 6.793-01 | 2,899002 | $1.2870+00$ |

PaRTICLE DENSITY $=0.0$ GRAMS PER CUBIC CENTIMETER

## UIAMETEK

VELOCITY
RE:
$2.719=04$
$3.289=04$
$3.915=04$
$4.594=04$
$5.328=04$
$6.117=04$
$6.959=04$
$7.856=04$
$8.80=04$
$9.814=04$
$1.087=03$
$1.199=03$
$1.310=03$
$1.438=03$
$1.566=03$
$1.699=03$
$1.838=03$
$1.982=03$
$2.131=03$
$2.280=03$
$2.447=03$
$2.012=03$
$2.784=03$
$2.960=03$
$3.143=-03$
$3.330=03$
$3.523=03$
$3.722=03$
$3.925=03$
$4.135=03$
$4.350=03$
$4.5700=03$
$4.795=03$
$5.026=03$
$5.263=03$
$5.505=03$
$5.752=03$
$6.005=03$
$6.263=03$
$6.527=03$
$6.796=03$
$7.071=-03$
$7.350=03$
7
$7.636=03$
$8.227=03$
$8.225=03$
2.713:-06
$3.6110=06$
4.688:-06
$5.961=06$
$7.4450-36$
9.157-06
1.111:-05
$1.5330-05$
$1.582=05$
$1.0610=05$
$2.1700=05$
$2.513=05$
2.8890-05
$3.301=05$
3.751-05
4.239.0.05
$4,768=05$
$5.340=05$
5.956-05
$0.617=05$
7.325n=05
8.482~-05
$0.890=05$
$9.750=05$
$1.0660=04$
$1.1630=04$
1.266n=04
$1,574=04$
$1.489=04$
$1.009=04$
$1.736=04$
$1.8700=04$
$2.010=04$
$2.157=04$
2.311004
2.472-04
$2.041=04$
2.8170-04
3. $1000=04$
S.1920=04
3.391=04
3.599-04
$3.8150=04$
4.039-04 04
4. $2720=04$
$4,514=04$
dRAG COEF HELAX TIME ,9a DIST

| $8.8400+06$ | 2,7720.07 | 2. $2000=10$ |
| :---: | :---: | :---: |
| 6.040006 | 3.3540-07 | 3. $2250=10$ |
| 5.1190+06 | 3.992007 | 4. $2720=10$ |
| 4.020.0.06 | 4.6850 .07 | 6.50300 |
| 3.224n+06 | 5,4.34=-07 | 8.485=10 |
| 2.621.006 | 6.238-07 | 1.1190-09 |
| $2.1600+06$ | $7.097 \times 07$ | 1.450009 |
| $1.8010+06$ | 8.0120007 | 1.449w-09 |
| 1.5170+06 | 8.9820007 | 2. 325 mF 09 |
| 1.2900+06 | 1.0010006 | 2.5880 .09 |
| $1.1060+06$ | 1.1090006 | 3.5480-09 |
| $9.552=+05$ | 1.223m=06 | 4.3150-09 |
| $8.5080+05$ | $1.342=006$ | 5. 1000009 |
| $7.2710+05$ | 1,467006 | 6. $614-09$ |
| 6.399p+05 | 1.597-106 | 7.5710009 |
| $5.0620+05$ | 1.7330-06 | 8.083-09 |
| 5.033-+05 | 1.8740-06 | 1.1.160008 |
| $4.4940+05$ | 2.021006 | 1.182-08 |
| $4.0300+05$ | 2.173006 | 1.5680008 |
| 3.627. +05 | 2.331006 | 1.5750.08 |
| $3.276 .+05$ | 2.4950=06 | 1.0040-08 |
| 2.969\%-05 | 2, $60640=06$ | 2.1580-08 |
| $2.700=005$ | 2.639-06 | 2.9370=08 |
| $2,4620+05$ | 3.019-06 | $2.044 *-08$ |
| 2.0510005 | 3,205=06 | 2.9800-08 |
| $2.0630+05$ | 3.396-06 | 3.9480008 |
| 1.8900006 | 3.593-06 | 3.1480=08 |
| $1.7400+05$ | 3,795m=06 | $4.184=-08$ |
| $1.012=05$ | 4, 0030-06 | 4.056 .08 |
| $1.491 i n+05$ | 4.210-06 | $5.1670-08$ |
| 1.5820*05 | 4.4350 .06 | 5.1200-08 |
| 1. $2840+05$ | $4.0600=06$ | 6.3150008 |
| 1.1940+05 | 4,8900006 | 0.4560 .08 |
| $1.1150+05$ | 5.1260006 | $7.045 \times 10^{8}$ |
| 1.039-05 | 5.367m-10 | $8.5830=0^{8}$ |
| 9.70804 | 5, 6140006 | $9.174000^{8}$ |
| 9.08990+04 | 5.860 .000 | 1. 4020007 |
| 8.5210*04 | 6.124-06 | 1.492=07 |
| $7.9990+04$ | 0,387m.06 | 1.1880007 |
| 7.520004 | $0.656-06$ | $1.491=07$ |
| 7:0770+04 | 6.930-06 | 1.4000007 |
| $6.069 .+04$ | 7.210006 | 1.216-07 |
| 6.8920+04 | $7.4960=06$ | $1.038=07$ |
| $5.9420+04$ | 7.787\%-06 | 1.1680\%07 |
| $5.0100+04$ | 8.0830-06 | 1.4060007 |
| $5.3180+04$ | $8 . .3850=06$ | 2.4520-07 |

## PARTICLE LENSITY $=0.0$ GRAMS PER CUBIC CENTIMETER

UIAMETEK
VELOCITY
$8.525=03$
$2.000 x+00$
$2.700=+00$
b. $800=+00$
5. $400 \times+00$
$6.000=+00$
$0.100=+00$
$0.200 \mu+100$
$6.300+40$
$6.400=+00$
$0.500=+00$
$6.600=00$
$6.700=+00$
$6.600 x+00$
$0.900+00$
7.000~+00
7. $100 \times+00$
$7.200 x+00$
\%. $500 x+00$
$7,400 x+00$
7. $200 x+00$
$1.000 x+00$
$7.700 \times 00$
$7.600 x+00$
$7.900 x+00$
ก. $000 x+00$
$0.100 x+00$
b. $2000+00$
$8.300=+00$
$6,400 x+00$
$8.500 x+00$
$6.600=+00$
と. $700 \mathrm{O}+00$
$8.800=+00$
$6.400 x+00$
4. $000 x+60$
$9.100 x+00$
9. $200 \times+00$
y. $300=+00$

צ. $400 \times+00$
$9.200 x+00$
$4.600 x+110$
$4.700 x+00$
$y .800 x+00$
y. $400 x+00$
$1.000 x+01$
1.100x+01
$8.832=03$
$9.144=03$
9.462.-03 9.786-03
$1.0110=02$
$1.045=02$
$1.079=02$
1.115002
$1.148=02$
$1.184=02$
$1.220=02$
1.257002
$1.2940=02$
$1.332=02$
$1.370=02$
$1.409=-02$
$1.40^{9}=02$
$1.448-02$
$1.488=02$
$1.529=02$
$1.570=02$
$1.6120=02$
$1.654=02$
$1.090=02$
$1.740=02$
$1.783=02$
1.820 .02
$1.672=02$
$1.418=02$
$1.964=02$
2.010-02
2.057 .02
$2.10^{5}-02$
2. 153.02
$2 \cdot 201=02$
$2.251=02$
$2.300=02$
$2.3510-02$
$2.4010-02$
2.453 .02
2. $5050-02$
$2.5570=02$
$2.610=02$
2.663 .02
2.718002
$3.288=02$

RE
4.764-0.14
5.024=-04
5.293:-04

5,5720-04
$5.860=04$
$6.158=04$
$6.465=-04$
$6.783=-04$
$7.112=-04$
$7.112=-04$
$7.450=04$
7.799-04
$8.159=04$
$8.530=04$
$8.912=04$
$9.305 x=04$
$9.709=04$
$1.013=03$
$1.055=03$
$1.099=03$
1.144=03
$1.191=-03$
$1.238=03$
$1.287=03$
$1.337=03$
$1.389 x-03$
$1.4420=03$
$1.490=03$
$1.251=03$
$1.008=03$
$1.666=03$
$1.725=03$
$1.7860=03$
1.048 .03
$1.9120=03$
1.977003
2.044-03
2. 1120003
2.182=-03
$2.253=03$
2. $325=03$
$2.4000=03$
$2.475=03$
$2.553=03$
$2.0320-03$
2.1120-03
$5.609=03$

DRAG COEF RELAX TIME ,90 DIST

| 5.038 $0+04$ | 8,093-06 | 2. 2050007 |
| :---: | :---: | :---: |
| 4.7770*04 | 9.006-06 | 2,968*-07 |
| $4.5340+04$ | 9.325 .06 | 2.339:07 |
| $4.300^{80}+04$ | 9.649-06 | 2,1190.07 |
| 4.0960+04 | 9.979.06 | 2.4090-07 |
| $3.8980+04$ | 1.031005 | 3.1080-07 |
| $3.71200+04$ | $1.066-05$ | 3.517-07 |
| 3.5380+04 | 1.10000 .05 | 3.237-07 |
| $3.3750+04$ | 1.1350005 | 3, 168-07 |
| $3.2220+04$ | 1.1710005 | 4. 110007 |
| $3.0700+04$ | 1.207 .05 | 4.2630007 |
| $2.9420+04$ | 1.2440*05 | 4.9280-07 |
| 2.0140*04 | 1.2820-05 | 4.005 0007 |
| $2.6930 * 04$ | 1.3200005 | 5. 1950007 |
| 2.5800004 | 1.358.05 | 5.9980-07 |
| 2.472m+04 | 1.397005 | 5.1140=07 |
| 2.371m+04 | 1.437 .005 | $6.043=07$ |
| 2.275x+04 | 1.477**05 | 6.587 -0.07 |
| 2,184-04 | 1.5180005 | $6.145=07$ |
| $2.097 m+04$ | $1.5590=05$ | 7.1180-07 |
| $2.010_{00+04}$ | $1.601=05$ | 7,2070007 |
| $1.938 \pm+04$ | $1.643=05$ | 7. $7_{110007}$ |
| 1.0650004 | $1.6860=05$ | $8.531=07$ |
| 1.795n+04 | 1.7300-05 | 8.1680-07 |
| $1.7280+04$ | $1.774 m-05$ | 9. $2220=07$ |
| 1.065n+04 | $1.819=05$ | 9.093007 |
| $1.0050+04$ | 1.864x-05 | 1. 1.180000 |
| $1.5480+04$ | $1.90910=05$ | 1.069 -0.06 |
| $1.4950+04$ | 1.950=05 | 1.1210006 |
| $1.4410+04$ | $2.002 \times 05$ | 1.176=06 |
| $1.3910+04$ | 2.050005 | 1.2330006 |
| $1.344 \%+04$ | 2.098 .05 | 1.291=06 |
| 1.299**04 | 2.1400-05 | 1. 5520.06 |
| $1.2550 * 04$ | 2.1950-05 | 1.4140006 |
| $1.214=004$ | 2.245005 | 1.479000 |
| 1.175 .04 | 2.2950005 | 1.5460006 |
| 1.137 .04 | 2.346-05 | 1.0150000 |
| 1.100.*04 | 2.3970-05 | $1.0874=06$ |
| 1.066**04 | $2.449 \times 05$ | $1.161=06$ |
| 1.0320*04 | 2.5010005 | $1.037=06$ |
| 1.0000*04 | 2.554** | $1 . y 160-06$ |
| $9.699+03$ | 2.608-05 | 1.y97iom 06 |
| $9.405+03$ | $2.662 x=05$ | 2.48 - $0^{6}$ |
| 9.1230+03 | 2.710 .05 | 2. 1680000 |
| $8,0520+03$ | $2.7710-05$ | 2. $457 \times 06$ |
| $6.653 x+03$ | 3.3530-05 | 3. 508006 |

PARTICLE LENSITY $=0.0$ GRAMS PER CUBIC CENTIMETER

1) JAMETFK
vELUCITY

$3.9120-02$ 4.591 $=02$ $5.323=02$ $0.10^{9}=02$ $0.949=02$ 7.842. 02 8.789=02 $9.789 n=02$ $1.084=01$ $1.195=01$ $1.3110=01$ $1.4320=01$ $1.558=01$ 1.689.01 01 $1.826=01$ $.1 .9680=01$ 2.114.001 $2.266=01$ $2.423=01$ $2.585=01$ $2.751=01$ $2.922=01$ 3.098=01 3.279-01 $3.465=01$ $3.655 \theta=01$ $3.649=01$ $4.048=01$ $4.252=01$
4.459 - 01
4.071=01
$4.887=01$
$5,107=01$
$5.331 \% 01$
$5.559=01$
$5.791=01$
$6.026=01$
$6.265=01$
$6.507 \infty=01$
$6.753_{n}-01$
$7.002=01$
7.255 .01
$7.510=0.1$
$7.769=01$
8.030001
$8.295=01$

| 4.685-03 |  |
| :---: | :---: |
| $5.956 n=03$ | $4.033 n+03$ |
| 7,437-03 | 3.230-703 |
| 9.145.03 | $2.6200+03$ |
| 1.1100002 | $2.1600+03$ |
| $1.331=02$ | $1.0070+03$ |
| 1.579-02 | $1.5230+03$ |
| 1.85600 02 | $1.2900+03$ |
| 2.164-02 | $1.1120+03$ |
| $2.5040=02$ | $9.6160+02$ |
| 2,878=02 | $8.57 \% 0+02$ |
| S.286-02 | $7.3350+02$ |
| 3.732-02 | $0.464 n+02$ |
| 4.2150 .02 | $5.7200+02$ |
| 4,738=02 | 5.09800 02 |
| $5.302=02$ | $4.2590+02$ |
| 5.909-02 | $4.094 n+02$ |
| 6.559-02 | 3.092. 012 |
| 7.254=02 | 3.041=+02 |
| 7.996.02 | 3.0340+02 |
| $8.786=02$ | $2.7640+02$ |
| 9.0250002 | 2.520.00 02 |
| 1.051.01 | 2.3150+02 |
| 1.145 .01 | 2.120.00 |
| 1.245-01 | 1.7610+02 |
| 1.3500001 | 1.4110+02 |
| 1.4600001 | 1.0770*02 |
| 1.576.01 | 1.250 202 |
| 1.097-01 | 1.447 \% 112 |
| 1.8250001 | 1.54 $50+02$ |
| 1.9580001 | 1. $2580+02$ |
| 2.097\%-01 | $1.177 n+02$ |
| 2.243-01 | $1.10^{3}+02$ |
| 2.394n=01 | $1.035 \%+02$ |
| 2.5520-01 | $9.7320+01$ |
| 2.7160*01 | $9.1640+01$ |
| 2.887-01 | $8.0420+01$ |
| 3.064=01 | 8.162001 |
| -3.2470-01 | 7.719x+01 |
| 3.437.01 | 7.3110+01 |
| 3.6.34-01 | $6.9330+01$ |
| 3.837-01 | 6.5830+01 |
| $4.0470-01$ | 6.2590+01 |
| 4.264-01 | 5.957**1 |
| 4.488.0.01 | 5,6770*01 |
| 4 |  |


| 5.120 $0+03$ | 3.9900005 | 4.089x=06 |
| :---: | :---: | :---: |
| 4.0.33n+03 | 4.081005 | $6.465 *=06$ |
| 3.030-0.03 | 5.428.-05 | 8.102**06 |
| $2.6200+03$ | $6.230-05$ | 1.1480005 |
| $2.1600+03$ | $7.086=05$ | $1.4870=05$ |
| 1.0070+03 | 7.997m-05 | 1.0960005 |
| $1.5230+03$ | 8.963-05 | 2.3850-05 |
| 1.2900*03 | $9.983=05$ | 2.4620005 |
| 1.112x+03 | 1.1060004 | 3.039w=05 |
| 9.6100+02 | 1.2180004 | $4.425-05$ |
| $8.5760+02$ | 1.3370004 | 5.933005 |
| 7.335.02 | $1.4600=04$ | $6.574=05$ |
| $6.464 n+02$ | 1.589004 | 7.26010 .05 |
| $5.7200+02$ | $1.723=04$ | 8. $4050 \cdot 05$ |
| 5.0980+02 | 1.862004 | 1.042-04 |
| 4.5590*02 | 2.0070-04 | $1.213 \omega 04$ |
| 4.094n*02 | 2.156-04 | $1.4030=04$ |
| 3.092. 012 | 2.311004 | $1.01500=04$ |
| 3.341=\$02 | 2,471004 | 1.0500004 |
| 3.034n+02 | 2.636004 | 2.110004 |
| 2.764m+02 | 2.8050004 | 2.397-04 |
| 2.520.0 02 | 2.980004 | 2.712世-04 |
| 2.3150+02 | 3.160004 | 3.057=04 |
| 2.1200*02 | 3.344004 | 3.434 me 04 |
| 1.7610+02 | 3.5330-04 | 3.0450:04 |
| 1.8110002 | 3.727=04 | 4. 4910004 |
| $1.0770+02$ | 3.925004 | 4,1760=04 |
| 1.250 +02 | $4.128=04$ | 5.3000-04 |
| 1.447** 12 | $4.3300-04$ | 5. 0660004 |
| $1.5480+02$ | 4.247=04 | 6.47700.04 |
| $1.058+02$ | 4.7630004 | 7.117=04 |
| 1.177n+02 | 4.984004 | 7.1820-04 |
| $1.100^{3}+02$ | 5,2080004 | 8.4770004 |
| $1.035 i+02$ | $5,4360=04$ | 9, $2050=04$ |
| 9.7320+01 | 5,069-04 | 9.9670004 |
| $9.1640+01$ | $5.9050-0.4$ | 1. $\mathrm{U}^{760003}$ |
| $8.0420+01$ | 0.145 $0=04$ | $1.1600-03$ |
| 8.162001 | 6.3890-04 | 1.2472003 |
| $7.7190+01$ | $6.630_{0}-04$ | 1.3380-03 |
| 7.3110+01 | 6.08.7-04 | $1.4320-03$ |
| $6.9330+01$ | 7.14.1004 | 1.3310003 |
| $6.5830+01$ | 7.3980 .04 | 1.0330003 |
| $6.2590+01$ | 7.659.04 04 | 1.1.39-03 |
| $5.9570 * 01$ | 7.922000.4 | 1.449-03 |
| $5,6770+01$ | 8.189=-04 | 1.96400 .03 |
| $5.4100+01$ | $8,459 \% 04$ | $2 \cdot 0^{882003}$ |

## PARTICLE DENSITY = 0.0 GRAMS PER CUBIC CENTIMETER

| ulametek | velocity | RE | URAG COEF | relax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2.600x+01 | $8.562 n=01$ | 4.956.001 | $5.17<0+0.1$ | 8.7310004 | 2. 20500005 |
| 2,900x+01 | 8.832=01 | $5.2000=01$ | $4.945_{0+01}$ | $9.006 \mathrm{w}=04$ | 2.03200-03 |
| -,000.0+11 | $9.10^{4}=01$ | 5.4510001 | $4.7330+01$ | 9.284-04 ${ }^{4}$ | 2.4630003 |
| $0.100 \mathrm{c}+01$ | 9.379 .01 | 5.710-01 | 4.2340*01 | $9.564=0.04$ | 2.5980003 |
| $6.200 x+01$ | $9.650 \% 01$ | 5,975-01 | $4.3470+01$ | 9.8470004 | 2.137 .003 |
| $0.5000+01$ | 9.935.-01 | 6,247001 | 4.1720001 | $1,013=03$ | 2.081*-03 |
| $6.4000+01$ | $1.0220+00$ | 6,526=01 | $4.0080+01$ | $1.042 m=03$ | 3. $0^{3} 0 \times 0{ }^{3}$ |
| $0.5000+01$ | $1.0500+00$ | 6,8120.01 | 3.054.001 | 1.0710003 | 3.182=03 |
| $6.6000+31$ | 1.079000 | 7.105n-01 | $3.7080+01$ | 1.1000003 | 3.540.003 |
| $6.700 \mathrm{c}+01$ | 1.1070+00 | 7.405.001 | 3.5710+01 | $1.129 \times 0{ }^{3}$ | 3.9010003 |
| $6.800 \times+01$ | $1.1300+00$ | 7.7.12.0.01 | 3.4420*01 | 1.159 .0003 | 3.067:93 |
| $0.900 x+101$ | $1.1600+00$ | 8.027m-01 | 3,3200001 | 1.1890003 | 3.0380003 |
| 1.000x+01 | 1.195000 | 8.348.001 | 3.00.0001 | $1.219 \% 003$ | $4.014=003$ |
| $\% 100 \%+11$ | 1.224m+00 | 8,676n=01 | $3.0900+01$ | $1.249 \mathrm{~m}=03$ | 4.193 -0.03 |
| $7.200 x+01$ | 1.254m+00 | 9.0120-01 | $2.4930+01$ | 1.2790003 | 4.5780003 |
| 1.300x+01 | $1.284 n+00$ | 9,354=01 | 2.0950001 | 1.3090003 | 4.7670003 |
| 1,400x+il | 1.3140000 | 9,704=01 | $2.0040+01$ | 1.3400003 | 4.1610003 |
| 1.500x+61 | 1,344**00 | 1.006 $0+00$ | 2.714**01 | 1.371 .003 | 4.9600003 |
| $9.000=01$ | 1.3750000 | 1.043.*00 | $2.0300+01$ | $1.4020=03$ | 5.163.003 |
| 1.1000+01 | 1.405000 | $1.0800+00$ | $2.550 \mathrm{~m}+01$ | 1.433003 | 5.571003 |
| $7.000 \times+01$ | 1.436.00 | 1.118000 | 2.474m+01 | 1.464 0.03 | $5.584 m 003$ |
| $7.900 \times+01$ | $1.460{ }^{10}+00$ | $1.156 n+00$ | 2.401001 | 1.4950003 | $5.802 \mu=03$ |
| $8.000 \times+11$ | $1.497 \ldots+00$ | 1.196 .00 | 2.3320+01 | $1.527 \times 03$ | 6.024-03 |
| $0 \cdot 100 x+01$ | $1.529 n+00$ | 1.236-00 | 2. 2600001 | 1.5590-03 | 6. 251 =03 |
| $8.200 x+01$ | 1.5600000 | 1.277 +00 | $2.0000+01$ | 1.5910003 | 6.4840.03 |
| $6.300 x+91$ | $1.5910+00$ | 1.318 .000 | $2.1450+01$ | 1.623003 | 6.1210-03 |
| $8.400 x+01$ | 1.025000 | 1.361.000 | $2.080_{00}+01$ | $1.655 m 003$ | 6.963 .003 |
| $8.500 x+01$ | 1,0550+00 | $1,404 x+00$ | 2.029**01 | $1.088=0.3$ | 7.4100003 |
| $6.600 x+01$ | 1.087*00 | 1,448\% +00 | 1,970-01 | 1.7200003 | 7.4620003 |
| $0.700 \times+01$ | 1.719 .00 | 1.493.00 | 1.9250001 | $1.753=03$ | 7.1180003 |
| -. $6000 \times+11$ | 1.751000 | 1.538.00 | $1.0750+01$ | $1.786 \cdot 03$ | 7.9800003 |
| $0.900 \times 01$ | $1.784 n+00$ | 1.585.000 | 1.0280001 | 1.8190-03 | 8,247 -0.03 |
| y.000x+01 | 1.817n+00 | 1.6320*00 | 1.7820*01 | 1.853 .03 | 8.2190 .03 |
| $y .100 x+01$ | $1.850 .0+00$ | $1.6800+00$ | $1.7300+01$ | 1.886 .003 | $8.1960-03$ |
| $4.200 x+01$ | $1.8830+00$ | 1.729 ¢ +00 | $1.0960+01$ | 1.9200003 | 9.0770003 |
| $4.300 x+01$ | 1.9,7\%+00 | $1.7790+00$ | 1.055.0+01 | $1.955 m=03$ | 9.9640-03 |
| $9.400 x+01$ | 1.95010+00 | 1.8300000 | $1.0150+01$ | 1.9890003 | 9.05600 .03 |
| $4.500 x+01$ | 1.985000 | 1.8820+00 | 1,2.770+0.1 | 2.0240003 | 9.45300 .03 |
| $9.000 x+01$ | $2.019{ }_{0}+00$ | $1.9340+00$ | 1.5400*0.1 | 2, 0590003 | 1.4200002 |
| $9.700 x+61$ | $2.053_{10}+00$ | 1,988=00 | $1.5040+01$ | 2.094-03 | 1.05600 .02 |
| $9.600 x+01$ | $2.0880+00$ | 2.042m+00 | $1.469 n+01$ | 2.1300003 | 1. $\mathrm{j}^{888-02}$ |
| $4.900 x+61$ | $2.1240+00$ | 2.098 .00 | $1.4350+01$ | 2. 1650003 | 1.119n-02 |
| 1.000x+02 | 2.154000 | 2.155 .00 | 1.4000001 | 2.2020003 | 1.1520-02 |
| $1.100 x+0{ }^{2}$ | $2.531 \mathrm{~m}+00$ | 2,778.*00 | 1.123.*01 | 2.281003 | $1.303=02$ |
| 1.200x+02 | 2.917.000 | $3,4940+00$ | $9.2180+00$ | $2.975=03$ | 1.9060 .02 |
| $1.3000+02$ | 3,245**00 | 4.2110*00 | 8.0690000 | 3.310000 | 2.56.20002 |

LIAMETER
velucify
RE



ל. $027 x+00$
5.919=+00 $6.887=00$ $7.9310+00$ 9.0520+00 $1.0250+01$
$1.1520+01$
$1.286 \%+01$
$1.428=+01$
$1.5780+01$
$1.734=01$
$1.898 x+01$
$2.0700=01$
$2.248=+01$
$2.434 m+01$
$2.626 m=01$
2.8260+01
3.032:+01
$3.246 \omega+01$
$3.4660+01$
$3.6930+01$
$3.9260+01$
$4.1670+01$
4.414x+01
$4.667=01$
$4,927 x+01$
b, 1940*01
$2.467 m+01$
$5.7460+01$
$0.0310+01$
$6.323=+01$
$6.621=01$
$6.621=01$
$6.925=0.1$
$7.235+0.1$
$7.551=01$
$7.873 .+01$
$8.2010+01$
$8.534 \pm+01$
$8.8740+01$
$9.220=01$
$9.5710+01$
$9.928+01$
1.029x+02
$1.0660+02$
$1.103=+02$
$1.1410+02$
drag caef
relax time
.90 DIST
$7.0720+00$
$6.2750+00$
$5.0230+00$
$5.0850+00$
$4.6350+00$
$4.253=+00$
$3.9260+00$
$3.044 m+00$
$3.398 \%+00$
3.183x+00
$2.9920+00$
$2.0230+00$
2.672. +00
$2.5300+00$
$2.4140+00$
2. $3050+00$
$2.4020+00$
$2.1100+00$
$2.0260+00$
$1.948=+00$
$1.877 m+00$
$1.0110+00$
$1.7500+00$
$1.0950+00$
$1.0400+00$
$1.5910+00$
$1.545=+00$
$1.2020+00$
$1.461=+00$
$1.4230+00$
$1.587=00$
i. $354=+00$
1.3220+00
$1.2920+00$
$1.2630+00$
$1.2360+00$
$1.2100+00$
$1.180=+00$
$1.1630+00$
$1.1400+00$
$1.119 x+00$
$1.099+00$
$1.0900+00$
$1.0620+00$
$1.044 m+00$
$1.027=00$

| $9 n=03$ | 2, 4720002 |
| :---: | :---: |
| 4.0320-03 | $3.4340=02$ |
| 4,39810-03 | 4.050-0 $=02$ |
| 4.767003 | 4.1180 .02 |
| 5.138-03 | 5.4400002 |
| 5.5110003 | $6.213=02$ |
| $5.885-03$ | $7.1380=02$ |
| 6.259-0.03 | $7.4150=02$ |
| 6.634003 | $8.842=02$ |
| 7.009-03 | 9.8200002 |
| $7.384 \% 0^{3}$ | 1.4850001 |
| 7.759-03 | 1.192=0 |
| $8.134 \pm 03$ | 1.3050001 |
| 8,50810-03 | 1.4220=01 |
| 8,881=03 | $1.2440=0$ |
| 9.253-03 | 1.070 |
| 9.624m-03 | 1.0020001 |
| $9.994 m=03$ | 1.937w=0 |
| 1.030002 | 2.0770001 |
| 1.0730002 | 2.222=01 |
| 1.1100002 | 2.971000 |
| 1.1460002 | 2. 2240001 |
| $1.1830=02$ | 2.0810000 |
| 1.2190-02 | 2.0420-01 |
| 1.2550-02 | 3. $4080=01$ |
| 1.29100-02 | 3.1770-01 |
| 1.3270-02 | 3.351-01 |
| 1.3620002 | 3,228=01 |
| 1.398.02 | 3.1090001 |
| 1.433-02 | 3.094x0001 |
| 1.468=-02 | $4.483=0$ |
| 1.503002 | 4.4750001 |
| . 5380.02 | 4.4710001 |
| 1.573.02 | $4.0710=01$ |
| $1.607=02$ | 4.074000 |
| $1.642=02$ | 5.480 |
| $1.676=02$ | $5.2900=01$ |
| 1.710002 | 5.3040001 |
| $1.744 \% 02$ | 5.1200001 |
| 1.777002 | $5.440 \times 01$ |
| $1.8110 \cdot 02$ | 6.163=0 |
| 1.844002 | 6.390001 |
| 1.878 .02 | $6.019 \times 01$ |
| 1.91102 | 0.8520001 |
| $1.9430=02$ | 7.487 |
| 1.976002 | 7.926 |

## PARTICLE DENSITY= 0.0 GRAMS PER CUBIC CENTIMETER



# PARTICLE DENSITY = 7.0 GRAMS PER CUBIC CENTIMETER 

DIAMETEK
VELOCITY
3.262.0.04

| 1.000x+00 |
| :---: |
| $1.100 x+00$ |
| $1.200 x+00$ |
| $1.300 x+00$ |
| $1.400 x+00$ |
| 1.200x+00 |
| $1.600 x+00$ |
| $1.700 x+00$ |
| $1.800 .+40$ |
| $1.9000+00$ |
| 2.000 +00 |
| $2.100 x+00$ |
| $2.200 n+00$ |
| 2. $300 \mathrm{x}+00$ |
| c. $400 x+00$ |
| $2.500 x+00$ |
| $2.600 x+00$ |
| 2.700\%+00 |
| $2.600 x+00$ |
| 2.900x+00 |
| $3.000 x+00$ |
| 3.100x+00 |
| $3.200 x+00$ |
| S. $300 \times+00$ |
| S.400x+100 |
| S. S00x+00 $^{\text {a }}$ |
| 3.000x+00 |
| $5.700 x+00$ |
| -.000x+00 |
| 3.900x+00 |
| 4.000x+00 |
| 4.100x+ 40 |
| 4. $2000+00$ |
| $4.300 x+00$ |
| $4.400 x+00$ |
| $4.5000+00$ |
| $4.000 \times 00$ |
| $4.700 x+10$ |
| $4.600 x+00$ |
| 4.900x+00 |
| 2.000x+00 |
| 2.100x+00 |
| 2.200x+00 |
| 2.300x+60 |
| 2.400x+100 |
| 2.500x+00 |

RE
3.256m=06
4. 333-06
5.626:06
7.1530=06
$8.934=06$
1.099=05
$1.3340=05$
$1.000=05$
$1.899=-05$
2.233-05

2, $605=05$
$3.015=05$
3,467=05
$3.961=05$
$4.501=05$
5.087. 05
$5.722=05$
$6.408=05$
$7.147=05$
$7,940=-05$
$8.7900=05$
$9.699=05$
$1.0670-04$
$1.1700=04$
$1.2800=04$
$1.396=04$
$1.5190=04$
$1.0490=04$
$1.7860-0^{4}$
$1.931=04$
$2.0840=04$
2. $244=-04$
$2.412=04$
$2.588=-04$
$2.773=04$
$2.967=04$
$3.169=04$
3.169 = 04
$3.380=04$
$3.6000=04$
$3,830=04$
$4,069=-04$
$4,518=04$
4,577=04
$4,647=04$
5. 1260"04
5.4160004

DRAG COEF RELAX TIME

| 7.3720+06 | 3.327m=07 | 3.174m-10 |
| :---: | :---: | :---: |
| 5.538 - 06 | 4.025-07 | 4.6510.10 |
| $4.2660+06$ | 4.790007 | 6. $394 *-10$ |
| $3.355 n+06$ | 5,6220-07 | 9.4910.10 |
| 2,086 $0+06$ | 6.520 .07 | 1.2240-09 |
| 2.184~+06 | 7.485.07 | 1.0140009 |
| 1.8000+06 | 8.516 .007 | 2.19910009 |
| 1. $20000+06$ | $9.614=07$ | 2.06610\%09 |
| 1. $264 n+06$ | 1.0780006 | 3.3530009 |
| 1.0750+06 | 1.201 .006 | 4.1650-09 |
| 9.2150+05 | 1,331. $=06$ | 5.1170\% 09 |
| $7.960 \pm+05$ | $1.467=06$ | 6. $2230-09$ |
| 6.9230+05 | $1.6100=06$ | 7.4990009 |
| 6.059 = + 05 | $1.7600=06$ | 8.763-7-09 |
| $5.333 \sim+05$ | 1.9160006 | 1.063-08 |
| $4.7180+05$ | 2.079-06 | 1.452-0.08 |
| $4.194 x+05$ | 2, $2490=06$ | 1.466-08 08 |
| 3,745n+05 | 2.425006 | 1.705-08 |
| 3,358\%+05 | 2.6080-06 | 1.473=08 |
| 3.023 $=+05$ | 2.7900-06 | 2.271008 |
| $2.730=+05$ | 2.994006 | 2.0020008 |
| 2.475. +05 | 3.1970006 | 2. 4680.08 |
| 2.250 .05 | 3.4060-06 | 3.3710008 |
| 2.051=*05 | 3.623=06 | 3.0140008 |
| $1.876=05$ | 3,846=06 | 4. 2990000 |
| 1.719 .05 | 4.075-06 | 4.0290-08 |
| $1.5800+05$ | 4.3110 .06 | $5.4060=08$ |
| 1.455.00 05 | 4.554m=06 | $6 . u^{3410-08}$ |
| $1.543 .0+05$ | $4.8040-06$ | 6.7150 .08 |
| 1.2430*05 | $5.0600=06$ | 7.453-08 $0^{8.4}$ |
| $1.1520+05$ | 5.323x-06 | 8. $2^{5} 00-08$ |
| $1.0700+05$ | 5.5920-06 | 9. $1080=08$ |
| 9.951- +04 | $5.8600=06$ | $1 \cdot 1003007$ |
| 9.272.0.04 | 6.1510-06 | 1.1030-07 |
| 8.654.+04 | 6.440006 | 1.2090 .07 |
| 8.0900+04 | 0,736 io $=06$ | 1.323=07 |
| 7.574m*04 | 7.039 0006 | 1.445-01 |
| 7.1010+04 | 7.348000 | 1.2750007 |
| 6.666.04 | 7.664 $0 \cdot 06$ | 1.1140007 |
| $6.2660+04$ | $7.987 \mathrm{~m}-06$ | 1.0620007 |
| 5.0980+04 | 8,5100006 | 2.0190-07 |
| 5.556004 | 8.652-06 | 2.1860.07 |
| 5.2430+04 | 8.9950*06 | 2.563-07 07 |
| $4.9520+04$ | 9.3440-06 | 2. $2510 \cdot 07$ |
| 4.082x+04 | 9.700006 | 2.749-07 |
| 4.431.* 04 | $1.006 \cdot 05$ | 2. 4590007 |

PARTICLE DENSITY = 1.0 GRAMS PER CUBIC CENTIMETER

DIANETER
vELOCITY
RE


| $0 x+00$ | 1.023*02 |
| :---: | :---: |
| $2.700 x+100$ | 1.060=02 |
| 2.000x+00 | 1.097-02 |
| b, 400: +00 | $1.135=02$ |
| $0.000 \times 00$ | $1.174=02$ |
| $0.100=+00$ | 1.214002 |
| - $2000 \times 00$ | 1.2540*02 |
| $0.300 x+00$ | 1.295**2 |
| $6.400 x+00$ | 1.336"02 |
| -. $500 \times 00$ | 1.378=02 |
| -. $600 x+00$ | 1.421-02 |
| $0.700=00$ | 1.464n-02 |
| $0.600=+00$ | 1.508.02 |
| $6.900=000$ | 1.553m=02 |
| 7.000x+00 | 1.598 .02 |
| $7.100 \%+00$ | 1.644-02 |
| $7.200=+00$ | $1.691=02$ |
| $7.300=+00$ | $1.738=02$ |
| 7.400x+00 | 1.786-02 |
| 7.200**00 | $1.835=02$ |
| $7.000 *+00$ | 1.884**2 |
| $7.700 x+00$ | 1.9340002 |
| $7.600 \times+00$ | 1.984.02 |
| $7.900 x+00$ | 2.0360002 |
| 6.000=000 | 2.08 $0^{87}=02$ |
| $0.100 \times+00$ | 2.1400*02 |
| c. $2000+00$ | 2.193002 |
| $6.3000+00$ | $2.247-02$ |
| $6.400 x+00$ | $2.301=02$ |
| $0.200=+00$ | 2.556=02 |
| $0.000=00$ | $2.412 n=02$ |
| $0.700 x+00$ | $2.468=02$ |
| $8.6000+00$ | $2.526=02$ |
| $8.900 x+20$ | 2.583=02 |
| y. $0000+00$ | 2.642.02 |
| $9.100 x+00$ | 2,701.02 |
| $9.200 x+00$ | 2,7000-02 |
| $9.300 x+00$ | 2.8200-02 |
| 9. $400 \mathrm{x}+00$ | 2.881-02 |
| $4.500 x+00$ | $2.943=02$ |
| $9.600 x+00$ | 3.005.02 |
| 9.700- 00 | 3.068-02 |
| $9.000 x+00$ | 3.132.02 |
| $4.400 x+00$ | 3.196-02 |
| 1.000: 1.1 | $3.2610=02$ |
| $1.100 x+191$ | 3,945-02 |

DHAG COEF RELAX TIME .y U!ST

| 4 |
| :--- |
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$190=+04$
481 $=04$
$3.7790+04$
$3.5900+04$
$3.413=+04$
$3.2400+04$
$3.0940+04$
$2.9490+04$
$2.8130+04$
$2.6850+04$
$2.5650+04$
$2.452=+04$
$2.3450+04$
$2 .<45 n+14$
$2.1500+04$
$2.1600+04$
$1.976+04$
$1.096+04$
$1.020000^{4}$
$1.7480+14$
$1.6800+04$
$1.61200+04$
$1.554 x+04$
$1.4900 * 04$
$1.4400+04$
$1.0800+04$
$1.3300+0^{4}$
$1 . c^{9} 00+0^{4}$
$1 .<44 x+04$
$1.2010+04$
$1.160 \mu+04$
$.1200+04$
$1.1200+04$
$1.3820+04$
$1.046=04$
$1.012=+04$
9.789 .03
$9.473+03$
$9.171+03$
$8.082 x+03$
$8.60^{4} n+03$
$8.339 n+03$
$8.0830+03$
$7.039-03$
$7.604 n+03$
$7.370=03$
$5.5450+03$

| 1.0430005 | 3.1810907 |
| :---: | :---: |
| $1.081=05$ | 3.4150.07 |
| $1.119=05$ | 3.062m07 |
| . 158.0.05 | 3. 4220007 |
| 1.197.05 | 4.195-07 |
| $1.238000^{5}$ | 4.483-407 |
| 1.279.05 | 4.185-07 |
| 1.320005 | 5.1020-07 |
| 1.362 .005 | $5.434=07$ |
| 1.4050005 | 5,183=07 |
| 1.4490 .05 | $6.148=07$ |
| 1.493 .05 | 6.531-07 |
| $1.538 p-05$ | 6.4300007 |
| $1.5840=05$ | 7.5480ッ07 |
| $1.0300=05$ | 7.1850-07 |
| 1.677005 | 8.2410007 |
| 1.7240005 | 8.1100007 |
| 1,7720005 | 9.212-07 |
| $1.821-05$ | 9.1290007 |
| $1.871=05$ | 1.4270.06 |
| $1.921=05$ | $1 \cdot 4^{83}=06$ |
| 1.972.05 | 1. $1^{4} 10=0^{6}$ |
| 2.024 .05 | 1.2020006 |
| 2.076.05 | 1.2650.06 |
| 2.129005 | 1. 5300006 |
| 2.182.05 | 1.9980-06 |
| $2.236-05$ | 1.468006 |
| 2.291*-05 | 1,242=06 |
| $2.347 * 05$ | 1.0180006 |
| 2,4030*05 | 1.096-06 |
| 2.460005 | 1.178=06 |
| 2.517:05 | 1.062=06 |
| $2.5750=05$ | $1 . y 490=06$ |
| $2.634 * 05$ | 2.040-06 |
| 2.694p-05 | 2.133- $=06$ |
| 2.7540-05 | $2.2300 \cdot 06$ |
| 2.815:05 | 2.5300006 |
| 2.876005 | 2.433000 |
| 2.9380005 | 2.2400006 |
| 3.001005 | $2.6500=06$ |
| 3.065-05 | 2.16300 .06 |
| 3.129:05 | $2.081=06$ |
| 3.194-05 | 3. U 020.06 |
| 3.259 =05 | 3. 126000 |
| 3.325005 | 3. $2550-06$ |
| 4.0230005 | 4.1710-06 |

reLax TJME
. Y 8 UIST

| $1.200 n+0$ |
| :---: |
| $1.300 \cdot$ |
| $1.400 x+01$ |
| 1. $\mathrm{S} 000 \mathrm{x}+01$ |
| $1.000=+01$ |
| $1.700=+01$ |
| $1.800 p+01$ |
| 1.900x |
| c.000x+01 |
| $2.100 \times+01$ |
| $2.200 x+01$ |
| $2.300 x+01$ |
| $2.400 x$ |
| $2.500 x+01$ |
| $2.600=$ |
| 2.700x+01 |
| $2.800 \times+61$ |
| 2.900x+01 |
| 3.000x+01 |
| $3.100 x+$ |
| 3.200n+01 |
| $3.300 x+01$ |
| $3.400 x+01$ |
| $3.500 x+01$ |
| $3.000=01$ |
| $3.700 \times+01$ |
| $3.600=01$ |
| 3,900*+01 |
| $4 \cdot 000=01$ |
| $4 \cdot 100 \sim+01$ |
| $4.200 \times+01$ |
| $4.500 \times+01$ |
| $4.400 x+01$ |
| 4, $000 \times+01$ |
| A, $000 \mathrm{x}+11$ |
| $4.700 x+01$ |
| $4.800 x+01$ |
| $4.900 x+41$ |
| 2.000 $2+0!$ |
| 2. $100 \pm+01$ |
| $2.200 x+01$ |
| 2.3000+01 |
| 2.4000+01 |
| 5, $500 \times+01$ |
| $2.600 x+31$ |
| $2.700 x+01$ |


$4.094=02$
$5.508=02$ $0.386=02$
$7.329=02$
8.336.-02
9.408. 02
$1.054=01$ $1.300=01$ $1.4330=01$ 1.5720 .01
$1.717=01$
$1.868=01$
$2.188=01$
2.358 .01
$2.533=01$
2,902=-01
3:095=01
$3,498=01$
$3.70^{8}=01$
$3.923=01$
$4.370=01$
$4.602=01$
$4.030=01$
$5.079=01$
5.326 .01
$5.870=01$
$5.833=01$
$6.0930=01$
$0.350=01$
$0.0270-01$
$0.9010-01$
$7.460=01$
$7.745=01$
$8 \cdot 0340001$
$8.327=01$
$8.623=01$
8.923001
9.532 .01
$9.841=01$


| 4.2720+03 | 4.787 .05 | 6.1630000 |
| :---: | :---: | :---: |
| 3.362m+03 | 5.617 .05 | 9.324-06 |
| 2.6930+03 | 6.512 .005 | 1.2550.05 |
| $2.1910+03$ | 7.474.05 | $1.055=05$ |
| $1.006=03$ | 8,5010005 | 2.1440-05 |
| $1.2070+03$ | 9,593:05 | 2. $135=05$ |
| 1.270-*03 | 1.0750-04 | $3.439 \times 05$ |
| $1.0810+03$ | $1.1970-04$ | $4.2720-05$ |
| $9.279 \pm 02$ | 1.326 .04 | 5.2480005 |
| $8.025+02$ | 1.4610004 | $6.582=05$ |
| $6.9880+02$ | 1.6030004 | 7.092 .05 |
| $6.1230+02$ | 1.7510004 | 9.193 .05 |
| $5.397=02$ | $1.905=04$ | 1.090004 |
| 4.782. 4 +02 | 2,0650.04 | 1. $284=04$ |
| 4, $2590+02$ | 2.232.004 | $1.503-04$ |
| 3.810 .002 | $2.4050=04$ | 1.149*-04 |
| $3.4230+102$ | $2.583=04$ | 2.1024-04 |
| $3.0870+02$ | 2,768p-04 | 2. 5290004 |
| 2.795.002 | 2,959=04 | $2.0690 \cdot 04$ |
| 2.539\%+02 | $3.156-04$ | 3.044=-04 |
| $2.314 .0+02$ | 3.359-04 | 3,457m-04 |
| 2.110 .02 | 3,567=04 | $3.911=04$ |
| 1.9400+02 | $3.781=04$ | $4,409=04$ |
| $1.7840+02$ | 4.0010=04 | 4.y52-0.04 |
| 1.645 .02 | $4,226=04$ | 5.245-04 |
| 1. $2200+02$ | 4,457. 04 | 6. 189 - 04 |
| $1.408=+02$ | 4,6920 $=04$ | $6.088 \times 04$ |
| $1.3070+02$ | 4.934-04 | $7.040 \mathrm{mP} 0^{4}$ |
| $1.2100+02$ | 5.1800004 | 8.4200004 |
| 1.134-* 02 | $5.4310=04$ | 9.2370004 |
| $1.059-02$ | 5.687004 | 1.1010003 |
| 9.9150001 | 5.9480004 | 1.1000003 |
| $9.2970+01$ | $6.2140=04$ | 1.1940=03 |
| $8.733+01$ | $6.484 p=04$ | 1.2930005 |
| $8.2100+01$ | 6.758004 $0^{4}$ | 1.5970003 |
| $7.7430+01$ | 7.037-04 | 1.2060-03 |
| $7.30^{8}+01$ | 7.320-04 | 1.0190003 |
| $6.90^{8}=+01$ | 7.607004 | $1.738=03$ |
| 6.539 0 + 01 | 7.898004 | 1.0610003 |
| $6.1980+01$ | 8,193=04 | $1.489=03$ |
| 5.883- +01 | 8.492004 | 2.123-03 |
| 5.29.1=*01 | 8,7940-04 | 2. $2^{6} 20=03$ |
| 5.321.*01 | 9.0990-04 | $2.406 \times 03$ |
| 5:069\% 0 01 | 9.4080-04 | 2.2550003 |
| $4.835 n+01$ | 9.720-04 | 2.1100003 |
| 4.617日 01 | 1.0040003 | 2.4700-03 |

## PARTICLE DENSITY $=7.0$ GRams PER CUBIC CENTIMETER

UJAMETEK
VELOCITY
$1.015=00$
$1.0470+00$
$1.079=00$
$1.1110+00$
$1: 1430+00$
$1.1750+00$
$1.2080+00$
$1.241=+00$
$1.274+00$
$1.3070+00$
$1.3410+00$
$1.377_{0}+00$
1.409 .00
$1.4430+00$
$1.477 m+00$
$1.512 \theta+00$
$1.546=00$
$1.5810+00$
$1.616+00$
1.652000
$1.687+00$
$1.723 \%+00$
$1.759+00$
$1.7950+00$
$1.8310+00$
$1.868_{10}+00$
$1.90^{5} 0+00$
$1.9420+00$
$1.9800+00$
$2.017 m+00$
$2.055+00$
$2.0940+00$
$2.1320+00$
2. $1710+00$
$2.210 \pm+00$
$2.2500+00$
$2.2900+00$
$2.3310+00$
$2.371 .+00$
$2.4120+00$
$2.454 .+00$
$2.490 n+00$
$2.5380+00$ $2.974 n+00$
$3.357 x+00$
$3.753 *+00$

RE

|  | $\begin{aligned} & 5.877=01 \\ & 6.164=001 \end{aligned}$ |
| :---: | :---: |
|  | 6.458 .001 |
|  | 6.761001 |
|  | 7.071001 |
|  | 7.389-01 |
|  | 7.715001 |
|  | $8.0500=01$ |
|  | $8.3920=01$ |
|  | 8.7420-01 |
|  | 9.1000=01 |
|  | 9.467.001 |
|  | 9.841.001 |
|  | 1.022-00 |
|  | $1.061=00$ |
|  | 1.101**00 |
|  | 1.142=*00 |
|  | $1.1840+00$ |
|  | 1.226.00 |
|  | 1,269n+00 |
|  | $1.313 .0+00$ |
|  | 1.358. +00 |
|  | $1.404=00$ |
|  | 1.451=00 |
|  | $1.499 n+00$ |
|  | $1.5470+00$ |
|  | 1.597x+00 |
|  | 1.647* 00 |
|  | 1.699n+00 |
|  | 1,751=00 |
|  | 1.805 0 +00 |
|  | 1.0600*00 |
|  | 1.9150*00 |
|  | 1.972=+00 |
|  | $2.0300+00$ |
|  | 2.088 $0+00$ |
|  | $2.1480+00$ |
|  | $2.2100+00$ |
|  | 2.272-*00 |
|  | 2.335000 |
|  | $2.4000+00$ |
|  | $2.466 \mathrm{~m}+00$ |
|  | 2.533*+00 |
|  | 5. $2650+00$ |
|  | 4.0200+00 |
|  | $4.669 * 00$ |

drag ceef relax time ,90 dist
$4.414=+01 \quad 1.035=03$
$4.224=+01 \quad 1.067=03$
$\begin{array}{ll}4.047=+01 & 1.100=-03 \\ 3.880=+01 & 1.132=03\end{array}$
$3.7250+01 \quad 1.1650=03$
$3.578=01 \quad 1.198=03$
3.441=01 $1.2320=03$
$3.312=+01 \quad 1.265 p=03$
$3.190 \times 01 \quad 1.299 \pm=03$
$3.075=01 \quad 1.333=03$
$2.9670+01$
2. $8640+01$
2.767 $0+01$
$2,0750+01$
$2.5880+01$
$2.5060+01$
$2,427 .+01$
$2.353=+01$
$2,2820+01$
$2.6140+01$
$2.1490+01$
$2.080=01$
2.0290+01
$1.972+01$
$1.910+01$
$1.8600+01$
$1.0100+01$
$1.7600+01$
$1.7220+01$
$1.677 n+01$
$1.034 n+01$
$1.5930+01$
$1.553 . * 01$
$1.2150+01$
$1.477+01$
$1.4410+01$
$1.40^{6}=01$
$1.372=01$
$1.3390+01$
$1.307=01$
$1.2770+01$
$1.2470+01$
$1.2100+01$
9.750 .000
$8.3550+00$
7.240*+00
$1.367=03$
$1.402-03$
$1.437 \omega=03$
$1.471=03$
$1.506=03$
$1.542=03$
$1.577=03$
$1.613=03$
$1.648=03$
$1.684=03$
$1.684=03$
$1.721=03$
$1.757=03$
$1.7940=03$
$1.8310-03$
$1.868 \pm=03$
$1.905=03$
$1.943=-03$
$1.943=03$
$1.980=03$
$1.980=03$
$2.019=03$
$2.057=03$
$2.096=03$
$2.0960=03$
$2.1350-03$
2.174=-03
$2.2140=03$
$2.254=00$
$\begin{array}{ll}2.254=03 & 1.2200=02 \\ 2.295=03 & 1.2580=02\end{array}$
$2.335=03 \quad 1.2970=02$
$2.377=03 \quad 1.3360002$
$\begin{array}{ll}2.4180=03 & 1.976=02 \\ 2.460=03 & 1.417=0\end{array}$
$\begin{array}{ll}2.4600=03 & 1.417=02 \\ 2.5030-03 & 1.45810=02\end{array}$
$2.5450=03 \quad 1.5000002$
$2,588=03 \quad 1,243=02$
3.0.330-03 2, $00600=02$
3.423-03 2. $2360-02$
3.0270-03 3, 1330002
3.4350-03
3. $2060=03$
$3.983=03$
$3.565=03$
$3.753=03$
3. $4470=03$
4.1460003
4. 3520003
4. $963=03$
4.180003
$5.002=03$
$5.231: 03$
$5.466=-0^{3}$
5.107 -03
$5.454=-03$
$6.207=00^{3}$
$6.466=03$
6.1310003
$7 \cdot 102=03$
$7.280=03$
$7.264=03$
7.0540 m 0
8. $1500=03$
$8.4530=03$
$8.162 * 03$
$9 \cdot 477=03$
$9.599 \times 03$
9.1270-03
$1.4060=02$
$1.4400=02$
$1.0750=02$
1.1100002
1.1460002
$1.1^{83}-02$
$1.2580=02$
1.297002
$1.3360=02$
$1.376=02$
$1.500=02$
$1.343=-02$
$2.5360=02$
$3.13310=02$

PARTICLE DENSITY 7.0 GRAMS PER CUBIC CENTIMETER

| UIAMETEK | velucity | RE | DRAG CUEF | RELAX TIME | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.400 x+02$ | 4.155 +00 | 5.805000 | 6.363 .000 | $4.2370=03$ | 3.199-02 |
| $1.5000+02$ | $4.5600+00$ | 6.827.*00 | $5.059 \%+00$ | 4,6500\% 03 | 4.532**2 |
| $1.000=+02$ | 4.969 +00 | 7.934x+00 | $5.084 m+00$ | 5.067 \% $0^{3}$ | $5.3330=02$ |
| $1.700 x+02$ | $5.3800+00$ | 9.127=00 | $4.000 \times 00$ | $5.486-03$ | 6. $201=02$ |
| $1.8000+02$ | $5.792 m+00$ | $1.0410+01$ | $4.200^{9}+00$ | 5.9070003 | 7.136-02 |
| $1.900 x+1{ }^{2}$ | 6.206.00 | 1.177. +01 | 3.069000 | 6.329 .03 | 8.1360-02 |
| $2.000 \pm+0^{2}$ | 6.621m+00 | 1.322**01 | $3.5790+00$ | 6.7520003 | 9. $202 \times 02$ |
| $2.100 x+12$ | $7.0370+00$ | $1.475 .+01$ | 3,3270+00 | 7.1760-03 | $1.0330=01$ |
| $2.200 x+02$ | $7.4520+00$ | $1.6360+01$ | $3.1000+00$ | 7.599-03 | 1.153-01 |
| $2.300=+02$ | $7.8670+00$ | $1.8060+01$ | $2.9150+00$ | 8.0230m 03 | 1. $2780=01$ |
| $2.400=02$ | 8,2820+00 | $1.984 x+01$ | $2.7450+00$ | $8.446=0{ }^{3}$ | 1.4100001 |
| $2.500 n+02$ | 8.6970+00 | 2.170**01 | 2. $2930+00$ | $8.869=03$ | 1.2480001 |
| $2.6008+12$ | 9.110.00 | 2,364** 01 | $2.4500+00$ | $9.290-03$ | 1.0930001 |
| <.700x+02 | $9.5230+00$ | 2,566**01 | $2.5300+00$ | 9.7110003 | 1.0430-01 |
| $2.800 x+02$ | 9.934.+00 | 2,776=01 | $2.220 x+00$ | $1.0130=02$ | 1.499-01 |
| $2.900 x+42$ | $1.0340+01$ | 2,994=*01 | $2.126 .+00$ | 1.055002 | 2. $1^{600001}$ |
| 3.000x+02 | 1.075x+01 | 3,2200*01 | $2.035=00$ | 1.097-02 | 2.328-01 |
| 3.100x+02 | $1.110 x+01$ | 3.453**01 | $1.9520+00$ | 1.1380002 | 2.2010.01 |
| $3.200 x+12$ | 1.157 $0+01$ | 3.694n*01 | 1.076000 | $1.1800=02$ | 2.07910001 |
| $3.300 x+12$ | $1.1970+01$ | 3,943=+01 | $1.8070+00$ | 1.2210002 | $2.063=01$ |
| $5.400 x+12$ | $1.2370+01$ | 4.199 ${ }^{\text {+ }} 01$ | $1.7420+00$ | 1.262=02 | 3.4520=01 |
| $3.500=+12$ | 1.277 $0+01$ | $4.4620+01$ | $1.683=+00$ | $1.303=02$ | $3.247 \times 01$ |
| $5.600 x+02$ | $1.3170+01$ | 4.733 .01 | $1.627=00$ | $1.343-02$ | 3.4470001 |
| S. $700 \times+12$ | $1.3570+01$ | 5.0110+01 | $1.576 n+00$ | $1.384=02$ | $3.052 \times 01$ |
| 3.800x+02 | $1.397 n+01$ | 5.297.01 | 1.5200*00 | $1.4240=02$ | 3.6610001 |
| $3.400=+102$ | $1.4360+01$ | $5.5900+01$ | $1.4830+00$ | 1.464=02 | 4.0760001 |
| $4.000=+02$ | $1.4750+01$ | 5.8890-01 | $1.4420+00$ | $1.5040=02$ | 4.296001 |
| $4.100 \cdot+1{ }^{2}$ | $1,214 m+01$ | 0.196.01 | $1.4030+00$ |  | 4.3200=01 |
| $4.200 x+0{ }^{2}$ | 1.5530*01 | $6.5100+01$ | $1.3660+00$ | 1.5040-02 | 4.1500001 |
| 4. $300=+112$ | 1.592.01 | $0.031=+01$ | $1.3310+00$ | 1.0\%50-02 | 4.y83-01 |
| $4.400 x+02$ | $1.6300+01$ | 7.159.01 | 1.299.000 | $1.062 x=02$ | 5. $222=01$ |
| $4.200=+12$ | $1.06690+01$ | $7.493 \times+01$ | $1.2680+00$ | 1.751x-02 | 5.465m-01 |
| $4.600 .+02$ | $1.7070+01$ | 7.035.01 | 1.2390+00 | 1.740.022 | 5.1120001 |
| $4.700=+02$ | $1.744=+01$ | 8.1920-01 | 1.2120+00 | 1.7790002 | 5.9640001 |
| 4.800: 4.02 | 1.7820+01 | $8.5370+01$ | $1.1860+00$ | 1.817 .02 | 6. $220=01$ |
| $4.900 x+12$ | 1.820 .001 | 8.8980+01 | 1.1610+00 | 1.0560002 | 6.4800001 |
| 2.000x+132 | 1.8570001 | $9.2600+01$ | 1.1380+00 | $1.8940=02$ | 6.144=01 |
| b. $100 x+02$ | $1.894 m+01$ | $9.0400+01$ | 1.1150+00 | 1.931000 | 7. 1 130001 |
| 2.200x+02 | $1.9310+01$ | 1.002n+02 | 1.094m+00 | $1.969-02$ | 7.2850-01 |
| $5.300 x+02$ | 1.968 $0+01$ | $1.041=02$ | 1. $074 \pm+00$ | 2.006-02 | 7.362-01 |
| 5.400x+02 | $2.00^{4} 0+01$ | 1.080002 | $1.0550+00$ | 2.0440-02 | $7.042 \times 01$ |
| ち.500x*02 | $2.04000+01$ | $1.1200+02$ | 1. $0^{36} 0+00$ | 2.05.10*02 | 8.1260-01 |
| $5.600 x+12$ | 2.0770+01 | 1.161.02 | 1.0190+00 | 2.118x=02 | 8.41410-01 |
| -. $7000+02$ | $2.1130+01$ | 1.2020*02 | 1.0020+00 | 2.1540-02 | 8.1000001 |
| 2.000=022 | 2.1480+01 | 1.2440*02 | 9.858001 | 2.191002 | $9.402=01$ |
| 2.900x+02 | 2.1840+01 | 1.286**02 | $9.704=01$ | 2.227-02 | 9.501001 |

## DIANETER

vELPCITY
Rt
DHAG CGEF
helax IIme
.y 8 UIST

| 0.000x+02 | $2.219 x+01$ | 1.329m+02 |
| :---: | :---: | :---: |
| $6.100 x+02$ | 2.255m+01 | 1.373 .02 |
| $6.200 x+02$ | 2.2900+01 | 1.4170*02 |
| $6.300 x+02$ | 2.3250+01 | $1.462 m+02$ |
| $0.400=+02$ | $2.359 n+01$ | $1.507 n+02$ |
| $6.500=102$ | 2.3940*01 | 1.553.02 |
| $6.600=+02$ | $2.428 m+01$ | 1,599 |
| $6.700-02$ | 2,4620*01 | 1,6460*02 |
| $6.800=+02$ | 2.496 +01 | 1.694-02 |
| $6.900 x+02$ | $2.5300+01$ | 1.742m+02 |
| $\% .000 x+02$ | $2.5640+01$ | 1.7910002 |
| 7. $100 x+02$ | 2.5970+01 | $1.8400+02$ |
| $7.200=+02$ | $2.6300+01$ | 1.890002 |
| $7.300 x+02$ | 2.664. +01 | $1.9400 * 02$ |
| $7.400 x+02$ | 2.696. 01 | 1.991-02 |
| $7.500 x+02$ | $2.729 * 01$ | 2.043w+02 |
| $7.600=+02$ | 2.7620+01 | 2.0950*02 |
| \%.700: 102 | 2.794.01 | 2.147 02 |
| $7.800=02$ | $2.8270+01$ | 2.2000*02 |
| $7.900=+02$ | $2.8590+01$ | 2. $2540 * 02$ |
| $0.000=02$ | $2.8910+01$ | $2.308 \pm+02$ |
| $0.100=+12$ | $2.9230+01$ | $2.3630+02$ |
| $6.2000+12$ | $2.954 m+01$ | $2.4180+02$ |
| 0.300x+02 | $2.9860+01$ | $2.473 m+02$ |
| $6.400 x+02$ | $3.017 m+01$ | 2.5290+02 |
| $0.500 x+02$ | $3.048 x+01$ | $2.5860+02$ |
| $0.000 x+12$ | $3.0800+01$ | $2,643 \%+02$ |
| $0.700 x+02$ | $3.1110+01$ | 2.701002 |
| 勺, $0000+02$ | $3.1410+01$ | 2.759-02 |
| 6.900 +02 | $3.1720+01$ | $2.8170+02$ |
| $4.000 x+02$ | $3.2020+01$ | $2.8760+02$ |
| $4.100=+02$ | $3.2350+01$ | 2.9360*02 |
| $9.200 x+02$ | $3.2630+01$ | 2.996**02 |
| $4.300 x+02$ | 3.2930+01 | 3.056**02 |
| 4.400x+12 | $3.3230+01$ | S.1170+02 |
| $4.5000+02$ | $3.5530+01$ | 3.1790+02 |
| $4.000 x+02$ | $3.382 .0+01$ | $3.2410+02$ |
| $4.7000+12$ | $3.4120+01$ | $3.503=+02$ |
| $9.800 x+02$ | $3.441 \mathrm{~m}+01$ | S. 560 - 02 |
| $9.900 x+02$ | 3.470.0+01 | 3.429 + 02 |
| $1.000 x+03$ | 3.500.0+01 | 3.493n*02 |
| 1.010at03 | $3.5290+01$ | 3.557n+02 |
| $1.020 x+03$ | $3.5570+01$ | 3.6210*02 |
| $1.0300+05$ | $3.5860+01$ | $3.6860+02$ |
| $1.00^{4} 0 x+0^{3}$ | $3.0150+01$ | 3.752-*2 |
| $1.050 x+03$ | $3.043 \pm+01$ | $3.8180+02$ |


| 9.556.001 | $2.2630-02$ | 9.0030001 |
| :---: | :---: | :---: |
| 9.4140001 | 2.299-02 | $9.410=01$ |
| 9.2780001 | 2.335-02 | 1.422-00 |
| 9.147.01 | 2.3700-02 | $1.04530+00$ |
| 9.021-01 | $2.406-02$ | $1.4^{85} 5+0.0$ |
| $8.899=01$ | 2.4410002 | $1.1170+00$ |
| $8.783=01$ | 2.4760=02 | 1.1490+00 |
| 8.670 .001 | 2.511:02 | $1.182 x+00$ |
| $8.5620=01$ | $2.545-02$ | $1.2150+00$ |
| 8.457-01 | 2,5800002 | $1 .<48 m+00$ |
| $8.356=01$ | 2,614m"02 | 1.2820+00 |
| 8.2580-01 | 2;648=02 | $1.31610+00$ |
| $8.164=01$ | 2.682.-02 | $1.3500+00$ |
| 8.0720001 | $2.716 \pm=02$ | $1.3840+00$ |
| 7.984n=01 | 2,7500.02 | $1.4190+00$ |
| 7.8990-01 | $2.7830-02$ | $1.454 n+00$ |
| 7.8100001 | 2.810.002 | 1.490000 |
| 7.736001 | $2.850=02$ | $1.2250+00$ |
| 7.658=01 | $2.883=02$ | 1.5610+00 |
| 7.583.001 | 2.915-02 | $1.5970+00$ |
| 7.510 mol | 2,948-02 | $1.0340+00$ |
| 7.439x-01 | 2,980-02 | $1.0700+00$ |
| 7.5700=01 | 3,0130002 | $1.1070+00$ |
| 7.30501 | $3.045=02$ | $1.1450+00$ |
| 7.430001 | 3.077002 | $1.1820+00$ |
| $7.175=01$ | $3.109=02$ | 1.4200+00 |
| 7.114.01 | 3.1400002 | $1.8580+00$ |
| 7.0540001 | 3.1720002 | 1.0960000 |
| 6,990-01 | 3,203-02 |  |
| $6.5400=01$ | 3.235:02 | 1.y $740+00$ |
| 6.885001 | 3.2600-02 | 2.013 $n+00$ |
| 0.031001 | 3.2970022 | $2 \cdot j^{5} 2 m+00$ |
| $6.179=01$ | 3.3270.02 | 2.0910+00 |
| 6.720 - 01 | 3.358.022 | $2.1310+00$ |
| 6.078 .01 | 3.3890-02 | $2.171 n+00$ |
| 6.630 .001 | 3.4190-02 | $2.2110+00$ |
| $6.583-01$ | 3.449-02 | $2.2510+00$ |
| $6.537=01$ | 3.479-02 | $2.492-00$ |
| $6.49 \%-01$ | 3.509-02 | $2.53310+00$ |
| 6.448 .01 | 3.539 .02 | $2.9740+00$ |
| 6.400 .01 | 3.569 .02 | $2.4 .150+00$ |
| 6.364 .01 | 3.5980-02 | $2.456=00$ |
| $6.523=01$ | 3.028 -02 | 2.498000 |
| $6.2^{83}=01$ | 3.6570-02 | $2.5400+00$ |
| 6.244-01 | 3.6800002 | 2.282000 |
| $6.206=01$ | 3.715002 | $2.0240+00$ |

PARTICLE DENSITY: $\quad$ O.O GHAMS PER CUBIC CENTIMETER

UIAMETEK
VELOCITY
RE
3.798.-06
$5.056=06$
$6.563=06$
8. $345=06$
1.042. 005
$1.2820=05$
1.556=05
1.866.05
2.215=05
$2.605=05$
3.039=05
$3,518=05$
$4.044=05$
$4.021=05$
$5.251=05$
$5.935=05$
$6.676=05$
$7.476=05$
$8,338=05$
$9.264=05$
1.026=.04
$1,132=04$
$1.2450 \cdot 04$
$1.365=-04$
$1.493=04$
$1.028=04$
$1.772=04$
$1.924=04$
2.084=04
$2.253=04$
$2.431=04$
2.018= 004
$2.8140=04$
$3.020=04$
$3.235=04$
$3,461=04$
$3,697=04$
$3,943=-04$
$4.200=04$
$4.468=04$
$4.748=04$
$4.748=-04$
$5,038=-04$
$5.340=-04$
$5.654=04$
$5.981=04$
$6.319 \%-04$

URAG COEF RELAX TIME ,90 DIST

| 6.3190*06 | 3.881-07 | 4.321- ${ }^{\text {a }}$ - 0 |
| :---: | :---: | :---: |
| 4.747m*06 | 4.696.07 | $6.3340=10$ |
| 3.657w+06 | 5.589007 | 8. 479 mol 10 |
| 2.8700+06 | 6,559=07 | 1. 2380009 |
| 2.503=+06 | 7.607.007 | 1.0660009 |
| 1.8720+06 | 8.733.07 0 | 2.197- 09 |
| $1.5430+06$ | 9.936007 | 2.047-09 |
| 1,2800+06 | 1.122.06 06 | 3.0300009 |
| 1.08S $0+06$ | 1.257m"06 | 4. 3660.09 |
| 9.2120+05 | 1.4010-06 | 5.072-09 |
| 7.890 .005 | 1.552=*06 | 6.467-09 |
| $6.8230+05$ | 1.7120006 | 8.4730-09 |
| $5.9340+05$ | 1.878.006 | $1.421=08$ |
| 5.193 .05 | 2.0530-06 | 1.2200=08 |
| $4.571=+05$ | 2.2360006 | 1.448008 |
| 4.044n+05 | 2,426.0.06 | 1.1050.08 |
| 3. $2950+05$ | 2.6240006 | 1.496=08 |
| 3.2.100+05 | 2.829\% $=06$ | 2.9220008 |
| $2.078 .0+05$ | 3.043006 | 2.086=08 |
| $2.5910+05$ | 3,264x=06 | 3.10920-08 |
| $2.3400+05$ | 3.493=-06 | 3.543-08 |
| $2.1210+05$ | $3.7300=06$ | 4.134-08 |
| 1.928 .05 | 3,9740006 | 4.5900008 |
| $1.7580+05$ | 4.226-06 | 5.1930-08 |
| 1.0080005 | 4.486.06 | 5.853 = $=08$ |
| $1.474=05$ | 4,754:06 | $6.575000^{8}$ |
| $1.054 \times 05$ | 5.030-06 06 | 7.5610008 |
| 1.247**05 | 5.3130006 | $8.2160-08$ |
| $1.1520+05$ | $5.6040=06$ | 9.1440-08 |
| $1.0650+05$ | $5.903=06$ | $1 \cdot 1150007$ |
| 9.0730+04 | 6.2100006 | 1.1230007 |
| $9.169=+04$ | $6.5740=06$ | $1.2400-07$ |
| 8.529in+04 | 6.846-06 $0^{6}$ | 1.566007 |
| $7.9480+04$ | 7.176x-06 | 1.2010007 |
| 7.4180004 | 7.514-06 | 1.0460007 |
| 0.935 $=04$ | 7.859 .06 | 1.002-07 |
| 6.492=+04 | 8.2120-06 | 1.468-97 |
| 6.037 .04 | 8.573 .06 | 2.1450-07 |
| 5.714 .04 | 8.9420006 | 2,534*-07 |
| $5.5710+04$ | 9.3180006 | 2,5350007 |
| 5.050 .04 | 9.7020006 | 2. 1490007 |
| 4.7640+04 | 1.009-05 | 2, 4760-07 |
| 4.494-*04 | 1.049-05 | 3.217-07 |
| 4.245n+04 | 1.0900005 | 3.4730.07 |
| 4.0130+04 | 1.132-05 | 3.143-07 |
| 3.7980*04 | 1.1740*05 | $4 \cdot 0290=07$ |

PARTICLE DENSITY $=8.0$ GRAMS PER CUBIC CENTIMETER

| UIAMETEK | Velocity | RE | DRAG COEF | RELAX TIME | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2.600n+00 | 1.193-02 | 6.6.70= 04 | 3,5990+04 | 1.217005 | 4.331.007 |
| $3.700 \times+00$ | 1.236-02 | $7.034=04$ | $3.4130+04$ | 1.261005 | 4.050007 |
| b.800 $5+00$ | 1.280.0.02 | 7.410 .04 | 3.239*+04 | 1.3050005 | $4.486=07$ |
| b.900\% + 00 | 1.325-02 | $7.8000=04$ | 3.077in+04 | 1.351=05 | 5.540007 |
| $6.000 x+00$ | 1.370-02 | 8.203-04 | 2.9260004 | $1.397=05$ | 5.112x-07 |
| $6.100 \mathrm{~F}+00$ | 1.4160002 | $8.620=04$ | 2.784 .04 | $1.444=05$ | 6.103-07 07 |
| 6.200x+00 | 1.463-02 | $9.0510=04$ | $2.052 m+04$ | 1.492. 0.05 | $6.2150-07$ |
| $6.300 x+40$ | 1.510=02 | $9.496=04$ | $2.528 \pm 04$ | $1.5400=05$ | 6.9470 .07 |
| $6.400 x+00$ | $1.55 .9-0.2$ | 9.956n-04 | 2.411w+04 | $1.589=05$ | 7.4000907 |
| $6.500 x+100$ | $1.008=02$ | 1.043-03 | 2,3010004 | $1.6400 \cdot 05$ | 7.8740 .07 |
| $6.000 x+100$ | $1.058 * 02$ | 1.0920-03 | $2.190 \pm+04$ | 1.6900005 | $8.5720 \cdot 07$ |
| $6.700 \times+40$ | $1.7080-02$ | 1.142\% 03 | $2.1010+04$ | 1.742=05 | 8.892.07 |
| $6.800 x+00$ | 1.7600=02 | 1.194=03 | 2.3100+04 | $1.794=05$ | 9.437-07 |
| $6.900=00$ | 1.812.02 | 1.248-03 | $1.9240+04$ | $1.8470-05$ | $1 \cdot 4010006$ |
| 7.000x+00 | 1.865-02 | 1.303-03 | $1.8430+04$ | 1.901-05 | $1.060=006$ |
| $7.100=+00$ | $1.918=02$ | 1.359-03 | $1.7600+04$ | $1.9560-05$ | 1.1220006 |
| $7.2000+00$ | 1.973-02 | $1.417=03$ | $1.0940+04$ | 2.0120-05 | 1.187-06 |
| $7.300 \times+00$ | 2.028-02 | 1.477*-03 | $1.0250+04$ | $2.068 \cdot 05$ | 1.254-06 |
| $7.400 \times+00$ | 2.004-02 | 1,5390003 | 1.2600004 | $2.125=05$ | 1.325-06 06 |
| $7.5000+00$ | $2.1400=02$ | 1.602=03 | $1.498=04$ | $2.183=05$ | 1.5980006 |
| $7.600 x+00$ | 2.198-02 | $1.667=03$ | $1.4400+04$ | $2.2410 \cdot 05$ | 1.474x-06 |
| $7.700 x+00$ | $2.250=02$ | 1.734-03 | 1.385004 | 2, 5010005 | 1. $.554=06$ |
| $7.600 x+100$ | $2.3150=02$ | $1.8020=03$ | $1.632 m+04$ | 2. $5610=05$ | 1.0360006 |
| $\% .900=00$ | $2.375=02$ | 1.8720005 | 1.4820+04 | $2.422=05$ | 1.1220006 |
| -. $000 \times+00$ | $2.435-02$ | 1.944m-03 | $1.2350+04$ | $2.443=05$ | 1.0110000 |
| H. 100\% +00 | $2.4960-02$ | 2.018n-03 | $1.1900+04$ | $2.546-05$ | 1.7040006 |
| K. $2000 \times+00$ | $2.558=02$ | 2.0940003 | $1.1470+04$ | 2.609005 | 2. 4000000 |
| $5.300 x+00$ | $2.621 \times 02$ | 2.1710003 | $1.1000+04$ | $2.673=05$ | 2.099-06 |
| $8.400 x+100$ | $2.685=02$ | 2,251-003 | $1.067 m+04$ | $2.7380-05$ | 2.2020006 |
| b. $500 x+00$ | $2.749=02$ | 2,332=03 | $1.0300+04$ | 2.803005 | 2.910-06 |
| $6.600=+10$ | 2.014000 | 2,415m-03 | 9.940-03 | 2.870 .05 | 2.4200000 |
| $8.700 x+00$ | 2.680=02 | $2.5000=03$ | 9.6020+03 | 2.937005 | 2.,535-06 |
| $8.800 \times+00$ | $2.940=02$ | 2.588=03 | 9.278=0 03 | $3.004 \cdot 05$ | 2,0540006 |
| $8.900=+00$ | 3.014-02 | 2,677-03 | 8.969.*03 | $3.073=05$ | $2.177 \times 0.06$ |
| $9.000=+00$ | $3.082=02$ | 2.768=-03 | $8.674 \pm+03$ | $3.1430=05$ | 2. $405=06$ |
| 9. $100 x+00$ | $3.1500=02$ | 2.061.03 | $8.391 \times+03$ | 3.2130005 | 3.10360006 |
| $9.200 x+00$ | 3.220.0.02 | 2.957-03 | 8.1210*03 | $3.2840=05$ | 3.1720006 |
| $9.300 x+60$ | 3.290002 | 3.054x-03 | $7.0620+03$ | 3.355w-05 | 3.513-06 |
| $9.400 \times+50$ | $3.3610=02$ | S. $153=03$ | $7.014 n+03$ | $3.428=05$ | 3.4580006 |
| $4.500 x+00$ | 3.4330-02 | 5.255-03 | $7.370 \sim 03$ | 3.5010005 | 3.008-06 |
| $9.000+00$ | $3.506=02$ | 3.359-03 | 7.140.03 | 3.575-05 | 3.1630-06 |
| $9.700 x+00$ | 3.579-02 | 3.465-03 | $6.9300+03$ | $3.6500=05$ | 3. $422=06$ |
| $9.600 x+00$ | 3.653-02 | 3.5730-03 | 6.720003 | 3.7260005 | 4. $0^{87} 7=06$ |
| $9.900=+00$ | 3.728-02 | 3.084=-03 | $6.6100+03$ | $3.8020=05$ | 4.6570006 |
| 1.000:+01 | $3.800^{40 \%} 02$ | $3.796=03$ | 6.325 .03 | 3.879-05 | 4.4320006 |
| 1.1'00x+01 | 4.002000 | 5.052n=03 | 4.754n+013 | 4,693.05 | 6.4960006 |

Particle density $=0.0$ Grams per cubic centimeter

| UIAMETEK | velocity | RE | drag ceef | relax time | , 9\% DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.200x+01 | 5.470.002 | 0.558 .003 | 3.063.4+03 | 5.584=05 | 9.<090006 |
| $1.500 \times+01$ | 6,425-02 | 8,3360003 | 2.0820003 | 6.5520-05 | $1 .<800-05$ |
| $1.400 x+011$ | $7.449=02$ | 1.041.-02 | $2.5090+03$ | 7,590.05 | 1.1090005 |
| $1.500 x+01$ | 8,549-02 | 1,2800-0.2 | $1.8790+03$ | 8.718 .05 | 2. 254 - 05 |
| $1.0000+11$ | 9.723-02 | 1,553.02 | 1.5490+03 | 9.915.0.05 | 2.420005 |
| $1.700 x+01$ | 1.097.01 | 1.861.02 | $1.2930+03$ | 1.119 .04 | 3.123*05 |
| $1.800 x+01$ | 1,229=01 | 2,209002 | $1.0900+03$ | 1,2540-04 | $4.083 x=05$ |
| $1.900 x+01$ | 1.369 -01 | 2.596.0.02 | 9.277*02 | 1.396:04 | $5.817=05$ |
| $2.000 \times+01$ | 1.510.001 | 3,026=02 | 7.963.+02 | $1.546=04$ | 7.1460 .05 |
| 2.1000\% 131 | 1.6710=01 | 3,501=02 | 6.687.002 | 1.704=-04 | $8.090=05$ |
| 2.200x+61 | 1.832.001 | 4,023n=02 | 5.9990 .02 | $1.868=04$ | $1.047 \times 04$ |
| $2.300 x+01$ | 2.001m=01 | 4,593-02 | 5,2580*02 | 2.0400-04 | 1. $8^{5} 2.004$ |
| $2.400 x+01$ | 2.177m-01 | 5.2140002 | $4.03500+02$ | 2.220004 | 1.4850004 |
| $2.5000+01$ | 2.3600001 | 5.888.02 | 4.1080002 | 2.4070004 | 1.149-0.04 |
| $2.000 \times * 01$ | 2.550.01 | 0.617m-02 | $3.0600+02$ | 2.600004 | 2.047n=04 |
| 2. $700 \times 01$ | 2.747m=01 | 7.402.002 | 3.27500+12 | 2,0010004 | 2.3810004 |
| 2,800x+01 | 2.951-01 | 8.2400.02 | $2.943 n+02$ | 3.009n*04 | 2.1550004 |
| $2.900 x+01$ | 3.162.01 | $9.1500=02$ | 2.055.022 | 3.224.0.04 | 3.172m-04 |
| $3.000 x+(1)$ | 3.379.01 | 1.012-01 | $2.4050+02$ | $3,446=04$ | 3.034*04 |
| $3.100 x+01$ | 3,003=01 | 1.1150-01 | 2.180 .002 | 3.674.-04 | $4.145 \mathrm{me} 0^{4}$ |
| $3.200 \times+01$ | $3.034 \times 01$ | 1.224-01 | 1.993 .02 | 3.9090=04 | 4.1070004 |
| $0.300 x+01$ | $4.071=01$ | 1.3410001 | $1.023 x+02$ | $4.151=04$ | 5.5260004 |
| $3.400 \times+61$ | 4,314.001 | 1.464.001 |  | 4.399n=04 | 6. 10300004 |
| 3.500x+111 | 4.563. $=01$ | 1.594-01 | $1.5300+02$ | $4,654 m=04$ | 6.1430004 |
| $3.600 x+01$ | 4.819.01 | 1.7310001 | $1.4190+02$ | $4.914 n=04$ | 7.2500004 |
| $3.700 x+01$ | $5.0810=01$ | 1.876.01 | 1.3120+02 | $5.1810=04$ | 8.424m-04 |
| $3.8000+01$ | 5.348.001 | 2,0280001 | 1.210.002 | $5,4540 \cdot 04$ | 9.0330004 |
| $3.900 x+61$ | 5.021 -01 | 2,188.01 | $1.1300+02$ | 5.7320-014 | 1.029-003 |
| $4.000 \times+01$ | 5.9010001 | 2,355001 | $1.0520+02$ | 6.017 .04 | 1.1290003 |
| $4.100 x+01$ | $0.184 n=01$ | 2.531.01 | 9.0120001 | $6.3070-04$ | 1.2350003 |
| $4.200 x+01$ | 6.474w-01 | 2.714-01 | 9.1720081 | $6.0020 \cdot 04$ | 1.54600.03 |
| $4.300 \%+01$ | 0.769 .01 | 2,905-01 | 8.5900+01 | $6.9020=04$ | 1.4630003 |
| $4.400 x+01$ | 7.060.01 | 3.104.01 | $8.060 n+01$ | 7. 208.04 | 1.2860003 |
| $4.500 x+01$ | $7.373=0.01$ | 3.311001 | $7.570 \times 01$ | $7.51 .90 \sim 04$ | $1.150=03$ |
| $4.600 \times+01$ | 7.6820-01 | 3,527-01 | $7.134 \%+01$ | 7.834.004 | 1,8490003 |
| $4.700 \times+11$ | 7.9900001 | 3.751.-01 | 6.127 0 +01 | $8.154 m-04$ | 1.4900003 |
| $4.400 x+101$ | 8.315 .01 | 3.983.001 | $0.354 \times 01$ | $8.479 \sim 04$ | 2.1370 .03 |
| $4.900 x+01$ | 8.637.01 | 4,224:01 | 6.01.10+01 | 8.808004 | 2. $2^{9} 00003$ |
| b, $000 \mathrm{ix}+41$ | 8.9640001 | 4;473:-01 | $5.0095+01$ | 9.14 .1 -04 | 2.449 .03 |
| b.100x+111 | 9.295.01 | 4:731001 | $5 \% 400_{n}+01$ | 9.479 .004 | 2.0150003 |
| $2.200 x+41$ | 9.030:-01 | 4,997.01 | $5.132 \cdot+01$ | 9:820:04 ${ }^{4}$ | 2.1881003 |
| 2.300x+111 | 9.968:01 | 5.273.01 | $4.8828+01$ | 1.017003 | 2.467003 |
| 5.400\% +31 | 1.0310.00 | 5,5500001 | 4,650-0101 | 1.051003 | 3.1520003 |
| 2,2000+41 | 1,066.+00 | 5,0490-01 | 4,434x+01 | 1:087.03 | 3. $5440=03$ |
| $5.600 \times+01$ | 1;100x+00 | 6.1500001 | 4,233n+01 | 1.122 .03 | 3,2440-03 |
| 2.700x+ 11 | $1.130 \pm 00$ | 6.4600001 | 4,040.001 | 1.158 .003 | 3.1490003 |

LIAMETER

| b. $800 \mathrm{c}+01$ | $1.1710+00$ |
| :---: | :---: |
| 2.900 $9+01$ | 1.207000 |
| 6.000~+01 | 1.2430+00 |
| - 100 $10+11$ | 1.279.000 |
| $6.200 x+01$ | $1.3100+00$ |
| -.300x+i01 | 1.3520+00 |
| $6.400 x+01$ | 1.390\% 00 |
| 6.5000+01 | 1,4?7.00 |
| $0.000 x+11$ | $1.464 n+00$ |
| $0.700 \mathrm{c}+11$ | $1.50{ }^{2} x+00$ |
| $0.600 x+01$ | $1.5400+00$ |
| $6.900 x+01$ | $1.578 \%+00$ |
| 7.000x+01 | 1.6170+00 |
| 1.100=+ 11 | 1.055 1.090 |
| $7.200=+01$ | $1.094 \sim 00$ |
| \%, $500 x+01$ | $1.733 m+00$ |
| 7.400x+01 | 1.773-00 |
| 1.500x+01 | 1.812 .00 |
| \%.600x+01 | $1.8520+00$ |
| 7.700=*01 | 1.8920+00 |
| 1.800x+01 | 1.932000 |
| 1.400x+01 | $1.9730+00$ |
| 6.000 $0+01$ | 2.014\% 00 |
| -. $100 x+131$ | $2.0550+00$ |
| $0.200=+01$ | $2.097 * 00$ |
| b. $500 \mathrm{x}+01$ | $2.139 .+00$ |
| 6.400x+11 | 2.181**00 |
| $0.500 \times+01$ | $2.223=00$ |
| $6.000=+101$ | $2.2600+00$ |
| $0.700=+01$ | $2.3100+00$ |
| $6.000 x+01$ | $2.3540+00$ |
| $6.900 x+11$ | 2.398 .000 |
| $9.000 \times+01$ | $2,443=+00$ |
| Y. 100:+01 | $2.488 \%+00$ |
| $9.200 \times+01$ | $2.533 .+00$ |
| $9.300=+01$ | $2.579 * 00$ |
| Y. $400 \mathrm{p}+01$ | $2.0200+00$ |
| Y. $500 x+01$ | $2.6720+00$ |
| $9.600 x+01$ | $2.720 \pm+00$ |
| $9.700 x+01$ | 2.767 .00 |
| $9.800 x+01$ | 2.815 .00 |
| $9.900 x+111$ | 2.864* +00 |
| 1.000 $0+02$ | $2.9120+00$ |
| 1.100x+122 | $3.3870+00$ |
| 1.200x+02 | 3.797000 |
| $1.300 x+012$ | $4.2400+00$ |

RE
$6.778=01$
$7.1060=01$
$7.4420=01$
$7.787=01$
$0.141=01$
$8.504=0.1$
$8,875=01$
$9,256=01$
$9.645=01$
$1.004=00$
$1.045=00$
$1.087=00$
$1.129 n+00$
$1: 173=+00$
$1.2170+00$
$1.263=+00$
$1.309 \%+00$
$1.356=+00$
$1.405=00$
$1.454=+00$
$1.504=+00$
$1,556=00$
$1.608=00$
$1.6610+00$
$1.716=+00$
$1.7710+00$
$1.828=00$
$1.8860 * 00$
$1.9450+00$
2. $006=00$
$2.067=00$
$2.130 * 00$
$2.1940+00$
$2.194 \omega+00$
2.259=*00
$2.326 * * 00$
2.394=*00
$2.463=00$
$2.5340 * 00$
$2.6060+00$
$2,679=00$
$2.7540+00$
$2.029 \pm 00$
$2.90^{6=}+00$
$3.7180+00$
$4.5470+00$
5.5010*00

DRAG COEF RELAX TIME -90 DIST

| 3.871x+01 | 1.1940-03 | 3. $4620=03$ |
| :---: | :---: | :---: |
| $3.708 \% 01$ | 1.2310003 | 4. 182-03 |
| 3.555-01 | 1.2670-03 | $4.409 \%-03$ |
| $3.4120+01$ | $1.3040 \cdot 03$ | $4.043 \times 03$ |
| $3,2780+01$ | $1.342 \pm 00^{3}$ | 4, 884003 |
| 3.152.0.01 | 1.3790*03 | 5.1320003 |
| 3.0340*01 | $1.4170 \cdot 03$ | 5.3870003 |
| $2.9220+01$ | 1.455m-03 | 5.0500003 |
| $2.6170+01$ | $1.493=03$ | 5. $420=03$ |
| $2.7180+01$ | 1.5320-03 | $6.198=03$ |
| $2.0240+01$ | $1.5710=03$ | $6.483=03$ |
| $2.5350+0.1$ | 1.609\% $=03$ | 6.7750003 |
| $2.4510+01$ | 1.649 .603 | 7-075-03 |
| $2.5720+01$ | $1.688 \%-03$ | 7.582=03 |
| 2.290\% +01 | 1.728=03 | $7.097=03$ |
| $2.224 n+01$ | 1.768003 | 8, ⿺190-03 |
| 2.156. ${ }^{2.01}$ | 1.8080-03 | $8.550=03$ |
| 2.090\% + 01 | 1.848.03 | $8,0880000^{3}$ |
| 2.0280+01 | 1.8890-03 | $9.433=03$ |
| 1.9690+01 | 1.979 =03 | $9.586=03$ |
| 1.9120+01 | 1.971003 | 9.1470003 |
| 1.857** 01 | 2.0.120=03 | 1.412-02 |
| $1.800^{5}+01$ | 2.054m=03 | 1. U $^{4900002}$ |
| 1.7550*01 | 2.0960 03 | 1.488-02 |
| $1.7070+01$ | $2.1380=03$ | $1.127=02$ |
| 1.061001 | 2.1810003 | 1.167-02 |
| $1.0160+01$ | 2,2240-03 | 1. 2080002 |
| $1.5740+01$ | 2.267-03 | 1.250002 |
| 1.5320+01 | 2,3110=03 | 1. $492=02$ |
| 1.492m+01 | 2.355003 | 1.3350.02 |
| $1.454 n+01$ | $2.4000-03$ | 1.5790.02 |
| $1.4170+01$ | 2.445003 | 1.424-02 |
| 1. $2810+01$ | 2.491003 | 1.470002 |
| 1.340- 01 | 2.537003 | 1.5160002 |
| $1.312 m+01$ | $2.5830=03$ | 1.5630002 |
| 1.280-01 | $2.6300=03$ | $1.011-02$ |
| 1.248m*01 | $2.678 \times .03$ | 1.060002 |
| 1.2170+01 | 2,725=03 | 1.110002 |
| 1.1880-01 | 2.7730m $0^{3}$ | 1.1600002 |
| 1.1590*01 | 2.822003 | 1.012000 |
| 1.1320*01 | $2.871=03$ | 1.064-02 |
| 1.1050001 | 2.9200003 | 1.4170002 |
| $1.0790+01$ | 2.9700003 | 1.47.10-02 |
| $8.775=00$ | $3.4540=03$ | $2.5540=02$ |
| $7.0170+00$ | $3.872=03$ | 3. $2200=02$ |
| $6.617 \% 00$ | 4,324-03 | 3. $9690=02$ |

$3.4620=03$
4. 182 $=-03$
$4.40 .9=03$
$4.043 \times 03$
$4.084=03$
$5.132=03$
$5.3870 \cdot 03$
$5.0500=03$
5. $420=03$
-198=03
6.775003

7-075=-03
$7.097=03$
$8.419-03$
$8,0880=03$
9. $1433=03$
$9.586=03$

1. $1120-02$
2. $\mathrm{U}^{49} 90 \cdot 02$
$1.4^{88}=02$
$1.127=02$
$1.167-02$
$1 \cdot<0^{8}=02$
$1.492=02$
$1.335=02$
$1.579=02$
1.4700002
1.5160002
1.011 -02
$1.060 * 02$
1.110002
$1.00=02$
1.064-02
$1 . y 17002$
$2.254=02$
$3.2200=02$
$3.969=02$

PARTICLE UENSITY $=0.0$ GRAMS PER CUBIC CENTIMETER
uIAMETEK VELOCITY
$1.400 x+02$
$1.5000+02$
$1.600=+02$
$1.700 x+02$
$1.800=+02$
$1.900=+02$
$2.000=+02$
2. $100 x+02$
$2.200 x+02$
2. $300=+02$
$2.400=* 02$
$2.500=+02$
$2.600 x+02$
$2.700 x+02$
$2.800 x+02$
$3.900 x+02$
3.000x+02
S. $100 x+02$
$3.200 x+02$
$3.300 x+02$
3. $400 x+12$
S. $500 x+112$
$\therefore .600 x+02$
$3.700 x+02$
$3.800 x+02$
$3.900 x+112$
$4.000 x+02$
$4.100 x+02$
$4.200 x+02$
$4.300 x+12^{2}$
$4.400 x+02$
$4.200 x+u^{2}$
$4.600 x+02$
$4.700=+02$
$4.800=+02$
$4.900 \dot{x}+02$
与. $0000+02$
b. $100 x+11^{2}$
$5.200 x+12$
5. $300 x+02$
$5.400 x+12$
b. $2000+122$
?. $600 x+02$
b. $700 \mathrm{~m}+0^{2}$
$2.800^{\circ} x+12$
5.400x+122

| 4.689 .000 | 0.251-00 |
| :---: | :---: |
| 5.141 .1000 | 7.695x+00 |
| 5.5960000 | 8.9350+00 |
| 0.053 .00 | 1.0270+01 |
| $0.5120+00$ | 1.1700001 |
| $6.971=+00$ | 1.3220+01 |
| $7.4320+00$ | $1.483 .+01$ |
| $7.892 \mathrm{~m}+00$ | $1.6540+01$ |
| 8.352. +00 | 1,8340+01 |
| $8.8120+00$ | 2.023-01 |
| $9.2710+00$ | 2.2210+01 |
| 9.729 .00 | 2.427**01 |
| $1.019 n+01$ | 2,6430*01 |
| $1.0640+01$ | 2,867**01 |
| $1.109 \%+01$ | 3,1000*01 |
| $1.1550+01$ | 3.342**01 |
| $1.2000+01$ | 3,592m*01 |
| 1.245 ${ }^{\text {c }}$ - 01 | $3.8510+01$ |
| $1,2890+01$ | 4.118:+01 |
| $1.3340+01$ | $4.393 x+01$ |
| 1.378 .01 | $4.0760+01$ |
| $1.4220+01$ | 4.968=01 |
| 1.460 + 01 | 5.2680+01 |
| $1.510=01$ | 5.5750+01 |
| $1.553 x+01$ | 5,891-*01 |
| $1.5960+01$ | 6.214n+01 |
| $1.0400+01$ | 6.545n+01 |
| $1.0820+01$ | 0,8840+01 |
| 1.725 .01 | 7.2300001 |
| $1.767 \% 01$ | 7,584m*01 |
| $1.8090 * 01$ | 7.945-01 |
| 1.851.001 | 8.3140*01 |
| 1.893n+01 | $8.6900+01$ |
| $1.934 \% 01$ | 9.073n+01 |
| $1.976 \pm+01$ | 9.464- +01 |
| $2.0170+01$ | $9.8610 * 01$ |
| $2.0570+01$ | 1.027-02 |
| 2.0980+01 | 1.0680+02 |
| $2.1380+01$ | $1.1100+02$ |
| 2,178 $0+01$ | 1.152.02 |
| $2.2180+01$ | 1.1950+02 |
| $2.2580+01$ | 1.239-02 |
| 2.297001 | 1.2840+02 |
| $2.337 n+01$ | 1.3290*02 |
| $2.370 \% 01$ | $1.3750+02$ |
| 2.414001 | $1.4220+02$ |

drag ceef relax time .9a dIST

| $5.029 x+00$ | 4.7810003 | 4.002-02 |
| :---: | :---: | :---: |
| $5.195 .+00$ | 5.242003 | 5.1170002 |
| $4.077 x+00$ | 5.706003 | 6.116-02 |
| $4.2470+00$ | $6.1720-03$ | 7.196002 |
| $3.8850+00$ | $6.6400=03$ | 8, y $57=02$ |
| 3.278. +00 | 7.109003 | 1.420-01 |
| 3.314n+00 | 7.578003 | 1.152=01 |
| $3.080 n+00$ | 8.0480-03 | 1.2920001 |
| $2.0800+00$ | 8,5170-03 | 1.4390001 |
| $2.711=00$ | $8.9860-03$ | 1.295-01 |
| $2.550=00$ | 9.4540-03 | 1.157m=01 |
| $2.4170+00$ | 9.9210003 | 1. 4280001 |
| 2.2940*00 | 1.039-02 | 2.105*-01 |
| 2.1820*00 | 1.085-02 | 2.4900001 |
| 2.082-00 | $1.131=02$ | $2.4810=01$ |
| 1.491-*00 | 1.1780-02 | 2.080001 |
| 1.907000 | 1.2240\%02 | 2.8850\%01 |
| 1.031000 | 1.269-02 | 3.4970001 |
| $1.7620+00$ | 1.315002 | 3,316=01 |
| 1.0980+00 | 1,3600-02 | 3.3410001 |
| $1.0300+00$ | 1.405002 | 3.1730001 |
| $1.2940+00$ | 1.4500=02 | 4.0100-01 |
| 1.2330+ 1.0 | 1.495: 02 | 4.255w-01 |
| 1.480=00 | 1.540-02 | 4.2050001 |
| $1.4420+00$ | 1,5840-02 | 4.1610001 |
| $1.400 \%+00$ | 1.628-02 | 5.4230001 |
|  | 1.6720-02 | 5.4900001 |
| 1.3200*00 | 1.710002 | 5.2640001 |
| 1.2920+00 | 1.7590-02 | 5.043*-01 |
| 1,260m+00 | 1.802002 | 6.128-01 |
| 1.230- 00 | 1.0450002 | 6.417-01 |
| 1.202-to0 | 1.888=02 | 6.113w-01 |
| 1.1750*00 | $1.9300=02$ | 7.0130001 |
| 1.150**00 | $1.9730-02$ | 7.3190-01 |
| 1.1200+00 | 2.015002 | $7.030-01$ |
| $1.100^{3}+00$ | 2.056-02 | 7.9460001 |
| $1.081=00$ | 2. $098=02$ | 8. 6660001 |
| $1.061 \% 00$ | 2, 1390-02 | 8. $2920=01$ |
| 1.041m+00 | 2. 1800002 | 8.422000 .1 |
| 1.0260+00 | 2.2210002 | 9.257m-01 |
| $1.00^{4}=+00$ | 2. $26.20-02$ | 9.2970-01 |
| 9.6.740-01 | 2.303-02 | 9.8410001 |
| 9.7.110.01 | 2. $3430 \cdot 02$ | 1.4290*00 |
| 9.555-01 | $2.3830=02$ | 1.4644+00 |
| 9.406-01 | 2.423.02 | $1.1000+00$ |
| 9.263.01 | 2,462002 | $1.1360+00$ |

PARTICLE DENSITY $=0.0$ GRAMS PER CUBIC CENTIMETER

| ulameteh | velocity | RE | drag ceef | relax time | , 90 DJSt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.000 \times+1{ }^{2}$ | 2,453.+01 | 1.469n*02 | 9.126.001 | 2,5020002 | $1.173 * 00$ |
| $6.100 \mathrm{n}+1)^{2}$ | 2,491.001 | 1,517\%+02 | 8,994n-01 | 2,541000 | $1.2100+00$ |
| $6.200 x+02$ | $2.5300+01$ | $1.5650+02$ | 8.868001 | 2,5800002 | $1.4470+00$ |
| $6.500 x+02$ | 2.5680+01. | 1.014**02 | $8.746=01$ | 2,0180002 | 1, <85日*00 |
| $0.400=+02$ | 2,6050+01 | 1.664p*02 | 8.029001 | 2,657.02 | 1.5230*00 |
| $6.500=+02$ | $2.643 \mathrm{~m}+01$ | 1.715**02 | $8.510 \times 01$ | 2,695-02 | 1.9620+00 |
| $0.600=+02$ | 2.0800+01 | 1.766**2 | 8.4080001 | 2.733002 | 1.4010*00 |
| $0.700 x+02$ | 2,718.001 | $1.817 n+02$ | $8.3030=01$ | 2.771002 | $1.440 \%+00$ |
| $0.800 .20+1{ }^{2}$ | 2.755.01 | 1.8691*02 | 8, <020-01 | 2,8090002 | $1.4800+00$ |
| $0.900 \times+102$ | $2.791 \times 01$ | 1.922.*02 | 8.1050001 | 2,847-02 | 1.5200000 |
| 1.0000+02 | $2.828^{80}+01$ | 1.976**02 | 8.011-01 | 2,884m=02 | 1.2600000 |
| $7.100 x+12^{2}$ | 2,864n+01 | 2.0300*02 | 7.920-01 | 2.921-02 | 1.001000 |
| $7.200 x+02$ | 2,901n+01 | 2.0840+02 | 7.0330001 | 2.958-02 | 1.0420000 |
| $7.300 x+02$ | 2,937n+01 | 2. $139 \pm 02$ | 7.748 mal | 2.995w-02 | 1.0840400 |
| $7.400 x+02$ | 2,9720+01 | 2.195.*02 | 7.660001 | 3.0310-02 | $1.1260+00$ |
| 7.500x+102 | $3.000^{8+01}$ | 2, 252m+02 | 7.580-01 | 3.067.02 | 1.168-90 |
| $7.600 x+1{ }^{2}$ | $3.044{ }^{\circ}+01$ | $2 \cdot 3080+02$ | 7.509-01 | 3.104-02 | 1.810-00 |
| $7.700 \times 02$ | 3,079n*01 | 2,366**02 | 7.435001 | 3.1400-02 | 1.053000 |
| 7.000x+02 | $3.114^{4}+01$ | 2,4240*02 | 7.563-01 | $3.175=02$ | 1.897-400 |
| $7.900 x+02$ | $3.149 \%+01$ | 2.483.*02 | 7.2920001 | 3,2110-02 | 1.9400000 |
| $8.000 x+02$ | 3,184.0101 | 2.542.022 | 7.204001 | 3,246 $=02$ | $1.484 n+00$ |
| -. $100 \times+02$. | $3.2180+01$ | $2.6010 * 02$ | 7.158001 | 3.282x=02 | $2 \cdot 028=00$ |
| $8.200 x+2^{2}$ | $3.2530+01$ | 2,662m+02 | 7.094-01 | 3. $317 \mathrm{l}=02$ | 2.4720+00 |
| $8.340 \mathrm{x}+102$ | 3.287.001 | 2.723 .02 | 7.032 .01 | 3,3520-02 | $2.1170+00$ |
| $8.400 x+102$ | 3,3210+01 | 2,784n*02 | 6.9720001 | 3,386.02 | $2.1620+00$ |
| $8.500 x+02$ | 3.355001 | $2.846 .+02$ | 6.913 .01 | 3,4210-02 | $2.4080+00$ |
| -.600x+02 | 3.388 .001 | 2.9080002 | 0.050 .01 | 3,455m=02 | $2.4530+00$ |
| $0.700=+12$ | 3,422.01 | 2.971-*02 | 6.0000001 | 3,4900-02 | 2. $4990 \pm 00$ |
| $0.600 x+02$ | 3,455 +01 | 3.035.*02 | 6.740 .001 | 3,524m=02 | 2.5450000 |
| $6.9000+12$ | 3,488 0 + 01 | 3.099n+02 | 6.0940001 | 3.557-02 | 2. 992000 |
| Y. $0000 \times+02$ | $3,5220+01$ | 3.163.*02 | 6,042=01 | 3.5910002 | 2.4380000 |
| y. 100x+02 | $3.5540+01$ | 3,228.02 | 6.592=01 | 3.6250002 | 2.4850*00 |
| $4.200 x+112$ | 3.587.01 | 3.2940*02 | 6,5440001 | 3,6580.02 | 2.9330*00 |
| $4.300 x+02$ | 3,620.+01 | $3.3600+02$ | 6.496-01 | 3.691-02 | 2.5800000 |
| $4.4000+02$ | 3.052.0101 | 3.426.02 | 6.4500001 | 3,7240002 | 2.0280000 |
| $4.500 x+02$ | $3.684 n+01$ | 3,493n+02 | 6.4050001 | 3,757m02 | 2.076**00 |
| $9.600=+02$ | 3.710 .01 | $3.5610 * 02$ | 6.361-01 | $3,790=02$ | 2.1240*00 |
| $4.700 x+42$ | $3,7480+01$ | $3.629 .0{ }^{\text {a }}$ | $6.318=01$ | 3.823.-02 | 2.1730+00 |
| $4.000 x+112$ | 3,7800+01 | 3.697.02 | 6.277.001 | 3.855 .02 | 2.0220000 |
| $4.400 \times+02$ | $3.8120+01$ | $3.7660+02$ | 6.236 .001 | 3,887-02 | $2.8710+00$ |
| $1.000=+03$ | 3.843 .01 | $3.8360 * 02$ | 6.1960001 | 3.919:02 | 2.4200000 |
| $1.010 \times 05$ | 3.875 +01 | $3.906 n+02$ | 6.157 .0001 | $3.9510=02$ | 2,97000 00 |
| $1.020 x+03$ | $3.9060+01$ | 3,9760*02 | 6.119-01 | 3,9830-02 | 3.0190000 |
| $1.030 x+03$ | 3.937.+01 | 4.047n+02 | $6.0820=01$ | 4.015-02 | 3. 1690000 |
| $1.040 x+0^{3}$ | $3.968 \%+01$ | $4.1180+02$ | $6.046=01$ | $4.046=02$ | 3.1200000 |
| 1.050x+0 | $3.999+01$ | 4.190~*02 | 6.010 .001 | 4.0780002 | $3.1700+00$ |

## PARTICLE DENSITY a 9.0 GRAMS PER CUBIC CENTIMETER

| UlAMETER | VELOCITY | RE | DRAG COEF | relax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.000=00$ | 4.350-04 | 4.341=06 | 5.529.0+06 | 4,436007 | 5.055-10 |
| 1.100x+00 | $5.2630-04$ | 5.778 .00 | 4.154n+06 | 5,367=07 | $8.288 \times 10$ |
| 1.200x+00 | $6.2630=04$ | 7.501006 | $3.2000+06$ | 6.387-07 | 1.175*-09 |
| $1.300=000$ | 7.35100.04 | $9.537=06$ | 2.5170*06 | 7.496-07 | 1.020=09 |
| 1.400 .00 | $8.525=04$ | 1.191005 | $2.0150+00$ | 8.694-07 | 2.180=-09 |
| 1.500.00 | 9.787.04 | 1.465-05 | 1.038.006 | $9.980 \mathrm{~m}=07$ | 2, 6760.09 |
| $1.600=00$ | 1.113 .03 | 1.778-05 | 1.3500*06 | 1,136-06 | 3.7250.09 |
| $1.700 x+00$ | 1.257-03 | 2.133. 05 | 1.125.*06 | 1.2820-06 | $4.751=09$ |
| $1.800 x+00$ | 1,4090003 | 2,532.05 | $9.4800+05$ | 1.437 .06 | 5. $9750=09$ |
| $1.900=+110$ | 1.570-03 | 2.977=05 | $8.0610+05$ | 1.6010006 | 7.422-09 |
| 2. $000 x+00$ | 1.740003 | 3.473-05 | 6.911.005 | 1.774**06 | 9.117=09 |
| 2.100x+00 | 1.918=03 | $4.020=05$ | 5.970-* 05 | 1.956n=06 | 1.1090008 |
| 2.200x+00 | 2.105.03 | 4,6220.05 | $5.1920 * 05$ | $2.147=00$ | 1.536008 |
| 2. $500 \mathrm{x}+00$ | 2.301003 | 勺,282-05 | 4.544.0+05 | 2,3460006 | 1.2970.08 |
| <.400x+00 | 2,505=03 | 6.001005 | 3.9990*05 | 2,555-06 | 1.0940008 |
| $2.500 x+00$ | 2.718000 | $6.783=05$ | 3.538. +05 | 2,7720.06 | 2.c31-08 |
| 4. $600 x+00$ | $2.940=03$ | $7.630=05$ | 3.1400+05 | $2.998 \cdot 06$ | 2.011 .08 |
| $2.700 x+00$ | $3.1710=03$ | 8,544=05 | 2.009.005 | $3.2330=06$ | 3. $438=08$ |
| $2.8000+40$ | $3.4100=03$ | 9,529=-05 | 2.2190+05 | 3.477-06 | 3.2150008 |
| 2.900x+10 | $3,658 \times 03$ | 1.059m-04 | 2. $2670 * 05$ | $3,730=06$ | 4.047-08 08 |
| 3.000x+00 | 3,915-03 | 1.1720004 | $2.0480+05$ | 3.992-06 | 4.03610 .08 |
| $3.100 x+00$ | $4.180=03$ | 1.293:04 | $1.0560+05$ | 4,263**06 | 5. $4^{88}=-08$ |
| 3,200x+00 | 4.454.-03 | $1.4220=04$ | $1.6870+05$ | 4.5420-06 | 6.0060 .08 |
| $3.300=+10$ | 4.737 .003 | $1.560=04$ | $1.539=+05$ | 4.8300006 | 6.1950.08 |
| $3.400=+00$ | 5.028=03 | 1.706=04 | $1.4070+05$ | 5,1270006 | 7.059 .08 |
| $3.500=+00$ | 5.328.0.03 | 1.861004 | 1.0900+05 | 5.433 .06 | 8.00310 .08 |
| $3.600 x+00$ | 5.0370 .03 | 2.025 .04 | 1.185=*05 | $5,7480=06$ | 9.033-08 |
| S. $700=+00$ | $5.954 n=03$ | 2.199-04 | $1.092+05$ | $6.072=06$ | 1.0750007 |
| $3.800 x+00$ | $0.281=03$ | 2.382m=04 | 1.0000*05 | $6.4050=06$ | 1.1970-07 |
| $3.900 x+00$ | $6.016=03$ | 2,575=04 | $9.3210+04$ | $0.746=06$ | $1.5280=07$ |
| $4.000 x+100$ | $6.959=03$ | 2.778=04 | $8.639 m+04$ | $7.097-06$ | $1.4700=07$ |
| 4. $1000 x+00$ | $7.311=03$ | 2.992=0.4 | 8.0230+0.4 | $7,456 n=06$ | $1.023-07$ |
| $4.200 \%+00$ | 7.072003 | 3,216-04 | $7.463 x+04$ | $7.824=06$ | $1.1880-07$ |
| $4.300 x+00$ | 8.042003 | 3,451=04 | $6.8540+04$ | 8.2010006 | 1.9650007 |
| $4.400 x+00$ | 8.,420-0 03 | 3,698=04 | $6.491=+04$ | 8.587-06 | $2.1540 \cdot 07$ |
| 4.500:+00 | 8.808 .03 | 3,955.04 | $6.068 .0+04$ | $8.982=06$ | 2.357007 |
| $4.600 x+00$ | $9.203-03$ | 4,225:-04 | 5.68.1 +0.4 | $9.385 \cdot 06$ | 2. 3750.07 |
| $4.700 x+00$ | $9.608=03$ | $4,5070=04$ | 5.0.326 +04 | 9.798.06 | 2. 0070007 |
| $4.8000+00$ | 1.002 .02 | $4,6000 \cdot 04$ | 5. $0.000+0{ }^{4}$ | 1.022=05 | 3.054=07 |
| $4.900=+00$ | $1.044-02$ | 5.107 .04 | $4.7000+04$ | 1.065 .05 | 3. 179007 |
| 5.000x+00 | $1.087-02$ | 5.426004 | $4,424=04$ | 1.109-05 | 3. 297007 |
| b. $1000+00$ | 1.1310002 | 5.7.58=-04 | $4.169 .0+04$ | 1. $1540-05$ | 3.895=07 |
| 5.200x 000 | 1.176-02 | 6.103.04 | $3.9330+04$. | 1.199-05 | 4.4100007 |
| $5.300 x+00$ | 1.222.02 | 6.4620.04 | 3.71.4n+04 | 1.246-05 | 4.544-07 |
| $5.400 x+00$ | 1.268=02 | 6,835-04 | 3,5120*04 | 1.293-05 | 4.098 .007 |
| $5.5000+00$ | 1.3160002 | 7.222-94 | 3,324n*04 | 1.342005 | $5.272 *=07$ |

particle density $=9.0$ grams per cubic centimeter

| qlameter | velocity | RE | drag cuef | relax time | ,90 015T |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.000 x+00$ | 1.364-02 | 7.6230004 | 3.149 $n+104$ | 1.0.05 | 5.068.0.07 |
| $2.700 x+100$ | 1.413.002 | 8,038.004 | $2.986 \mathrm{n}+04$ | $1.441 \ldots-05$ | 6.0850007 |
| b.600x+00 | 1.463.022 | $8.4690=04$ | $2.834 \times 24$ | $1,4920=05$ | 6, 324 - 0 -7 |
| b. $9000+00$ | $1.514=02$ | $8.914=04$ | $2.6930+04$ | 1,5440005 | 6.487 .007 |
| $0.000 \times+00$ | 1.566=02 | 9,375-0.04 | 2,56000+04 | 1.597 .05 | 7.4740007 |
| $6.100 x+00$ | 1.018n-02 | 9,852.-04 | $2,430 n+04$ | 1,650.-05 | 7.9870007 |
| $6.200 *+00$ | 1.672002 | $1.034=0{ }^{3}$ | 2,32000+04 | 1.705005 | 8.525-0.07 |
| $6.300=+00$ | $1.726=02$ | $1.085=03$ | 2,2120+04 | 1,7600=05 | $9.490-07$ |
| $6.400=+00$ | 1,7810002 | 1.138 .003 | 2,110.+04 | 1,8170-05 | . 083 -0.07 |
| $6.500=+00$ | 1,837.02 | $1.192=03$ | 2.0140+04 | $1.074=05$ | 1.4300006 |
| $0.000 x+00$ | 1.894m-02 | 1,248. 03 | 1.924w+04 | 1.932.05 | 1.4950 .06 |
| $6.700=+00$ | 1.9520=02 | $1,3050=03$ | $1.839 \mathrm{~m}+04$ | 1.991.05 | 1.1640706 |
| $6.600 x+00$ | 2.011 .002 | 1.365.03 | 1.759 .04 | $2.0510=05$ | 1. $235=06$ |
| . $900 \times 00$ | 2,070.02 | 1.426.03 | $1.684 \%+04$ | 2.111 .005 | 1.9090006 |
| . $0000 \times 00$ | 2.131.02 | 1.489=03 | $1.613=04$ | 2,1730.05 | $1.087=06$ |
| 100x+00 | 2.192 .002 | 1,553.03 | $1.545 \%+04$ | 2,236-05 | 1.4680006 |
| $1.200 x+00$ | $2.254=02$ | 1.620\%-03 | $1.482 .+04$ | $2,2990=05$ | 1.5530006 |
| $7.300 \sim 00$ | $2.317 \mathrm{~m}=02$ | 1.688=-03 | $11.4220+04$ | 2,363-05 | 1.0410006 |
| $1.400 \times 00$ | 2,381.002 | 1.759n-03 | 1. $365 n+04$ | 2.428.05 | 1.1330 .06 |
| \%.600x+00 | 2,446.00 | 1.8310.03 | 1. 3110004 | 2.494.05 | 1.8290006 |
| $? .600 x+00$ | 2,512.002 | 1.905 .03 | 1.2600004 | $2.5610=05$ | 1.429-006 |
| $7.700 \times+00$ | 2.578.-02 | 1.981003 | 1,2120+04 | 2.629-05 | 2.033=-06 |
| $7.600 x+00$ | 2,6460002 | 2.059.03 | 1.166.104 | 2.698=05 | 2.1410006 |
| $1.900 \times+00$ | 2.714.02 | 2,140-03 | 1.1220004 | 2.767** 05 | 2. $253=006$ |
| $8.000 x+00$ | 2.783=02 | 2.2220-03 | $1.0800+04$ | 2.838 .05 | 2.5700006 |
| 6.1000x+40 | 2.853-02 | 2.306.03 | 1.041-*04 | $2.9090 \cdot 05$ | 2.4910006 |
| -.200x+00 | 2.924 -02 | 2.393.03 | 1.0030+04 | $2.982=05$ | 2.0170006 |
| -. $300 \times+00$ | 2.995m02 | 2,4810003 | $9.0700+03$ | $3.055 m=05$ | 2.147-06 |
| b. $400 \times 00$ | $3.060 \cdot 02$ | 2,572-03 | $9.3340+03$ | 3.1290005 | 2.0820006 |
| $6.500 \times+00$ | 3.141 - 02 | 2.665 -03 | $9.00^{9}+03$ | 3.2040005 | 3.0220006 |
| $8.6000+00$ | 3.210.02 | 2.7600003 | 8,699 - 0 03 | 3.279.05 | 3.167-06 |
| 6.700~+00 | 3.2910-02 | 2,857.-03 | $8.4020+03$ | 3.356.05 | 3.5180006 |
| $6.800 x+00$ | 3,367-02 | 2,957.03 | $8.1190+03$ | 3.43400.05 | 3.473-06 |
| $8.900=+100$ | $3.444{ }^{\text {c }} 02$ | 3.059n-03 | $7.0490+03$ | 3.512.05 | 3.034-06 |
| $9.0000+00$ | 3.522.02 | 3,163.03 | $7.590=+03$ | 3.5910-05 | 3.0010006 |
| $9.100 x+00$ | 3,000-02 | 3,2700003 | $7.543 \ldots+03$ | 3.671-05 | 3.4730006 |
| $9.200 \times+00$ | 3.0800-02 | 3,379.-03 | $7.107 n+03$ | $3.7530=05$ | 4.1510.06 |
| $9.300 x+00$ | 3.760.02 | 5.490003 | $6.8800+03$ | 3.835 .05 | 4.5350006 |
| $9.400 x+00$ | 3.841.-02 | 3,6040-03 | 6.063 .003 | 3.917.05 | $4.525 \cdot 0.06$ |
| 9.500x+100 | 3,924-02 | 3,720-03 | $6.455 \times 03$ | 4.0010-05 | 4.121006 |
| $9.600=+100$ | 4.007.02 | 3,839-03 | $6.250 .+03$ | 4.086.05 | $4.924=06$ |
| $9.700=+00$ | $4.0900=02$ | 3,960\% 03 | $6.064 m+03$ | $4.1710=05$ | $5.133=06$ |
| $9.800 x+00$ | 4.175 .02 | $4.083=03$ | $5.0810+03$ | 4.258005 | 5.348 .06 |
| $9.900 \times+110$ | $4.2610=02$ | $4.2100=03$ | $5.704 m+03$ | 4.545 .05 | 5.2710006 |
| $1.000 x+01$ | $4.347=02$ | $4.338=03$ | $5.5350+03$ | 4.433 .05 | 5.0000006 |
| 1.100x+01 | $5.259-02$ | 5,773=03 | $4.1600+03$ | 5:363.05 | 8.200-06 |

## PARTICLE DENSITY $=\quad 9.0$

UIAMETEK
velocity
RE

| 200x+01 | 6.257.02 |
| :---: | :---: |
| $1.3000+01$ | 7.341002 |
| $1.400 x+11$ | $8.5120=02$ |
| $1.500 \mathrm{za}+11$ | 9,767-02 |
| $1.600 x+01$ | 1.111000 |
| $1.700 x+01$ | 1.2530.01 |
| $1.800 x+01$ | 1.405.01 |
| $1.900 x+01$ | 1.564m-01 |
| 2.000 $0+01$ | 1.732-01 |
| $2.100=+01$ | 1.908.01 |
| $2.200 x+01$ | 2.092=01 |
| $2.3000+01$ | 2.285-01 |
| 2.400at01 | 2.485.01 |
| $2.500 x+11$ | $2.094=01$ |
| $2.6000+01$ | 2.911-01 |
| $2.700=+01$ | $3.1350=01$ |
| C.600x+01 | 3.3670001 |
| $2.900 x+01$ | 3.607.01 01 |
| 3.000~*01 | 3.854-01 |
| 3. $1000+01$ | 4.109.001 |
| $3.200=+[1$ | 4.371.01 |
| $3.300=+01$ | $4.640=01$ |
| 3,400=+01 | 4.917.001 |
| $3.500=+01$ | 5.2000001 |
| $3.600 x+01$ | 5.4900.01 |
| $3.700 x+01$ | 5.786001 |
| $3.800=01$ | 0.089.01 01 |
| $3.900 x+01$ | 6.398001 |
| 4.000- +01 | 0,714-01 |
| 4.100=*01 | 7.035.01 |
| 4.200x+01 | $7.362=01$ |
| $4.300=+101$ | 7,095-01 |
| $4.4000+01$ | 8.033.01 |
| $4.500=001$ | 8,376001 |
| 4.600-0 01 | 8.7250001 |
| $4.700=+01$ | 9.078.011 |
| $4.5000+01$ | $9.4300=01$ |
| 4.900 .401 | $9.798=0.1$ |
| 2.000\% +01 | 1.0170+00 |
| 2.100x+01 | 1.054n+00 |
| 2.200=+01 | 1.091000 |
| 2.300 $0+01$ | $1.1290+00$ |
| b. $400 \mathrm{x}+01$ | 1.167. 00 |
| 2. $5000+01$ | $1.2060+00$ |
| 2. $6000+01$ | $1.2450+00$ |
| 2.700 0 +01 | $1.284 m+00$ |

$7.494==03$
$9.525=00$
$1.189=02$
$1.462=02$
$1.774=002$
$2.127=02$
$2.523=02$
$2.966=02$
$3.457=02$
$3.999=02$
$4.59 .4=02$
$5.244=02$
$5.953=02$
$6.722=02$
$7.553=02$
$8.448=02$
$9.409=02$
$1.044=01$
$1.154=01$
$1.271=01$
$1.396=01$
$1.528=01$
$1.058=01$
$1.816=01$
$1.972=01$
$2.137=01$
$2.309=01$
$2.490=01$
$2.680=01$
$2.879=01$
$3.086=01$
$3.302=01$
$3.527=01$
$3.762=01$
$4.005=01$
$4.258=01$
$4.520=01$
$4.792=01$
$5.072=01$
5

DRAG COEF RELAX TIME
.90 DlST
3.200n+03
$6.381=05$
1.2050005
2. $2230+03$
2.021.403
7.487.0.05
$8.080=05$
$1.061=05$
$2.436=05$
$1.0450+03 \quad 9.8600=05 \quad 2.449005$

1. $3500+\pi 3$
$1.133_{n=0}=04$
3.021=-05
$4.5720-05$
$\begin{array}{ll}1.432=-04 & 6.12800=05 \\ 1,595=04 & 7.0120005\end{array}$
$9.545 .+02$
$1.278=04$
$6.970=02 \quad 1.7660-04 \quad 9.351=05$
$6.035+02$
1.946 .004
$2.134=04 \quad 1.5700=04$
$5.257 *+02$
2.530.0.04
$1.0380=04$
$1, y 430004$
2. $2890=04$
2.0780004
3.1160=04
$3.0050=04$
$4.1500=04$
$4.155=04$
$5.423=04$
$0.1600=04$
6.969004
$7.056=04$
$8.024=04$
9.0510004
$1.4920=03$
1.200003
$1.525=03$
$1.451=003$
$1.584=03$
$1.1240=03$
1.4710003
3. $425=-03$
4. $186=03$
2.,354 $0=03$
2.2300003
$2.1140=03$
$2.705-03$
5. $104=03$
3.311=03
3.226-03
3.1490003
6. 4810003
$4.220: 03$
$4.468=03$
$4.1240-03$

PARTICLE DENSITY= 9.0 GRAMS PER CUBIC CENTIMETER

## DIAMETER

| $\begin{aligned} & 5.800 x+01 \\ & 5.900 x+01 \end{aligned}$ |  |
| :---: | :---: |
|  |  |
|  | -. $000 x+01$ |
|  |  |
|  |  |
|  |  |
| $6.400 x+111$ |  |
|  |  |
| $6.600 x+61$ |  |
|  | $0.700 x+01$ |
| $0.800 x+01$ |  |
|  |  |
|  | 7.000x+01 |
| $7.100 x+01$ |  |
|  | - 200 c |
| 1.300x+01 |  |
|  | 7. |
| 1.500\% |  |
|  |  |
| $7.7000+$ |  |
| $7.800=+01$ |  |
|  | . 900 |
| 0.000 x |  |
|  | . 100 k |
| 6.200x+ |  |
|  | $8.300 \times$ |
| $6.400 x+01$ |  |
|  | $0.500 \times$ |
| $6.000 x+01$ |  |
|  | . |
| $0.000 x+131$ |  |
| $8.400 x+01$ |  |
|  | 00: |
| \%.100x+ ${ }^{\text {c }} 1$ |  |
| Y. $2000 x+01$ |  |
| Y. $5000 x+01$ |  |
| Y.400x+ 11 |  |
| y. $600 x+01$ |  |
| $y .600 x+01$ |  |
| Y. $7000+01$ |  |
| y.000x+61 |  |
| Y. 500x+01 |  |
|  | - $0.00 \times+02$ |
| $1.1000+12^{2}$ |  |
| $1.200=+02$ |  |
| $1.300 x+1{ }^{2}$ |  |

VELOCITY
$1.3240+00$
$1.3640+00$
$1.40^{4}=+00$
$1.444 m+00$
$1.4850+00$
$1.567+00$
$1.6090+00$
$1.650 n+00$
$1.6920+00$
$1.735=00$
$1.7770+00$
$1.820 \omega+00$
$1.863=+00$
$1.863 \%+00$
$1.90^{6}=+00$
$1.950 n+00$
$1.950 n+00$
$1.994 n+00$
$1.994 n+00$
$2.038=00$
$2,082 m+00$
2.127
$2.1270+00$
$2.1730+00$
$2.218=00$
$2.264=00$
$2.311 n+00$
$2.358+00$
$2.40^{5}=+00$
$2.453 p+00$
$2.5010+00$
$2.5500+00$
$2.599+00$
$2.049 * 00$
$2.699+00$
$2.750 .0+00$
$2.8010+00$
$2.653 n+00$
$2.90^{50}+00$
$2.9580+00$
$3.0100+00$
$3.064+00$
$3.1170+00$
$3.1700+00$
$3.2230+00$
$3.2770+00$
$3.741 \pm+00$
$4.2220+00$
$4.7100+00$

RE
$7.6620-01$
8.029.01
$8.405=01$
$8.7920=01$
$9.188=01$
9.593- 01
$1.001 \times+00$
$1.043=00$
$1.087 n+00$
$1.132 x+00$
$1.177 \%+00$
$1.224=00$
$1.271=00$
$1.320=+00$
$1.370=+00$
$1.4200+00$
$1.472=+00$
$1.525=+00$
$1.525=+00$
$1.579=+00$
$1.635=00$
$1.691=+00$
$1.749 m+00$
$1.808=00$
$1.868=00$
$1.929=00$
$1.9920-00$
2. $056 .+00$
$2.122 n+00$
$2.188=00$
$2.257 \%+00$
$2.326 n+00$
$2.397+00$
$2.470=00$
$2.544 x+00$
$2.6190 * 00$
$2.6960+00$
$2.775 * 00$
$2.854 n+00$
$2.9350+00$
3.017=00
3.1011-00
$3.185=00$
$3.270=+00$
$4.1070+00$
b. 057 +00
$6.1110+00$

DRAG CUEF RELAX TIME .9G DIST

| 3.403n*01 | $1.3500-03$ | $4.488-03$ |
| :---: | :---: | :---: |
| $3.5190+01$ | 1.3900003 | $5.4610-03$ |
| $3.1850+01$ | $1.431=03$ | 5.243003 |
| 3.060 .001 | $1.473=03$ | $5.033 \mathrm{~m}=03$ |
| $2.9420+01$ | $1.5140=03$ | $6.132=03$ |
| $2.8310+01$ | $1.556=03$ | $6.440=03$ |
| 2.7200+01 | $1.5980=03$ | $6.1560-03$ |
| 2.6280+01 | $1.6400-03$ | 7. $4820 \cdot 03$ |
| 2.535-01 | 1.683\% 03 | $7.416=03$ |
| 2.447001 | $1.726=03$ | 7.1590-03 |
| $2.564 .0+0.1$ | $1.7690=03$ | $8.1120=03$ |
| 2. $480 \cdot+01$ | 1.812.0.03 | $8.4730=03$ |
| 2.211001 | 1.856-03 | 8. $54.3 \pm 003$ |
| $2.140=0.01$ | 1.9000003 | 9.223*-03 |
| $2.0730+01$ | $1.9440=03$ | 9.0120-03 |
| $2.0090+01$ | 1.988-03 | $1.001=02$ |
| $1.9470+01$ | 2.033-m 03 | 1.4420002 |
| $1.089+01$ | 2.078.003 | $1.0830=02$ |
| $1.633 \pm 01$ | 2, 1240-03 | 1.1260002 |
| $1.7800+01$ | 2.169003 | 1.1700002 |
| $1.729+01$ | 2,215m=03 | 1.2140002 |
| 1.0790001 | 2.2620-03 | $1.2590=02$ |
| $1.6320+01$ | 2,3090-03 | 1.906=02 |
| 1.5878001 | 2.350-03 | 1.953002 |
| 1.5430001 | $2.4040-103$ | 1.401002 |
| $1.5010+01$ | $2.4520-03$ | 1.45100 .02 |
| $1.4610+01$ | 2.501003 | 1.2010002 |
| $1.4210+01$ | $2.550=03$ | 1.3520002 |
| 1.584**01 | $2,000000^{3}$ | 1.0040002 |
| $1.347 \pm+01$ | $2.650=03$ | 1.0570902 |
| $1.5120+01$ | $2.70 .10=03$ | 1.111002 |
| 1.2780+01 | 2.7520003 | 1.166-02 |
| 1. $2450+01$ | $2.804=03$ | 1.0220002 |
| $1.2130+01$ | $2.85600^{3}$ | 1.0790.02 |
| 1.1820+01 | 2,9090-03 | $1.437=02$ |
| $1.1530+01$ | 2.962003 | 1.4960002 |
| $1.1240+01$ | 3.0160003 | 2.4560 .02 |
| 1.090 $0+01$ | 3.070003 | 2.1170022 |
| $1.2700+01$ | 3.1240-03 | 2.1790-02 |
| $1.1044 x+01$ | 3.1780 $=03$ | 2. $2^{4} 1$ - 02 |
| 1.020 .01 | $3.233=03$ | 2. 505002 |
| $9.960 x+00$ | 3,287-03 | 2.37010-02 |
| 9.7430+00 | $3.341 \times 03$ | 2.436-02 |
| 8.2220+00 | 3.815000 | 3, 148 is $=02$ |
| $7.041=00$ | $4.5000=03$ | 3.7600002 |
| $6.1290+00$ | 4,003003 | 4.8720002 |

## particle density = 9.0 grams per cubic centimeter

| DJAMETEK | velecity | RE | drag cuef | relax time | .9n DHST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.400 x+02$ | 5,203.00 | 7.269**00 | $5.410 \times 00$ | 5, 3050003 | 5.083-02 |
| $1.500 x+112$ | $5.699 * * 00$ | 8.531.000 | 4.631.400 | 5.8120-03 | 6.493-02 |
| 1.6000+112 | 6,198**00 | 9,897.00 | 4.350 .000 | 6.3210003 | 8.201002 |
| $1.7000+02$ | 6,699**00 | 1;137.01 | 3.962-*00 | 6.8320-03 | 9.307-02 |
| $1.8000+1{ }^{2}$ | 7.202000 | $1.2940+01$ | $3.0300+00$ | 7.3440-03 | 1.4910001 |
| $1.9000+02$ | 7.705000 | 1,4610*01 | 3.348. +00 | 7.857-03 | 1.2410001 |
| $2.000 x+42$ | $8.2080+00$ | 1.638.01 | $3.105+00$ | 8.370 .03 | 1.4000001 |
| $2.100 x+102$ | $8.711 .+00$ | $1.8260 * 01$ | 2.495.000 | 8.883 .003 | 1.768.001 |
| $2.2000+112$ | 9.214.0+00 | 2,023=*01 | 2.711.+00 | 9,396=03 | 1.145-01 |
| $2.300 x+02$ | 9,7150+00 | 2,230**01 | 2,5490+00 | 9,907-03 | $1.932=01$ |
| $2.400 x+02$ | $1.0220+01$ | 2,447.*01 | $2.4050+00$ | 1.042.02 | 2.1270-01 |
| $2.5000+112$ | $1.0710+01$ | 2,673**01 | 2,278.000 | 1.093.02 | 2.331001 |
| $2.6000+42$ | 1.121 .401 | 2,909 ${ }^{\text {a }}$-01 | 2.163.+00 | $1: 143=02$ | 2,5430001 |
| $2.7000+02$ | $1.171 .+01$ | 3,155.*01 | 2.0600*00 | 1,194=02 | 2.1640001 |
| $2.800 x+102$ | 1.220.001 | 3.410.*01 | 1,9670+00 | 1,244me02 | 2.493-01 |
| $2.400 x+02$ | 1,269 2 +01 | 3,674=*01 | 1.8820*00 | $1.295 n=02$ | 3.2310001 |
| $3.000 x+42$ | 1.318 .001 | 3,947**01 | 1.8050+00 | $1.344 n=02$ | 3,4760001 |
| $3.1000+102$ | $1.367 n+01$ | 4.2300+01 | 1.735-000 | 1,394m002 | 3.1290001 |
| $3.200 x+02$ | 1.416 .001 | 4,521~*01 | 1.070.000 | 1.444m02 | 3.990\%-01 |
| $3.3000+112$ | 1,464n+01 | 4,8220*01 | 1.6100+00 | $1.493=02$ | $4.858-01$ |
| $3.400=+112$ | 1.512n+01 | 5.131 ** 01 | $1.555=00$ | 1.542-02 | $4.534 \times 01$ |
| $3.500 x+12$ | $1.5600+01$ | $5.449 \mathrm{c}+01$ | $1.504=000$ | 1.291.02 | 4.0170.01 |
| $3.600 x+102$ | 1.008.01 | 5.776 .01 | 1.457.*00 | 1.039 0.02 | 5.107 .001 |
| $0.700 x+112$ | $1.0550+01$ | $6.111 .0+01$ | $1.4130+00$ | $1.688 \mathrm{~m}=02$ | 5.4050001 |
| $3.800=+12^{2}$ | $1.7020+01$ | $6.455 .+01$ | 1.5720+00 | 1,7360002 | 5.1090.01 |
| $3.900 x+112$ | $1.7490+01$ | $0.8070+01$ | 1.3340*00 | 1.783m-02 | $0.421=01$ |
| $4.000 x+02$ | $1.795_{0}+01$ | 7.167.001 | 1,290**00 | 1,8310002 | 6.339-01 |
| $4.100 x+102$ | $1.8428+01$ | 7.536.*01 | 1.264**00 | 1.8780-02 | 0.0630001 |
| $4.200 x+12^{2}$ | $1.888=01$ | 7.913.0.01 | 1.2330+00 | 1.925.0.02 | 6.4940.01 |
| $4.500 x+12$ | $1.934 n+01$ | 8.298.01 | 1.2030+00 | 1.972.-02 | 7.0320001 |
| $4.400 x+02$ | $1.979 n+01$ | 8.691.001 | 1.175 .400 | 2.018.02 | 7.0750001 |
| $4.500 x+02$ | 2,024.01 | 9.0920*01 | $1.1480+00$ | 2.0640002 | 8.025-01 |
| $4.600 x+02$ | $2.069{ }^{\circ}+01$ | 9,501.001 | $1.123_{0+00}$ | 2,1100-02 | $8.581=01$ |
| $4.700 x+02$ | $2.1140+01$ | $9.917 \times 01$ | i. 1000+00 | 2,156p=02 | 8.143-0.01 |
| $4.800 x+112$ | $2.159 \%+01$ | 1.034m+02 | 1.077.0*00 | 2,2010-02 | 9.1110001 |
| $4.900 x+12$ | $2.2030+01$ | 1.077.002 | 1.050**00 | 2,247-02 | 9.484-701 |
| $2.0000+112$ | 2.247.01 | 1:121.0.02 | 1:036.*00 | 2,2920-02 | $9.863 m 01$ |
| b. $1000+12$ | 2.291.001 | 1,160.+02 | 1.0100+00 | 2,336002 | 1.0250000 |
| 2. $2000+02$ | 2,334=+01 | 1,211.002 | 9.981.001 | 2,381.02 | $1.0640+00$ |
| 2.300\%+i2 | $2.3780+01$ | 1.258.0.2 | $9.800=01$ | 2,4250002 | $1.1030+06$ |
| 2.400x+12 | $2.4210+01$ | $1.305 n+02$ | 9.039 .01 | 2.4690002 | 1. $14400+00$ |
| b. $5000 \times 12$ | $2.464 n+01$ | 1,3520*02 | 9.479-01 | 2.5120002 | $1.1840+00$ |
| $2.000 x+12$ | $2.506 n+0.1$ | 1.401m+02 | 9.5.27-01 | 2.550.-02 | 1. $<25 \times 000$ |
| $5.700 x+12$ | $2.5480+01$ | 1,4500.02 | $9.181=01$ | 2,599.022 | $1 .<670000$ |
| $5.800 x+12$ | 2,5900+01 | 1.499.*02 | 9.041.001 | 2,6420-02 | $1.0090+00$ |
| $5.400 x+02$ | 2,632.01 | 1,5500*02 | 8,907-01 | 2,6840-02 | $1.352=* 0$ |

Particle density $=\quad 9.0$ grams per cubic centimeter
UIANETER VELOCITY
RE
DRAG COEF RELAX TIME ,y8. UIST

| $0.000 \times+02$ | 2.674 .401 |
| :---: | :---: |
| 6. $100 x+02$ | 2.715.01 |
| $0.200 x+02$ | 2.756m+01 |
| -. $300 x+02$ | 2,797m+01 |
| $6.400=+02$ | $2.838 m+01$ |
| $6.500 x+02$ | $2.8780+01$ |
| $6.000 x+02$ | $2.9190+01$ |
| 0.700= + 02 | 2.9590*01 |
| $6.800 x+02$ | 2.9980001 |
| $0.900 x+02$ | 3.038n*01 |
| $7.000 x+02$ | $3.0770+01$ |
| $7.100 x+02$ | $3.1160+01$ |
| $7.200=+02$ | 3.155001 |
| $7.300 x+02$ | 3.194n*01 |
| $7.400 x+02$ | 3,232m+01 |
| $7.500 x+02$ | $3.2710+01$ |
| $\% .600 x+02$ | 3,309 +01 |
| $\% 700=+02$ | 3,347n+01 |
| $7.800 u+02$ | $3.384 x+01$ |
| $1.900 \times+02$ | 3.4220+0.1 |
| -. $000 \times+02$ | $3.4590+01$ |
| -. $1000+02$ | $3.496=01$ |
| b. $200 x+02$ | $3.533 n+01$ |
| -. $300 x+02$ | $3.5700+01$ |
| $0.400 x+02$ | $3.606 \pm+01$ |
| $6.500 x+02$ | 3.6430+01 |
| 8.000w+ 12 | 3,079 +01 |
| $0.700 u+02$ | 3.715 .01 |
| $0.000 x+02$ | 3.7510+01 |
| $0.900 x+02$ | 3.7800+01 |
| 4.000x+02 | 3.822.+01 |
| $4.100 x+02$ | $3.8570+01$ |
| Y.200x+02 | 3.8920-01 |
| $4.300 x+0{ }^{2}$ | 3.927n+01 |
| $9.400 x+02$ | $3.962 a+01$ |
| $9.500 x+02$ | $3.9900+01$ |
| $4.600 x+42$ | $4.0300+01$ |
| $9.700 x+62$ | $4.065 m+01$ |
| 4. $000 x+02$ | $4.099+01$ |
| $9.900 x+02$ | 4,1330+01 |
| 1. $0000+163$ | 4.166.0+01 |
| 1.010x+05 | $4.2000+01$ |
| $1.020 x+03$ | 4.2330+01 |
| $1.030 x+03$ | $4.2660+01$ |
| $1.040 x+05$ | 4.3000+01 |
| $1 \cdot 0^{5} 08+0^{3}$ | 4.332 .01 |

$1.0^{5} 0 x+03$
$4.332+01$
$2.674-+01$ $2.750=+01$ $2.797+01$ $2.838_{m}+01$ $2.919+01$ $2.9590+01$
$2.9980+01$ $3.038 n+01$ $3.0770+01$ $3.1550+01$ 3.194=01 $3,232=01$
3,3090+01
$3.347 n+01$
$3.4220+0.1$
$3.4590+01$
$3.490=01$
$3.5700+01$
$3.606+01$
$3.079+01$
$3.715+01$
$3.751+01$
$3.8220+01$
$3.8920+01$
$3.9270+01$
3. $4968+0$
$4.030 x+01$
$4.065+01$
$4.133=01$
4.166 .401
$4.200+01$
$4.233+01$
$4.2660+01$

$8.778=0.1$
8.055-01
8.530=01
8.422001
$8.3120=01$
$8.207=01$
$8.105=01$
$8.0070=01$
$7.912=01$
$7.021=01$
$7.7320=01$
$7.047-01$
$7.5650: 01$
$7.4850=01$
$7.408=01$
$7.3350=01$
7.26.1=01
$7.191=01$
$7.1230=01$
7.057 .01
$6,493=01$
$6.93 .1=0.1$
$6.871=01$
$6.8120=01$
6.750 mmol
$6.700=01$
$6.047=01$
$6.294=01$
6. $244=01$
$6.494-01$
6.446=01
6.599. $=01$
$6.353=01$
$6.509=01$
6.265~01
6.223.-01
$6.182=01$
$6.141=01$
$6.102=01$
$6.064=01$
$6.020=01$
$5.989=01$
$5.989=01$
$5.954 n=01$
$5.41^{9}=01$
$5.085=01$
5.851001
$2,727=02 \quad 1.5950+00$
$2.7690=02 \quad 1.438=00$
$2.8110002 \quad 1.4830+00$
$2.853=02 \quad 1.527 x+00$
$2.894=02 \quad 1.572 p+00$
$2.935-02 \quad 1.0170+00$
$2.976-02 \quad 1.0630+00$
$3.0170=02 \quad 1.1100+00$
$3.058=-02 \quad 1.156=+00$
$3.098=02 \quad 1.0030+00$
$3.138=02 \quad 1.851=+00$
$3.178=02 \quad 1.099 m+00$
$3,218=02 \quad 1.447=+00$
$3.257=02 \quad 1.496=+00$
$3.2960-02 \quad 2.0450+00$
$3.335=02 \quad 2.0950+00$
$3.374=-02 \quad 2,145=+00$
$3.4 \mid 30=02 \quad 2.195=+00$
$3.451=02 \quad 2.246=+00$
$3.4900=02 \quad 2.297 w+00$
$3.5280=02$
$2.3480+00$
$3.565=02 \quad 2.4000+00$
$3.003=02 \quad 2.4520+00$
$3.0400-02 \quad 2.3040+00$
$3.678=02 \quad 2.557 \pm+00$
$3.715=02 \quad 2.0100+00$
$3.7520-02 \quad 2.0640+00$
$3.780-02 \quad 2.1170+00$
$5.8250=02 \quad 2.1720+00$
$3.061=02 \quad 2.0200+00$
3.897:02 $\quad 2.881=00$
$3.933=02 \quad 2.4360+00$
$3.969=02 \quad 2.491=+00$
$4.004=02 \quad 3.047=+00$
$4.0400=02 \quad 3.102=+00$
$4.0750=023.1590+00$
$4.110=02 \quad 3,215=+00$
$\begin{array}{ll}4.145-02 & 3.272 w+00 \\ 4.180-02 & 3.529 w+00\end{array}$
$\begin{array}{ll}4,180-02 & 3.529 x+00 \\ 4,214=-02 & 3.386 w+00\end{array}$
$4.249-02 \quad 3.444 \omega+00$
$4.283=02 \quad 3.302 *+00$
$4,317=02 \quad 3.2600+00$
$4.3510=02 \quad 3.018 i 0+00$
$\begin{array}{ll}4.385-02 & 3.077 x+00 \\ 4.4 .8-02 & 3.136 x+00\end{array}$
$4,4,8=02$
$3,136 x+00$

Particle density a 10.0 grams per cubic．Centimeler

## UIAMETER

velocity
re
drag cuef
RELAX TJME
．9a DIST
$1.000 x+00$
$1.100=+00$
$1.2000+00$
$1.300=+00$
$1.400 \times+00$
$1.500 x+00$
$1.000 \times+00$
$1.700 x+00$
$1.800 x+00$
$1.900 x+00$
2，000：＋00
$2.100 x+00$
$2.200=00$
$2.300=+00$
$2,400 x+00$
$2.500 x+00$
$2.600=+00$
$2.700 x+00$
$2,800=+00$
2．900：＋00
$5.000=+00$
$3.100=+00$
$5.200=+00$
$3.300=+00$
$5.400=+00$
$3.600=+00$
$3.600=+00$
$3.700 \times 00$
$3.800 \times 00$
$3.900 x+00$
4． $000 x+00$
4． $100 \times+00$
$4.200 x+00$
$4.300=+00$
$4.400=+00$
$4.500 .+00$
$4.6000+00$
$4.700=+00$
$4.800=+00$
4． $900 x+00$
2． $000 \times+00$
勺． $100 x+00$
と，公00x＋00
2． $500 x+00$
$=.400 x+100$
2．500＊＋00

| 4．9140＋06 | 4．990－07 | 7．1590－10 |
| :---: | :---: | :---: |
| $3.0920+00$ | 6.038 .007 | 1． 4 490．09 |
| $2.0440+06$ | $7.1860=07$ | 1．487－09 |
| 2．237＝＋06 | 8.433007 | 2．1500－09 |
| 1．7910＋06 | 9.780007 | 2.160009 |
| $1.4500+00$ | 1．123＝06 | 3.0400009 |
| 1．200w＋00 | 1．277\％－06 | 4．1160－09 |
| $1.0000+06$ | $1.442 m=06$ | 6．414＝0．09 |
| $8.427 n+05$ | $1.617=06$ | 7.9640 .09 |
| $7.165 n+05$ | 1.801006 | 9．395－09 |
| $6.143 .0+05$ | $1.996 * 06$ | 1．1540008 |
| $5.507 \times 05$ | 2．201－06 | 1．4040008 |
| 4．015．0．05 | 2．4150－06 | 1．0920－08 |
| 4．039x＋05 | $2.640=06$ | 2． 1220008 |
| 3．255－05 | 2，8740－06 | 2.5980 .08 |
| 3．145．+05 | 3．1190－06 | 2．025x＝08 |
| 2．190－05 | 3．5730－06 | 3． $3060=08$ |
| 2．497．05 | 3．638－06 | 3．0460－08 |
| $2.239=05$ | 3，9120006 | $4.4500=08$ |
| 2．015－05 | 4．197－06 | 5．1230008 |
| $1.020 .0+05$ | 4．491．0．06 | 5，九690－08 |
| 1．6500＊05 | 4．795：06 | 6．094－08 |
| 1．2000＋05 | 5．1100006 | 7．003－0．08 |
| $1.3600+05$ | $5.434=06$ | $8.002=00$ |
| 1．c500＊05 | 5．768：06 06 | 9．096－08 |
| $1.146 \mathrm{~m}+05$ | 6．113－06 | 1．40890007 |
| 1．053．05 | 6．467－06 | 1． 2190007 |
| $9.70^{3} 0+04$ | 6．831＝06 | 1．s61＝07 |
| $8.4570+04$ | 7.205006 | 1．31500．07 |
| $8.285=04$ | $7.5900=06$ | 1.0810007 |
| $7.0790+04$ | $7.9840=06$ | 1.061007 |
| $7.131 .+04$ | 8，388＝$=06$ | 2．455－0－07 |
| $6.6340+04$ | $8.8020=06$ | 2． 663 － 407 |
| $6.1820+04$ | 9．226－06 | $2.487 \times 07$ |
| $5.7700+04$ | 9，6600－06 | 2．127＝01 |
| $5.3940+04$ | 1．010－05 | $2.984=07$ |
| $5.050 m+04$ | $1.056=05$ | $3.260 \times 07$ |
| $4.7340+04$ | $1.102-05$ | 3．2530007 |
| 4．444m＋04 | 1．1500005 | 3．066－07 |
| 4.178 .04 | 1.198 .05 | 4． 2000007 |
| $3.932 n+04$ | 1.247005 | 4． $25400-07$ |
| $3.705=+04$ | 1．298005 | $4.4310-07$ |
| $3.490 \%+04$ | 1．349＝05 | $5.9300-07$ |
| $3.3020+04$ | $1.4020=05$ | 5．153－07 |
| 3．12\％ $0+04$ | 1.455005 | $6.201 \cdot 07$ |
| 2．954 ${ }^{\text {＋}} 04$ | $1.509=05$ | 6．075x－07 |

## Particle density = 10.0 grams per cubic centimetek

UJAMETER
VELOCITY
$2.600 x+00$
$5.700 \times+00$
b. $800 x+00$
b. $900 x+40$
$6.000=+00$
-. $100=+100$
-. 200 $=+00$
$6.300=+00$
$0.400 x+00$
o. $500 \times+00$
$6.000 x+00$
$0.700+00$
$6.800 x+00$
$6.900 x+00$
7.000x+00
$7.100 x+00$
$7.200 x+00$
$7.300 x+40$
$7.300 x+00$
$7.400 x+00$
7. $200 x+00$
$7.000 x+00$
$7.700 x+00$
$7.600 x+00$
7.900 $0+00$
$8.000 x+00$
$6.100 x+00$
$0.200 x+00$
$8.300=+00$
$8.400=+00$
8. $200 \times+00$
$8.600=00$
$8.700=+00$
$8.600+40$
$8.900 x+00$
4. $0000+00$
$9.100=+00$
$y .200=+00$
$9.300 x+100$
$4.400 x+100$
$4.500 x+100$
$4.000=00$
$y .700 x+0.0$
$9.800+00$
$4.900 x+00$
$1.000=+01$
$1.100 x+6 \mid$
$1.534=-02$
$1.590=02$
$1.646=02$
$1.703=02$
$1.761=02$
$1.821=02$
$1.881=02$
$1.942=02$
$2.004=02$
$2.067=02$
$2.131=02$
$2.196=02$
$2.262=02$
$2.329=02$
$2.397=02$
$2.466=02$
$2.536=02$
$2.607=02$
$2.679=02$
$2.752=02$
$2.820=02$
$2.900=02$
$2.976=02$
$3.053=02$
$3.131=02$
$3.209=02$
$3.289=02$
$3.370=02$
$3.451=02$
$3.534=02$
$3.618=02$
$3.702=02$
$3.788=02$
$3.874=02$
$3.962=02$
$4.050=02$
$4.140=02$
$4.230 w=02$
$4.3210=02$
$4.414=02$
$4.507=02$
$4.0010=02$
$4.697=02$
$4.793=02$
$4.890=02$
$5.916=02$
$1.534=-02$
$1.590=02$ $1.646=0.2$ $1.703=02$ 1.761002 1.821 .02
$1.9420=02$
$2.00^{4}=02$
2.067.0.02
$2.131=02$
$2.196=02$
$2.2620=02$
$2.3290-02$
$2.397-02$
$2.466=02$
2.607=02
$2.679=02$
$2.7520=02$
$2.900=02$
$2.976=02$
$3.053=02$
$3.209=02$
$3.289=02$
3.370 .02
$3.4510-02$
$3.534=02$
3.018-02
$3.788=02$
3.874-02
3.9620-02
$4.050=02$
$4.140=02$
$4.23010-02$
$4.3210=02$
$4.4140=02$
4.0010002
4.697-02
$4,890=02$
$5.9160=02$

|  |
| :---: |
| $0430=04$ |
| 9.527m-04 |
| - |
| . 055 |
| 1.1080=03 |
| 1.164-03 |
| 1.2210=03 |
| 1.2800\%03 |
| $1.341=03$ |
| ,404m\% ${ }^{4}$ |
| . 469.03 |
| 1.535.0.03 |
| $1.6040=03$ |
| 1.675 |
| 1.7470003 |
| 1.8220003 |
| $1,899=0$ |
| $1.978=03$ |
| 2.060 .03 |
| 2.143nm03 |
| 2.2290003 |
| 2.317003 |
| 2.407 .03 |
| 2.5000=03 |
| 2.594=03 |
| $2.6920 \cdot 03$ |
| 2,791003 |
| 2.093-03 |
| 2.998-03 |
| $3.1050=03$ |
| 3.214=03 |
| 3.3270-03 |
| 3.4410-03 |
| 3.558=003 |
| 3.678=03 |
| $3.801=03$ |
| 3.9760-03 |
| 4.054n-03 |
| 4.185x-03 |
| 4.3180003 |
| 4.4540=03 |
| 4.5940-03 |
| 4.735-03 |
| 4,8800"03 |
| , 494* |

DRAG COEF RELAX TIME .90 DIST

| $2.7990+04$ | 1.265-0505 | 7.1750007 |
| :---: | :---: | :---: |
| $2.054 \ldots+04$ | $\therefore 1.621000^{5}$ | 7.1030007 |
| 2.2190404 | 1.678-05 | 8.4590007 |
| $2.3940+04$ | $1.737=05$ | 8.0450007 |
| $2.270 .0+04$ | 1.790-05 | 9.462=07 |
| $2.1600+04$ | $1.8570-05$ | 1.111006 |
| $2.0630+04$ | 1.918005 | 1.479-0.06 |
| $1.966 n+04$ | 1.9800005 | 1.151000 |
| $1.6750+04$ | 2.044005 | 1. $426=06$ |
| 1.7900004 | 2.108.05 | 1.904x006 |
| 1.710.004 | 2.173 .05 | 1. 387 mog |
| 1.635.04 | 2,240=05 | 1.473400 0 |
| $1.564=04$ | $2.3070-05$ | 1.963.06 |
| 1.497-04 | 2,3750-05 | 1.058=06 |
| $1.4330+04$ | 2,445mm 05 | 1.156-06 |
| $1.374 \% 04$ | 2.515005 | 1.0590-06 |
| $1.3170+04$ | $2.586-05$ | 1. $466=06$ |
| 1.2640+04 | $2.659=05$ | 2. $u^{78}=06$ |
| $1.2130+04$ | $2.732=05$ | 2.194=06 |
| 1.160*04 | $2.8000-05$ | 2.5160-06 |
| 1.1200*04 | $2.881=05$ | 2.442-06 |
| 1,0770*04 | $2.958=05$ | 2, 2740.06 |
| $1.0300+04$ | 3.0350-05 | 2.110000 |
| $9.9740+03$ | 3.113005 | 2.0520006 |
| $9.00^{5} 0+03$ | 3.1930-05 | 3.400900 |
| $9.2540+03$ | $3.2730-05$ | $3.1530=06$ |
| $8.9200+03$ | 3,3540005 | 3.5120-06 |
| $8.0010+03$ | $3.4360=05$ | 3.4770-06 |
| $8.2900+03$ | 3.5200005 | 3.0490006 |
| $8.00^{9}+010$ | 3.6040905 | 3. $5260-06$ |
| $7.733=03$ | 3.689-05 | 4.0100006 |
| 7.470-0+03 | 3.7750-05 | 4. $2000=00$ |
| $7.2180+03$ | 3.863-05 | 4.997006 |
| $6.9780+03$ | 3.95100.05 | 4.0010006 |
| $6.7480+03$ | $4.040=05$ | 4.0120000 |
| $6.5280+03$ | 4.130005 | 5.1300006 |
| 6.5180003 | 4.221095 | 5.4550-06 |
| $6.1100+03$ | 4.514 .05 | 5.488006 |
| $5.923 x+03$ | $4.407-05$ | 5.129 5006 |
| $5.7300+03$ | 4,501005 | 5.977000 |
| $5.5610+03$ | 4.596-05 | 6. 2330006 |
| $5.5910+0.3$ | $4.692=05$ | 6.4980006 |
| $5.2280+03$ | 4.789=05 | $6.171=06$ |
| $5.0710 * 03$ | 4.888005 | 7.15 20-06 $^{0}$ |
| 4.921.*03 | 4.987* 05 | 7.542x-06 |
| $3.699 * 03$ | 6.0330 .05 | $1 \cdot u^{760}=05$ |

# PARTICLE UENSITY $=10.0$ 

grams per cubic centimeter
©
UIAMETEK
VELUCITY
RE
drag ceef relax time
.98 UlST

| $1.200 x+01$ | 7.038.-02 |
| :---: | :---: |
| $1.300=+01$ | 8.258.02 |
| $1.400=01$ | $9.574=02$ |
| 1.500x+01 | 1.099=01 |
| $1.600 x+01$ | 1.249=01 |
| 1.700*+01 | 1.410.001 |
| $1.800 x+01$ | 1.579=01 |
| 1.900x+01 | 1.759001 |
| 2.000 $0+01$ | 1.947001 |
| 2. $100 x+01$ | 2,145 $0=01$ |
| $2.200=01$ | 2.3520=01 |
| $2.300 x+01$ | 2.568. $=01$ |
| $2.400=01$ | 2.793.01 |
| $2.500 \times+01$ | 3.027=01 |
| 2.6000+01 | 3,270=01 |
| 2.700=*01 | 3.522-01 |
| 2.8000+01 | 3.7820-01 |
| 2.900x+01 | 4.051-01 |
| $3.000=+01$ | $4.328=01$ |
| S. $100 \mathrm{c}+101$ | $4.613=01$ |
| 3.200x+01 | 4.9000001 |
| S.300x+01 | 5.2070-01 |
| $3.400 \times+01$ | $5,516=01$ |
| 3. $500 \times+01$ | 5.833 .001 |
| $3.600 x+01$ | 6.156-01 |
| $5.700=+01$ | 6.487 0.01 |
| $3.800=+11$ | 6.825001 |
| $3.900 x+01$ | $7.1700=01$ |
| 4.000=+01 | 7.521.01 |
| 4.100 +101 | 7.878.01 |
| $4.200 x+01$ | 8.2420.01 |
| $4.300=+01$ | 8.6120001 |
| $4.400=+01$ | 8.987001 |
| $4.500 \times+61$ | $4.368=01$ |
| $4.600 \times+01$ | 9.7550-01 |
| $4.700 x+01$ | $1.0150+00$ |
| $4.800=001$ | 1.054n*00 |
| $4.900+01$ | $1.0940+00$ |
| 5.000x+01 | $1.1350+00$ |
| $5.100 \%+01$ | $1.176=00$ |
| $5.200 x+01$ | 1.217 .00 |
| $5.5000+11$ | $1.2590+00$ |
| b. $400=+61$ | $1.3010+00$ |
| 2.500x+01 | $1.344 n+00$ |
| $5.600=+1$ | 1.38.70+00 |
| -.700x+01 | $1.4300+00$ |


| 8.429-03 |
| :---: |
| 1.071=02 |
| 1.338=02 |
| 1.645-02 |
| 1.995-02 |
| 2.392-02 |
| 2.837=02 |
| 3,335-02 |
| 3,8860=02 |
| 4.495=02 |
| 5.164x-02 |
| 5.8950-02 |
| 6.691=02 |
| $7.553 x=02$ |
| 8,486=02 |
| 9.4900=02 |
| 1.057=01 |
| 1.1720-01 |
| 1.296n=01 |
| 1.427x-01 |
| 1.567.01 |
| 1.7150-01 |
| 1.872.01 |
| 2,0370001 |
| 2.2120-01 |
| 2.395-01 |
| 2.588=01 |
| 2.791-01 |
| 3.0020*01 |
| 3,224=01 |
| 3,455-01 |
| 3,696001 |
| 3,946.001 |
| 4,207\%-01 |
| 4.478-01 |
| 4.759-01 |
| 5.0500=01 |
| 3.352=01 |
| 5.663=01 |
| 5.985-01 |
| 6.3170-0.1 |
| 6,660.9.01 |
| 7.013.01 |
| 7.376-01 |
| 7.750.001 |
| 8, 134=01 |


| 2.850n*03 | 7,1770-05 | 1.326-05 |
| :---: | :---: | :---: |
| $2.243 n+03$ | 8,421005 | 2.103-05 |
| 1.797.003 | 9.763-05 | 2.0310.05 |
| $1.463=+03$ | 1.120-04 | 3.1340005 |
| $1.2060+03$ | $1.274 x=04$ | $4.837=05$ |
| 1.007n+03 | 1.4370=04 | $6.168 \mathrm{~m}=05$ |
| $8.4910+02$ | $1.0110-04$ | 7.158=05 |
| $7.2300+02$ | 1.793-04 | 9.03600 .05 |
| 0.2060*02 | 1.986=04 | 1.184=-04 |
| $5.3710+02$ | 2.187n=04 | 1.440 mol 04 |
| 4.080-*02 | 2.3980-04 | 1.1350004 |
| 4,104-* 02 | $2.619=04$ | 2.10740044 |
| 3.6200*02 | $2.849=04$ | 2.4600004 |
| 3,210-*02 | 3.0870"04 | 2.0970-04 |
| 2.061. +02 | 3,335004 | 3.5910004 |
| 2.561.022 | $3.5920=04$ | $3 . y 45 \times 04$ |
| 2. $5030+02$ | 3.857004 | 4.964-04 0 |
| $2.0800+02$ | 4.1310004 | 5. $254=04$ |
| $1.0850+02$ | 4.4130004 | 6. 1200004 |
| $1.714 n+02$ | $4.704 n=04$ | 6.966-04 |
| 1.564.0*2 | 5.003:04 | 7.198=04 |
| 1.4320002 | 5.3100004 | 8. ก22-04 |
| $1.5150+02$ | 5.625 .04 | 9.741=04 |
| 1.4110+02 | 5.9480004 | 1.111003 |
| $1.1100+02$ | 6.278=04 | 1. $235=03$ |
| $1.0350+02$ | $6.615 m=04$ | 1.3650003 |
| 9.0000001 | 6.9600004 | 1.5040003 |
| 8.720 .001 | $7.311=04$ | $1.650=03$ |
| 8,5220+01 | $7.669=00^{4}$ | $1.803=00^{3}$ |
| $7.7730+01$ | $8.034-04$ | 1. y $65=03$ |
| $7.275+01$ | 8.405004 | 2, $136-03$ |
| $6.0250+01$ | 8,7820-04 | $2.3150=03$ |
| 6.4100001 | 9.1650-04 | $2.9020=03$ |
| $6.0 .34 m+01$ | $9.5530-04$ | $2.0980=03$ |
| $5.084 \% 01$ | 9.947004 | 2.4030003 |
| 5.373501 | 1.035003 | 3.1170=03 |
| 5.0820+01 | 1.0750.0.3 | 3.540003 |
| $4.6150+01$ | $1.110000^{3}$ | 3.273=03 |
| $4.5600+01$ | $1.1570-03$ | 3.0140-03 |
| $4.5400+01$ | $1.199 x-03$ | 4. 0650003 |
| 4.1300+01 | 1.2410003 | 4. 326000 |
| $3.9340+01$ | 1,284=03 | 4.9960-03 |
| 3.7530*01 | 1.327=03 | 4.0760003 |
| 3,584m+01 | 1.3700003 | 5.166-m 03 |
| $3.4270+01$ | 1.414-03 | 5.4660003 |
| 3.c81=+01 | 1.4580003 | $5.175000^{3}$ |

PARTICLE DENSITY $=10.0$ GRAMS PER CUBIC CENIIMETER

| LIAMETEK | VELUCITY | RE | dRAG COEF | helax time | .90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2.000x+01 | 1.473.00 | 8, $229=01$ | $3.144 x+0.1$ | $1.5030-03$ | 6.4950003 |
| b.900x+01 | 1.517000 | 8,9340001 | $3.0100+01$ | 1.5470003 | $6.4250-03$ |
| $6.000 n+01$ | 1.5610000 | 9.350 .01 | 2.0900+01 | 1.5920003 | 6.1650003 |
| $0.100 x+01$ | 1.006000 | 9.776=01 | $2.7840+01$ | 1.6380003 | 7.1150-03 |
| $6.200 x+01$ | $1.651 m+00$ | 1.021. +00 | 2.078.0.01 | 1,683=03 | $7.476=03$ |
| $0.300 x+01$ | $1.090 \pm 00$ | 1.060.m+00 | 2.279n+01 | 1.7290003 | 7.847003 |
| $6.400 x+01$ | 1.741000 | $1.1120+00$ | 2.48bot01 | 1.7750003 | $8, \angle 28=03$ |
| 0.500x+61 | 1.780 .00 | 1.159 .00 | 2.39\% 0.01 | 1.822-03 | $8.020=03$ |
| $6.600 \times+111$ | 1.832000 | 1.207**00 | $2.3150+01$ | 1.8690003 | 9.423=03 |
| $0.700 x+10$ | $1.879+00$ | 1.256**0 | $2 .<340+01$ | 1.9100003 | 9.4361003 |
| $0.600 x+01$ | $1.9250+00$ | 1.3060*00 | 2.159 .01 | 1.963003 | $9.8600=03$ |
| $6.900 x+61$ | 1.9720+00 | $1.3580+00$ | $2.0880+01$ | 2.011-03 | 1.4300002 |
| 1.000x+01 | $2.0190+00$ | $1.4100+00$ | $2.0210+01$ | 2.059-03 | 1.0740002 |
| 1.100x+01 | 2.060 +00 | 1.4640*00 | $1.9570+01$ | 2.107=03 | 1.1200002 |
| $7.200 x+101$ | $2.1140+00$ | 1.519n+00 | $1.0900+11$ | 2. 156000 | 1.1660-02 |
| $7.300 x+01$ | $2.1620+00$ | 1.5750*00 | $1.037 n+01$ | $2.205-03$ | $1 .<140002$ |
| $1.400 x+01$ | $2.2110+00$ | 1.633s+00 | $1.7820+01$ | 2,2540-03 | 1.2630002 |
| $1.500 \mathrm{n}+01$ | $2.2600+00$ | 1.6910+00 | 1.7200*01 | 2.3040003 | 1.0130002 |
| \%.000x+0! | $2.3090+00$ | 1.7510+00 | $1.6770+01$ | $2.355-03$ | $1.564=02$ |
| $7.700 x+01$ | $2.359 \% 00$ | 1.6130000 | 1.0200001 | $2.405 \cdot 03$ | 1.4160002 |
| 1.600x+01 | $2.40^{9}+00$ | $1.8750+00$ | 1.581-01 | 2.4570.03 | 1.4700002 |
| 7.400x+61 | $2.4600+00$ | 1.9390+00 | 1.5360+01 | $2.509=03$ | 1.2240002 |
| b.000x+01 | $2.5110+00$ | 2.005-00 | $1.4930+01$ | 2.5610003 | 1.380002 |
| $0.100 x+11$ | $2.56300+00$ | $2.072 x+00$ | $1.4510+01$ | $2.614=03$ | 1.0370002 |
| $0.200 \times+1$ | $2.6150+00$ | $2.1400+00$ | $1.4110+01$ | 2.067003 | 1.0940002 |
| 0. $5000+01$ | 2.0680+00 | $2.2100+00$ | $1.3720+01$ | 2.7210003 | $1.153=02$ |
| $0.400 x+31$ | $2.722 \%+00$ | 2.2820+00 | $1.534 m+01$ | 2.7760003 | $1.013-02$ |
| $0.200 x+1$ | $2.776+00$ | 2.355000 | 1. 298.01 | 2.8310003 | 1.075.02 |
| $6.6000+11$ | $2.8300+00$ | 2.429. 000 | $1.2630+01$ | 2.8860003 | $1.437=02$ |
| -.700x+01 | 2.686 .00 | $2.2060+00$ | 1.229.0.0.1 | 2,9430-03 | 2. 1000002 |
| 6. $6000+81$ | $2.941 m+00$ | 2,583n+00 | $1.197 *+01$ | $3.0000-73$ | 2.065-02 |
| $8.900=+01$ | $2.990 \% 00$ | $2,663=00$ | 1.1600+01 | $3.0570-03$ | $2.1310-02$ |
| 9.000x+01 | $3.054 \pm+00$ | 2.7430-00 | 1.1320001 | 3.1150-03 | 2.1980*02 |
| \%.100x+01 | 3.1110+00 | $2.826=+00$ | $1.1000+01$ | $3.1730=03$ | 2.266-02 |
| $4.200 x+61$ | 3.169 +00 | $2.9090+00$ | $1.10700+01$ | $3.2310-03$ | 2.5350 .02 |
| 4. $300 x+01$ | 3.220**00 | 2,9940+00 | 1.0510001 | 3.290x-03 | 2.4050002 |
| $9.400 x+81$ | 5.284=+00 | 3.0810+00 | 1.020.0.0.1 | $3.5490-03$ | 2.477-0. 0 |
| $9.5000 x+01$ | 3.3420+00 | 3.1680*00 | 1.0010001 | 3,408-03 | 2.55010902 |
| $y .000 x+01$ | 3.399800 | S. $257 \mathrm{7}=00$ | 9.1770+00 | $3.4600=05$ | 2.0230 .02 |
| $4.700 x+61$ | $3.450=00$ | 3.3460+00 | $9.250 .+00$ | 3,524x-03 | 2.098.0.02 |
| Y.000x+11 | $3.213 n+00$ | 3.435. +00 | 9.347n+00 | 3,54,2x-03 | 2.175x-02 |
| 勺.400x+ 01 | 3.568 .000 | 3.5250+00 | 9.151000 | $3.0 .390-03$ | 2,0520-02 |
| $1.000 x+02$ | -3.6220+0.0 | $3.015=00$ | $8.469-0.0$ | $3.094 x-03$ | 2.4300002 |
| 1.100x+02 | $4.1100+00$ | $4.5120+00$ | 7.6610 .00 | 4.1920-03 | 3.1790-02 |
| $1.200+62$ | $4.6340+00$ | $5.5500+00$ | 6.5750+00 | 4.7.26-03 | 4.1440-02 |
| $1.300 x+62$ | 5.1650+00 | 6.7010+00 | $5.7350+00$ | $5.267-03$ | 5.0250-02 |

## PARTICLE DENSITY = 10.0 GRAMS PER CUBIC CENTIMETER

|  | DIAMETER | VELUCITY | RE | DRAG COEF | helax time | ,90 DIST |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.400=022 | $5.7000+00$ | 7.964m+00 | 5.071-40 | 5.613 .003 | 7.0230.02 |
|  | $1.500=+02$ | 6.239000 | 9,339**00 | 4.5350*00 | 6.5620003 | 8. $33600 \cdot 02$ |
|  | $1.600 \times+112$ | $6.7800+00$ | $1.0830+01$ | 4.090-00 | $6.9140=03$ | 9.16300-02 |
|  | $1.7000+02$ | $7.3230+00$ | 1. $2420+01$ | 3.730-00 | 7.4680003 | $1.130=01$ |
|  | $1.800=+02$ | 7.8670*00 | $1.413=01$ | 3.422-00 | $8.023=03$ | $1.295 \sim 01$ |
|  | $1.900=+02$ | $8.4110+00$ | $1.595 p+01$ | 3,160**0 | 8,778-03 | 1.4720001 |
|  | 2.000x+02 | 8.956.000 | 1.7880+01 | $2.9340+00$ | 9.133-03 | 1.0590001 |
|  | 2. $100 x+02$ | $9.499 \% 00$ | 1.9910001 | 2.138 .000 | 9.687003 | 1.0570001 |
|  | 2. $200=+02$ | $1.00^{4} 0+01$ | 2.2050+01 | $2.567-00$ | 1.024-02 | 2.4650=01 |
|  | $2.300=+02$ | 1.058.001 | 2.4290+01 | $2.410 x+00$ | 1.079 - 02 | 2.c83x-01 |
|  | $2.400 x+02$ | 1.1120+01 | $2.6640 * 01$ | $2.2820+00$ | $1.1340=02$ | 2.5120001 |
|  | 2, $2000 \times 02$ | 1.166\% 01 | 2.9100*01 | $2.1630+00$ | 1.189 = 02 | $2.751=01$ |
|  | $2.600 \times+02$ | $1.2200+01$ | 3.165 0 -01 | $2.056-00$ | 1.2440-02 | 3.400-01 |
|  | $2.700=+02$ | $1.2730+01$ | $3.4310+01$ | 1.7600+00 | 1.298x-02 | 3.258-0 01 |
|  | $2.800 x+02$ | 1.326.01 | 3,7070+01 | 1.873000 | 1.353=02 | 3.2260001 |
|  | $2.900=+12$ | 1.379**01 | 3.9920+01 | $1.793=00$ | 1.407002 | 3.003001 |
|  | $3.000 x+02$ | $1.432 n+01$ | 4,2880*01 | 1.7210+00 | $1.4600=02$ | 4.0890001 |
|  | $3.1000+02$ | $1.4850+01$ | 4,593n+01 | 1.655m+00 | $1.5140=02$ | $4.985=01$ |
|  | $3.200 x+02$ | $1.5370+01$ | 4,90800 01 | $1.594 x+00$ | 1.567=02 | 4.0890.01 |
|  | $3.300 x+02$ | $1.5890+01$ | 5.2320*01 | 1.539 .000 | 1.620002 | 5.401*01 |
| * | $3.400=+02$ | $1.6400+01$ | $5.5660+01$ | 1.487000 | 1.673002 | 5.3230.01 |
|  | $3.500 x+02$ | 1.6920001 | $5.909 \%+01$ | $1.4390+00$ | 1.7250002 | $5.0530 \cdot 01$ |
|  | $3.000 x+02$ | $1.7430+01$ | 6.2620-01 | 1.392000 | 1.777-02 | 5.4900001 |
| 2 | 3.700x+02 | $1.794 \rho+01$ | 0,623-01 | 1.353-00 | 1.0290-02 | 0. 3300001 |
|  | $3.800=02$ | $1.844 n+01$ | $6.994=01$ | $1.315=00$ | 1.881002 | $6.090 * 01$ |
|  | S.900x+02 | $1.894 n+01$ | 7.373-01 | 1.279**0 | 1.932-02 | 7.1452x-01 |
|  | $4.000 x+02$ | $1.9440+01$ | $7.7620+01$ | 1.245000 | 1.983-02 | 7.421*01 |
|  | $4.100+02$ | 1.994001 | $8.159+01$ | $1.2150+00$ | 2.033-02 | 7.198-01 |
|  | $4.200=+02$ | $2.0430+01$ | 8.2650+01 | $1.184=000$ | 2.0840002 | 8.1830-01 |
|  | $4.300 x+02$ | $2.0920+01$ | $8.9800+01$ | $1.1560+00$ | $2.134 n-02$ | 8.3740-01 |
|  | $4.400 \times+02$ | 2.1410+01 | 9.403001 | $1.129=00$ | 2.1840-02 | 8. $\because 730001$ |
|  | $4.500 \times+02$ | 2.1900+01 | $9.834 m+01$ | $1.10^{4}=+00$ | $2.233=02$ | 9.5780-01 |
|  | $4.600 x+02$ | 2.2380001 | 1.027-02 | 1.081-00 | 2.2820-02 | 9.1910001 |
|  | 4.700=+02 | 2.286-01 | 1.072=+02 | 1.058=+00 | 2.3310002 | 1. $\mathrm{j}^{21} \mathrm{l}=00$ |
|  | $4.800 x+02$ | 2.334 .01 | 1.1180+02 | 1.037000 | $2.3800-02$ | 1.0640+00 |
|  | $4.900=+12$ | $2.381 \dot{0}+01$ | -1.164-02 | 1.0170+00 | 2.428.02 | 1.1070*00 |
|  | 5.000x+12 | $2.4280+01$ | 1:2120-02 | 9.981-01 | $2.476=02$ | $1.1510+00$ |
|  | b. 100x+02 | $2.4750+01$ | 1.260=+02 | $9.799=01$ | 2,5240-02 | 1.1950000 |
|  | 2.200x+02 | $2.521 \mathrm{~m}+01$ | $1.3080+02$ | 9.620.01 | 2.5710-02 | 1. $<^{4} 00+00$ |
|  | $5.300-02$ | $2,5600+01$ | 1.358:02 | 9.4600001 | $2.618=02$ |  |
|  | 2.400* 02 | $2,614.01$ | $1.4090+02$ | $9.30^{3}=-01$ | 2.665:02 | $1.3330+00$ |
|  | 2. $2000+02$ | 2.659 .01 | $1.460 \dot{0}+02$ | 9.152-01 | $2.7120=02$ | 1. $5800+00$ |
|  | 2.600x+42 | $2,7050+01$ | $1.5120+02$ | 9.008-01 | 2.758-02 | $1.427 \mathrm{~m}+00$ |
|  | 2.700x+02 | 2,7500+01 | 1. $2640+0.2$ | 8.87700001 | $2.8040=02$ | $1.4750+00$ |
|  | 5.000x+02 | $2.7950+01$ | 1.618.02 | 8.7360001 | 2.8500-02 | 1.3240000 |
|  | $5.900 x+012$ | $2.839 \mathrm{~m}+01$ | 1,6720+02 | 8.0110001 | 2,896-02 | $1.27300+00$ |

PARTICLE DENSITY $=10.0$ GRAMS PER CUBIC GENTIMETER
DIAMETEK
VELOCITY
RE
DRAG COEF RELAX TIME .9A DIST

$2.884 * 01 \quad 1,727 m+02$ $2.928 * 01 \quad 1.7820+02$ 2.972n*01 $3.015 * 01$ 3.059.0.01 3.102m+01 $3.1450+01$ 3.1870*01 $3.230+01$ $3.272 \infty+01$
$3,314 \% 01$
$3,356 .=01$
$3.397 .+01$
$3.438=+01$
$3.4790+01$
$3.5200+01$
$3.5610+01$
$3.601 m+01$
$3.6410+01$
$3.681=+01$
$3.721 x+01$
$3.760 x+01$
$3.799+01$
3.838 +01
$3.8770+01$
$3.916+01$
$3.954 \infty+01$
$3.9920+01$
$4.030 .+01$
$4.068+01$
$4,10^{6}=+01$
$4,1450+01$
$4,140=+01$
$4,1810+01$
$4.2180+01$
$4.2540+01$
$4.291 m+01$
$4.3200+01$
$4.364_{10+01}$
$4,4000+01$
$4.4300+01$
$4.472 x+01$
$4.50^{7}+01$
$4.5430+01$
$4.5780+01$
$4.0150+01$
$4.6400+01$
$1.7820+02$
$1.8390 * 02$
$1.839 * 02$
$1.896 \omega+02$
$1.954 x+02$
$2.0120+02$
$2.0710+02$
$2.131+02$
2. $1310+02$
$2.192 x+02$
2.253
$2.253=02$
$2.315 m+02$
$2.378=02$
$2.441 x+02$
$2.5050+02$
$2.5700+02$
$2.635=+02$
$2.701=02$
$2.767=02$
$2.834=02$
$2,902=02$
$2.970=02$
$3.0400+02$
$3,109 n+02$
$5.179 x+02$
$3.2500+02$
3. $322 \pm+02$
$3.394 n+02$
$3.466 m+02$
$3.540=02$
$3.613=02$
$3.6880+02$
$3.763=+02$
$3.838=+02$
$3.9150+02$
$3.9910+02$
4.068 $0+02$
4.146w+02
4.225-02
$4,304 x+02$
$4.383 x+02$
$4.4630+02$
$4.2430+02$
4.6 250+02
$4.706 n+02$
$4.788 .+02$
$4.6710+02$


| 2,9410-02 | $1.0230+00$ |
| :---: | :---: |
| 2,986=02 | $1.0750+00$ |
| $3.031=02$ | $1.1240+00$ |
| 3.0750-02 | 1.1750+00 |
| 3.119002 | $1.0270+00$ |
| 3,163. 02 | 1.0800000 |
| $3.207=02$ | $1.9320+00$ |
| 3.250-02 | 1. $9860+00$ |
| 3.294**02 | 2.040000 |
| 3.337**2 | 2.19440+00 |
| 3.3790-02 | $2.149 m+00$ |
| 3.4220=02 | $2.204 m+00$ |
| 3,464=02 | $2.260^{10+00}$ |
| $3.506=02$ | $2.5160+00$ |
| 3.548.02 | $2.5720+00$ |
| 3.5900002 | 2.4290+00 |
| 3.631-02 | $2.4870+00$ |
| 3,672-02 | 2.5440+00 |
| 3.713.02 | $2.0030+00$ |
| $3.7540-02$ | $2.0610+00$ |
| 3.7940\%02 | 2.1200*00 |
| $3.8340=02$ | 2.180000 |
| 3.874002 | $2.8400+00$ |
| 3.9140=02 | 2.4000000 |
| $3.954=02$ | 2. $4600+00$ |
| 3.9930-02 | 3. $u^{21}=00$ |
| 4.032-02 | 3. $4^{83} 4+00$ |
| 4.07150.02 | 3.1440+00 |
| 4.1100002 | 3.2070+00 |
| 4.149-02 | 3. $2690+00$ |
| $4.147 x=02$ | 3. $2320+00$ |
| 4.225002 | 3. 995000 |
| 4.26300-02 | 3.458m*00 |
| 4.3010002 | 3.5220+00 |
| 4.339-02 | 3.2860+00 |
| 4.376-02 | $3.0500+00$ |
| 4.413002 | $3.1150+00$ |
| 4.450002 | $3.1800+00$ |
| 4,487x-02 | $3.046=+00$ |
| 4, 2.240002 | 3.9110000 |
| 4.5600=02 | 3.977000 |
| 4.5970002 | $4 \cdot u^{4} 3 x+00$ |
| 4.633002 | $4.110^{0+0} 0$ |
| 4.669.02 | 4.1770 + 00 |
| $4.704=02$ | $4 .<440+00$ |
| $4.7400 \cdot 02$ | 4.S110+00 |

PARTICLE UENSITY $=11.0$ GRAMS PER CUBIC CENIIMETER

## viametee

## velucity

RE
$1.000 x+00$
$1.100 x+00$
$1.200 x+00$
$1.300 x+00$
$1.400 x+00$
$1.500 x+00$
$1.000 x+00$
$1.700 x+00$
$1.800 x+00$
$1.900 x+00$
$2.000 x+00$
$2.100 x+00$
$2.200 x+00$
$2.300 x+00$
$2.400 x+00$
$2.500 x+00$
$2.600 x+00$
$2.700 x+00$
$2.800 x+00$
$2.400 x+00$
$3.000 x+00$
$3.100 x+00$
$3.200 x+00$
$3.300 x+00$
$3.400 x+00$
$3.200 x+00$
$3.600 x+00$
$3.700 x+00$
$3.800 x+00$
$3.900 x+00$
$4.000 x+00$
$4.100 x+00$
$4.200 x+00$
$4.300 x+00$
$4.400 x+00$
$4.500 x+00$
$4.000 x+00$
$4.700 x+00$
$4.800 x+00$
$4.900 x+00$
$5.000 x+00$
$3.100 x+00$
$5.200 x+00$
$5.300 x+00$
5
$5.437=04$
$6.579=04$
$7.829=04$
$9.189=04$
$1.060=03$
$1.223=03$
$1.392=03$
$1.571=03$
$1.762=03$
$1.963=03$
$2.175=03$
$2.398=03$
$2.631=03$
$2.876=03$
$3.132=03$
$3.398=03$
$3.675=03$
$3.964=03$
$4.263=03$
$4.572=03$
$4.893=03$
$5.225=03$
$5.567=03$
$5.921=03$
$6.285=03$
$6.660=03$
$7.046=03$
$7.443=03$
$7.851=03$
$8.269=03$
$8.699=03$
$9.139=03$
$9.590=03$
$1.005=02$
$1.053=02$
$1.101=002$
$1.150=02$
$1.201=02$
$1.253=02$
$1.305=02$
$1.359=02$
$1.414=00$
$1.470=02$
$1.527=02$
$1.585=02$
$1.044=02$

| 2.4260006 | 4.423-06 |
| :---: | :---: |
| 7.222.00 0 | 3.323-06 |
| 9.376-06 | 2.560.006 |
| 1.1920-05 | $2.0130+06$ |
| 1.489-05 | 1.6120+06 |
| $1.031=05$ | 1.311.0+06 |
| 2.223.-05 | $1.0800+06$ |
| 2.666-05 | 9.003 $0+05$ |
| 3.165=05 | $7.5840+05$ |
| 3.7220-05 | 6.449 n +05 |
| 4.341:-05 | 5.529 .05 |
| 5.025-05 | 4.776 .05 |
| 2.778=05 | $4.154 n * 05$ |
| 6,60280-05 | $3.0350+05$ |
| 7.501 .005 | 3.2000+05 |
| $8,478=05$ | 2.0310*05 |
| 9.537.0.0 | 2.5170+05 |
| 1.068-04 | 2. $4478+05$ |
| 1.191-04 04 | 2.015 0 + 05 |
| $1.523=04$ | 1.014-05 |
| $1.4650-04$ | 1.6380005 |
| 1.616 .004 | $1.4850+05$ |
| 1.778.0.04 | 1.3500+05 |
| 1.9500004 | $1.231=05$ |
| 2.1330004 | 1.1250*05 |
| 2.326-04 | 1.03cot05 |
| 2.532.04 | 9.481-04 |
| 2.748-04 | $8.1330+04$ |
| 2.9770-14 | 8.0.j610+04 |
| 3.219**04 | $7.4570+04$ |
| 3,473=04 | $0.9120+04$ |
| $3.740=04$ | $0.4180+04$ |
| 4.020-04 | $5.9710+04$ |
| 4,314=-04 | $5.5640+04$ |
| 4,622-04 | 5.1930+04 |
| 4.9440-04 | 4.854 in +.04 |
| $5.281=04$ | $4.5450+04$ |
| 5.6330\%04 | $4.2610+04$ |
| $6.0000-04$ | $4.000 x+04$ |
| $6.383=-04$ | 3,760-04 |
| 0.7820004 | 3.539.0 +04 |
| $7.197=04$ | $3.3350+04$ |
| 7.629:-04 | 3.146n+04 |
| $8.077=04$ | $2.9720+04$ |
| 8,543:-04 | $2.0100+04$ |
| 9.027-04 | $2.0590+04$ |


| 07 | 8.0350010 |
| :---: | :---: |
| $6.709=07$ | 1.4950009 |
| 7,984-07 | 1.036m-09 |
| 9,3700007 | 2.3310009 |
| 1,087m=06 | 3.407n=0.8 |
| 1.248=06 | 4.493*-09 |
| 1,419m-06 | 5.920 we 09 |
| 1.6020006 | 7.422=-09 |
| 1.796=06 | 9. 5350009 |
| 2.002-06 | 1.1600-08 |
| 2.2180006 | 1.4240-08 |
| $2.445=06$ | $1.1320=08$ |
| 2.6840006 | 2.48810.08 |
| 2.9330006 | 2.495w-08 |
| 3.194-06 | 2, 4600008 |
| 3.465.06 | 3.4860008 |
| 3.748=06 | $4.10^{80} 0=08$ |
| 4.042.06 | 4.1470-08 |
| 4,347-06 | 5.4920-08 |
| $4.6630=06$ | 6. 9220008 |
| 4.990-06 | 7.243m=08 |
| 5,3280006 | 8.2610 $=08$ |
| $5.077 x-06$ | 9. $5830-18$ |
| 6.038000 | 1. $1 y^{620-07}$ |
| 6.409006 | 1.1970007 |
| 0.792 .06 | 1.5440007 |
| 7.1850-06 | $1.2050=07$ |
| 7.790-06 | 1.3800007 |
| 8.006 =06 | 1.069-07 |
| $8.4330=06$ | 2. $0^{750007}$ |
| 8.8710-06 | 2. 2960007 |
| 9.5200-06 | 2. $3.360=07$ |
| 9.780006 | 2.193007 |
| 1.0.25005 | 3.0690007 |
| 1.073 .05 | $3.366=07$ |
| 1.1230*05 | $3.0830=07$ |
| $1.1730-05$ | 4.u23-07 |
| 1.2250005 | 4.98510.07 |
| 1.277005 | 4.1720007 |
| $1.3310=05$ | 5.1830007 |
| 1.386 .05 | 5.0200-07 |
| 1.4420005 | $6.11^{85} 50 \cdot 07$ |
| $1.499=05$ | 6. $278 \mathrm{m=07}$ |
| 1.557-05 | 7.1000-07 |
| 1.617005 | 7.053-07 |
| 1.677=05 | 8. 47 - 07 |


| JAMETEK |
| :---: |
| - |
| b. $700=00$ |
| b.800: 000 |
| 5.9000+00 |
| c. $0000+00$ |
| $6.100 x+00$ |
| $0.200=+00$ |
| $0.300 x+60$ |
| $0.400 x+00$ |
| $0.500 x+00$ |
| $0.600 x+40$ |
| $0.700 x+00$ |
| $0.800 x+00$ |
| $0.900 x+00$ |
| 1.000=+00 |
| \%.100 +00 |
| 1.200=+100 |
| $7.300 \times+00$ |
| 1.400x+00 |
| 1. $200 x+00$ |
| $7.600 x+00$ |
| 7.700x+10 |
| $7.600 s+110$ |
| 1.400\%+60 |
| $8.000 x+110$ |
| $0.100 x+100$ |
| $8.200 x+60$ |
| O. $300 x+160$ |
| b. $4000 x+100$ |
|  |
| $8.000 \times+00$ |
| $6.700 x+00$ |
| $8.800 x+00$ |
| $6.900 \times+00$ |
| Y.000x+U0 |
| 4. $100 x+60$ |
| y. $200 \mathrm{x}+110$ |
| y.300x+00 |
| $4.400 x+10$ |
| y. $200 x+00$ |
| Y. $600 \times+00$ |
| $4.700 x+00$ |
| $4.800 x+00$ |
| Y. $400 \times+00$ |
| 1.000x+01 |
| - $100 \times+01$ |

VELOCITY
1.705002 $1.760=02$ $1.829=02$ $1.8920=02$ $1.957=02$
$2.023=02$
2.090-02
$2.158=02$
2.227-02
2.297-02
2. $368=02$
$2.4400=02$
$2.514=02$
$2.588=02$
$2.663=02$
$2.7400=02$
$2.818=02$
$2.897=02$
$2.976=02$
$3.057=02$
3.139- 022
$3.223=02$
$3.307=02$
3.592-02
$3.478=02$
$3.566=02$
$3.054=02$
$3.744=02$
$3.6350=02$
$3.920-02$
4. $319=02$
4.1150002
$4.20^{8} 0-02$
$4.50^{4}=02$
$4,402=02$
$4.500=02$
4.59910002
$4.700=02$
4, $801=02$
$4.90^{4}=02$
$5.000-02$
$5.1120=02$
5.210002
$5.525=02$
$5.433-02$
0.5720 .02

RE
drag coef relax time
-9の DIST

| 9,528=04 | $2.5190+04$ | 1.139.005 | 8.0550 .07 |
| :---: | :---: | :---: | :---: |
| $1.005-03$ | $2.5890+04$ | 1.8010005 | 9.5060-07 |
| 1.059.03 | 2.260004 | 1.865 .05 | $1.4190=00$ |
| $1.114 \% 03$ | $2.1540+04$ | 1.9300005 | $1.11^{920} 00$ |
| $1.172=03$ | $2.048=+04$ | $1.996=05$ | 1.16800-06 |
| 1.2310003 | 1.949 $0+04$ | 2.063 .05 | 1.2480000 |
| 1.2930003 | $1.650 \pm 04$ | $2.131=05$ | 1.3320006 |
| $1.3570 \% 03$ | 1.7700+04 | $2.200 \times 0.05$ | 1.420-00 |
| 1.422.03 | 1.6880+04 | $2.2710=05$ | 1.213000 |
| 1.490-03 | $1.6110+04$ | $2.342=05$ | 1.0100006 |
| 1.560 .003 | 1.53904 | 2.4150005 | 1.1120006 |
| 1.6320003 | $1.471=+04$ | $2.4880 \cdot 05$ | 1.0180000 |
| 1.706 .003 | $1.4070+04$ | 2. $563-05$ | 1. y $29=06$ |
| 1.782 .703 | $1.347=04$ | 2.6390005 | 2.146-06 |
| 1.8610003 | 1.2900*04 | 2.710 .05 | $2.167=06$ |
| 1,942=03 | $1.2360 * 04$ | 2.7940005 | $2.294=06$ |
| 2.025-03 | $1.1800 \pm 04$ | 2,0730=05 | 2.426=06 |
| $2.110-03$ | 1.1380004 | 2.954-05 | 2. 2640006 |
| 2.198=03 | $1.0920+04$ | $3.035-05$ | 2.1080006 |
| 2,288= 0 - ${ }^{\text {c }}$ | $1.049+04$ | 3.118005 | $2.058-06$ |
| $2.3810=03$ | $1.00000+04$ | $3.2010-05$ | 3. $414=06$ |
| 2.476003 | 9.095003 | $3.280-05$ | 3.176000 |
| 2.5740003 | $9.3270+03$ | 3.372005 | 3. $3450-06$ |
| 2.6740003 | $8.477-03$ | 3.459wo 05 | 3.2200006 |
| 2,777-03 | $8.045+03$ | $3.547=05$ | 3.102x-06 |
| 2.883-03 | 8.529 0* 03 | $3.636=05$ | 3.5920-06 |
| $2.991=03$ | $8.02000+03$ | 3.727005 | $4 \cdot u^{88}=06$ |
| 3.1010-03 | $7.7420+03$ | 3.8180005 | 4. $4^{9} 2=0=06$ |
| $3.215=03$ | 7.4690003 | 3.9100005 | $4.2030-00$ |
| 3.3310003 | 7. $2090+03$ | $4.004=05$ | $4.122=06$ |
| 3.4500003 | $6.9600+03$ | 4.09910\%05 | 4,y 4800006 |
| $3.571=03$ | 6.725 0.03 | 4.1950 .05 | 5.183-0 06 |
| 3,696-03 | $6.4970+03$ | 4.2920-05 | 5.4260006 |
| $3.823=03$ | $0.2810+03$ | 4,3900005 | 5.078-06 |
| 3,954=03 | 6.0740*03 | 4.4890 .05 | $5.438=06$ |
| 4,0870-03 | 5.070003 | 4.2890005 | 6.2070000 |
| 4,2230-03 | 5.087003 | 4.6900 .05 | 6.4860006 |
| 4.362-03 | $5.5050+03$ | $4.793=05$ | 6.173-06 |
| 4.5040-03 | 5.332w+03 | $4.896 x=05$ | 7.0700-06 |
| 4.649 0.03 | 5.165x*03 | $5.0010-05$ | $7.976 \times 06$ |
| 4.798-03 | $5.000 x+03$ | $5.1060=05$ | 7.0930 .06 |
| 4.949.03 | $4.0530+03$ | 5.213005 | 8. $419=06$ |
| 5.1040003 | $4.7060+03$ | $5.3210=05$ | 8.556-06 |
| $5.2610=03$ | $4.2650+03$ | $5.4300=05$ | 8.1030006 |
| 5.4220003 | 4.4290003 | 5.5400005 | 9. $\mathrm{U}^{610} 000$ |
| 7.2150003 | 3.0300+03 | $6.7020 \cdot 0^{5}$ | $1.328=05$ |

PARTICLE DENSITY $=11.0$ GHAMS PER CUBIC CENTIMETER

U IAMEETER
VELACITY

| $200=+01$ | 7.8190 .02 |
| :---: | :---: |
| $1.300 \%+01$ | $9.174=02$ |
| $1.4000+01$ | 1.0640001 |
| $1.5000+01$ | 1,2200=01 |
| 1.600x+01 | 1.388. $=01$ |
| $1.700=01$ | 1.566.01 |
| $.800 x+01$ | 1.754-01 |
| $1.900=+\mathrm{d}$ | 1.95 =01 |
| $2.0000+01$ | $2.162=01$ |
| 2.100**01 | 2.382-01 |
| $2.200 x+01$ | 2,011-01 |
| $2.3000+01$ | 2.8510001 |
| <.400x+01 | 3.1010001 |
| 2. $2000 x+01$ | $3.360=01$ |
| 2,600x+01 | 3.629-01 |
| $2.7000+01$ | $3.90^{6}=01$ |
| $2.8000+01$ | 4.190.01 |
| $2.9000+01$ | 4.493.01 |
| $3.000 x+01$ | 4,800.001 |
| $3.1000+01$ | 5.1150-01 |
| $3.200=+01$ | 5.439 .01 |
| 5.3000+01 | 5.7720=01 |
| 3.400x+01 | $0.113=01$ |
| 3.500x+01 | 6.4620-01 |
| $3.000=+01$ | 6.819.001 |
| $3.700 * 01$ | 7.18.5=01 |
| $3.4000+01$ | 7.555001 |
| $3.900=0.1$ | 7.935.01 |
| 4.000x+10) | 8.321001 |
| 4.100x+01 | $8.7140=01$ |
| $4.200 \%+11$ | 9.114=-01 |
| $4.300 x+01$ | $9.5200=01$ |
| $4.400 x+01$ | 9,9320-01 |
| 4. $6000+01$ | $1.0350+00$ |
| 4.000x+01 | $1.077 n+00$ |
| $4.700 x+01$ | 1.1200+00 |
| 4.000x+0.1 | 1,16.3-00 |
| $4.900 \times+01$ | $1.2070+00$ |
| 2.000x+01 | 1.252m+00 |
| 2.100x+61 | 1.296**00 |
| $2.200 x+61$ | $1.342=00$ |
| $2.300 x+01$ | 1.387000 |
| $5.400 \times+11$ | 1.433000 |
| 5.500x+ 611 | 1.479000 |
| b.600x+01 | 1.526 .00 |
| b.700u+ | $1.573 \pm 00$ |

RE
DKAG COEF RELAX TIME •y8 UIST

| $9.365=03$ | 2.560.*03 | 7,974*-05 | 30-05 |
| :---: | :---: | :---: | :---: |
| 1.1900-02 | $2.0200+03$ | 9.355=-05 | 2. $296 \mathrm{w}-05$ |
| 1.486-02 | 1.0180*03 | 1.085=04 | $3.494 \pm=05$ |
| 1.827.02 | 1.3170+03 | 1.2440004 | 4.0080005 |
| 2.2160-02 | 1.086 .003 | 1.415004 | $5.469 x=05$ |
| $2.6560-0.2$ | $9.067 \omega+02$ | 1.5970-04 | $7.013=05$ |
| 3.1510002 | 7.049n*02 | 1.789-0.4 | 9.3740.05 |
| 3,703.02 | $6.5130+02$ | 1.9920-04 | 1.1890004 |
| 4.316 - 02 | $5.5930+02$ | 2.205004 | 1.461-04 |
| 4.992-02 | $4.0410+02$ | 2.4290004 | 1.1770004 |
| 5.733.*02 | $4.2 .18 .0+02$ | $2.063=04$ | 2.141=04 |
| 6.544-02 | $3.700=+02$ | 2,907m-04 | 2.559-04 |
| 7.427-02 | $3.264 * * 02$ | 3.1620004 | 3.4350004 |
| 8,383=02 | 2.095.02 | $3.426=04$ | 3.5750=04 |
| 9.417-02 | 2.581 - 02 | 3.701004 | 4.185=-04 |
| 1.053=-01 | 2.3120*02 | 3.985. 04 | 4.0690004 |
| $1.173=01$ | 2.079**02 | 4.279=04 | $5.033=04$ |
| 1.3000001 | 1.878.02 | $4.582 x=04$ | 6.485pe 04 |
| 1.437-01 | 1.7030*02 | 4.895.-04 | 7.429-04 |
| 1.583=01 | 1.549 m 02 | 5.210 .004 | 8.473004 |
| 1.737=01 | $1.414 n+02$ | 5.547m=04 | 9.024=-04 |
| $1.9010=01$ | 1.2950+02 | 5.080004 | $1 \cdot 1^{88} 0=03$ |
| 2.0740001 | 1.1900+02 | $6.233=04$ | 1.2190003 |
| 2.257-01 | 1.090**2 | 6.5890=04 | 1.5580-03 |
| 2,4500=01 | 1.0120*02 | $0.953 n=04$ | 1.205-03 |
| $2.653=01$ | 9.3700+01 | 7.525-04 | 1.0620003 |
| 2.865-01 | $8.704 n+01$ | 7.705004 | 1.0270=03 |
| 3.0880-01 | 8.099 +01 | 8.0920-04 | 2.1001000 |
| 3.322-01 | 7.2530*01 | 8.480 .04 | 2.185=03 |
| 3.566-01 | $7.0590+01$ | $8.680=04$ | $2.9780=03$ |
| 3.8200=01 | 6.0110+01 | $9.294=04$ | 2. $5810=03$ |
| 4.0850001 | 6. $200^{4} 0+01$ | 9.708004 | 2.1940003 |
| 4.3610001 | $5.8320+01$ | 1.0130003 | 3.4170.03 |
| $4,6480=01$ | 5. $4.930+01$ | 1.0550=03 | 3.4510003 |
| 4.9.45-01 | $5.1830+01$ | 1.099-03 | 3.49500.03 |
| 5.254n-01 | $4.8900+01$ | 1.1420-03 | 3.1500003 |
| 5.5740-01 | 4.030 0 +01 | $1.1860=03$ | 4.0150003 |
| 5.904=-01 | 4.395- 01 | $1.231=03$ | 4. $29.10=03$ |
| 6.246= 0.1 | $4.1730+01$ | " $1,276=03$ | 4.5780-03 |
| 0.598-01 | 3.4600* 01 | 1.372003 | $4.0760-03$ |
| 0,9620*01 | . $3.7780+01$ | 1.368.0.03 | 5.18500.03 |
| 7,3370=01 | $3.001 .0 * 01$ | $1.4150=03$ | $5.200=03$ |
| 7.723-01 | $3.4300+01$ | $1.461=03$ | 5.637:03 |
| 8.1210001 | $3.2850+01$ | 1.509003 | $6.181 \times 03$ |
| 8.529-01 | 3.1440+01 | 1.5560003 | 6.5360005 |
| $8.949 x=0.1$ | 3.0110+01 | $1.6040 \cdot 03$ | 0.4020 .03 |

## PARTICLE DENSITY $=11.0$

UIAMETEK

| $00=+01$ | 1.621x+00 |
| :---: | :---: |
| 5.900=+01 | 1.668**00 |
| b.000x+01 | $1.710=00$ |
| -.100\% + 01 | $1.765 m+00$ |
| $0.200 x+01$ | 1.8130+00 |
| $0.300=+01$ | 1.862n+00 |
| $6.400 x+111$ | $1.9120+00$ |
| $0.500=+01$ | 1.9610+00 |
| $0.6000+01$ | $2.0110+0.0$ |
| $0.700 x+01$ | $2.061 \pm+00$ |
| $0.000 x+01$ | 2.112000 |
| $0.400 x+01$ | $2.163 \pm+00$ |
| 1.000x+01 | 2.215000 |
| $7.100 x+01$ | $2.2660+00$ |
| 1.200x+01 | $2.319 \%+00$ |
| $7.300 x+01$ | 2,372x+00 |
| $9.400 x+01$ | 2.425000 |
| 7.600x+01 | $2.479 * 00$ |
| $7.600=+0!$ | 2.533000 |
| $7.7000+01$ | $2.588 \pm+00$ |
| 1.600x+61 | 2.643000 |
| $7.900 x+01$ | 2.699 0 +00 |
| -. $0000 \times 01$ | $2.750+00$ |
| $0.100 x+01$ | $2.81310+00$ |
| $0.200=+01$ | $2.87110+00$ |
| $0.300 x+01$ | $2,9300+00$ |
| -. $4000 \times 01$ | $2.989 \pm+00$ |
| 0.500x+01 | $3.049+00$ |
| 0.600x+01 | $3.10^{9} 0+00$ |
| $0.7000+01$ | $3.1700+00$ |
| $0.800 x+01$ | $3.2310+00$ |
| $0.900 x+01$ | $3.2930+00$ |
| 4.000x+111 | $3.355+00$ |
| צ.100x+111 | 3.417 .00 |
| 4.200x+101 | $3.4780+00$ |
| $9.300 x+01$ | $3.5400+00$ |
| $4.400 x+01$ | $3.601=00$ |
| $9.500 x+11$ | $3.6610+00$ |
| $\therefore 600 \times+01$ | 3.720000 |
| $\cdots .7000+01$ | $3.777 m+00$ |
| $=.800 \times+01$ | $3.6350+00$ |
| $4.900 x+01$ | 3.886000 |
| $1.000 x+02$ | 3.935000 |
| 1. $000 x+02$ | 4.470n+00 |
| $1.210 x+42$ | $5.03500+00$ |
| $1.507 x+1^{2}$ | $5.6060+00$ |

KE
$9.381=01$
9.823 .01
$1.0280+00$
$1.074=0.0$
$1.122 *+00$
$1.1710+00$
$1.2210+00$
$1.2720+00$
$1.3250+00$
$1.3780+00$
$1.4330+00$
$1.4900+00$
$1.547 .+00$
$1.6060+00$
$1.6660+00$
$1.7280+00$
$1.7910+00$
$1.8550+00$
$1.9210+00$
$1.989=00$
$2.058=00$
2.128.+00
2. $2000 * 00$
$2.2740+00$
$2.350=+00$
2.427000
$2,5060+00$
2.5860+00
$2.068=00$
$2.752=00$
$2.838=00$
2.925 .00
3.013~*00
3. 103:*00
3.1940+00
3.286=*00
$3.378=00$
3.471.0+00
3.564- 00
$3.0570=00$
$5.7490+00$
$5.839=00$
$3.928=+00$
$4.907=00$
$0.030=00$
7.274n+00

| 2.880.01 | 1.053003 | 7.4800003 |
| :---: | :---: | :---: |
| 2,7720+01 | 1.7010003 | 7.0700003 |
| $2.063-01$ | 1.7500"03 | $8 \cdot 472=03$ |
| 2.261**01 | $1.800=03$ | $8.486=03$ |
| 2.4650001 | 1.849=03 | 8.4120.03 |
| 2.375m*01 | 1.8990003 | 9. $350=03$ |
| $2.2900+01$ | 1.949n=03 | 9.0010003 |
| $2.210 x+01$ | 2,000-003 | 1.426-02 |
| $2.134 n+01$ | 2.051000 | 1.1. $740=02$ |
| $2.061 \times 01$ | 2.1020003 | 1.1230002 |
| $1.993 x+01$ | 2.1540-03 | 1.1730=02 |
| 1, 200001 | $2.206 n=03$ | 1. $2240=02$ |
| $1.0660+01$ | 2.2580\% 03 | 1.2760=02 |
| $1.0070+01$ | 2,311003 | $1.930=02$ |
| $1.7510+01$ | 2.365003 | 1.3850002 |
| 1.097m+01 | $2.4180=03$ | $1.441=02$ |
| $1.040 n+01$ | 2.4730-03 | 1.4990002 |
| $1.5900+01$ | 2.528.03 | 1.258-02 |
| $1.249 n+01$ | $2.5830=03$ | 1.018 .02 |
| $1.500^{3}+01$ | 2.639-03 | $1.079 \times 02$ |
| $1.4600+01$ | 2.695-03 | 1.1420002 |
| 1.4180001 | $2.7530=103$ | 1.0060002 |
| $1.5770+01$ | 2.0100003 | 1.0710002 |
| 1.3300001 | 2.869 \% 03 | 1.4380002 |
| 1.501m+01 | $2.928 x=03$ | 2.0050 .02 |
| 1.264-01 | 2.9880=03 | 2.0750-02 |
| 1, $0^{29}+01$ | 3.0480003 | 2.145* 02 |
| $1.1960+01$ | 3,1090003 | 2. 2170002 |
| $1.103=01$ | 5.1710-03 | 2.290002 |
| 1.132.001 | 3.233.-03 | 2.365 .02 |
| $1.1020+01$ | 3.2950-03 | 2.4400002 |
| $1.0730+01$ | 3.3580003 | $2.2170=02$ |
| $1.0400+01$ | 3.421.003 | 2. 29600002 |
| $1.0190+01$ | 3.4840003 | 2.0750-02 |
| $9.942 m+00$ | 3. $247 \mathrm{~m}=03$ | 2.156-02 |
| $9.7040+00$ | $3.61 .00=03$ | 2.439-02 |
| $9.479 \times 00$ | $3.672=03$ | 2.473000 |
| $9.4680+00$ | 3.733=03 | 3.4080-02 |
| 9.0700*00 | 3.7930=03 | 3.0940002 |
| 8.889000 | 3.852-03 | 3.1820002 |
| $8.7220+00$ | $3.909 n-0^{3}$ | 3.4710-02 |
| $8.573 n+00$ | 3.9620"03 | 3.5610-02 |
| $8.4420+00$ | 4.013*-03 | $3.4530=02$ |
| 7.199**00 | 4. 558800 | $4.4440-02$ |
| 6.189-00 | $5.1340=03$ | 5. $969-02$ |
| 5.400000 | 5.717=03 | 6.02700.02 |

PARTICLE DENSITY= 11.0

RE
$8.6380+00$
$1.012 x+01$
$1.1730+01$
$1.3450+01$
$1.5290+01$
$1.7250+01$
$1.932=01$
$2.1510+01$ $2.381=01$ $2.6220+01$ $2.874=+01$ $3.138=01$ 3.4.120+01 $3.697=01$ 3.993.*01 4.299**01 $4.6150 * 01$ 4.942. +01 $5.2800+01$ $5.627=01$ 5, 984~*01 $0.3520+01$ 6.729=-01 $7.115=+01$ $7.512=01$ $7.917=01$ $8.332=+01$
$8.757 m+01$
$9.1910+01$
$9.6330+01$
$1.009=+02$
$1.055=+02$
$.1 .102-02$
$1.149=+02$
$1.1980+02$
1.248 .02
$1.298=02$
$1.349 m+0{ }^{2}$
$1.4010 \div 02$
$1.454=02$
$1.508=02$
$1.583 .+02$
$1.0180+02$ $1.0740+02$
$1.7310+02$ $1.7890+02$

GRAMS PER CUBIC CENTIMETER

| 4.7840000 | 6.3050 .03 | 8.219-02 |
| :---: | :---: | :---: |
| $4.2890+00$ | 6.890.0.03 | 9,1440=02 |
| 3.879000 | 7.489-03 | 1.140001 |
| $3.5370+00$ | 8,0840003 | 1.3180-01 |
| $3.2490+00$ | 8.679-03 | 1.5090001 |
| $3.00^{3} 0+00$ | 9,275=03 | 1.1130001 |
| 2.792w+00 | 9.870003 | 1.9290001 |
| $2.0080+00$ | $1.046=02$ | 2.157001 |
| 2.447\% +00 | 1.1060002 | 2.398-01 |
| $2.3050+00$ | $1.165=02$ | 2.050 .01 |
| $2.1790+00$ | 1.224-02 | $2 . \pm 130001$ |
| $2.0670+00$ | $1.2820=02$ | 3.1880-01 |
| $1.460=00$ | $1.341=02$ | $3.4740=01$ |
| 1.076 $0+00$ | 1.3990-02 | $3.171=01$ |
| 1.7930000 | 1.457-02 | $4.078=01$ |
| 1.7190000 | $1.5150=02$ | $4.397=01$ |
| $1.0510+00$ | $1.5720=02$ | 4.125=01 |
| 1.580-*00 | 1.6290\% 02 | 5.10640001 |
| 1, $531=+00$ | 1.686.02 | 5.412-01 |
| 1.476000 | 1.7420*02 | 5.771=01 |
| 1.429 .00 | 1.798-02 | 6,1390001 |
| 1. $5840+00$ | 1.854-02 | 6.316.01 |
| 1.5420*00 | 1.9100002 | 6.4030001 |
| 1.903000 | 1.965-02 | 7.2990-01 |
| 1.2600+00 | 2.0200002 | 7.1040001 |
| $1.2320+00$ | 2.0740-02 | 8.1170001 |
| 1.2000000 | 2.129-02 | 8.539-01 |
| $1.1700+00$ | 2.1820.02 | 8. $769=01$ |
| $1.1420+00$ | 2,2360002 | 9.4080-01 |
| 1.1100000 | 2,289 $0=02$ | 9.0550001 |
| $1.091=00$ | 2,3420-0.2 | $1.0310+00$ |
| 1.067000 | 2.395002 | $1.0770+00$ |
| 1.0.45w+00 | 2,447:02 | 1.1240000 |
| $1.023=00$ | $2.499=02$ | 1.1720+00 |
| $1.0030+00$ | 2.5500"0.2 | 1.2210+00 |
| 9.043 .001 | 2,002=02 | 1. $2700+00$ |
| 9.0.6C001 | $2.653 n=02$ | 1.3200+00 |
| 9.4.99-01 | 2.70300 02 | $1.5710+00$ |
| $9.325=01$ | 2.754=02 | 1.4220+00 |
| 9.160 .01 | $2.004 m=02$ | $1.4740 * 00$ |
| 9.018.01 | $2.8530=02$ | 1.327m*00 |
| 8.075001 | $2.903=02$ | 1.380**00 |
| 8.730 .001 | 2.9.52=02 | $1.0340 * 00$ |
| 8:0070001 | 3.0010002 | 1.089**00 |
| 8.4810001 | 3.049=02 | $1.1440+00$ |
| $8.36 .1-01$ | 3.098= 02 | 1.0000*00 |

## PARTICLE [IENSITY $=11.0$ GRAMS PER CUBIC CENTIMETER

DIANETER
$0.000 x+122$
$0.100 x+132$
$0.200=+12$
$6.300 x+02$
$0.400 x+02$
$6.500 \times+02$
$0.600=+42$
$0.700 x+112$
$0.000=+1)^{2}$
$0.900 x+02$
$1.000 x+02$
1.100x+12

7,20000+102
$7.300 x+122$
$7.400 \times+02$
Y.500ut152
$7.000 x+112$
$7.100 x+02$
$1.0000+0^{2}$
$1.9000+12^{2}$
$0.000 \times+2$
$8.100 n+12$
$8.200+42$
$8.300=+12$
$8.400 x+42$
$6.500 x+102$
$8.0100 \times 10^{2}$
$0.7000+02$
$6.6010 \times+42$
$8.4110 \times+11^{2}$
$9.000 x+02$
$4.100=+11^{2}$
$4.2010 x+12$
$9.300=+02$
$4.400 x+112$
Y. $200=+112$
$9.000=+12$
$4.700 x+12$
$4.600 x+1.2$
$4.400 x+122$
$1.000 x+133$
$1.010 x+13$
$1 \cdot 1200+103$
$1.030 x+10$
$1.040=+10$ $1.0500+105$
velecity
$3.085 m+01$
$3.1310+01$
$3.1780+01$
$3.224 n+01$
$3.2700+01$
$3.310 m+01$
$3.3610+01$
$3.40^{6}+01$
$3.451 .+01$
$3.496 n+01$
$3.540 n+01$
$3.584=+01$
$3.0280+01$
$3.6710+01$
$3.7150+01$
$3.758 .+01$
$3.8010+01$
$3.8430+01$
$3.880{ }_{m}+01$
$3.928 \infty+01$
$3.970 n+01$
$4.0111^{n+01}$
$4.053 .+01$
$4.0940+01$
$4.0940+01$
$4.1350+01$
$4.176+01$
$4.217=01$
$4.257 m+01$
$4.297 m+01$
$4.3370+01$
4.377 .01
$4.4160+01$
$4.455+01$
$4.490_{n}+01$
4.5350+01
$4.572 n+01$
$4.011 .+01$
$4.64 .9+01$
$4.087{ }^{6}+01$
$4.725+01$
$4.763 n+01$
$4.0000+01$
$4.8380+01$
$4.0750+01$
$4.9120+01$
$4,949 \%+01$

RE
$1.847 \% * 02$
$1.9060+02$
1.966.**02
2.027n+02
$2.089 n+02$
$2.151=+02$
$2.214=+02$
2,278.*02
2.342n*02
$2.407=02$
2,473.0.02
$2.5400 * 02$
$2.607 * * 02$
$2.675 .+02$
$2.7 .43 . * 02$
$2.813 .+02$
$2.883 .+02$
2.953.002
3. $0250+02$
$3.097=+02$
3.1700+42
$3.2430+02$
$3.3170+02$
$3.3910+02$
$3,467 m+02$
$3.542 n^{+} 02$
$3.6190+02$
$3.696 \%+02$
$3,774.0+02$
3.852n+02

3,9310+02
4.011:022
$4.0910+02$
$4 \cdot 1720+02$
$4.253 .+02$
$4,4: 17 .+02$
$4.500 .+02$
$4.5840-02$
4.068 .02
$4,753 n+02$
4.039 + 02
4.924**02
3.011.0 02
5.098 .02
$5.1860+02$
drag cefe relax time .y8 uist

| .2430001 | 3.140.0.02 | 1.0570* |
| :---: | :---: | :---: |
| .134.001 | $3.193 n=02$ | 1. $9140+00$ |
| .1327-01 | 3,2410-02 | $1.4720+00$ |
| 7.9250001 | 3,288 $=02$ | $2 \cdot 4^{3} 0 \times 00$ |
| -260*01 | 3.355002 | $2.44^{890+00}$ |
| 7.1310001 | $3.381 / 02$ | 2.1480+00 |
| 7.039 .001 | 3.427-02 | 2.408 |
| , 5510001 | 3.473.02 | 2. $26900+00$ |
| 7,465.01 | 3,5190-02 | 2.s30m |
| 7.583000.1 | 3,5650-02 | 2.99100 |
| .304-01 | 3.6100002 | 2.4530 |
| 7.227.01 | 3.055.02 | 2.3160+00 |
| .153.001 | 3.7000002 | 2.2790+00 |
| .081-0101 | 3,744002 | 2.0430000 |
| 7.011-01 | 3,788.02 | $2.1070+00$ |
| $6.944 n-01$ | 3,832=02 | $2.1710+00$ |
| 6.879-01 | 3,876. 02 | $2.8360+00$ |
| 6.8100001 | 3,9190002 | 2.4020 |
| 6.754-01 | 3.963.02 | 2.4680 |
| 6.0.95-01 | 4.006.02 | 3.1034000 |
| 6,037001 | 4.048002 | $3.1010+00$ |
| 6.58.1n=01 | 4.091002 | $3.1680+00$ |
| 6.527 m 01 | 4.1330002 | $3.2360+00$ |
| 6,474.n-01 | 4.175002 | 3.9040+00 |
| .423=01 | 4.217002 | $3.5720+00$ |
| 6.3730001 | 4.2580002 | $3.4410+00$ |
| 0.325.01 | 4.500002 | 3.3110000 |
| 0.277.01 | 4,3410.02 | 3.581000 |
| 6.231001 | $4.382 n=02$ | $3.0510+00$ |
| $6.187=01$ | $4.4230=02$ | $3.1210+00$ |
| $6.143=01$ | 4.463.02 | $3.1920+00$ |
| 6.1010001 | 4.503002 | $3.0630+00$ |
| 6.060 .001 | 4.544 .02 | $3.43510+00$ |
| 6.0190001 | 4,583.0.02 | 4.0070+00 |
| 5.4800-01 | 4.6230002 | 4.0790000 |
| 5.9420001 | 4,663.0.02 | $4.1520+00$ |
| 5.9050001 | 4.7020-02 | $4.425=00$ |
| 5.068-01 | 4,741.m-02 | 4.4990000 |
| 5.0330-01 | 4,7800-02 | $4.5720+00$ |
| 5.190 .01 | 4.81800 .102 | 4,44610+00 |
| 5.7640001 | $4.8570-02$ | 4.2210000 |
| 5.1310-01 | $4.8950=02$ | $4.2960+00$ |
| $5.099 n-01$ | 4,9330.02 | 4.0710000 |
| 5.067001 | 4,971:-02 | $4.1460+00$ |
| $5.030=01$ | 5.009000 | $4.0220+00$ |
| 5.0000001 | 5.0400002 | 4.0980 |

DIAMETEK
velocity
$5.9810=04$
$7.237=04$
8.6120004
1.011~=03
1.172.0.03
$1.346=03$
$1.531=03$
$1,728=03$
$1.938=03$
$2.159=03$
2.392003
2.037.03
2.895-03
3.164 .03
$3.4450-03$
$3.738=03$
4.043 .03
$4.360=03$
4.689.-03
$5.030=03$
$5.3830-03$
5.747.-03
$6.1246-03$
0.213 .03
0.913000
7.320.0.03
7.751003
$8.1870=03$
$8.036=03$
$9.590=03$
$9.569=03$
$1.00^{5}-02$
$1.055=02$
$1: 10^{6}=02$
$1.150=02$
$1.211=02$
$1 \cdot 265=02$
$1.321=02$
$\because .378=02$
$1.430=02$
$1.495-02$
$1.555=02$
$1.017=02$
$1.080=02$
$1.744=02$
1.609002

RE
$5.9690=06$
$7.944 n=06$
$1.031=05$
$1.311=05$
$1,638=05$
2.0140:05
2.445n-05
2.9320-05
$3.481=05$
4.094=-05

4,775=-05
5.528." 05
$6.356=05$
7.262=-05
$0.251=05$
$9.326=05$
1.049.0.04
$1.175=04$
1.3100004
$1.4560=04$
$1.612=04$
$1.7780=04$
$1.9560=04$
2.145-04
2.3460-04
2.559.0.04
2.185-04
3.0230-04
$3.275=-04$
$3.540=04$
$3.820=04$
4.114:-04
4. 4 :22 $=04$
$4.74 .5-04$
5.084-04
2.439=04
$5,809=0.04$
6. $196=04$
$6,600=04$
7. 022:-0.4
$7.460=04$
7.9 .170 .04
8.392-04
$8.885=04$
$9,598=0.4$
9.929n=04

DRAG COEF
relax time
-90 015T

| 4.0210+06 | 6.099-07 | 69-09 09 |
| :---: | :---: | :---: |
| 3.0210+06 | 7.380007 | 1.0670.09 |
| $2.3270+00$ | 8.782-07 | 2.8210009 |
| $1.0300+06$ | 1.031:06 | 3.162-09 |
| $1.4650+06$ | 1.195x-06 | 4.122-99 |
| 1.1910+06 | 1.3720-06 | 5.436-09 |
| 9.817005 | 1.561000 | 7.14 $42=09$ |
| 8.1840+05 | 1.763=-06 | 8.4810.09 |
| 6.0950 0 -05 | 1.976-06 | 1.130-08 |
| $5.8620+05$ | 2.2020-06 | $1.403=-08$ |
| 5.020 0 +05 | 2.4400006 | 1.124-0808 |
| 4.342- +05 | $2.6900 \cdot 06$ | 2.1960.08 |
| 3.776 0 +05 | 2.9520006 | 2.5260008 |
| $3.3050+05$ | 3.2260006 | 3.419=08 |
| 2.909 .05 | 3.5130006 | 3.381 .008 |
| 2.573.05 05 | 3.012-06 | 4. 4180.08 |
| $2.2880+05$ | 4.123.006 | 4. 437-08 |
| $2.0430+05$ | 4,4460-06 | 5.1440-08 |
| $1.032=+05$ | 4.181=06 | 6.0460008 |
| $1.6490+05$ | $5.129-106$ | 7.050*-08 |
| $1.489 n+05$ | $5.4890-06$ | 8.1650.08 |
| 1.3500*05 | 5.8610006 | 9.49700.08 |
| 1.4?7=05 | 6.245x-06 | 1.135807 ${ }^{\text {c }}$ |
| $1.1190+05$ | 6,0420000 | 1.2850007 |
| 1.023n+05 | 7.0500006 | 1.4480007 |
| $9.5790+114$ | 7.4710.00 | 1.0270007 |
| $8,019 \times 04$ | 7.904-06 | 1.0210007 |
| $7.9390+04$ | 8.349000 | 2.03300.07 |
| 7.320 **4 | 8.00060006 | 2.8620007 |
| $6.7790+104$ | 9.270.06 | 2.2100007 |
| $6.2830+04$ | 9.756 .06 | 2.179:07 |
| 5.5350004 | $1.0250 \cdot 0^{5}$ | 3. $\mathrm{y}^{68000} 01$ |
| $5.420 .0+04$ | 1.0760:05 | 3.9800007 |
| $5 \cdot 1580+04$ | 1. 128005 | 3.1140007 |
| $4.7210+04$ | . $1.1810 \cdot 05$ | $4 \cdot 11^{730007}$ |
| 4.4 130-04 | 1.2350 .05 | $4.457 \times 07$ |
| $4.1320+04$ | . 1.290005 | $4.56820 \cdot 07$ |
| 3.074.4-04 | 1.547 -05 | 5. $9000=07$ |
| $3,636=* .04$ | 1.405005 | 5,1740007 |
| 3.418 .0 .04 | 1.4640.05 | $6 .<72=07$ |
| $3.2170+04$ | 1.5250.05 | 6.9010007 |
| 3.0320*04 | 1.580.0.05 | $7.3630=07$ |
| 2:860.*04 | 1,649.05 | $7.960=07$ |
| 2.7.010+04 | 1.713005 | 8. 392 \% 07 |
| 2.5540+04 | 1.7780-05 | 9. $26_{6} 0^{2}=07$ |
| $2.4170 * 04$ | 1.845005 | 9.968007 |

PARTICLE DENSITY $=12.0$ GRAMS PER CUHIC CENTIMETER

| UIAMETEK | velocity | RE | drag coef | helax time | .90 D\ST |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $5.600 \times+00$ | 1.875.02 | 1,048.03 | $2.2900+04$ | 1,912.05 | 1.0710006 |
| $5.700 x+00$ | 1,943.02 | 1.1050003 | $2.1720+04$ | 1.9810005 | 1.1500006 |
| $9.800 x+00$ | 2.012.02 | 1.164:03 | 2.061 .04 | 2,051.005 | 1.433 .00 |
| $5.900 x+00$ | 2.082.02 | 1.226.03 | $1.958 \%+04$ | 2.123 .05 | 1.321-06 |
| $0.000 x+00$ | $2.153=02$ | 1.289.03 | 1.862.0+04 | 2.195005 | $1.413 \times 06$ |
| $6.100=000$ | 2,225-02 | 1,355=03 | 1.7720004 | 2.269.0.05 | $1.910=$ |
| $6.200=00$ | 2.299.02 | 1,422=03 | 1.688.044 | 2,344-05 | 1.0120006 |
| $0.300=+00$ | 2,373-02 | 1.492.03 | $1.0090 * 04$ | 2.4200-05 | 1.1190706 |
| $0.400 \times+00$ | 2,449=02 | 1,564.003 | 1, $535 \%$ 04 | 2,498.-05 | 1.031-06 |
| 6,500: 00 | 2,526. $=02$ | 1,639-03 | 1.465.*04 | 2,570.05 | 1.448.0.06 |
| $0.600:+00$ | 2,605-02 | 1.716.03 | 1.599.004 | 2,656.05 | 2.0710.06 |
| $0.700 x+00$ | 2.084.02 | 1,795.-03 | 1,338:*04 | 2,737.05 | 2.400\%-06 |
| $6.800 \mathrm{a}+00$ | $2.765=02$ | 1,876.03 | 1.279n+04 | $2.819 \times-05$ | 2.9340006 |
| $0.900 \times+00$ | 2,847000 | 1,960.03 | 1.25.004 | 2,9030005 | 2.475.06 |
| -.000x+00 | 2.930-02 | 2,047:03 | 1.1730+04 | $2,988=05$ | 2.022m96 |
| 1.100~+00 | 3.014\%-02 | $2.136=03$ | 1.1240404 | 3,0741005 | 2.176.006 |
| 200:+00 | 3.099 $=02$ | 2,227.03 | 1.078.0+04 | 3,1610005 | 2. 4 ¢6.0.06 |
| 7,300x+00 | 3.186"=02 | 2.321-03 | $1.0340+04$ | 3,249=05 | 3.1030006 |
| $7.400 x+00$ | 3, 274n=02 | 2,418.03 | 9.929.03 | $3,339 \times 05$ | 3.477.06 06 |
| \%.5000+00 | 3.363.022 | 2,517.003 | $9.5360+03$ | 3.4290005 | 3.4580 .06 |
| 7.000 +100 | 3,453.02 | 2.619.03 | $9.1600+03$ | 3.521005 | 3.047-06 |
| $7.700 \times 110$ | $3.545 \% 02$ | 2.724=03 | $8.6140+03$ | 3.6150-05 | 3.043 -0.06 |
| 7.800 .000 | $3.037=02$ | 2.831.03 | -8,480n+03 | 3.7090005 | 4.4480006 |
| $7.900 x+10$ | $3.731=02$ | 2.942-03 | $8.1620+03$ | 3.6050005 | $4.460=06$ |
| $8.000 \%+00$ | 3.820.02 | 3.055-03 | 7:0600**3 | 3.902005 | 4.480 meO |
| $8.100 \times+00$ | 3.9220002 | $3.171=03$ | 7.2790+03 | $4.000 \times 105$ | 4.1090006 |
| -. $200 \times 00$ | 4.020002 | 3.2900003 | 7.299-03 | $4.099 \times 05$ | 4.447 -06 |
| $0.300 x+00$ | 4.118 .02 | 3.411.003 | $7.039 \%$-03 | 4.2000005 | 5.1930006 |
| $8.4110 x+100$ | $4,218.02$ | 3,536. $=03$ | 6.190.0.03 | $4.301=05$ | 5.4490006 |
| $0.500 \times+00$ | 4,319.002 | 3,064=03 | $6.554 .0+03$ | 4,4,4.4.05 | 5.1150006 |
| $8.6000+100$ | $4.4210=02$ | 3,795. 03 | 6. 3.28 .003 | 4.5080005 | $5.488=06$ |
| 6.700 .000 | 4.5?4.02 | 3.928.003 | $6,1,10=03$ | 4,014005 | $0.472=06$ |
| $8.000 x+00$ | 4.629.-02 | 4,065-03 | 5,907.03 | 4,720.05 | 0.2660006 |
| $0.900=+100$ | 4,735 -02 | $4.205=03$ | 5.7100+03 | $4.828=05$ | 0.8710006 |
| ¢.000 +10 | $4,8420=02$ | 4.349n*03 | 5.52200.03 | 4,937-05 | 7.186-06 |
| $4.100=+00$ | $4,950 \mathrm{~m} 02$ | 4,495003 | $5.5420+03$ | 5.047.0.05 | 7.211-06 |
| $4.200 x+00$ | 5.059 .02 | 4,645-03 | 5.170 .03 | 5.159 .05 | 7:048-06 |
| $9.300 x+00$ | 5.169 .02 | 4.798.03 | $5.0050+03$ | 5.2720-05 | 8.196006 |
| $9.400 x+00$ | b. 281 in 02 | 4,9540-03 | 4.0400003 | $5.3850-05$ | $8.555-06$ |
| y.b00x+00 | 5.394.02 | 5.114=03 | $4.0900+03$ | 5,5000005 | 8.726006 |
| $9.600 x+00$ | $2.500^{8}=02$ | $5.277 \times 03$ | 4.5 .51 .0403 | $5.617 \times 05$ | 9.309-06 |
| $4.700 \times+00$ | 5.0230002 | 5.444.03 | $4.4120+03$ | . $5 \cdot 7.34=05$ | $9.1040=06$ |
| $4.800 \times+110$ | $5.740 n-02$ | $5.614 \% 03$ | $4.2790+03$ | $5.8 .53=05$ | 1. U1.10005 |
| $4.900 x+40$ | 5,857002 | 5.787m=03 | $4.150 n+03$ | $5.9730-05$ | 1.0530-05 |
| $1.000 \times+101$ | 5.976 .02 | 5.964-03 | 4.027 - 03 | 6.094 .05 | 1.4960 .05 |
| $1,100 x+61$ | 7.829 .02 | 7,936=03 | 3.0270+03 | 7.372.05 | 1.007 |

## particle jensity = IZ.o grams per cubic centimeter

## UIAMETEK

VELOCITY
RE
DRAG COEF
helax tlme
.90
DIST

$8.000=02$
1.009 .01
$1.170=01$ 1.342.-01
$1.520=01$
$1.7220=01$
$1.929=01$
2.147":01
$2.377=01$
$2.018=01$
$2,8700=01$
3.133n=01
$3.407=01$
3.692 .01
3.9870=01

4,293.001
$4.60^{8}=01$
$4.934=01$
$5.270=01$
$5.615=01$
$5.969=01$
$6.333=01$
$6.70^{6}=01$
$7.087=01$
$7.477=01$
$7.875=01$
$8.281=01$
$8.694=01$
$9.115=01$
$9.545=01$
$9.978=01$
$1.042=+00$
$1,087=00$
$1.1320+00$

1. $178=00$
$1.22^{4}-00$
$1.271=00$
$1.319=00$
$1.367=00$
$1.415 n+00$
$1.464 m+00$
$1.513=00$
$1.563+00$
$1.0150+00$
$1.063=+00$
1.714 .00

$2.3330 * 03$
$1.837 .+03$
1.472.003
$1.198 m+03$
$9.081=02$
$8,6490+02$
$6.9590+02$
$5.927 .+02$
5.091.0 02
$4.4000+02$
3.841 0.02
3.369 = 02
$2.973=02$
$2.638=02$
2.352 ** 02
$2.107=02$
$1.896=02$
1.713.0-02
$1.554=02$
$1.414 n+02$
$1.2920+02$
$1.183_{0}+02$
$1.0^{870+02}$
$1.0020+02$
9.262-401
$8.3810+01$
7.971001
$7.421=01$
$6.424 n+01$
6.4750 * 1
$6.068=01$
5.097
$5.559 * 01$
2. 0510001
$4.7680+01$
$4,209-01$
4.2710+01
4.05c=+01
3.649 $=01$
$3,662=+01$
$3.459 \infty 01$
3. 520 $20+01$
3.179 +01
3.0400*01
$2.9110+01$
$2.7900+01$

| 8.7700-05 | 2. 278005 |
| :---: | :---: |
| 1.029=04 | 3.141005 |
| 1.193\%-04 | 4.228=05 |
| 1.369 .04 | $5.5760 \cdot 05$ |
| 1,556=04 | 7.2230005 |
| 1,7560-04 | 9.212-005 |
| 1.9670=04 | 1.159.0.04 |
| $2.1900=04$ | $1.4390=04$ |
| 2,4240-04 | 1.1680.04 |
| $2.6700=04$ | 2.1500-04 |
| 2.927004 | 2.391-04 |
| 3.195.04 | $3.497=04$ |
| 3,475=04 | $3.0730=04$ |
| $3,765=04$ | 4. 327 - 04 |
| 4,060.04 | $5.0640=04$ |
| 4,378.04 | 5.0910004 |
| 4.700004 | $6.816=04$ |
| 5.032004 | $7.647 \times 04$ |
| 5,3740-04 | 8.489-704 |
| 5.726004 | $1.425=03$ |
| 6.087-04 | $1.163=03$ |
| 6.458.04 | $1.308=03$ |
| $6.838=04$ | $1.462=03$ |
| 7.2270-04 | 1.025=03 |
| $7.625=04$ | 1.1980003 |
| 8.0300004 | $1.481=03$ |
| $8.4440=04$ | 2.1750=03 |
| 8.866=04 | 2. 379 -03 |
| 9.295=04 | 2.595-003 |
| 9.7310004 | 2.022:-03 |
| 1.017000 | 3.0600=03 |
| 1.062-03 | 3.3100003 |
| 1,1080003 | 3.271003 |
| 1.154m-03 | 3.0450=03 |
| 1.201-03 | 4.1300003 |
| 1.249=03 | $4.428=03$ |
| 1,2960003 | 4.138003 |
| $1.345=03$ | 5. $\mathrm{j}_{6}^{600003}$ |
| 1,3940=03 | 5, $9950=03$ |
| $1.443=03$ | 5.7430003 |
| 1,493003 | $0.1040=03$ |
| 1.543003 | 6.477903 |
| 1.5940003 | 6.064003 |
| 1.6450003 | 7.1640003 |
| $1.6900=03$ | 7.077.0.03 |
| $1.7480-03$ | 8.1040003 |

## PARTICLE DENSITY $=12.0$ GRAMS PER CUBIC CENTIMETER

VIANETER
$5.800 x+01$
$5.900=+01$
6.000 $0+01$
6. 100n+01
$6.200=+01$
$0.300 x+01$
$0.400 x+111$
$0.500=+01$
$0.000=+01$
$6.700 x+61$
$6.800=+01$
$0.900 \%+01$
$7.000 p+101$
$7.100 x+11$
$7.200 x+61$
$7.300 x+61$
$7.400 x+111$
$7.500 x+01$
$7.600 .+01$
$7.700=+11$
$7.000=+61$
$7.900=+11$
$8.000 x+11$
$6.200 x+11$
$0.300=01$
$6.400=+01$
$8.500 x+01$
$8.600=+01$
$8.700=+01$
$8.800=+01$
$0.900=+01$
$y .000 x+01$
$4 \cdot 100 x+01$
$4.200=+0.1$
$4.300=+01$
$4.400 x+01$
$4 \cdot 200 x+01$
$4.600=+01$
$4.700=+01$
$4.800 x+101$
$4.900 x+01$
$1.000 x+0.2$
$1.100+02$
$1.200=+02$

1. $500 \times+02$

VELBCITY
$1.765+00$
$1.8170=00$
$1.8690+00$
$1.9210 * 00$
$1.973=00$
2.026 .00
$2.079+00$
$2.133=00$
$2.187=00$
$2.242=00$
$2.2970 * 00$
$2.3520+00$
$2.4080+00$
$2.4640+00$
$2.521 .+00$
$2.5790+00$
$2.637+00$
2.095 .00
$2.750+00$
$2.8150+00$
$2.8750+00$
$2.9370+00$
$2.999+00$
$3.0620+00$
$3.125=00$
$3.189 \pm+00$.
$3.2540+00$
$3.319=00$
$3.385 * 00$
$3.451=+00$
3.517n+00
$3.583 * 00$
$3.648=0.0$
$3.7130+00$
3.777 .00
$3.840 n+00$
$3.9010+00$
$3.9600+00$
4.010 .00
$4.069=00$
4. $10^{0}-00$
4.162. + 00
$4.224=00$
$4.8200 * 00$
$5.425=00$
$6.0360 * 00$

RE
DRAG COEF RELAX TIME
.48 UIST
$1.022=00$
$1.070=00$
$1.119=00$
$1.169=00$
$1.2210+00$
$1,2740+00$
$1,328=00$
$1,384=00$
$1.441=00$
$1.49 .9 x+00$
$1.559=00$
$1.620=00$
$1.682=00$
1.746 .00
$1.8120+00$
$1.879=00$
$1.947 n * 00$
$2.0170+00$
$2.0890+00$
$2.1630 * 00$
$2.2380+00$
$2.316 \%+00$
2. $394=00$
$2.4750+00$
$2.558=+00$
2.642=*00
$2.728 * 00$
2,810.*00
$2.905=00$
$2.996=00$
3. $088=00$
3.182=*00
$3.277=00$
$3.3720+00$
$3.468 .+00$
$3.564=00$
$3.660 \%+00$
3.755=*00
$3.848=+00$
$3.939 n+00$
4.015.0 00
$4.115=+0$
$4.215 .+00$
$5.292 * * 0$
$6.4970+00$
7.032=+00

2
2
2
2
2
2
2
2
1
1
1
1
1
$2.6770+01$

| 1.8000003 | 8. 2440003 |
| :---: | :---: |
| $1.8530 \cdot 0^{3}$ | 8. $49800^{0}$ |
| 1.9060003 | $9.465=0.3$ |
| $1.959=03$ | 9.y46:-03 |
| 2.0120003 | 1. $144=02$ |
| 2.0600003 | 1.0950002 |
| 2.121003 | 1.1470-02 |
| 2.175000 | 1.201002 |
| 2.2300003 | 1.2560.02 |
| $2.2860=03$ | 1.5130-02 |
| $2.342=03$ | 1.0710002 |
| 2,398.0.03 | $1.430=02$ |
| 2.45500 .3 | $1.491=02$ |
| 2.51 .3003 | 1.2530002 |
| $2.571=03$ | 1.017 .02 |
| 2,629 = 03 | 1.0820-02 |
| 2,689=03 | 1.149=02 |
| 2,749=03 | 1.517-02 |
| $2.8090=03$ | 1.086002 |
| 2,870003 | 1.4570.02 |
| $2.932 \% 0^{3}$ | $2 \cdot u^{3} 00002$ |
| $2.995-03$ | 2.1040002 |
| 3.058p-03 | 2.179x-02 |
| 3.1220 $=03$ | 2.2500002 |
| 3.187-03 | 2. $535=02$ |
| 3,2520-03 | $2.414 m-02$ |
| 3,318-0,03 | 2.496002 |
| 3,385=-03 | 2.3790.02 |
| $3.452=03$ | 2.063-02 |
| 3,219=03 | 2.149-62 |
| 3,586003 | 2.0370022 |
| $3.6530 \cdot 03$ | 2.4250-02 |
| $3.7200=03$ | 3. 416002 |
| $3.787=03$ | 3. 108002 |
| 3,852=03 | 3. $201=02$ |
| 3,9160-03 | 3. 296 - 02 |
| 3,978-03 | 3.9930002 |
| $4.038=03$ | 3.4910002 |
| 4.096.03 | $3.590=02$ |
| 4.149.0.03 | 3.0910 .02 |
| 4.187-03 | 3.1940002 |
| 4,247=03 | 3.498-02 |
| 4,307 -03 | 4.403:02 |
| 4,916003 | 5.1430.02 |
| $5.533 \times-03$ | 6.4350002 |
| 6.150m=03 | 7.9780.02 |

PARTICLE DENSITY = 1 CD 0
GRAMS PER CUBIC CENIIMETER

UIAMETER

|  |
| :---: |
| . $600=+1{ }^{2}$ |
| . $700=$ |
| . 800 |
| .900- 902 |
| 2.000=*02 |
| 2.100x+02 |
| 2.200x+12 |
| く, 300x+02 |
| 2.400=*12 |
| $2.500=+12$ |
| 2.600=+02 |
| $2.700=+02$ |
| 2.800x+62 |
| 2.900x+ ${ }^{2}$ |
| $3.000 x+12$ |
| 9.100x+112 |
| S. $200 x+02$ |
| 3.300x+12 |
| $3.400 x+0{ }^{2}$ |
| $3.500 x+02$ |
| $3.600 x+1.2$ |
| $3.700=+12$ |
| $3.800=+112$ |
| 3.900x+12 |
| $4.000 x+12$ |
| $4.100=+12$ |
| $4.200=02$ |
| 4.500:+12 |
| $4.400 x+12$ |
| $4.500 \times+02$ |
| $4.000=+12$ |
| $4.700 x+02$ |
| $4.800=+12$ |
| $4.900 \times+62$ |
| 2.000\%+02 |
| b. 100 $=02$ |
| $2.200 .0+02$ |
| 2. $300 \times+02$ |
| 5.400.* 02 |
| 3.500n+02 |
| b.000:+02 |
| 2.700= + 02 |
| $5.800 x+02$ |
| 2.900x+022 |

VELOCITY
$6.652 .+00$
$7.271 .+00$
$7.892=+00$
$8.514=+00$
$9.136=00$
$9.758 \pm+00$
1.038 .01
$1.100=01$
$1.162=01$
$1.2230 * 01$
$1.2850+01$
$1.3460+01$
$1.4070+01$
$1.4670+01$
$1.528=01$
$1,5880+01$
$1.047=01$
$1.707 n+01$
$1.766_{00+01}$
$1.824+01$
$1.883_{0}+01$
$1.9410+01$
$1.998=01$
$2.0550+01$
$2.1120+01$
$2.169+01$
2.225001
$2.281=+01$
$2.3360+01$
$2.391=01$
$2.446-01$
$2.501=01$
$2.555+01$
$2,009 n+01$
$2.6620+01$
$2.715 .+01$
$2.768 .+01$
2. $8200+01$
$2.872 x+01$
$2,9240+01$
$2.975=01$
$3.027=+01$
$3.077 n+01$
$3.128=+01$
$3.1780+01$
$3.2280+01$

RE
$9.294=+00$
1.0880*01
$1.260=+01$
$1.444=01$
$1.6410+01$
$1.8500+01$
2.072.01
$2.3050+01$
$2.551=+01$
$2,808=01$
$3.077=01$
3,358**01
$3.650 \mathrm{~m}+01$
3.954=01
$4.2690+01$
$4,5950+01$
4.932=01
$5.2800=01$
$5.039=01$
$6.008=01$
$6.388=01$
$6.778=01$
$7.179=01$
$7.590 \% 01$
$8.011=+01$
$8.441=+01$
8.892=*01
$9.333 x+01$
$9.793=01$
$1.0260+02$
1.074m*02
1.1230 -02
1.173.0.02
$1.224=+02$
$1.275=+02$
$1.328=02$
$1.381=02$
$1.4350+02$
1.4910 .02
$1.547=02$
1.604002
$1.6610+02$
$1: 7200+02$
$1.779-02$
$1.840=02$
$1.9010=02$

DRAG CUEF
RELAX TIME
. 95 DIST
$9.473=02$
1.1220001
$1.3110=01$
1.2140=01
1.132001
$1.465=01$
2.4110001
$2.470=01$
$2.144=01$
$3.1300=01$
3. 329.01
3.0410001
$3 . y 65=01$
4. 302 -0.01
4.6510001
5.411001
$5.9830=01$
5.1660001
6.161001

6, $366=01$
$6, y 82=01$
$7.4080=01$
$7.445=01$
8. 2910.01
8.1480 .01
9.215-01
$9.090=01$
$1.4180+00$
$1.0670+00$
$1.1170+00$
$1.16900+00$
$1.2210+00$
$1.274=+00$
$1.5270+00$
$1.3820+00$
$1.437 p+00$
$1.4940+00$
$1.2510+00$
$1.008=00$
$1.067 w+00$
$1.1260+00$
$1.1860+00$
$1.947=+00$
$1.4080+00$
$1.470=+00$
$2 \cdot 0^{33}+00$

PARTICLE DENSIIY $=12.0$ GRAMS PER CUBIC CENTIMETER

| UIAMETEK | VElocity | RE | DRAG COEF | RELAX TIME | . 90 D ${ }^{\text {d }}$ T |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $6.0000+12$ | 3.2770+01 | 1.903**02 | $8.034=01$ | 3,342-02 | 2.4960+00 |
| $6.100 x+12$ | $3.327 .+01$ | 2.025 .02 | 7,928.001 | 3,392* 02 | $2.161 \pm 00$ |
| $0.200 x+12$ | 3.376.01 | 2,089-*2 | 7.826-01 | 3,442=02 | $2.225 x+00$ |
| $0.300 z+02$ | $3.424 n+01$ | 2.153 .02 | 7.728 .01 | 3,492m.02 | $2.491 * 00$ |
| $6.400 x+12$ | $3.4730+01$ | 2.218=*02 | 7.633 m -01 | $3.541=02$ | $2.357 \%+00$ |
| 6. $2000 x+02$ | 3.5210+01 | 2.284 ** 02 | 7,542-01 | 3,5900-02 | $2.4230+00$ |
| $6.600 x+12$ | 3.568 .001 | 2.5500*02 | 7.455.001 | 3.639 .02 | $2.490 * 00$ |
| $0.700 x+12$ | 3.616. 01 | 2.418 .02 | $7.370-01$ | $3,6870=02$ | 2. $258 \times 00$ |
| $6.800 x+02$ | $3.663=01$ | $2.486 \%+02$ | 7.289-01 | 3,736-02 | $2.027 * * 0$ |
| $0.900 x+1{ }^{2}$ | $3.710=01$ | $2.555 * 02$ | 7.2100001 | 3,783-02 | $2.0960+00$ |
| 7.000x+02 | $3.757 * 01$ | 2,6240*02 | $7.134=01$ | $3.831=02$ | 2.165**00 |
| $\% .100 x+122$ | 3.803 .001 | 2.695-02 | 7.060-01 | $3,878.002$ | $2.035=00$ |
| $7.200 x+02$ | $3.849 *+01$ | $2.766=02$ | 6.989 = $=01$ | $3.925=02$ | $2.406=00$ |
| $7.300 x+02$ | 3,895- 01 | 2,8380*02 | 6.921-01 | 3.9720-02 | 2.477-00 |
| \%.400x+122 | $3.9410+01$ | $2.9100+02$ | 6,854=01 | 4.018-02 | 3. $449=00$ |
| $7.500 x+02$ | 3.986**01 | 2.9830+02 | $6.790-01$ | $4.065 \cdot 02$ | 3.121-00 |
| $7.600 x+02$ | $4.031=01$ | 3.057**2 | $6.727 \times 01$ | 4.111002 | 3.194=*00 |
| $7.700 \times 02$ | $4.076 \times 01$ | 3.132=*02 | $6.667=01$ | 4.1560.02 | $3 .<67 * 00$ |
| $7.800 \leq 02$ | $4.1200 * 01$ | 3.207 .02 | $6.600^{8}=01$ | 4. $202=02$ | $3.540=00$ |
| $7.900 \times+02$ | $4.165 n+01$ | 3.283 .02 | $6.551=01$ | $4.247=02$ | 3.415000 |
| $0.000 \times+0^{2}$ | 4.209 .01 | $3,3600+02$ | $6.496=01$ | 4.292002 | $3.489=00$ |
| $8.100 x+02$ | $4.252 x * 01$ | 3.438 .02 | 6,442=01 | $4.336=02$ | 3. $265 \times 00$ |
| $8.200 x+02$ | $4.290 \% 01$ | $3.5160 * 02$ | 6.3900 .01 | $4.381=02$ | $3.0400+00$ |
| $8.3000+02$ | $4.339 * 01$ | $3,594=+02$ | $6.340=001$ | 4.425 m 02 | $3.116 m+00$ |
| $6.400=+12$ | $4.382 m+01$ | $3,674.02$ | 6.291-01 | $4.469 \%-02$ | $3.193-00$ |
| $8.500 x+02$ | $4.425=01$ | $3.7540+02$ | 6.243 .01 | $4,5130=02$ | $3.870 \% 00$ |
| $8.600=+02$ | $4.468 m+01$ | $3,835 * 02$ | $0.197-0.1$ | $4.556=02$ | $3 . y 47=00$ |
| $6.700 x+12$ | 4.5100*01 | 3,916=*2 | 6.151001 | 4,599.02 | 4. $\mathrm{u} 250+00$ |
| $6.800 \times+0^{2}$ | 4.552m+01 | 3,998=02 | $6.108=01$ | 4,642-02 | $4.1040+00$ |
| $8.900=02$ | 4.5940*01 | $4.081=* 02$ | $6.065=01$ | $4.685=02$ | $4.1820 * 00$ |
| $9.000 x+02$ | $4.6360+01$ | 4.164~* 02 | 6.023-01 | 4,727-02 | 4.261=00 |
| y. $100 x+02$ | $4.677 \times 01$ | 4,248.*02 | 5.983-01 | $4,7700=02$ | $4.341=00$ |
| $4.200 x+02$ | $4.7190+01$ | 4,332=*02 | 5,9430001 | 4.812 .02 | 4.421-+00 |
| $9.300 \times 02$ | $4,7600+01$ | 4,418**02 | 5.904-01 | 4,854-02 | $4.3010+00$ |
| $9.400=+02$ | $4,8000+01$ | $4.503=02$ | 5.867-01 | 4.895002 | 4.582**00 |
| 9. $2000+02$ | $4.8410+01$ | 4.590 - 02 | 5.8300001 | 4.937-02 | $4.063=00$ |
| $9.600 x+02$ | 4,8810*01 | 4,677.02 | 5.795-01 | $4.978=02$ | 4.7450-00 |
| $4.700 x+12$ | 4,922-01 | $4.764=02$ | $5.760=01$ | $5.019=02$ | 4.027000 |
| $9.800 x+02$ | 4.961**01 | 4,853-02 | 5.726 .001 | 5.060-02 | 4, y 09 = +00 |
| $4.9006+02$ | 5.0010+01 | 4.941.* 02 | 5.093001 | 5.1000002 | 4.991*00 |
| 1.000x+05 | 5.0410001 | 5.031-* 02 | 5.0600 0 01 | 5.1400002 | $5.074 m+00$ |
| 1.010=005 | $5.0800+01$ | $5.1210 * 02$ | $5.029=01$ | 5.1810"02 | 5.158*00 |
| $1.020 x+0^{3}$ | $5.119=01$ | $5.211=02$ | 5.598.01 | 5,2210-02 | $5.2410+00$ |
| $1.030=+0{ }^{3}$ | 5.158 .01 | 5.302i* 02 | 5.567 .01 | $5.2600=02$ | 5. $325=+00$ |
| 1.040* 0 边 | 5.1970001 | $5.394=02$ | 5.538001 | 5,300\% 02 | $5.410 \% 00$ |
| $1.050 x+0^{3}$ | $5.230_{80}+01$ | 5,486. 02 | $5.509-01$ | $5.539 \times 02$ | $5.494 * * 0$ |

PARTICLE DENSITY = 13.0 GRAMS PER CUHIC CENIIMETER
.90 DlST

| - $000 \times+00$ |
| :---: |
| -100x+00 |
| 1.200= +00 |
| $1.300=00$ |
| $1.400=00$ |
| $1.500=+00$ |
| $1.600=$ |
| $1.700=00$ |
| $1.600=+00$ |
| 1.900=+00 |
| 2.000:*00 |
| <.100=*00 |
| $2.200 x+00$ |
| $2.300 \times+00$ |
| $2.400=+00$ |
| $2.500=+00$ |
| $2,600=+00$ |
| $2.700=00$ |
| 2.800n+00 |
| $2.900=+00$ |
| S.000e+ |
| S.100=+00 |
| 3.200**00 |
| 3.300=+00 |
| 5.400x+00 |
| $3.500 \times+110$ |
| $5.600=+10$ |
| $3.700 \times+00$ |
| $3.600 x+00$ |
| $3.900 x+00$ |
| 4.000x+00 |
| 4. 100x+00 |
| $4.200=+00$ |
| $4.300=00$ |
| $4.400=* 00$ |
| 4.500=*00 |
| $4.000=+10$ |
| $4.700=00$ |
| $4.800+100$ |
| $4.900 \times+00$ |
| b. $0000 x+10$ |
| -.100\%+U0 |
| 2.200\% + 100 |
| b. $300 \times+0$ |
| b.400x+ 40 |
| -. $200 \times+110$ |


| 6,524n-04 | 6.511-00 |
| :---: | :---: |
| 7.895=04 | 8.067-00 |
| 9.395 .04 | 1.125=05 |
| 1.1030003 | $1.431=05$ |
| 1,279=03 | 1.787=-05 |
| 1.468.003 | 2,198=05 |
| $1.670=03$ | 2,667=05 |
| 1.886.03 | 3,199-05 |
| $2.114=03$ | 3.797-05 |
| 2.355.003 | 4,466=05 |
| $2.010=03$ | $5,209=05$ |
| 2.877.0.03 | 0.030 .05 |
| 3.158.03 | 6,933=-05 |
| $3.4510=03$ | 7.9220005 |
| 3.758 .03 | 9.001-05 |
| 4.078.03 | 1.017.-04 |
| 4.4100003 | 1.144= $=04$ |
| 4,756-03 | 1.282-94 |
| 5.1150 .03 | 1.429-04 |
| 5.487-03 | $1.588=04$ |
| 5.872.03 | $1.758=04$ |
| 6,270=03 | $1.940-04$ |
| $6.681=03$ | 2,1340=04 |
| $7.10^{5}=03$ | 2.340=04 |
| 7.542003 | 2.559=04 |
| 7.9920.03 | 2,792-04 |
| 8.455-03 | 3.038=04 |
| 8.932003 | 3.298=04 |
| 9,421003 | 3,573= 04 |
| $9.923=03$ | 3,862.-04 |
| $1.0440=02$ | 4.167.04 |
| 1.097-02 | $4.487-04$ |
| 1.151n=02 | 4,824.0.04 |
| 1.2006=02 | 5.177.004 |
| 1.263002 | 5.546=004 |
| 1.321=02 | 5.933= 0.04 |
| $1.380=02$ | $0.337=04$ |
| $1.441=02$ | $0.760=04$ |
| $1.5030=02$ | $7.200=04$ |
| $1.560=02$ | $7.660=04$ |
| $1.031=02$ | $8.138=04$ |
| 1.697.02 | $8,636=04$ |
| $\therefore 1.7640=02$ | 9, 154=-04 |
| $1.832=02$ | 9,0.93=-0.4 |
| -1.9020*02 | 1,025=0.3 |
| 1.973000 | $1.083=03$ |


| 3.686.06 | 6.653-07 | 1.2720-09 |
| :---: | :---: | :---: |
| $2.769 n+06$ | 8.0510007 | 1.0650009 |
| 2.133.00 | 9,581007 | . $2.044=09$ |
| 1.076.006 | 1.124006 | $3.045=09$ |
| $1.343 \pm+06$ | 1.304=06 | 4.706009 |
| 1.0920*06 | 1.497.06 | $6.471-09$ |
| $8.9990+05$ | $1.703=06$ | 8. $382=0$ - 0 |
| 7.50"2.*05 | 1.9230006 | 1.469x=08 |
| $6.520=+05$ | 2.156\% 06 | 1.3440008 |
| $5.3740 * 05$ | 2.402.0.06 | $1.070=08$ |
| 4.607005 | $2,661=06$ | 2.051008 |
| 3.9800*05 | 2.934=06 | 2.4950.08 |
| $3,4620+05$ | 3,220-06 | 3. 4070008 |
| 3.029 0 * 05 | 3.5200006 | 3.5940008 |
| 2.066** 05 | 3,832m=06 | 4.263-008 |
| $2.359+05$ | 4.1580-06 | 5.421-08 |
| 2.097-05 | $4,4980=06$ | 5.476-08 |
| 1.073 .05 | $4,8500=06$ | 6.637-08 |
| 1.079.05 | $5.210_{n}=06$ | 7. 910008 |
| 1.511.05 | 5.595006 | 9.106=08 |
| 1.365 +05 | 5,988\% $=06$ | 1.043007 |
| $1.2370+05$ | 6,3940 06 | $1.190=07$ |
| 1.125 .05 | 6.8130006 | 1.351-07 |
| 1.020.05 | 7,2450.06 | 1.529-07 |
| 9.370 n 04 | 7.691-06 | 1.123-07 |
| $8.5970+04$ | 8.150.06 | 1.436-07 |
| 7.9010*04 | 8.622006 | 2.168 .07 |
| 7.2770+04 | 9.108=06 | 2.419007 |
| $6.7180+04$ | 9.007006 | 2.0920.07 |
| $6.2140+04$ | 1.0120=05 | 2. 488007 |
| 5.7600*04 | 1.064005 | $3.5080=07$ |
| $5,3490+04$ | $1.118=05$ | 3.052007 |
| 4.970 .004 | 1.174= $=0^{5}$ | 4.422-07 |
| $4.037 .0+04$ | 1.230-05 | $4.421=07$ |
| 4.328 .04 | 1,288p-05 | 4.048=07 |
| 4.045.0.04 | 1.347005 | 5.505 .07 |
| 3.787. +04 | 1.408005 | 5.194=07 |
| 3.5.51m*04 | 1.4700005 | 6.3160.07 |
| $3.333=04$ | 1, 233000.5 | 6.8720007 |
| 3.1340*04 | 1.597000 | $7.465 \times 07$ |
| 2. $4490+04$ | $1.6630-05$ | $8 \cdot .1^{95}=07$ |
| 2,7.790*04 | 1.730005 | 8.1640007 |
| :2,6220*04 | 1.799=05 | 9.4740007 |
| $2.4700 * 04$ | 1.869.05 | 1- $523=00$ |
| $2.3410+04$ | 1.940005 | 1.1020\%06 |
| 2.210.04 | $2.0120-05$ | $1.186=06$ |

## PARTICLE DENSITY $=1$ S.O GRAMS PER CUBIC CENTIMEIER

DIAMETER


## VELOCITY

2.040~02
$2.1190=02$ 2.194=02 2.271.002 2.348. 002 2.427-02 2.507-02 $2.589=02$ 2.672-02 2.756.02 $2.841=02$ $2.928=02$
$3.016=02$ $3.105=02$ 3.196=" 02 3,288.022 $3.381=02$ $3,470=02$ 3.572-02 $3.669=02$ 3,767=02 3.86702 3.968002
4.070."02
4.174-02
$4.279-02$
$4,385=02$
4.4920-02
$4.001=02$
$4.711=02$
$4.823_{50}=02$
4.93ל-02
$5.050=02$
5.165:-02
$5.281=02$
$5.599=02$
5.519 .02
$5.639=02$
$5,761=02$
$5.884=02$
$0.00^{8}=02$
$0.134=02$
$0.201 .=02$
$0.389=02$
$0.519=02$
$7,885=02$

RE
1.143 .03
$1.206=03$
$1.270=03$
$1.337=03$
1.4060003
$1.478=03$
$1,552=03$
$1.628=03$
$1.707=03$
$1,788=03$
$1.872=03$
$1.958=03$
1.958-0.03
2.047.003
2.138-003
$2.233 n=03$
$2.330=03$
$2.330=03$
$2.430=03$
$2.532=03$
$2.638=03$
$2.738=03$
$2.746=03$
$2,857=03$
$2.971=03$
$3,089=03$
$3.209=03$
$3.332=03$
$3.459=03$
3.588.0.03
$3.721=03$
$3.857{ }^{\mathrm{m}} \mathrm{O}^{3}$
$3.997=03$
$4,139=03$
$4,285 .=03$
$4.435=03$
$4.588=03$
$4.744=03$
$4.904=03$
5.067. 0.03

5,234=-03
$5,404=03$
5.579 .03
$5.756=03$
$5.938=0.03$
$6.123=03$
$6.313=03$
$6,506=03$
$8.657=03$

DRAG CUEF
helax time
$2.0990+04$ $1.991=04$
$1.890=04$
$1.795=04$ $1.795=04$
$1.707=04$ $1.625=04$ $1.547=04$ $1.4 .75=04$ $1.407=+04$ $1.343=-04$
$1.2830+04$ 1.226=*04

1. $173=04$
$1.123=04$
$1.075 m+04$
$1.030=04$
$9.892=03$
9.481.*03
$9.102=+03$
$8.743=+03$
$8 \cdot 4 \cdot 0^{3} 0+03$
$8 \cdot 0^{8} 00+03$
$7.7 .73=+03$
$7.482=+03$
$7.20^{5}-63$
$6.942=03$
$6.0 .91=03$
$6.453+03$
$6.225-03$
$6.00^{8}+03$
$5.8010+03$
$5.60^{4} x+03$
$5.415 \omega+03$
$5.235 * 03$
$5.062 \oplus+03$
$4.098=+03$
$4.740=03$
4.589. 403
$4.444=03$
$4.30^{5} 0+03$
4.172a*03
4.045 = * 03
3.923=*03
$3.805=03$
3.692 .03
2.776.*03

| 2.0186-05 | 1.c750006 |
| :---: | :---: |
| 2:161-05 | 1.369000 |
| 2,238=05 | 1.468=06 |
| $2.316=05$ | 1.5720006 |
| 2,395-05 | $1.082=06$ |
| 2,475=05 | 1.197=00 |
| 2,557-05 | 1.4180006 |
| 2,640-05 | 2.0450 .06 |
| 2.725 .05 | 2,179.006 |
| $2.810=05$ | 2.5190006 |
| 2,897-05 | 2.465 .006 |
| 2,986.05 | 2.0180006 |
| 3.076-05 | $2.1790=06$ |
| 3. $16.70=05$ | $2.446-06$ |
| 3,259n=05 | 3.121=0.6 |
| $3.353 \%=05$ | 3. $904=06$ |
| 3,448=-05 | 3,495=0.6 |
| $3.54 .40=05$ | $3.093=0.06$ |
| $3.6420 \times 05$ | $3.40 .1=06$ |
| $3.741 \times 05$ | 4. 1100006 |
| $3.84 .2 x=05$ | 4.341=06 |
| $3,943 x=05$ | $4.575=06$ |
| 4.0460005 | $4.018=006$ |
| 4. $151=05$ | $5 \cdot 470=06$ |
| $4: 256=05$ | $5.3330=06$ |
| $4.3630-0^{5}$ | $5.005 \mathrm{~m}=06$ |
| 4.472=-05 | 5.488-06 |
| $4,581=05$ | 6.181006 |
| 4,692="05 | 6.485000 |
| 4.8040005 | $6.000 \% 06$ |
| 4.918 .005 | 7.1270.06 |
| 5.033 .05 | $7.465=06$ |
| 5.1 .49 .05 | 7.6160006 |
| 5.267.00 05 | 8.178p=06 |
| 5.3860005 | $8.5530 \cdot 06$ |
| 5.5060-05 | 8.9400006 |
| 5.628 .05 | 9.341=06 |
| 5.7500005 | 9,155-06 |
| 5,8750=05 | 1. $118=05$ |
| $6.000 \times 05$ | $1 \cdot u^{62}=05$ |
| 6,127-05 | 1.1080.05 |
| 6.255005 | $1.155=05$ |
| $6.385=05$ | $1.204 \div 05$ |
| 6.515000 | $1 \cdot<54=0 \cdot 0$ |
| $6.648=05$ | $1.505=05$ |
| 8.041005 | $1.413=05$ |

PARTICLE LENSITY = IS.D GRAMS PER CUBIC CENTIMETER

| UIAMETEK |
| :---: |
| $1.2000+01$ |
| $1.300=+01$ |
| $1.4000+01$ |
| $1.5000+111$ |
| $1.600=+1 i l$ |
| $1.700 \mathrm{c}+11$ |
| $1.800=01$ |
| 1.900. +01 |
| 2.000 0 * 01 |
| <.100 = - 01 |
| <.200:*01 |
| <.300-01 |
| 2.400-61 |
| <. $5000+01$ |
| $2.600 x+01$ |
| $2.700 \times+01$ |
| c. $6000+01$ |
| $2.900 \times+01$ |
| $3,000 x+01$ |
| 3.100 $0+01$ |
| $3.200 x+[1$ |
| $3.300 x+11$ |
| $3.400 n+61$ |
| $3.500 x+61$ |
| $5.600 \mathrm{n}+31$ |
| $3.700 \times+01$ |
| $5.800=+01$ |
| $3.4002+01$ |
| $4.000 \times 01$ |
| $4.100 x+01$ |
| $4.200=011$ |
| $4.300 \times+01$ |
| $4.400=+01$ |
| $4.500=+01$ |
| $4.600 \times+61$ |
| $4.700 \times+11$ |
| $4.000 x+11$ |
| 4.9.000+01 |
| $2.0000+01$ |
| $2.1000+01$ |
| 2.200x+01 |
| 2. $5000+61$ |
| b, 400x+il |
| 3.500n+ 31 |
| 5.600x+31 |
| 2.700x+61 |

VELOCITY

RE
DRAG COEF KELAX TJME ,9a DIST

| 9.381-02 | 1.1230002 | $2.139 \ldots+03$ | 9,260=05 | 2-05 |
| :---: | :---: | :---: | :---: | :---: |
| 1.101 .001 | $1.428=02$ | 1.684.0 03 | 1.1220-04 | 3.138-05 |
| 1.276-01 | 1.7820-02 | $1.5500+03$ | 1.3010004 | 5.0320005 |
| $1.464=01$ | $2.191=02$ | $1.0990+03$ | 1.493004 | 6.037 w 05 |
| $1.664=01$ | 2.658-02 | $9.0630+02$ | 1.697-04 | 8.397w=05 |
| 1.877=01 | 3.185.02 | 7.567.02 | $1.915=04$ | 1.096=04 |
| 2.103 .01 | $3.778=0 \times 2$ | $6.3850+02$ | 2.1450 04 | 1.3790 .04 |
| 2.341 .01 | 4.4400-02 | $5.438 \pm+02$ | 2,388=04 | 1.1130004 |
| 2.592-01 | $5.173=02$ | $4.672 p+02$ | $2.643=-0^{4}$ | $2.1040-04$ |
| 2,8540001 | 5,9820-02 | $4.045 \times 02$ | $2.9110=04$ | 2.559=04 |
| 3.129 .001 | 6.8700002 | 3.520.002 | 3.191.0.04 | $3.1584=04$ |
| 3.415 .01 | 7.839 .02 | 3.094**02 | 3.483 .04 | 3.0860004 |
| 3.713001 | 8.894-02 | 2.731-02 | 3.787.04 | 4.372=04 |
| 4,0230001 | 1.004=01 | $2.4230+02$ | 4,1030004 | 5.150=04 |
| 4.344.01 | 1.127=01 | 2.162.*02 | $4.430=04$ | 6.027-04 |
| 4,676-01 | 1.260=001 | 1.937**2 | 4.769.04 | 7.u12-04 |
| $5.020 \times 01$ | $1.403=001$ | 1.7440*02 | 5.119 .004 | 8.113-04 |
| $5.374=01$ | 1.555.001 | $1.5700+02$ | $5.480=04$ | 9.539-0.04 |
| 5,738.01 | 1.718=01 | 1.430 ** 02 | 5.851=0.4 | 1.570-03 |
| 6.1130001 | 1.891-01 | 1.302=02 | $6,2340=04$ | 1.2200003 |
| 0.4980001 | 2.075.001 | 1.189 .02 | $6.026=04$ | $1.577=03$ |
| 0,8920=01 | 2,270.001 | $1.0900+02$ | 7.028=04 | 1.344-03 |
| $7.290=01$ | 2,476=01 | 1. 30 $02=+02$ | $7.440 m=04$ | 1.122-03 |
| 7.709-01 | 2,693.01 | 9. $2400+01$ | $7.861=04$ | 1.4100003 |
| 8.131 .001 | 2,92.1=01 | 8.543 .001 | 8,2920=04 | 2.111-03 |
| 8.562.01 | 3.162=01 | 7.919.*01 | $8.7310=04$ | 2. $523=03$ |
| 9.001.001 | 3,413. $=01$ | 7.359.01 | $9.179=04$ | $2.248=03$ |
| 9.448=01 | 3,677m-01 | $6.055-01$ | $9.034 \% 04$ | 2.184=03 |
| 9.902001 | $3.953=0.1$ | $6.4000+01$ | 1.010n=03 | 3.034=00 |
| $1.0360+00$ | 4.2410=01 | $5.4800 * 01$ | 1,057003 | 3. 2960003 |
| $1.083+00$ | $4,5410=01$ | $5.6150+01$ | 1.105 .03 | $3.571=03$ |
| 1.1.31.+00 | $4.853=0.1$ | 5.2750*01 | 1.153003 | 3.559-03 |
| 1,179**0 | 5.178=01 | 4.9650+01 | 1.2020003 | $4.161=03$ |
| 1.228000 | 5.5150001 | 4,0820+01 | 1.252=03 | $4.477=03$ |
| 1.277 000 | $5.8650=01$ | 4.420 .01 | 1,303-03 | $4.0060=03$ |
| $1.3270 * 00$ | 6.227001 | 4.185-01 | $1.354-03$ | 5.1490=03 |
| $1.378 \% 00$ | $0.601=01$ | $3.9600+01$ | 1.405003 | $5.206=03$ |
| 1.429 .00 | $6.988=01$ | 3.7650*01 | 1.457003 | $5.077=03$ |
| 1.48 .1000 | 7.388.001 | 3,579-01 | 1.5100-03 | 6. 2630.03 |
| $1.5330+00$ | 7.0000-01 | 3.407001 | $1.5630-03$ | 6.063 .003 |
| 1,5850+00 | 8.225:01 | $3.44800+0.1$ | 1.016 .003 | 7.078=-03 |
| 1.6380*00 | 8.063-0. 0.1 | 3.1000*01 | 1.0700003 | $7.2080 \cdot 03$ |
| $1.6910+00$ | $9.1130-01$ | 2.9630+01 | 1,724000 | 7.452-03 |
| $1.745 p+00$ | 9,577-01 | 2.8350001 | 1.779-03 | 8.4120003 |
| $1.7940+00$ | 1.005=00 | $2.7100+01$ | $1.0340=03$ | 8.5870005 |
| 1.853 .00 | 1.054.*00 | 2.004-*01 | 1.890003 | $9.976=03$ |


| diametak | velocity | RE | drag ceef | relax time | , 90 DlSt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $5.800 \times+01$ | 1.908000 | 1.104**00 | $2.5000+01$ | 1.9400003 | 9.8820003 |
| 2.900x+61 | $1,9630+00$ | $1.156 m+00$ | $2.4020+01$ | 2,0.020-03 | 1.040000 |
| $6.000 x+01$ | $2.019 \pm+00$ | 1,209**0 | $2.310 .0+01$ | 2.059.03 | 1.1949002 |
| 0.100 cos 1 | 2.075000 | 1,263.000 | 2.224 $0+01$ | 2.116.0.03 | 1.149p-02 |
| $0.200 x+01$ | 2,1310+00 | $1.3190^{*}+00$ | $2.1420+01$ | 2,173.003 | 1.206-02 |
| $0.300 \times+11$ | 2.188000 | 1.376.*00 | 2,065.0101 | $2.2310=03$ | 1.264.002 |
| $6.400 x+111$ | 2. 245000 | 1,434n+00 | 1.992.*01 | $2.289=03$ | 1.324-02 |
| $0.5000+11$ | $2.303 *+00$ | 1,494.*00 | 1,923n+01 | $2.3480=03$ | 1.s85.e02 |
| 6.000 zat 1 | $2,361.000$ | 1,555.*00 | $1.8580 * 01$ | 2.407003 | 1.44910.02 |
| $0.700 x+01$ | 2.419 .400 | 1,618.000 | $1.790 .+01$ | 2,467n=03 | 1.3130002 |
| $6.800=011$ | 2.479 2.50 | 1.6820*00 | $1.7370 * 01$ | 2.528 .003 | 1.5800002 |
| $0,900=01$ | 2,538.00 | 1,748.00 | 1.6800+01 | 2,589.03 | 1.0480002 |
| 7.000.*01 | 2.599 .00 | 1,815.00 | 1,6200*01 | 2,650.0.03 | 1.1179002 |
| $\%$ \% $000 \times 01$ | 2.600 .000 | 1,8850*00 | $1.2750+01$ | 2.712.003 | 1.1880.02 |
| 7.200n+61 | 2,721.000 | 1,955**00 | 1,525n*01 | 2.775:03 | 1.0619002 |
| $7.300 x+01$ | $2,784 \pm 00$ | 2,028**00 | $1.4780 \pm 01$ | $2,839=03$ | $1.436=02$ |
| $7.4000+01$ | 2,847**00 | 2.102=*0 | $1.433 \mathrm{n}+01$ | 2,9030\% $0^{3}$ | 2.012-02 |
| 7.500:+01 | 2.910000 | 2.178.*00 | $1,389=* 01$ | 2,968003 | $2 \cdot 0890-02$ |
| $7.6000+01$ | 2.975 * 00 | 2,2560*00 | 1,347.01 | 3,034n=03 | 2.1690\% 02 |
| $7.7000+01$ | 3,0400*00 | 2,336.*00 | 1.5070*01 | 3;100003 | $2.4500=02$ |
| 7.600:*01 | $3.100^{6}+00$ | 2.418 .00 | 1.268**01 | 3,168=03 | 2.9330.02 |
| $7,900 x+61$ | 3. $1730+00$ | $2.5020 * 00$ | 1.231 .401 | $3.236=03$ | $2.417=02$ |
| $0.000 \times+01$ | 3.2410000 | 2,5870*00 | $1.195 .+01$ | 3.3050003 | 2.503-0.02 |
| $0.100 x+01$ | $3.30^{9}{ }^{5}+00$ | 2,675.*00 | $1.161 .+01$ | 3,3740003 | 2.591.002 |
| $8.200 \times 01$ | 3.3770+00 | 2.764n*00 | $1.1280+01$ | 3,444=03 | $2.0800=02$ |
| $6.300 x+111$ | $3.447 \times+00$ | 2,855.*00 | 1.096.001 | 3,5150003 | $2.172=02$ |
| $8.4000+61$ | $3.516 \ldots+00$ | 2,948.000 | 1.060 .001 | 3, 586003 | 2.064-02 |
| $6.5000+01$ | $3.580 \%+00$ | 3.0420*00 | $1.0370+01$ | 3.657 .003 | 2. $4590=02$ |
| $8.600 x+61$ | $3.656_{10}+00$ | 3.138.*00 | $1.009 .+01$ | 3.7200003 | 3.0550-02 |
| $8.700 x+101$ | 3.720.00 | 3,235.000 | 9.0330+ 00 | 3,799-03 | 3.1530-02 |
| $0.000 \times+1$ | 3,795000 | 3.333.*00 | 9,587**0 | $3,870=03$ | 3.2530002 |
| $8.900 x+11$ | $3.8630+00$ | $3,4320+00$ | 9.355000 | 3,940003 | 3. 5 54-02 |
| $y .000 x+01$ | $3.9310+00$ | 3.531 \%*0 | 9.1400*00 | $4,008.003$ | 3.457000 |
| $4.100 x+01$ | 3.996000 | $3.629 n+00$ | $8.9410+00$ | 4,075.03 | 3.961002 |
| $9.200 x+61$ | 4,059\%*00 | 3.727.*00 | $8.7600 * 00$ | 4.140 .003 | 3.0681-02 |
| $9.300 x+31$ | 4.120 .000 | 3,824=*00 | $8.590 \% * 00$ | 4,201.03 | 3.176-02 |
| $9.40 .0 \times 101$ | $4.1700_{m}+00$ | 3,918.*00 | 8.456.000 | $4,259.003$ | 3.0860-02 |
| $9.500 x+01$ | 4.214 .00 | $3.9950+0$ | $8.394 \pm+00$ | 4,297.03 | 3.497-02 |
| 9.600 .701 | 4,270.+00 | 4,097.00 | $8.2360+00$ | 4,361003 | 4.110002 |
| $9.700 x+01$ | $4,339+00$ | $4.201 .0+00$ | 8.093-00 | 4,425003 | 4,2250002 |
| $9.800 x+01$ | $4,4020+00$ | 4,305-00 | $7.935 \times 0$ | 4,489.0.3 | 4.3420=02 |
| $9.900 x+31$ | $4,4670 * 00$ | 4,4110*00 | 7.792-*00 | 4.553 .003 | $4.460=02$ |
| $1.0000+02$ | 4,528000 | $4.519 \times 00$ | $7.6540+00$ | $4.0 .17=03$ | 4.9800002 |
| $1.100 x+02$ | 5.163**00 | 5.068**00 | 6.474**00 | 5,265.03 | 5.874w-0.2 |
| 1.200x+02 | $5.8070+00$ | $6.954 n+00$ | $5.584 \times 00$ | 5,9.21=03 | 7.339-02 |
| $1.300 x+02$ | $6,456 \pm+00$ | 8.576.*00 | $4.894 n+00$ | 6,584=03 | 8.4740002 |

## PARTICLE DENSITY $=13.0$ GRAMS PER CUBIC CENIIMETEK

\$
$1.400=+02$ 1. $500 x+112$ $1.000 x+12$ $1.700=+02$ $1.800=+02$ $1.9000+012$ 2.000=+02 2. 100~*02 $2.200=02$ $2.300 x+42$ $2.400=+02$ $2.500=02$ $2.000 x+12$ 2.700: 712 $2.800=+02$ $2.900=+12$ $5.000=112$ $3.100 x+112$ 3. $200 x+112$ $0.300=102$ $5.400=+02$ 3.500x+02 $3.000 x+02$ $3.700 \times+12$ $\therefore .000=+02$ $\therefore .400 x+02$ $4.000 x+02$
$4.100 .+122$
$4.200 x+112$
$4.300-12$
$4.400 x+02$
$4.500 x+02$
$4.600 x+02$
$4.700 x+12$
$4.800 x+02$
$4.900=+02$
$2.000=+02$
$3.100 x+02$
$2.200 x+02$
5. $5000+02$
$5.400=+02$
2. $200 \times 02$
?. $000=+12$
2.700x+12
$2.800 x+12$
$5.9000+12$

VELOCITY
$1.1100+00$
7.767. 00
$8.427=00$
9.085-00 0
$9.744 \infty+00$
$1.0400+01$
$1.100+01$
$1.1720+01$
$1.237=01$
$1.3020+01$
$1.367=01$
$1.432=01$
$1.4960+01$
1.5600001
$1.6240+01$
$1.687=01$
$1.750-01$
$1.8120+01$
$1.8740+01$
$1.874 \omega+01$
$1.936 n+01$
$1.9980+01$
$2.0590+01$
$2.119+01$
$2.1800+01$
$2.239 * 01$
$2.299+01$
$2.358=01$
$2.417 n+01$
2.475 = +01
$2.533 .+01$
2.5910*01
2.648001
$2.70^{5}-01$
2.761001
$2.81 .7 \infty+01$
$2.873+01$
2.929 .01
$2.984-01$
3.038 .01
$3.093=01$
3.146. +01
$3.200=+01$
$3.253=01$
$3.30^{6}=01$
$3.3590+01$
$3.4110+01$

KE
$9.9340+00$
$1.163=01$
$1.3450+01$
$1.5410+01$
1.7500 01
$1.9730+01$
2.208=01
$2,4560=01$
2.716001
2.989n*01
$3.274=01$
3.5720*01
$3.882=01$
4,203:01
4.537.*01
4. $682=01$
$5.239=01$
$5.6 .07=01$
$5.007 n+01$
$5.986 m+01$
$6.377=01$
6.778 .101
$7.191=+01$
$7.014=+01$
$8.048=01$
$8,493=-01$
$8.948=+01$
$9.414=01$
$9.089=01$
$1.0380+02$
$1.08 .70+02$
1.138 .02
$1.189=02$
$1,2420+02$
$1,295=-02$
$1.3500+02$
$1.405=* 02$
$1,461=02$
$1.519 \pm+02$
$1.577 .+02$
$1.636=02$
$1.696=02$
$1,7570 \div 02$
$1.8180+02$
$1.8810+02$
$1.9440+02$
$2.009-02$

DRAG COEF HELAX TIME
.90 01ST

| $4.3450+00$ | 7.2510003 | 1.4780001 |
| :---: | :---: | :---: |
| $3.9010+00$ | 7.920003 | 1. $12750=01$ |
| $3.5300+00$ | 8,592.03 | $1.488=01$ |
| 3.2320*00 | 9,264=03 | $1.118=01$ |
| $2.9740 * 00$ | 9,937=03 | 1.964=001 |
| $2.755 * 00$ | 1,061=02 | 2. $225=01$ |
| 2,262-00 | 1.1280-02 | 2.302001 |
| 2.4000*00 | 1,195-02 | $2.195=01$ |
| 2.250**0 | 1.261:02 | 3.102=01 |
| 2.128 .000 | 1,328 $=02$ | 3.423-0.01 |
| 2,015.00 | 1,394n-02 | 3.1590001 |
| $1 . y 14=00$ | $1.4600=02$ | 4.109*-01 |
| 1.8230000 | 1.525 .02 | $4.473=01$ |
| 1.741*00 | 1.591002 | $4.050=01$ |
| 1.667.00 | 1.6500=02 | 5, <410=01 |
| 1.599**00 | 1.7200002 | 5.0450001 |
| 1.,530.000 | 1.7840=02 | 6.0610001 |
| 1.481000 | 1.848-02 | $0.490=01$ |
| 1.429.000 | 1.9110002 | $6.431=01$ |
| $1.381=00$ | 1.9740002 | $7.384=01$ |
| 1.337 \%*00 | 2.0370002 | 7.849-01 |
| 1. 290.000 | $2.099-02$ | 8. 9250001 |
| 1.7500+00 | 2.161002 | 8,8130001 |
| 1,22'0000 | 2,223-02 | 9.912-01 |
| $1.189 \% 00$ | 2, 284-02 | $9.822=01$ |
| 1.150.000 | $2.3440=02$ | 1.1.34-00 |
| 1.129 .00 | 2.405002 | $1 . U^{870000}$ |
| 1.101 .000 | 2,4650.02 | 1.141000 |
| 1.0700000 |  | 1.197**00 |
| 1.051**00 | 2.5830-02 | $1.2530+00$ |
| 1.029 0 -00 | 2.0420002 | 1.3100000 |
| 1.007=00 | 2.700-02 | 1.9680*00 |
| 9.865 .01 | 2.7580-02 | 1.4270*00 |
| .9.0.7.1-0.1 | 2, 8160-02 | 1.4870+00 |
| $9.4800=01$ | 2.873002 | $1.3470+00$ |
| $9.313-01$ | $2.930=02$ | 1.009-000 |
| $9.147 m 01$ | 2.9860-02 | 1.0720*00 |
| 8.989-01 | $3.0430-02$ | 1.13j**00 |
| 8.83900 .1 | 3.0980002 | 1.199-00 |
| 8.095=011 | 3.154-02 | 1.6640+00 |
| 8. $2580=01$ | 3.209m=02 | 1.430**00 |
| 8.427.001 | 3.2630*02 | 1.497000 |
| 8, 501.001 | $3.3180 \% 02$ | 2.14 $64 \%+00$ |
| 8.181001 | 3,3720-02 | $2 \cdot 1320+00$ |
| 8.0600-01 | 3,4250-02 | $2 . \angle 010+00$ |
| 7.955-01 | 3,479=-02 | $2 .<710+00$ |

particle density $=13.0$ grams per cubic centimeter

| viAMETEH | velocity | RE | drag ceef | relax time | . 90 D.S |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.000 \times+02$ | $3.4630+01$ | 2.074.02 | 7. | 3,532.002 | 2.sA1-00 |
| $0.100 x+1)^{2}$ | $3.5150+01$ | 2.140.*02 | 7.7470001 | $3,584=02$ | 2.4130*00 |
| $6,200=00^{2}$ | $3.560 .0+01$ | 2.207.02 | 7.049-01 | 3,637-02 | 2.4840+00 |
| $0.300 x+12^{2}$ | $3.017 \times+01$ | 2,274.0+02 | 7.555001 | 3.689 .02 | 2.357-*00 |
| $0.400 x+42$ | 3.608 .001 | 2.543**02 | 7.465-01 | 3.7400002 | $2.0300+00$ |
| $6.500=+12$ | $3.7180+01$ | 2,412.*02 | 7.377-01 | 3,792.02 | $2.7040 * 00$ |
| $0.600 \times+12$ | 3,768*01 | '2,482.0.02 | 7.293.001 | $3.8430=02$ | 2.179 $0+00$ |
| 0.700.022 | 3.818001 | 2,553** 02 | 7.212.01 | 3.893 .02 | 2.854-*00 |
| $6.800 x+02$ | $3.867 n+01$ | 2.625n+02 | 7.134=01 | 3,944-02 | $2,430+00$ |
| $0.900 . x+02$ | $3.916 * 01$ | 2,697.*02 | 7.050.001 | 3,994=02 | 3.0060000 |
| 000x+02 | $3.965 * 01$ | 2,770n*02 | 6,985.01 | 4,0440-02 | $3.4830+00$ |
| 100:*02 | $4.014 .+01$ | 2,844n*02 | 6.914.001 | 4,093.02 | 3.1610*00 |
| $7.200 x+12$ | 4.062 .001 | 2,919.02 | 0.846 \#-01 | 4,142002 | $3.439 *+00$ |
| $7.300 .+02$ | $4.1100+01$ | 2,994-02 | 6.7800 .01 | 4,1910002 | 3.5180+00 |
| 7,400:+02 | 4.158 .01 | 3.071.02 | 6.7100001 | 4,2400002 | -3. $3.97=00$ |
| 1.500x+02 | $4.20^{5}+01$ | 3.148.02 | 6.054=701 | 4,288.-02 | 3.477**00 |
| $7.000 \times+02$ | 4.252.*01 | 3,225n*02 | 6,594=01 | 4,336-02 | 3.758.*00 |
| $7.700 \times+02$ | 4,299n+01 | 3,3040*02 | 6,530.001 | $4,3840=02$ | 3.039-00 |
| $\% .800 x+02$ | 4,346**01 | 3,383.*02 | 6.4800.01 | 4,432.012 | 3.1200000 |
| $1.900 x+02$ | 4.392**01 | 3,463n+02 | 6.425-01 | 4,479 $=02$ | $3.0030+00$ |
| B.000x+02 | 4.4380001 | 3,543=*02 | 0.372 mel | $4,526 \times 02$ | $3.8850+00$ |
| - 1000+02 | 4.484**01 | $3.6250+02$ | 0.321001 | 4,57.3-02 | 3.9680+00 |
| \%.200n+ij2 | $4.530 n+01$ | 3,707.02 | 6.2710-01 | $4.619 p=02$ | 4.4520+00 |
| $6.300=02$ | 4.575.001 | 3.790002 | 6, c2cenol | 4,665002 | $4.136 \%+00$ |
| $0.400 x+12^{2}$ | 4.0200001 | $3.873 n+02$ | $6.175=01$ | $4.711=02$ | $4.4210+00$ |
| $0.500 x+02$ | 4.065 +01 | 3,957n*02 | 6,129 = 01 | 4.757 - 02 | $4.3060+00$ |
| $8.600 \times+12^{2}$ | $4.70^{9} 0+01$ | 4.042.*02 | $0.0 .85=01$ | $4.802 m=02$ | $4.3920+00$ |
| $0.700 \times+42$ | $4.753 .+01$ | 4.127**02 | 6.0410001 | 4,0470 02 | $4.4780+00$ |
| $0.600 \times+02$ | 4,797**01 | $4.213 n+02$ | 5,999001 | 4,8920002 | $4.3640+00$ |
| $6.400 x+112$ | 4.841.001 | $4,3000 * 02$ | 5.958.001 | 4.937.02 | 4.051000 |
| $4.0000+112$ | 4.885 .01 | $4,588.002$ | 5.910 .01 | 4.9810002 | 4.139**00 |
| $9.100 x+12^{2}$ | $4,9200+01$ | $4,476 n+02$ | 5,879m01 | 5.026"02 | 4.827-*00 |
| $4.2000+112$ | 4.971.401 | 4,564**02 | 5.84.1-01 | 5,0690-02 | 4.7150000 |
| $4.300 x+12^{2}$ | $5.0140+01$ | 4,054**02 | 5.804001 | 5.113.-02 | 5.0040*00 |
| $9.4000+12$ | 5.057 .01 | 4,744n*02 | 5,768.01 | 5.157 .002 | 5.193 **00 |
| Y.500x+102 | $5.0990+01$ | 4,834.**2 | 5,733m01 | 5,2000-02 | 5.1830*00 |
| $9.000 x+42$ | 5,141.0+01 | 4,926n*02 | 5.098-01 | 5.243**02 | 5. $2730+00$ |
| $9.700 \cdot+112$ | $5.183 .+01$ | 5.0180.02 | 5,065.0.01 | 5,286.02 | $5.363 n+00$ |
| $4.800 x+02$ | $5,2250+01$ | $5.1100+02$ | 5.032 .001 | 5,328=02 | $5.454 * * 00$ |
| $9.900 x+32$ | $5,267 * 01$ | $5,2030+02$ | 5,0000001 | 5.371 .02 | $5.545 \pm 00$ |
| $1.000 x+03$ | $5.3080+01$ | 5,297n*02 | 5.269-01 | $5.413 \% 002$ | $5.5370+00$ |
| $1.010=005$ | $5.349 n+01$ | 5,392m*02 | 5.539.01 | 5,4550002 | 5.1290000 |
| 1.020 0+03 | $5,3900+01$ | 5.487 .02 | 5.509.001 | 5.496x 02 | $5.5210 \pm 00$ |
| $1.030 x+113$ | $5.4300+01$ | $5,5820 * 02$ | 5.4800001 | $5.538=02$ | 5.7141000 |
| $1.040 \times+0^{3}$ | 5.471 .01 | 5,678~*02 | 5.452m001 | 5,579.02 | 0.107000 |
| $1.050 \times 4$ | $5.51120+01$ | 5,175:*02 | $5.424=01$ | 5.6200.02 | 0.1010400 |

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