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UCRL-52757

EXPERIMENTAL STUDY OF THE DYNAMIC VISCOSITY OF SOME ANHYDROUS SILICATE MELTS TO 1953 K AT 150 kPa

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MASTER

April 3, 1979

Work performed under the auspices of the U.S. Department of
Energy by the UCLLL under contract number W-7405-ENG-48.

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Springfield, VA 22161
Price: Printed Copy \$; Microfiche \$3.00

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EXPERIMENTAL STUDY OF THE DYNAMIC VISCOSITY OF SOME ANHYDROUS SILICATE MELTS TO 1953 K AT 150 kPa

ABSTRACT

We measured the dynamic viscosity of six anhydrous silicate melts, obtained by fusing various rocks collected from the Department of Energy's Nevada Test Site, from 1393 to 1953 K at 150 kPa. These silicate melts exhibit Newtonian behavior in this temperature interval. Experimental results indicate that tuff viscosity > alluvium viscosity > basalt viscosity. At 1673 K, viscosities of Schooner tuff (Ue20 μ -330'), alluvium (U10ba), and Danny Boy basalt (Ue18q#2) are 28,460 Pa·s, 4,820 Pa·s, and 12.6 Pa·s, respectively. Activation energies for viscous flow in the interval between 1393 and 1953 K range from 268 to 393 kJ/mole.

INTRODUCTION

Modeling physicochemical processes that occur within the earth's crust and upper mantle can provide valuable insight into the generation, evolution, and emplacement of igneous rocks. A fundamental prerequisite is a knowledge of the transport and thermodynamic properties of silicate melts as a function of temperature, pressure, and activity of water. As a first

step in evaluating the effect of each of these parameters, we investigated the viscosity of silicate melts formed by melting several common rocks from the Nevada Test Site (NTS). We report here the results of our study on tuff, alluvium, and basalt melts. The study was conducted to 1953 K at 150 kPa (near atmospheric pressure).

SAMPLES AND EXPERIMENTAL METHOD

The silicate melts that we investigated were obtained by fusing six silicate rocks collected from the Department of Energy's test site in southern Nevada. The names and identification numbers of these samples are given in Table 1. To form homogeneous, bubble-free glasses, some compositions (e.g., tuffs Ue20 μ -330' and Ue20 μ -357') required repeated grindings and fusions to approximately 1600°C. All fusions were conducted in air. Of course, this procedure oxidizes the iron in our natural samples, thus producing high Fe⁺³/Fe⁺² ratios. We do not think this affects our results because according to Shaw (1969), "no systematic differences" occur in tholeiitic basalt viscosities measured at liquidus temperatures in air and under low oxygen fugacities.

Table 2 contains chemical analyses of the general rock units from which the specimens were selected. We are currently conducting chemical analyses of the

specific rocks and their respective glasses used in our experiments; we will report the results at a later date.

All experiments were carried out in a Couette-type rotational cup viscometer. A complete description of this unit and the calibration procedures employed in the experiments have previously been reported by Weed *et al.* (1978). In general, all viscosity determinations were performed in the following manner:

TABLE 1. List of rocks investigated from the Nevada Test Site.

Rock No.	Name	Collection area
Ue20 μ (330')	Tuff	Schooner
Ue20 μ (357')	Tuff	Schooner
Ue20L#2	Rhyolite	Cabriolet
Ue18q#2	Basalt	Danny Boy
Ue30a#4	Basalt	Buggy
U10ba	Alluvium	Sedan

1. Choose the temperature and proceed to determine the furnace maximum temperature and the position of the maximum.
2. Center the furnace temperature maximum around the sample by repositioning the furnace without moving the sample.
3. Set the rotational velocity and measure the resulting torque; repeat for both positive and negative rotation at several speeds.
4. Plot torque (τ) as a function of rotational speed (ω).
5. Calculate $d\tau/d\omega$ from the straight-line portion of the plot by a least-squares fit of $\tau = A_2\omega + A_1$.
6. Calculate viscosity (η) from $d\tau/d\omega$ and instrument constant, K.

During the course of the experimental investigation, we found that location of the temperature of the furnace maximum changed as a function of temperature, furnace life, and bulk composition. Data obtained for each of the six compositions studied are reported as a function of temperature in Appendix A. Figure A-1 in Appendix A illustrates the variation in the position of the furnace maximum temperature as a function of

temperature. At low temperatures ($1300 \text{ K} < T < 1600 \text{ K}$), the maximum lies at approximately 51 cm; at temperatures greater than 1800 K, the maximum ranges between 43 cm (for specimen U10ba) and 53 cm (for sample Ue20 μ -330'). Because of the wide variations encountered, it was necessary to run temperature profiles for each isotherm investigated.

We used Pt₆Rh₉₄-Pt₃₀Rh₇₀ thermocouples in the investigation and calibrated them as a function of black body temperature using an automatic optical pyrometer. Details of the thermocouple calibration procedures are discussed in Appendix B. On the basis of these, we estimate the average error in the temperature scale to be $\pm 2^\circ\text{C}$.

Prior to determining the viscosity of the silicate melt compositions, we calibrated the viscometer using a certified glass standard, No. 717, obtained from the National Bureau of Standards. Data on the viscosity of the NBS No. 717 glass as a function of temperature and the present results on the same glass are presented in Appendix C. Additional corrections resulting from the thermal expansion of the Al₂O₃ rod holding the bob (see Figs. 1 and 2 in *Weed et al.*, 1978) are reported in Appendix D.

TABLE 2. Chemical analyses of rock units investigated from the Nevada Test Site.^a

Oxide	Ue20L#2	Ue20 μ	U10ba	Ue18q#2	Ue30a#4
SiO ₂	66.30	70.46	74.50	53.18	59.00
Al ₂ O ₃	16.77	12.71	8.00	17.70	16.10
Total Fe (as Fe ₂ O ₃)	5.03	—	4.60	—	—
FeO	—	2.70	—	4.92	3.80
Fe ₂ O ₃	—	2.27	—	3.00	3.20
MgO	0.76	0.49	1.80	4.90	2.70
CaO	1.30	0.99	5.30	6.82	5.10
TiO ₂	0.42	0.23	0.22	1.48	1.40
Na ₂ O	5.35	4.28	0.27	4.12	4.40
K ₂ O	3.52	4.85	0.11	2.32	3.10
H ₂ O	0.21	0.53	0.73	0.60	0.91
P ₂ O ₅	—	—	0.38	1.00	0.56
TOTAL	99.66	99.51	95.91	100.04	100.27

^aRocks were analyzed by the following: J. Hill, LLL, and P. Orkild, USGS (Ue20 μ); Abbot A. Hanks, Inc. (U10ba); P. Elmore, I. Barlow, S. Potts, and G. Chole, USGS (Ue18q#2); H. Tewes, LLL, furnished data on Ue20L#2 and Ue30a#4.

EXPERIMENTAL RESULTS

PRESENTATION AND DISCUSSION

The raw, uncorrected data obtained for the six Nevada Test Site compositions studied at 150 kPa are reported in Appendices E (Ue20 μ -330'), F (U10ba), G (Ue20 μ -357'), H (Ue20L#2), I (Ue18q#2), and J (Ue30a#4). Plots of torque (τ) as a function of rota-

tional velocity (ω) are also presented in these appendices so that interested readers can estimate the extent of non-Newtonian behavior in the melts. Least-squares analyses of τ as a function of ω are given assuming the function's relation

$$\tau = A_2\omega + A_1$$

TABLE 3. Viscosities and activation energies for rock melts.

Rock No.	ρ , Mg/m ^{3a}	Mass, g	Temperatures °C		$10^4/(T, K)$, corrected	$d\tau/d\omega$, N·m/s/rad	η , Pa·s	E_a , kJ/mole ^b
			Uncorrected	Corrected				
Ue20 μ (330')	2.4	10.944	1693	1688	5.10	3.748×10^{-3}	660	356 $\pm$ 13
			1676	1671	5.14	4.181×10^{-3}	742	
			1636	1631	5.25	7.695×10^{-3}	1390	
			1598	1593	5.36	1.229×10^{-2}	2240	
			1575	1571	5.42	1.346×10^{-2}	2480	
			1540	1535	5.53	2.165×10^{-2}	4040	
			1493	1488	5.68	4.151×10^{-2}	7890	
U10ba	2.6	11.856	1539	1534	5.53	5.250×10^{-3}	981	268 $\pm$ 21
			1502	1495	5.66	1.013×10^{-2}	1920	
			1455	1456	5.78	1.455×10^{-2}	2800	
			1414	1416	5.92	2.117×10^{-2}	4130	
			1377	1375	6.07	2.989×10^{-2}	5920	
Ue20 μ (357')	2.4	10.944	1537	1532	5.54	7.878×10^{-3}	1470	318 $\pm$ 8
			1495	1490	5.67	1.036×10^{-2}	1970	
			1458	1459	5.77	1.807×10^{-2}	3470	
			1416	1419	5.91	3.225×10^{-2}	6290	
			1358	1354	6.15	6.364×10^{-2}	12700	
			1314	1306	6.33	1.370×10^{-1}	27800	
			1274	1270	6.48	2.586×10^{-1}	53100	
Ue201.#2	2.4	10.944	1546	1541	5.51	1.951×10^{-3}	364	301 $\pm$ 8
			1505	1497	5.65	3.164×10^{-3}	599	
			1443	1444	5.82	6.832×10^{-3}	1320	
			1400	1401	5.97	1.167×10^{-2}	2290	
			1363	1359	6.13	1.925×10^{-2}	3830	
			1320	1312	6.31	3.661×10^{-2}	7410	
			1300	1294	6.38	4.588×10^{-2}	9340	
Ue18q#2	2.8	12.768	1242	1239	6.61	9.131×10^{-2}	18900	393 $\pm$ 21
			1319	1310	6.32	3.304×10^{-4}	67	
			1277	1267	6.49	5.994×10^{-4}	123	
			1196	1193	6.82	2.892×10^{-3}	609	
			1161	1158	6.99	9.211×10^{-3}	1960	
Ue30a#4	2.8	12.768	1119	1117	7.20	1.590×10^{-2}	3440	301 $\pm$ 4
			1357	1353	6.15	1.869×10^{-3}	373	
			1318	1310	6.32	2.989×10^{-3}	605	
			1255	1251	6.56	7.176×10^{-3}	1480	
			1215	1212	6.73	1.307×10^{-2}	2740	
			1152	1149	7.03	4.038×10^{-2}	8630	

^aThese densities were assumed for calculational purposes.^b E (J) = 4.184 E (cal).

We recorded corrected temperatures and melt viscosities for each studied composition in Table 3 (see Appendices B and D for discussions of the procedures employed in temperature and thermal expansion corrections, respectively). These results are illustrated in Fig. 1 which plots $\log \eta$ as a function of reciprocal temperature. Equations of the type $\log \eta = B/T(K) + A$

fit the data. Table 4 contains numerical values of A and B for each investigated melt composition. It is clear that the rheological properties of the basaltic melt compositions differ from those of the tuffs and alluvium. The former are much less viscous than the highly siliceous rock melts. From the data provided in Appendices E through J it is obvious that these silicate melts

FIG. 1. Viscosity (η) of silicate melts as a function of temperature at a pressure of 150 kPa. $\eta(\text{Pa}\cdot\text{s}) = 10^{-1} \eta(\text{poise})$.

TABLE 4. Coefficients A and B in the viscosity equation $\log \eta = B/T(K) + A$ (see Fig. 1 for results).

Rock No.	A	B, K
Ue20 μ (330')	-6.672	18,616
U10ba	-4.743	14,098
Ue20 μ (357')	-6.081	16,637
Ue20L#2	-6.067	15,719
Ue18q#2	-11.16	20,511
Ue30a#4	-7.072	15,632

exhibit Newtonian behavior in the temperature interval investigated.

We calculated activation energies (E_a) for viscous flow for each composition in the temperature interval 1393 to 1953 K (see Table 3). Mean values of the activation energy for the basalts and tuffs are 347 ± 65 and 325 ± 28 kJ/mole, respectively. In simple silicate systems, viscosity and activation energy for viscous flow can be related to melt composition. We shall address this question in more detail when the chemistry of our silicate melts is better known (see comments on page 2).

SUMMARY AND CONCLUSIONS

We have measured the dynamic viscosity from 1393 to 1953 K at 150 kPa for six anhydrous silicate melts obtained by fusing various rocks collected from the Department of Energy's test site in Nevada. Within the investigated temperature interval, these silicate melts exhibit Newtonian behavior. The rheological characteristics of these melts are as follows:

tuff viscosity > alluvium viscosity > basalt viscosity. At 1673 K, viscosities of Schooner tuff, alluvium, and Danny Boy basalt are 28,400 Pa·s, 4820 Pa·s, and 12.6 Pa·s, respectively. Activation energies for viscous flow range from 268 to 393 kJ/mole in the temperature interval 1393 to 1953 K.

ACKNOWLEDGMENTS

We thank H. Heard, L. Schwartz, and H. Tewes for manuscript reviews. J. Allegre, R. Brown, T. deTemple, K. Deas, A. Edwards, E. Jerbic, D. Kingman, W. Kuhl, T. Shell, and W. Wade assisted

us at various times during the course of the investigation. The Nevada Test Site rocks were kindly provided by A. C. Douglas.

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APPENDIX A **DATA ON MIGRATION OF THE MAXIMUM TEMPERATURE** **IN THE FURNACE AS A FUNCTION OF DEPTH**

FIG. A-1. Temperature maximum in the furnace as a function of depth.

APPENDIX B

TEMPERATURE CALIBRATIONS

Temperatures in this investigation are based on the IPTS-48 scale through the following series of calibrations:

1. Automatic pyrometer vs standard gas-filled W lamp.
2. Graphite blackbody vs automatic pyrometer.
3. Pt₆Rh₉₄-Pt₃₀Rh₇₀ thermocouple vs graphite blackbody.
4. Molten silicate samples vs Pt₆Rh₉₄-Pt₃₀Rh₇₀ thermocouple.

The temperature of the standard W lamp is traceable to IPTS-48 through calibration of the lamp by the National Bureau of Standards. The remainder of the calibration scheme involves the following two assumptions:

1. The Pt₆Rh₉₄-Pt₃₀Rh₇₀ thermocouple is at the same temperature as the graphite blackbody.
2. The molten silicate samples are at the same temperature as the Pt₆Rh₉₄-Pt₃₀Rh₇₀ thermocouple during viscosity measurements.

Calibration procedures and the accuracy of the various assumptions are discussed below. In addition to the main calibrations mentioned above, we performed subsidiary calibrations on the windows and internal-reflecting prisms used with the pyrometer to determine the apparent temperature losses that they introduced when placed in the optical path between the pyrometer and the blackbody-thermocouple assembly.

During the course of the third and fourth calibrations, a temperature-vs-EMF scale was established employing calibration data supplied by Engelhard Industries for the Pt₃₀Rh₇₀ and Pt₆Rh₉₄ thermocouple wires used in this investigation. Thermocouple EMFs were read using an HP voltmeter (DVM) and a Doric digital thermometer connected in parallel. We used both instruments because the digital voltmeter was a loan instrument subject to recall at any time, whereas the Doric digital thermometer was purchased exclusively for viscosity determinations. Intercomparisons between the units disclosed that the temperature scale built into the Doric thermometer was very close to the Pt₃₀Rh₇₀ vs Pt₆Rh₉₄ scale, so that only small corrections were necessary for temperatures read from the Doric unit.

Procedures for pyrometer calibration with the standard lamp are shown below. The pyrometer is Pyro Instrument Co. model A3, serial no. A133, AEC 161038; the standard W lamp is LLL Standards Laboratory no. 210100.

1. Series A
 - a. Lamp current is set for the desired temperature, and the lamp is allowed to stabilize for several minutes.
 - b. The pyrometer is focused on the lamp filament opposite the reference notch.
 - c. Pyrometer temperature is read from the panel meter and the standard resistor EMF from an auxiliary DVM. This EMF is proportional to the pyrometer lamp current, but is not used in the remaining calibration procedures.
2. Series B. This is the same as Series A, except that the pyrometer is pointed on and off target several times. Temperature and EMF readings are made each time, and the mean and standard deviation are calculated. Results are expressed as Δ as a function of t_{pyro} so that

$$\Delta = (t - t_{\text{pyro}}) \quad (\text{B-1})$$

where

t ($^{\circ}\text{C}$) = standard lamp temperature from lamp current and National Bureau of Standards calibration data,

and

t_{pyro} ($^{\circ}\text{C}$) = reading from the front panel meter of the automatic pyrometer
(see Figs. B-1 and B-2).

FIG. B-1. Calibration data for pyrometer vs standard W lamp, series A.

FIG. B-2. Calibration data for pyrometer vs standard W lamp, series B.

The procedure for determining apparent temperature losses due to the presence of window and prism in the optical path is as follows.

1. Lamp current is set, and the lamp is allowed to stabilize.
2. Temperature and EMF reading are recorded with the pyrometer viewing the standard lamp directly, prism and window both removed from the optical path.
3. Both prism and window are inserted in the optical path, the pyrometer refocused and realigned if necessary, and the temperature and EMF recorded.
4. Steps 1 to 3 are repeated at all required temperatures.

Results are expressed as Δt vs t'

$$\Delta t = t_{\text{pyro}} - t' \quad , \quad (\text{B-2})$$

where

$t_{\text{pyro}} (^{\circ}\text{C})$ = reading of pyrometer, prism and window out of the optical path,

$t' (^{\circ}\text{C})$ = reading of pyrometer, prism and window in the optical path (see Figs. B-3, B-4, and B-5).

FIG. B-3. Calibration data, prism + window. $\Delta t = (t_{\text{pyro}} - t')$.

FIG. B-4. Calibration data, prism + window, 7/25/78. $\Delta t = (t_{\text{pyro}} - t')$.

FIG. B-5. Calibration data, prism + quartz window, 11/13/78. $\Delta t (^{\circ}\text{C}) = (t_{\text{pyro}} - t')$.

The procedure for calibration of the blackbody-thermocouple assembly with respect to the automatic pyrometer combines the second and third calibrations shown above. The essential idea is to arrange the experimental conditions so that the temperature gradient between the bottom of the blackbody hole and the hot junction of the thermocouple is at a minimum. Details of the assembly are shown in Fig. B-6. Since it was already known that the temperature profile of the furnace changes with temperature, the profile was remeasured at each calibration temperature. The operating characteristics of the pyrometer required that the entrance aperture of the pyrometer should be the limiting aperture in the optical train, and that the diameter (D) of the blackbody hole should be at least

$$D = 0.0025 x \quad (B-3)$$

where x is the distance from pyrometer front lens to the blackbody. Figure B-7 shows a diagram of the optical train satisfying these requirements.

Reference temperature of the thermocouple is 0.0°C. Reference junctions are Pt₃₀Rh₇₀ vs Cu and Pt₆Rh₉₄ vs Cu sealed in glass tubes and immersed in a mixture of crushed ice and distilled water. EMFs read from the Cu leads are thus automatically compensated for the 0°C reference EMF. The Cu leads were connected in parallel to the DVM and the Doric digital thermometer. Resolution was 1 μV for the DVM, and 0.1°C for the digital thermometer.

The detailed run procedure is as follows.

1. A low-speed flow of house Ar is started downward through the furnace when heating is started. This protects the graphite blackbody from air oxidation at high temperatures.
2. The furnace is set for the desired temperature.
3. The blackbody-thermocouple assembly is set near the top of the furnace and is lowered in 2-cm increments to trace out the temperature profile for a distance of 22 cm.
4. The optical shutter is opened, the pyrometer is focused on the bottom of the blackbody hole, and the shutter is closed.
5. Thermocouple readings are made as a function of time at intervals of at least 5 min until successive readings agree within 3 μV.
6. The shutter is opened, pyrometer and thermocouple are read simultaneously, and the shutter is closed.
7. For Series I calibrations, DVM readings are made. For Series II calibrations, Doric digital thermometer readings and DVM readings are made simultaneously.
8. Steps 2 to 7 are repeated at each calibration temperature.

The results of this calibration are in the form of pyrometer and thermocouple readings as a function of position inside the furnace (see Figs. B-8 through B-14). These readings indicate maxima near the center of the furnace, but the maxima for the pyrometer and the thermocouple do not, in general, coincide. One reason is that the system is not symmetrical. The thermocouple is at the end of a thermally conducting body that consists of an Al₂O₃ tube together with the thermocouple leads; it thus loses heat by conduction through this body to the Ar gas stream, whereas the blackbody loses heat by radiation out the bottom end of the furnace tube and by conduction to the gas stream. For this reason, there are at least three possible choices of furnace depth readings that correspond to equal temperatures for blackbody and thermocouple junction:

1. The reading at the blackbody maximum.
2. The reading at the thermocouple EMF maximum.
3. The reading at some point between these two maxima, such as the halfway point.

We have chosen to use the furnace depth for the thermocouple EMF maximum as the depth at which the temperature gradient between blackbody hole and thermocouple junction is a minimum and the actual temperature difference is therefore also a minimum. At this point, heat losses from the thermocouple junction to the support rod and the leads are smallest since the thermocouple junction is already lower down in the furnace than the point of maximum temperature in the Al₂O₃ liner tube in the furnace. From the tabular data corresponding to the temperature-vs-depth plots, the temperature gradient in the region of the maximum thermocouple EMF is between -2.1°C/cm at 890°C and 2.6°C/cm at 1220°C, and it does not change systematically with temperature. The

FIG. B-6. Blackbody-thermocouple assembly.

separation between the bottom of the blackbody hole and the thermocouple junction is 1.0 cm from Fig. B-6, so that the temperature difference between blackbody and thermocouple is never more than 2.6°C and at most of the calibration temperatures is less, as shown in the column ($\Delta t_{EMF}/\Delta x$) in Table B-1.

The results of this calibration are expressed as Δ_1 vs t_{EMF} (Fig. B-15) and Δ_2 vs t_D (Fig. B-16), where

$$\Delta_1 = t - t_{EMF} \quad (B-4)$$

$$\Delta_2 = t_{EMF} - t_D \quad (B-5)$$

FIG. B-7. Calibration of blackbody-thermocouple assembly against optical pyrometer.

FIG. B-8. Calibration data for blackbody-thermocouple assembly vs pyrometer, 900°C set point, series I.

FIG. B-9. Calibration data for blackbody-thermocouple assembly vs pyrometer, 1300°C set point, series I.

FIG. B-10. Calibration data for blackbody-thermocouple assembly vs pyrometer, 1480°C set point, series I.

FIG. B-11. Calibration data for blackbody-thermocouple assembly vs pyrometer, 1200°C set point, series II.

FIG. B-12. Calibration data for blackbody-thermocouple assembly vs pyrometer, 1300°C set point, series II.

FIG. B-13. Calibration data for blackbody-thermocouple assembly vs pyrometer, 1400°C set point, series II.

FIG. B-14. Calibration data for blackbody-thermocouple assembly vs pyrometer, 1480°C set point, series II.

TABLE B-1. Calibration data for blackbody-thermocouple assembly vs pyrometer.

Δ_1	t_{EMF} (°C)	$\Delta t_{EMF}/\Delta x$ (°C/cm)	Δ_2	t_D (°C)
Series I				
+8.2	890.2 ± 0.0	-2.1		
-0.9	1282.6 ± 0.3	-0.24		
-0.4	1477.8 ± 0.2	-0.025		
Series II				
+1.7	1221.2 ± 1.6	+2.6	-4.5	1225.7 ± 1.7
-5.1	1317.2 ± 0.4	+0.1	-3.6	1320.8 ± 0.4
+5.4	1420.0 ± 0.3	-1.05	-1.9	1421.9 ± 0.3
-6.4	1504.7 ± 0.3	+0.43	-0.7	1505.4 ± 0.3

FIG. B-15. Calibration results for blackbody-thermocouple assembly vs pyrometer, $\Delta_1 = (t - t_{EMF})$.

FIG. B-16. Calibration results for Doric digital thermometer vs $Pt_{30}Rh_{70} - Pt_6Rh_{94}$ thermocouple scale, $\Delta_2 = (t_{EMF} - t_D)$.

Here, t ($^{\circ}C$) is the standard temperature on the IPTS-48 scale, t_{EMF} is the thermocouple temperature from the experimental EMF reading and the $Pt_{30}Rh_{70}$ vs Pt_6Rh_{94} thermocouple table, and t_D ($^{\circ}C$) is the temperature read from the Doric digital thermometer. Values for t are obtained from pyrometer readings after appropriate prism, window, and lamp calibration corrections have been made.

The procedure for construction of the standard $Pt_{30}Rh_{70}$ vs Pt_6Rh_{94} thermocouple table is as follows:

1. Calibration data for the thermocouple wires are fitted by least-squares analysis of the function

$$E = A_0 + A_1 t + A_2 t^2 \quad , \quad (B-6)$$

where E is the EMF in μV , t is the temperature in $^{\circ}C$ on the IPTS-48 scale, and A_0 , A_1 , A_2 are parameters with numerical values determined by the analysis. Input data for E vs t are from Engelhard Calibration Certificate, SO No. 37190, March 21, 1977, test No. 2074. The results are: $A_0 = -3313.34 \pm 311.60$ (μV); $A_1 = 648.483 \pm 0.456$ ($\mu V/^{\circ}C$); $A_2 = (1.63691 \pm 0.16224) \times 10^{-3}$ [$\mu V/(^{\circ}C)^2$]; and Std Dev = 28.47 (μV).

2. Equation B-6 is solved for t as a function of E , and a table of t vs E is then calculated for the range 2000 to 15,000 μV with an interval of 1 μV . The corresponding temperature range is from 696 $^{\circ}C$ to 1906 $^{\circ}C$. The thermocouple temperature t_{EMF} corresponding to a measured EMF is obtained from this table.

In estimating errors in the temperature scale for these viscosity experiments, we assume that the errors in the calibration procedure are simply propagated. Then,

$$\begin{aligned} \epsilon_{t_{EMF}} &= (\epsilon_t^2 + \epsilon_{\Delta_1}^2)^{1/2} \\ &= (\epsilon_t^2 + \epsilon_{\Delta}^2 + \epsilon_{gr}^2 + \epsilon_w^2)^{1/2} \quad . \end{aligned} \quad (B-7)$$

Here,

- ϵ_t = error in temperature scale of the standard W lamp
= 0.0 for this analysis,
- ϵ_Δ = reading errors made during pyrometer calibration vs standard W lamp,
= $(0.35 \pm 0.39)^\circ\text{C}$, average of 23 data from Fig. B-2,
- ϵ_{gr} = error due to temperature gradients between bottom of blackbody hole and the thermocouple junction,
= $(0.94 \pm 1.03)^\circ\text{C}$ average of 7 data on absolute value of $(\Delta t_{EMF}/\Delta x)$ from Table B-1, for $\Delta x = 1.0$ cm,
- ϵ_w = error due to prism and window corrections,
= (1.17 ± 0.57) , average of 10 data from Fig. B-3,

In addition,

$$\epsilon_{t_D} = (\epsilon_{t_{EMF}}^2 + \epsilon_{\Delta_2}^2)^{1/2} \quad (\text{B-8})$$

$$\epsilon_{\Delta_2} = [0.1^2 + (1.53 \times 10^{-3})^2]^{1/2} = 0.1^\circ\text{C}$$

$$\epsilon_{t_s} = (\epsilon_{t_{EMF}}^2 + \epsilon_{gr}^2)^{1/2} \quad (\text{B-9})$$

Here, $\epsilon_{gr} = (0.94 \times 0.4)$ since the distance between thermocouple junction and melt is 0.4 cm; $\epsilon_{gr} = 0.38^\circ\text{C}$. Substituting numerical values in Eqs. (B-7), (B-8), and (B-9) yields the following:

$$\epsilon_{t_{EMF}} = \pm 1.54^\circ\text{C}$$

$$\epsilon_{t_D} = \pm 1.54^\circ\text{C}$$

$$\epsilon_{t_s} = \pm 1.59^\circ\text{C}$$

The main source of error in the temperature scale is the thermocouple calibration step in which prism and window corrections and internal gradient corrections both enter. Considering the uncertainties in estimating these errors, we think the temperatures are accurate within $\pm 2^\circ\text{C}$ over the experimental range.

APPENDIX C

VISCOSITY OF NBS 717 GLASS

LIST OF SYMBOLS

- TAUNM observed torque, τ (N·m).
- TAUNM (CALC) calculated torque, τ (N·m).
- OMEGRS angular rotation (rad/s).

At each investigated isotherm, torque was recorded both for clockwise angular rotations (positive values) and for counterclockwise angular rotations (negative values). Least-squares analyses of torque (τ) as a function of angular rotation (ω) were then made assuming the following functional relationship:

$$\tau = A_2\omega + A_1$$

The coefficients A_1 and A_2 are tabulated for each isotherm.

OFFICIAL NBS RESULTS FOR NO. 717 STANDARD GLASS

T(°C)	$10^4/T(K)$	$\eta(Pa\cdot s)$
1200	6.79	166.4
1160	6.98	262.6
1130	7.13	379.5
1100	7.28	562.0
1048.5	7.57	1176
1000	7.85	2572
991.9	7.90	2959
950.7	8.17	6317
900	8.52	18,159
870	8.75	36,563

$$\log \eta = (-5.914 + \frac{11915}{T}) \pm 0.03$$

NBS GLASS #717—PRESENT STUDY

Series II (Pre-Run)

T (°C) Uncorrected	T (°C) Corrected	$10^4/T(K)$	$\eta(Pa\cdot s)$
884.9	880	8.67	26,580
924.1	919	8.39	9,038
988.2	983	7.96	3,657
1024.3	1020	7.74	1,651
1123.5	1119	7.18	383

Series III (Post-Run)

T (°C) Uncorrected	T (°C) Corrected	$10^4/T(K)$	$\eta(Pa\cdot s)$
874.1	869	8.76	33,730
915.1	910	8.45	14,280
978.6	974	8.02	4,044
1013.4	1009	7.80	2,331
1079.7	1075	7.42	873
1116.2	1112	7.22	524

$$\log \eta = (-5.915 + \frac{11886}{T}) \pm 0.05$$

O--Official NBS results
 +--Pre-experimental calibration
 *--Post-experimental calibration
 Upper line--Least-squares fit of NBS results
 Lower line--Least-squares fit of present study

NBS GLASS--884.9°C

(NBS 7176--PRE)

	TAUNM	TAJNM (CALC)	RESIDUALS
1	-8.05022400E-01	-8.35303759E-01	3.02813590E-02
2	-8.19145600E-01	-8.35303759E-01	1.61581590E-02
3	-8.05022400E-01	-8.35303759E-01	3.02813590E-02
4	-5.93174400E-01	-5.73557717E-01	-1.96166830E-02
5	-5.79051200E-01	-5.73557717E-01	-5.49348304E-03
6	-5.93174400E-01	-5.73557717E-01	-1.96166830E-02
7	-3.67203200E-01	-3.59401864E-01	-7.80133561E-03
8	-3.81326400E-01	-3.59401864E-01	-2.19245356E-02
9	-3.81326400E-01	-3.59401864E-01	-2.19245356E-02
10	-1.12985600E-01	-1.09553370E-01	-3.43223028E-03
11	-9.88624000E-02	-1.09553370E-01	1.06909697E-02
12	-1.12985600E-01	-1.09553370E-01	-3.43223028E-03
13	.0E+00	9.42210393E-03	-9.42210393E-03
14	.0E+00	9.42210393E-03	-9.42210393E-03
15	1.27108800E-01	1.28397578E-01	-1.28877758E-03
16	1.27108800E-01	1.28397578E-01	-1.28877758E-03
17	1.27108800E-01	1.28397578E-01	-1.28877758E-03
18	1.55355200E-01	1.40295125E-01	1.50600751E-02
19	1.41232000E-01	1.40295125E-01	9.36875055E-04
20	1.27108800E-01	1.40295125E-01	-1.31863249E-02
21	3.38956800E-01	3.00912014E-01	3.80447856E-02
22	3.24833600E-01	3.00912014E-01	2.39215856E-02
23	3.24833600E-01	3.00912014E-01	2.39215856E-02
24	3.38956800E-01	3.78246072E-01	-3.92892722E-02
25	3.38956800E-01	3.78246072E-01	-3.92892722E-02
26	3.38956800E-01	3.78246072E-01	-3.92892722E-02
27	6.07297600E-01	5.80504377E-01	2.67932225E-02
28	6.21420800E-01	5.80504377E-01	4.09164225E-02

COEFFICIENTS :

1	9.42210393E-03	4.39743014E-03
2	1.13609680E-01	1.17989546E-03

STANDARD DEVIATION = 2.29765275E-02 CHI**2 = 5.47276982E-02

T	TAUNM	OMEGRS
8.849000E+02	-8.05022E-01	-7.43533E+00
8.849000E+02	-8.19146E-01	-7.43533E+00
8.849000E+02	-8.05022E-01	-7.43533E+00
8.849000E+02	-5.93174E-01	-5.13143E+00
8.849000E+02	-5.79051E-01	-5.13143E+00
8.849000E+02	-5.93174E-01	-5.13143E+00
8.849000E+02	-3.67203E-01	-3.24641E+00
8.849000E+02	-3.81326E-01	-3.24641E+00
8.849000E+02	-3.81326E-01	-3.24641E+00
8.849000E+02	-1.12986E-01	-1.04723E+00
8.849000E+02	-9.88624E-02	-1.04723E+00
8.849000E+02	-1.12986E-01	-1.04723E+00
8.849000E+02	.0E+00	.0E+00
8.849000E+02	.0E+00	.0E+00
8.849000E+02	1.27109E-01	1.04723E+00

8.84900E+02	1.27109E-01	1.04723E+00
8.84900E+02	1.27109E-01	1.04723E+00
8.84900E+02	1.55355E-01	1.15195E+00
8.84900E+02	1.41232E-01	1.15195E+00
8.84900E+02	1.27109E-01	1.15195E+00
8.84900E+02	3.38957E-01	2.56571E+00
8.84900E+02	3.24834E-01	2.56571E+00
8.84900E+02	3.24834E-01	2.56571E+00
8.84900E+02	3.38957E-01	3.24641E+00
8.84900E+02	3.38957E-01	3.24641E+00
8.84900E+02	3.38957E-01	3.24641E+00
8.84900E+02	6.07298E-01	5.02670E+00
8.84900E+02	6.21421E-01	5.02670E+00
8.84900E+02	6.07298E-01	5.02670E+00
8.84900E+02	5.93174E-01	6.70227E+00
8.84900E+02	6.07298E-01	6.70227E+00
8.84900E+02	5.93174E-01	6.70227E+00
8.84900E+02	8.33269E-01	7.33061E+00
8.84900E+02	8.19146E-01	7.33061E+00
8.84900E+02	8.33269E-01	7.33061E+00
8.84900E+02	7.34406E-01	9.11090E+00
8.84900E+02	7.20283E-01	9.11090E+00
8.84900E+02	7.20283E-01	9.11090E+00
8.84900E+02	1.00275E+00	9.84396E+00
8.84900E+02	9.88624E-01	9.84396E+00
8.84900E+02	9.74501E-01	9.84396E+00
8.84900E+02	1.03099E+00	1.15195E+01
8.84900E+02	1.01687E+00	1.15195E+01
8.84900E+02	1.00275E+00	1.15195E+01
8.84900E+02	8.61515E-01	1.16243E+01
8.84900E+02	8.68577E-01	1.16243E+01
8.84900E+02	8.75638E-01	1.16243E+01
8.84900E+02	1.03099E+00	1.30380E+01
8.84900E+02	1.01687E+00	1.30380E+01
8.84900E+02	1.00275E+00	1.30380E+01
8.84900E+02	1.04512E+00	1.46612E+01
8.84900E+02	1.05924E+00	1.46612E+01
8.84900E+02	1.03099E+00	1.46612E+01

NBS VERRE 717, SERIES 2

26 OCT 78
11:48:47

NBS GLASS--924.1°C

(NBS 7172--PRE)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -4.89368880E-01	-5.53330530E-01	6.39616497E-02
2 -4.79482640E-01	-5.53330530E-01	7.38478897E-02
3 -5.21146080E-01	-5.53330530E-01	3.21844497E-02
4 -4.99255120E-01	-4.87740269E-01	-1.15148513E-02
5 -4.93605840E-01	-4.87740269E-01	-5.86557134E-03
6 -5.19027600E-01	-4.87740269E-01	-3.12873313E-02
7 -4.35700720E-01	-4.38547573E-01	2.84685285E-03
8 -3.69321680E-01	-4.38547573E-01	6.92258929E-02
9 -4.49117760E-01	-4.38547573E-01	-1.05701871E-02
10 -4.13103600E-01	-3.93454268E-01	-1.96493316E-02
11 -3.96155760E-01	-3.93454268E-01	-2.70149164E-03
12 -4.51942400E-01	-3.93454268E-01	-5.84881316E-02
13 -3.55198480E-01	-3.56559746E-01	1.36126650E-03
14 -3.34719840E-01	-3.56559746E-01	2.18399065E-02
15 -3.38956800E-01	-3.56559746E-01	1.76029465E-02
16 -3.36132160E-01	-3.11466442E-01	-2.46657180E-02
17 -3.49549200E-01	-3.11466442E-01	-3.80827580E-02
18 -3.78501760E-01	-3.11466442E-01	-6.70353180E-02
19 -2.37269760E-01	-2.66373138E-01	2.91033775E-02
20 -2.56336080E-01	-2.66373138E-01	1.00370575E-02
21 -3.08591920E-01	-2.66373138E-01	-4.22187825E-02
22 -2.10435680E-01	-1.90534398E-01	-1.99012819E-02
23 -1.64535280E-01	-1.90534398E-01	2.59991181E-02
24 -2.13966480E-01	-1.90534398E-01	-2.34320819E-02
25 -9.88624000E-02	-1.18795050E-01	1.99326501E-02
26 -1.29227280E-01	-1.18795050E-01	-1.04322299E-02
27 -9.74500800E-02	-1.18795050E-01	2.13449701E-02
28 -1.43350480E-01	-1.06496876E-01	-3.68536039E-02
29 -1.59592160E-01	-1.06496876E-01	-5.30952839E-02
30 -1.12279440E-01	-1.06496876E-01	-5.78256388E-03
31 -4.44880800E-02	-4.91053977E-02	4.61731767E-03
32 -3.67203200E-02	-4.91053977E-02	1.23850777E-02
33 -4.09572800E-02	-4.91053977E-02	8.14811767E-03
34 -6.56728800E-02	-2.86084411E-02	-3.70644389E-02
35 -7.27344800E-02	-2.86084411E-02	-4.41260389E-02
36 -5.36681600E-02	-2.86084411E-02	-2.50597189E-02
37 -2.54217600E-02	-1.01611801E-02	-1.52605799E-02
38 -2.40094400E-02	-1.01611801E-02	-1.38482599E-02
39 -6.35544000E-03	-1.01611801E-02	3.80574015E-03
40 4.23696000E-03	1.23854721E-02	-8.14851210E-03
41 -4.23696000E-03	1.23854721E-02	-1.66224321E-02
42 3.31895200E-02	4.10812113E-02	-7.89169132E-03
43 3.46018400E-02	4.10812113E-02	-6.47937132E-03
44 3.17772000E-02	4.10812113E-02	-9.30401132E-03
45 5.36681600E-02	4.92799940E-02	4.38816604E-03
46 6.49667200E-02	4.92799940E-02	1.56867260E-02
47 5.86112800E-02	4.92799940E-02	9.33128604E-03
48 8.26207200E-02	9.43732985E-02	-1.17525785E-02
49 7.06160000E-02	9.43732985E-02	-2.37572985E-02
50 1.02393200E-01	9.43732985E-02	8.01990155E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.03099360E-01	9.43732985E-02	8.72606155E-03
52	8.82700000E-02	9.43732985E-02	-6.10329845E-03
53	1.19341040E-01	9.43732985E-02	2.49677415E-02
54	2.40094400E-01	1.88659299E-01	5.14351012E-02
55	1.88544720E-01	1.88659299E-01	-1.14578761E-04
56	2.11848000E-01	1.88659299E-01	2.31887012E-02
57	2.64810000E-01	2.13255647E-01	5.15543533E-02
58	2.59160720E-01	2.13255647E-01	4.59050733E-02
59	2.13260320E-01	2.13255647E-01	4.67333291E-06
60	2.73990080E-01	2.70647125E-01	3.34295488E-03
61	2.49274480E-01	2.70647125E-01	-2.13726451E-02
62	2.83876320E-01	2.70647125E-01	1.32291949E-02
63	3.25539760E-01	2.99342864E-01	2.61968957E-02
64	3.36132160E-01	2.99342864E-01	3.67892957E-02
65	3.61553920E-01	2.99342864E-01	6.22110557E-02
66	3.60141600E-01	3.34187691E-01	2.59539095E-02
67	3.40369120E-01	3.34187691E-01	6.18142946E-03
68	3.19890480E-01	3.34187691E-01	-1.42972105E-02
69	4.06042000E-01	3.73131908E-01	3.29100919E-02
70	3.79914080E-01	3.73131908E-01	6.78217194E-03
71	3.50961520E-01	3.73131908E-01	-2.21703881E-02
72	3.88388000E-01	4.34622778E-01	-4.62347778E-02
73	3.86269520E-01	4.34622778E-01	-4.83532578E-02
74	4.18046720E-01	4.34622778E-01	-1.65760578E-02
75	4.36406880E-01	4.67417908E-01	-3.10110284E-02
76	4.75951840E-01	4.67417908E-01	8.53393163E-03
77	4.59710160E-01	4.67417908E-01	-7.70774837E-03
78	4.96430480E-01	5.00213039E-01	-3.78255891E-03
79	5.03492080E-01	5.00213039E-01	3.27904109E-03
80	5.11966000E-01	5.00213039E-01	1.17529611E-02
COEFFICIENTS :			
1	1.23854721E-02	3.26710079E-03	
2	3.91450877E-02	4.23793913E-04	
STANDARD DEVIATION = 2.92050662E-02 CHI**2 = 4.55583277E-01			

T	TAUNM	OMEGRS
9.24100E+02	-4.89369E-01	-1.44518E+01
9.24100E+02	-4.79483E-01	-1.44518E+01
9.24100E+02	-5.21146E-01	-1.44518E+01
9.24100E+02	-4.99255E-01	-1.27762E+01
9.24100E+02	-4.93606E-01	-1.27762E+01
9.24100E+02	-5.19028E-01	-1.27762E+01
9.24100E+02	-4.35701E-01	-1.15195E+01
9.24100E+02	-3.69322E-01	-1.15195E+01

9.24100E+02 -4.49118E-01 -1.15195E+01
9.24100E+02 -4.13104E-01 -1.03676E+01
9.24100E+02 -3.96156E-01 -1.03676E+01
9.24100E+02 -4.51942E-01 -1.03676E+01
9.24100E+02 -3.55198E-01 -9.42507E+00
9.24100E+02 -3.34720E-01 -9.42507E+00
9.24100E+02 -3.38957E-01 -9.42507E+00
9.24100E+02 -3.36132E-01 -8.27312E+00
9.24100E+02 -3.49549E-01 -8.27312E+00
9.24100E+02 -3.78502E-01 -8.27312E+00
9.24100E+02 -2.37270E-01 -7.12116E+00
9.24100E+02 -2.56336E-01 -7.12116E+00
9.24100E+02 -3.08592E-01 -7.12116E+00
9.24100E+02 -2.10436E-01 -5.18379E+00
9.24100E+02 -1.64535E-01 -5.18379E+00
9.24100E+02 -2.13966E-01 -5.18379E+00
9.24100E+02 -9.88624E-02 -3.35114E+00
9.24100E+02 -1.29227E-01 -3.35114E+00
9.24100E+02 -9.74501E-02 -3.35114E+00
9.24100E+02 -1.43350E-01 -3.03697E+00
9.24100E+02 -1.59592E-01 -3.03697E+00
9.24100E+02 -1.12279E-01 -3.03697E+00
9.24100E+02 -4.44881E-02 -1.57085E+00
9.24100E+02 -3.67203E-02 -1.57085E+00
9.24100E+02 -4.09573E-02 -1.57085E+00
9.24100E+02 -6.56729E-02 -1.04723E+00
9.24100E+02 -7.27345E-02 -1.04723E+00
9.24100E+02 -5.36682E-02 -1.04723E+00
9.24100E+02 -2.54218E-02 -5.75977E-01

9.24100E+02	-2.40094E-02	-5.75977E-01
9.24100E+02	-6.35544E-03	-5.75977E-01
9.24100E+02	4.23696E-03	.0E+00
9.24100E+02	-4.23696E-03	.0E+00
9.24100E+02	3.31895E-02	7.33061E-01
9.24100E+02	3.46018E-02	7.33061E-01
9.24100E+02	3.17772E-02	7.33061E-01
9.24100E+02	5.36682E-02	9.42507E-01
9.24100E+02	6.49667E-02	9.42507E-01
9.24100E+02	5.86113E-02	9.42507E-01
9.24100E+02	8.26207E-02	2.09446E+00
9.24100E+02	7.06160E-02	2.09446E+00
9.24100E+02	1.02393E-01	2.09446E+00
9.24100E+02	1.03099E-01	2.09446E+00
9.24100E+02	8.82700E-02	2.09446E+00
9.24100E+02	1.19341E-01	2.09446E+00
9.24100E+02	2.40094E-01	4.50309E+00
9.24100E+02	1.88545E-01	4.50309E+00
9.24100E+02	2.11848E-01	4.50309E+00
9.24100E+02	2.64810E-01	5.13143E+00
9.24100E+02	2.59161E-01	5.13143E+00
9.24100E+02	2.13260E-01	5.13143E+00
9.24100E+02	2.73990E-01	6.59755E+00
9.24100E+02	2.49274E-01	6.59755E+00
9.24100E+02	2.83876E-01	6.59755E+00
9.24100E+02	3.25540E-01	7.33061E+00
9.24100E+02	3.36132E-01	7.33061E+00
9.24100E+02	3.61554E-01	7.33061E+00
9.24100E+02	3.60142E-01	8.22076E+00

9.24100E+02	3.40369E-01	8.22076E+00
9.24100E+02	3.19890E-01	8.22076E+00
9.24100E+02	4.06042E-01	9.21562E+00
9.24100E+02	3.79914E-01	9.21562E+00
9.24100E+02	3.50962E-01	9.21562E+00
9.24100E+02	3.88388E-01	1.07865E+01
9.24100E+02	3.86270E-01	1.07865E+01
9.24100E+02	4.18047E-01	1.07865E+01
9.24100E+02	4.36407E-01	1.16243E+01
9.24100E+02	4.75952E-01	1.16243E+01
9.24100E+02	4.59710E-01	1.16243E+01
9.24100E+02	4.96430E-01	1.24620E+01
9.24100E+02	5.03492E-01	1.24620E+01
9.24100E+02	5.11966E-01	1.24620E+01
9.24100E+02	5.18321E-01	1.49754E+01
9.24100E+02	5.71990E-01	1.49754E+01
9.24100E+02	5.90350E-01	1.49754E+01

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NBS VERRE 717

26 OCT 78

89.84.17

NBS GLASS--988.2°C
(NBS 7175--PRE)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -2.37975920E-01	-2.39802047E-01	1.82612726E-03
2 -2.34445120E-01	-2.39802047E-01	5.35692726E-03
3 -2.33738960E-01	-2.39802047E-01	6.06308726E-03
4 -2.06198720E-01	-1.99128139E-01	-7.07058096E-03
5 -2.05492560E-01	-1.99128139E-01	-6.36442096E-03
6 -2.06198720E-01	-1.99128139E-01	-7.07058096E-03
7 -1.73009200E-01	-1.72859573E-01	-1.49626694E-04
8 -1.68772240E-01	-1.72859573E-01	4.08733331E-03
9 -1.69478400E-01	-1.72859573E-01	3.38117331E-03
10 -1.40525840E-01	-1.36422531E-01	-4.10330948E-03
11 -1.41938160E-01	-1.36422531E-01	-5.51562948E-03
12 -1.39819680E-01	-1.36422531E-01	-3.39714948E-03
13 -1.32758080E-01	-1.34727784E-01	1.96970434E-03
14 -1.34876560E-01	-1.34727784E-01	-1.48775658E-04
15 -1.32051920E-01	-1.34727784E-01	2.67586434E-03
16 -1.03099360E-01	-1.04222353E-01	1.12299317E-03
17 -1.07336320E-01	-1.04222353E-01	-3.11396683E-03
18 -1.00274720E-01	-1.04222353E-01	3.94763317E-03
19 -8.19145600E-02	-7.71064144E-02	-4.80814565E-03
20 -8.12084000E-02	-7.71064144E-02	-4.10198565E-03
21 -8.26207200E-02	-7.71064144E-02	-5.51430565E-03
22 -7.20283200E-02	-7.20221758E-02	-6.14417639E-06
23 -7.48529600E-02	-7.20221758E-02	-2.83078418E-03
24 -7.13221600E-02	-7.20221758E-02	7.00015824E-04
25 -4.51942400E-02	-4.49062370E-02	-2.88002995E-04
26 -4.87250400E-02	-4.49062370E-02	-3.81880300E-03
27 -4.94312000E-02	-4.49062370E-02	-4.52496300E-03
28 -4.59004000E-02	-4.32114908E-02	-2.68890917E-03
29 -4.37819200E-02	-4.32114908E-02	-5.70429171E-04
30 -4.44880800E-03	-4.32114908E-02	3.87626828E-02
31 -2.33032800E-02	-2.37219098E-02	4.18629803E-04
32 -2.40094400E-02	-2.37219098E-02	-2.87530197E-04
33 -2.68340800E-02	-2.37219098E-02	-3.11217020E-03
34 -2.25971200E-02	-2.11797905E-02	-1.41732946E-03
35 -2.18909600E-02	-2.11797905E-02	-7.11169462E-04
36 -2.68340800E-02	-2.11797905E-02	-5.65428946E-03
37 -8.47392000E-03	-6.77444804E-03	-1.69947196E-03
38 -6.35544000E-03	-6.77444804E-03	4.19008041E-04
39 -9.18008000E-03	-6.77444804E-03	-2.40563196E-03
40 .0E+00	8.51909752E-04	-8.51909752E-04
41 .0E+00	8.51909752E-04	-8.51909752E-04
42 1.27108800E-02	1.77993715E-02	-5.08849151E-03
43 1.83601600E-02	1.77993715E-02	5.60788486E-04
44 1.97724800E-02	1.77993715E-02	1.97310849E-03
45 1.83601600E-02	1.94941177E-02	-1.13395769E-03
46 2.04786400E-02	1.94941177E-02	9.84522310E-04
47 2.25971200E-02	1.94941177E-02	3.10300231E-03
48 3.46018400E-02	3.30520871E-02	1.54975290E-03
49 3.10710400E-02	3.30520871E-02	-1.98104710E-03
50 3.24833600E-02	3.30520871E-02	-5.68727099E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	3.88388000E-02	3.81363256E-02	7.02474372E-04
52	4.02511200E-02	3.81363256E-02	2.11479437E-03
53	3.81326400E-02	3.81363256E-02	-3.68562777E-06
54	7.20283200E-02	7.20312492E-02	-2.92915127E-06
55	7.41468000E-02	7.20312492E-02	2.11555085E-03
56	7.27344800E-02	7.20312492E-02	7.03230849E-04
57	7.41468000E-02	7.54207415E-02	-1.27394150E-03
58	7.69714400E-02	7.54207415E-02	1.55069850E-03
59	7.97960800E-02	7.54207415E-02	4.37533850E-03
60	1.00980880E-01	1.00841934E-01	1.38945854E-04
61	1.00274720E-01	1.00841934E-01	-5.67214146E-04
62	1.02393200E-01	1.00841934E-01	1.55126585E-03
63	1.24284160E-01	1.19484142E-01	4.80001792E-03
64	1.23578000E-01	1.19484142E-01	4.09385792E-03
65	1.24284160E-01	1.19484142E-01	4.80001792E-03
66	1.46881280E-01	1.48294827E-01	-1.41354708E-03
67	1.44056640E-01	1.48294827E-01	-4.23818708E-03
68	1.42644320E-01	1.48294827E-01	-5.65050708E-03
69	1.72303040E-01	1.66089662E-01	6.21337807E-03
70	1.73009200E-01	1.66089662E-01	6.91953807E-03
71	1.97724800E-01	1.66089662E-01	3.16351381E-02
72	1.85013920E-01	1.89816108E-01	-4.80218840E-03
73	1.86426240E-01	1.89816108E-01	-3.38986840E-03
74	1.64535280E-01	1.89816108E-01	-2.52808284E-02
75	2.03374080E-01	2.04221451E-01	-8.47370893E-04
76	2.02667920E-01	2.04221451E-01	-1.55353089E-03
77	2.03374080E-01	2.04221451E-01	-8.47370893E-04
78	2.33738960E-01	2.38116374E-01	-4.37741442E-03
79	2.35151280E-01	2.38116374E-01	-2.96509442E-03
80	2.36563600E-01	2.38116374E-01	-1.55277442E-03
COEFFICIENTS :			
1	8.51909752E-04	7.96819518E-04	
2	1.61831312E-02	1.03606660E-04	
STANDARD DEVIATION = 7.12194926E-03 CHI**2 = 5.78937249E-02			

T	TAUNM	OMEGRS
9.88200E+02	-2.37976E-01	-1.48707E+01
9.88200E+02	-2.34445E-01	-1.48707E+01
9.88200E+02	-2.33739E-01	-1.48707E+01
9.88200E+02	-2.06199E-01	-1.23573E+01
9.88200E+02	-2.05493E-01	-1.23573E+01
9.88200E+02	-2.06199E-01	-1.23573E+01
9.88200E+02	-1.73009E-01	-1.07341E+01
9.88200E+02	-1.68772E-01	-1.07341E+01
9.88200E+02	-1.69478E-01	-1.07341E+01
9.88200E+02	-1.40526E-01	-8.48256E+00
9.88200E+02	-1.41938E-01	-8.48256E+00
9.88200E+02	-1.39820E-01	-8.48256E+00
9.88200E+02	-1.32758E-01	-8.37784E+00
9.88200E+02	-1.34877E-01	-8.37784E+00
9.88200E+02	-1.32052E-01	-8.37784E+00
9.88200E+02	-1.03099E-01	-6.49283E+00

9.88200E+02	-1.07336E-01	-6.49283E+00
9.88200E+02	-1.00275E-01	-6.49283E+00
9.88200E+02	-8.19146E-02	-4.81726E+00
9.88200E+02	-8.12084E-02	-4.81726E+00
9.88200E+02	-8.26207E-02	-4.81726E+00
9.88200E+02	-7.20283E-02	-4.50309E+00
9.88200E+02	-7.48530E-02	-4.50309E+00
9.88200E+02	-7.13222E-02	-4.50309E+00
9.88200E+02	-4.51942E-02	-2.82752E+00
9.88200E+02	-4.87250E-02	-2.82752E+00
9.88200E+02	-4.94312E-02	-2.82752E+00
9.88200E+02	-4.59004E-02	-2.72280E+00
9.88200E+02	-4.37819E-02	-2.72280E+00
9.88200E+02	-4.44881E-03	-2.72280E+00
9.88200E+02	-2.33033E-02	-1.51848E+00
9.88200E+02	-2.40094E-02	-1.51848E+00
9.88200E+02	-2.68341E-02	-1.51848E+00
9.88200E+02	-2.25971E-02	-1.36140E+00
9.88200E+02	-2.18910E-02	-1.36140E+00
9.88200E+02	-2.68341E-02	-1.36140E+00
9.88200E+02	-8.47392E-03	-4.71254E-01
9.88200E+02	-6.35544E-03	-4.71254E-01
9.88200E+02	-9.18008E-03	-4.71254E-01
9.88200E+02	.0E+00	.0E+00
9.88200E+02	.0E+00	.0E+00
9.88200E+02	1.27109E-02	1.04723E+00
9.88200E+02	1.83602E-02	1.04723E+00
9.88200E+02	1.97725E-02	1.04723E+00
9.88200E+02	1.83602E-02	1.15195E+00
9.88200E+02	2.04786E-02	1.15195E+00
9.88200E+02	2.25971E-02	1.15195E+00
9.88200E+02	3.46018E-02	1.98974E+00
9.88200E+02	3.10710E-02	1.98974E+00
9.88200E+02	3.24834E-02	1.98974E+00
9.88200E+02	3.88388E-02	2.30391E+00
9.88200E+02	4.02511E-02	2.30391E+00
9.88200E+02	3.81326E-02	2.30391E+00
9.88200E+02	7.20283E-02	4.39837E+00
9.88200E+02	7.41468E-02	4.39837E+00
9.88200E+02	7.27345E-02	4.39837E+00
9.88200E+02	7.41468E-02	4.60781E+00
9.88200E+02	7.69714E-02	4.60781E+00
9.88200E+02	7.97961E-02	4.60781E+00
9.88200E+02	1.00981E-01	6.17866E+00
9.88200E+02	1.00275E-01	6.17866E+00
9.88200E+02	1.02393E-01	6.17866E+00
9.88200E+02	1.24284E-01	7.33061E+00
9.88200E+02	1.23578E-01	7.33061E+00
9.88200E+02	1.24284E-01	7.33061E+00
9.88200E+02	1.46881E-01	9.11090E+00
9.88200E+02	1.44057E-01	9.11090E+00
9.88200E+02	1.42644E-01	9.11090E+00
9.88200E+02	1.72303E-01	1.02105E+01
9.88200E+02	1.73009E-01	1.02105E+01
9.88200E+02	1.97725E-01	1.02105E+01

9.88200E+02	1.85014E-01	1.16766E+01
9.88200E+02	1.86426E-01	1.16766E+01
9.88200E+02	1.64535E-01	1.16766E+01
9.88200E+02	2.03374E-01	1.25668E+01
9.88200E+02	2.02668E-01	1.25668E+01
9.88200E+02	2.03374E-01	1.25668E+01
9.88200E+02	2.33739E-01	1.46612E+01
9.88200E+02	2.35151E-01	1.46612E+01
9.88200E+02	2.36564E-01	1.46612E+01

NBS VERRE 717, SERIES 2

25 OCT 78
10:40:10

NBS GLASS--1024.3°C
(NBS 7171--PRE)

TAUNM	TAUNM (CALC)	RESI DUALS
1 -1.00980880E-01	-1.05767794E-01	4.78691410E-03
2 -8.19145600E-02	-1.05767794E-01	2.38532341E-02
3 -1.32758080E-01	-1.05767794E-01	-2.69902859E-02
4 -7.20283200E-02	-9.04675977E-02	1.84392777E-02
5 -8.47392000E-02	-9.04675977E-02	5.72839767E-03
6 -1.12985600E-01	-9.04675977E-02	-2.25180023E-02
7 -6.42605600E-02	-8.28174995E-02	1.85569395E-02
8 -6.35544000E-02	-8.28174995E-02	1.92630995E-02
9 -6.70852000E-02	-8.28174995E-02	1.57322995E-02
10 -6.07297600E-02	-7.51674012E-02	1.44376412E-02
11 -5.71989600E-02	-7.51674012E-02	1.79684412E-02
12 -8.05022400E-02	-7.51674012E-02	-5.33483876E-03
13 -9.39192800E-02	-6.75173030E-02	-2.64019770E-02
14 -6.14359200E-02	-6.75173030E-02	6.08138302E-03
15 -6.70852000E-02	-6.75173030E-02	4.32103023E-04
16 -4.30757600E-02	-5.22171066E-02	9.14134659E-03
17 -8.05022400E-02	-5.22171066E-02	-2.82851334E-02
18 -6.14359200E-02	-5.22171066E-02	-9.21881341E-03
19 -6.70852000E-02	-4.45670084E-02	-2.25181916E-02
20 -4.87250400E-02	-4.45670084E-02	-4.15803162E-03
21 -3.17772000E-02	-4.45670084E-02	1.27898084E-02
22 -4.87250400E-02	-3.69169102E-02	-1.18081298E-02
23 -2.18909600E-02	-3.69169102E-02	1.50259502E-02
24 -5.15496800E-02	-3.69169102E-02	-1.46327698E-02
25 -1.83601600E-02	-2.92668119E-02	1.09066519E-02
26 -2.89525600E-02	-2.92668119E-02	3.14251946E-04
27 -3.95449600E-02	-2.92668119E-02	-1.02781481E-02
28 -1.83601600E-02	-2.16167137E-02	3.25655373E-03
29 -3.38956800E-02	-2.16167137E-02	-1.22789663E-02
30 -2.04786400E-02	-2.16167137E-02	1.13807373E-03
31 -1.41232000E-02	-1.39666155E-02	-1.56584485E-04
32 -3.67203200E-02	-1.39666155E-02	-2.27537045E-02
33 -7.06160000E-03	-1.39666155E-02	6.90501551E-03
34 -1.48293600E-02	-6.31651730E-03	-8.51284270E-03
35 -4.23696000E-03	-6.31651730E-03	2.07955730E-03
36 -1.69478400E-02	-6.31651730E-03	-1.06313227E-02
37 -7.76776000E-03	1.33358092E-03	-9.10134092E-03
38 -8.47392000E-03	1.33358092E-03	-9.80750092E-03
39 -9.88624000E-03	1.33358092E-03	-1.12193209E-02
40 7.06160000E-04	8.98367913E-03	-8.27751913E-03
41 6.35544000E-03	8.98367913E-03	-2.62823913E-03
42 1.05924000E-02	1.66337773E-02	-6.04137735E-03
43 9.18008000E-03	1.66337773E-02	-7.45369735E-03
44 8.47392000E-03	1.66337773E-02	-8.15985735E-03
45 1.83601600E-02	2.42838756E-02	-5.92371556E-03
46 2.18909600E-02	2.42838756E-02	-2.39291556E-03
47 1.27108800E-02	2.42838756E-02	-1.15729956E-02
48 1.69478400E-02	3.19339738E-02	-1.49861338E-02
49 2.54217600E-01	3.19339738E-02	2.22283626E-01
50 2.75402400E-02	3.19339738E-02	-4.39373378E-03

	TAUNM	TAUNM (CALC)	RESI DUALS
51	2.82464000E-02	3.95840720E-02	-1.13376720E-02
52	3.60141600E-02	3.95840720E-02	-3.56991199E-03
53	2.75402400E-02	3.95840720E-02	-1.20438320E-02
54	3.81326400E-02	4.72341702E-02	-9.10153021E-03
55	3.10710400E-02	4.72341702E-02	-1.61631302E-02
56	4.94312000E-02	4.72341702E-02	2.19702979E-03
57	3.31895200E-02	5.48842684E-02	-2.16947484E-02
58	4.87250400E-02	5.48842684E-02	-6.15922842E-03
59	4.73127200E-02	5.48842684E-02	-7.57154842E-03
60	4.44880800E-02	6.25343666E-02	-1.80462866E-02
61	6.21420800E-02	6.25343666E-02	-3.92286640E-04
62	6.92036800E-02	6.25343666E-02	6.66931336E-03
63	7.83837600E-02	7.01844649E-02	8.19929514E-03
64	4.59004000E-02	7.01844649E-02	-2.42840649E-02
65	5.64928000E-02	7.01844649E-02	-1.36916649E-02
66	9.67439200E-02	8.54846613E-02	1.12592587E-02
67	7.41468000E-02	8.54846613E-02	-1.13378613E-02
68	8.05022400E-02	8.54846613E-02	-4.98242129E-03
69	8.19145600E-02	9.38997693E-02	-1.19852093E-02
70	8.68576800E-02	9.38997693E-02	-7.04208932E-03
71	1.05924000E-01	9.38997693E-02	1.20242307E-02
72	1.13691760E-01	1.00784858E-01	1.29069023E-02
73	1.15104080E-01	1.00784858E-01	1.43192223E-02
74	1.12279440E-01	1.00784858E-01	1.14945823E-02
75	9.60377600E-02	1.08434956E-01	-1.23971959E-02
76	1.11573280E-01	1.08434956E-01	3.13832407E-03
77	1.25696480E-01	1.08434956E-01	1.72615241E-02
78	1.32758080E-01	1.23735152E-01	9.02292764E-03
79	1.32051920E-01	1.23735152E-01	8.31676764E-03
80	1.08042480E-01	1.23735152E-01	-1.56926724E-02
COEFFICIENTS :			
1	8.98367913E-03	3.14721215E-03	
2	7.30507879E-03	3.53419993E-04	
STANDARD DEVIATION =		2.81495185E-02	CHI**2 = 2.05845493E+00

T	TAUNM	OMEGRS
1.02430E+03	-1.00981E-01	-1.57085E+01
1.02430E+03	-8.19146E-02	-1.57085E+01
1.02430E+03	-1.32758E-01	-1.57085E+01
1.02430E+03	-7.20283E-02	-1.36140E+01
1.02430E+03	-8.47392E-02	-1.36140E+01
1.02430E+03	-1.12986E-01	-1.36140E+01
1.02430E+03	-6.42606E-02	-1.25668E+01
1.02430E+03	-6.35544E-02	-1.25668E+01
1.02430E+03	-6.70852E-02	-1.25668E+01
1.02430E+03	-6.07298E-02	-1.15195E+01
1.02430E+03	-5.71990E-02	-1.15195E+01
1.02430E+03	-8.05022E-02	-1.15195E+01
1.02430E+03	-9.39193E-02	-1.04723E+01
1.02430E+03	-6.14359E-02	-1.04723E+01
1.02430E+03	-6.70852E-02	-1.04723E+01
1.02430E+03	-4.30758E-02	-8.37784E+00
1.02430E+03	-8.05022E-02	-8.37784E+00

1.02430E+03	-6.14359E-02	-8.37784E+00
1.02430E+03	-6.70852E-02	-7.33061E+00
1.02430E+03	-4.87250E-02	-7.33061E+00
1.02430E+03	-3.17772E-02	-7.33061E+00
1.02430E+03	-4.87250E-02	-6.28338E+00
1.02430E+03	-2.18910E-02	-6.28338E+00
1.02430E+03	-5.15497E-02	-6.28338E+00
1.02430E+03	-1.83602E-02	-5.23615E+00
1.02430E+03	-2.89526E-02	-5.23615E+00
1.02430E+03	-3.95450E-02	-5.23615E+00
1.02430E+03	-1.83602E-02	-4.18892E+00
1.02430E+03	-3.38957E-02	-4.18892E+00
1.02430E+03	-2.04786E-02	-4.18892E+00
1.02430E+03	-1.41232E-02	-3.14169E+00
1.02430E+03	-3.67203E-02	-3.14169E+00
1.02430E+03	-7.06160E-03	-3.14169E+00
1.02430E+03	-1.48294E-02	-2.09446E+00
1.02430E+03	-4.23696E-03	-2.09446E+00
1.02430E+03	-1.69478E-02	-2.09446E+00
1.02430E+03	-7.76776E-03	-1.04723E+00
1.02430E+03	-8.47392E-03	-1.04723E+00
1.02430E+03	-9.88624E-03	-1.04723E+00
1.02430E+03	7.06160E-04	.0E+00
1.02430E+03	6.35544E-03	.0E+00
1.02430E+03	1.05924E-02	1.04723E+00
1.02430E+03	9.18008E-03	1.04723E+00
1.02430E+03	8.47392E-03	1.04723E+00
1.02430E+03	1.83602E-02	2.09446E+00
1.02430E+03	2.18910E-02	2.09446E+00
1.02430E+03	1.27109E-02	2.09446E+00
1.02430E+03	1.69478E-02	3.14169E+00
1.02430E+03	2.54218E-01	3.14169E+00
1.02430E+03	2.75402E-02	3.14169E+00
1.02430E+03	2.82464E-02	4.18892E+00
1.02430E+03	3.60142E-02	4.18892E+00
1.02430E+03	2.75402E-02	4.18892E+00
1.02430E+03	3.81326E-02	5.23615E+00
1.02430E+03	3.10710E-02	5.23615E+00
1.02430E+03	4.94312E-02	5.23615E+00
1.02430E+03	3.31895E-02	6.28338E+00
1.02430E+03	4.87250E-02	6.28338E+00
1.02430E+03	4.73127E-02	6.28338E+00
1.02430E+03	4.44881E-02	7.33061E+00
1.02430E+03	6.21421E-02	7.33061E+00
1.02430E+03	6.92037E-02	7.33061E+00
1.02430E+03	7.83838E-02	8.37784E+00
1.02430E+03	4.59004E-02	8.37784E+00
1.02430E+03	5.64928E-02	8.37784E+00
1.02430E+03	9.67439E-02	1.04723E+01
1.02430E+03	7.41468E-02	1.04723E+01
1.02430E+03	8.05022E-02	1.04723E+01
1.02430E+03	8.19146E-02	1.16243E+01
1.02430E+03	8.68577E-02	1.16243E+01
1.02430E+03	1.05924E-01	1.16243E+01
1.02430E+03	1.13692E-01	1.25668E+01

1.02430E+03	1.15104E-01	1.25668E+01
1.02430E+03	1.12279E-01	1.25668E+01
1.02430E+03	9.60378E-02	1.36140E+01
1.02430E+03	1.11573E-01	1.36140E+01
1.02430E+03	1.25696E-01	1.36140E+01
1.02430E+03	1.32758E-01	1.57085E+01
1.02430E+03	1.32052E-01	1.57085E+01
1.02430E+03	1.08042E-01	1.57085E+01
1.02430E+03	1.05218E-01	1.57085E+01
1.02430E+03	1.00275E-01	1.57085E+01
1.02430E+03	1.08042E-01	1.57085E+01

NBS VERRE NO. 717

26 OCT 78
08:39:36

NBS GLASS--1123.5°C

(NBS 7173--PRE)

TAUNM	TAUNM (CALC)	RESI DUALS
1 -2.11848000E-02	-2.41045323E-02	2.91973228E-03
2 -1.55355200E-02	-2.41045323E-02	8.56901228E-03
3 -3.88388000E-02	-2.41045323E-02	-1.47342677E-02
4 -1.90663200E-02	-2.12295617E-02	2.16324166E-03
5 -2.04786400E-02	-2.12295617E-02	7.50921664E-04
6 -2.96587200E-02	-2.12295617E-02	-8.42915834E-03
7 -2.68340800E-02	-2.04876338E-02	-6.34644624E-03
8 -2.25971200E-02	-2.04876338E-02	-2.10948624E-03
9 -1.27108800E-02	-2.04876338E-02	7.77675376E-03
10 -2.18909600E-02	-1.84473320E-02	-3.44362796E-03
11 -1.83601600E-02	-1.84473320E-02	8.71720402E-05
12 -1.27108800E-02	-1.84473320E-02	5.73645204E-03
13 -5.64928000E-03	-1.67779943E-02	1.11287143E-02
14 -2.25971200E-02	-1.67779943E-02	-5.81912573E-03
15 -2.47156000E-02	-1.67779943E-02	-7.93760573E-03
16 -7.76776000E-03	-1.60360664E-02	8.26830637E-03
17 -3.31895200E-02	-1.60360664E-02	-1.71534536E-02
18 -3.53080000E-03	-1.60360664E-02	1.25052664E-02
19 -2.18909600E-02	-1.22336859E-02	-9.65727412E-03
20 -6.35544000E-03	-1.22336859E-02	5.87824588E-03
21 .0E+00	-1.22336859E-02	1.22336859E-02
22 -4.94312000E-03	-1.19554629E-02	7.01234292E-03
23 -6.35544000E-03	-1.19554629E-02	5.60002292E-03
24 -8.47392000E-03	-1.19554629E-02	3.48154292E-03
25 -8.47392000E-03	-8.98775132E-03	5.13831318E-04
26 -1.05924000E-02	-8.98775132E-03	-1.60464868E-03
27 -1.83601600E-02	-8.98775132E-03	-9.37240868E-03
28 -1.27108800E-02	-7.59663651E-03	-5.11424349E-03
29 -1.05924000E-02	-7.59663651E-03	-2.99576349E-03
30 -3.53080000E-03	-7.59663651E-03	4.06583651E-03
31 -1.05924000E-02	-5.64907577E-03	-4.94332423E-03
32 -9.18008000E-03	-5.64907577E-03	-3.53100423E-03
33 1.41232000E-03	-5.64907577E-03	7.06139577E-03
34 -6.35544000E-03	-2.58862318E-03	-3.76681682E-03
35 -7.06160000E-04	-2.58862318E-03	1.88246318E-03
36 2.82464000E-03	-2.58862318E-03	5.41326318E-03
37 -2.82464000E-03	-1.93943627E-03	-8.85203730E-04
38 -4.23696000E-03	-1.93943627E-03	-2.29752373E-03
39 1.41232000E-03	-1.93943627E-03	3.35175627E-03
40 -2.11848000E-03	2.86347429E-04	-2.40482743E-03
41 4.94312000E-03	2.86347429E-04	4.65677257E-03
42 3.53080000E-03	2.86347429E-04	3.24445257E-03
43 3.53080000E-03	3.79088416E-04	3.15171158E-03
44 -1.41232000E-03	3.79088416E-04	-1.79140842E-03
45 -2.11848000E-03	3.79088416E-04	-2.49756842E-03
46 -2.11848000E-03	2.14116718E-03	-4.25964718E-03
47 2.11848000E-03	2.14116718E-03	-2.26871783E-05
48 1.41232000E-03	3.62502298E-03	-2.21270298E-03
49 2.11848000E-03	3.62502298E-03	-1.50654298E-03
50 2.82464000E-03	3.62502298E-03	-8.00382978E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.41232000E-03	3.81050495E-03	-2.39818495E-03
52	7.06160000E-04	3.81050495E-03	-3.10434495E-03
53	.0E+00	3.81050495E-03	-3.81050495E-03
54	1.05924000E-02	6.68547556E-03	3.90692444E-03
55	3.53080000E-03	6.68547556E-03	-3.15467556E-03
56	6.35544000E-03	6.68547556E-03	-3.30035564E-04
57	3.53080000E-03	7.61288544E-03	-4.08208544E-03
58	9.18008000E-03	7.61288544E-03	1.56719456E-03
59	1.48293600E-02	7.61288544E-03	7.21647456E-03
60	1.34170400E-02	9.37496420E-03	4.04207580E-03
61	8.47392000E-03	9.37496420E-03	-9.01044201E-04
62	1.27108800E-02	9.37496420E-03	3.33591580E-03
63	1.20047200E-02	1.16007479E-02	4.03972100E-04
64	1.34170400E-02	1.16007479E-02	1.81629210E-03
65	4.94312000E-03	1.16007479E-02	-6.65762790E-03
66	9.18008000E-03	1.32700857E-02	-4.09000567E-03
67	1.27108800E-02	1.32700857E-02	-5.59205675E-04
68	1.05924000E-02	1.32700857E-02	-2.67768567E-03
69	1.83601600E-02	1.63305383E-02	2.02962174E-03
70	1.12985600E-02	1.63305383E-02	-5.03197826E-03
71	1.97724800E-02	1.63305383E-02	3.44194174E-03
72	1.76540000E-02	1.73506891E-02	3.03310877E-04
73	2.04786400E-02	1.73506891E-02	3.12795088E-03
74	2.18909600E-02	1.73506891E-02	4.54027088E-03
75	2.11848000E-02	1.92055089E-02	1.97929113E-03
76	1.41232000E-02	1.92055089E-02	-5.08230887E-03
77	2.18909600E-02	1.92055089E-02	2.68545113E-03
78	1.69478400E-02	2.10603286E-02	-4.11248862E-03
79	1.83601600E-02	2.10603286E-02	-2.70016862E-03
80	2.75402400E-02	2.10603286E-02	6.47991138E-03
COEFFICIENTS :			
1	2.14116718E-03	6.39135577E-04	
2	1.77116738E-03	8.27316369E-05	
STANDARD DEVIATION =		5.52733801E-03	CHI**2 = 3.92593413E-01

T	TAUNM	OMEGRS
1.12350E+03	-2.11848E-02	-1.48183E+01
1.12350E+03	-1.55355E-02	-1.48183E+01
1.12350E+03	-3.88388E-02	-1.48183E+01
1.12350E+03	-1.90663E-02	-1.31951E+01
1.12350E+03	-2.04786E-02	-1.31951E+01
1.12350E+03	-2.96587E-02	-1.31951E+01
1.12350E+03	-2.68341E-02	-1.27762E+01
1.12350E+03	-2.25971E-02	-1.27762E+01
1.12350E+03	-1.27109E-02	-1.27762E+01
1.12350E+03	-2.18910E-02	-1.16243E+01
1.12350E+03	-1.83602E-02	-1.16243E+01
1.12350E+03	-1.27109E-02	-1.16243E+01
1.12350E+03	-5.64928E-03	-1.06817E+01
1.12350E+03	-2.25971E-02	-1.06817E+01
1.12350E+03	-2.47156E-02	-1.06817E+01
1.12350E+03	-7.76776E-03	-1.02629E+01
1.12350E+03	-3.31895E-02	-1.02629E+01

1.12350E+03	-3.53080E-03	-1.02629E+01
1.12350E+03	-2.18910E-02	-8.11603E+00
1.12350E+03	-6.35544E-03	-8.11603E+00
1.12350E+03	.0E+00	-8.11603E+00
1.12350E+03	-4.94312E-03	-7.95895E+00
1.12350E+03	-6.35544E-03	-7.95895E+00
1.12350E+03	-8.47392E-03	-7.95895E+00
1.12350E+03	-8.47392E-03	-6.28338E+00
1.12350E+03	-1.05924E-02	-6.28338E+00
1.12350E+03	-1.83602E-02	-6.28338E+00
1.12350E+03	-1.27109E-02	-5.49796E+00
1.12350E+03	-1.05924E-02	-5.49796E+00
1.12350E+03	-3.53080E-03	-5.49796E+00
1.12350E+03	-1.05924E-02	-4.39837E+00
1.12350E+03	-9.18008E-03	-4.39837E+00
1.12350E+03	1.41232E-03	-4.39837E+00
1.12350E+03	-6.35544E-03	-2.67044E+00
1.12350E+03	-7.06160E-04	-2.67044E+00
1.12350E+03	2.82464E-03	-2.67044E+00
1.12350E+03	-2.82464E-03	-2.30391E+00
1.12350E+03	-4.23696E-03	-2.30391E+00
1.12350E+03	1.41232E-03	-2.30391E+00
1.12350E+03	-2.11848E-03	-1.04723E+00
1.12350E+03	4.94312E-03	-1.04723E+00
1.12350E+03	3.53080E-03	-1.04723E+00
1.12350E+03	3.53080E-03	-9.94869E-01
1.12350E+03	-1.41232E-03	-9.94869E-01
1.12350E+03	-2.11848E-03	-9.94869E-01
1.12350E+03	-2.11848E-03	.0E+00
1.12350E+03	2.11848E-03	.0E+00
1.12350E+03	1.41232E-03	8.37784E-01
1.12350E+03	2.11848E-03	8.37784E-01
1.12350E+03	2.82464E-03	8.37784E-01
1.12350E+03	1.41232E-03	9.42507E-01
1.12350E+03	7.06160E-04	9.42507E-01
1.12350E+03	.0E+00	9.42507E-01
1.12350E+03	1.05924E-02	2.56571E+00
1.12350E+03	3.53080E-03	2.56571E+00
1.12350E+03	6.35544E-03	2.56571E+00
1.12350E+03	3.53080E-03	3.08933E+00
1.12350E+03	9.18008E-03	3.08933E+00
1.12350E+03	1.48294E-02	3.08933E+00
1.12350E+03	1.34170E-02	4.08420E+00
1.12350E+03	8.47392E-03	4.08420E+00
1.12350E+03	1.27109E-02	4.08420E+00
1.12350E+03	1.20047E-02	5.34087E+00
1.12350E+03	1.34170E-02	5.34087E+00
1.12350E+03	4.94312E-03	5.34087E+00
1.12350E+03	9.18008E-03	6.28338E+00
1.12350E+03	1.27109E-02	6.28338E+00
1.12350E+03	1.05924E-02	6.28338E+00
1.12350E+03	1.83602E-02	8.01131E+00
1.12350E+03	1.12986E-02	8.01131E+00
1.12350E+03	1.97725E-02	8.01131E+00
1.12350E+03	1.76540E-02	8.58729E+00

1.12350E+03	2.04786E-02	8.58729E+00
1.12350E+03	2.18910E-02	8.58729E+00
1.12350E+03	2.11848E-02	9.63452E+00
1.12350E+03	1.41232E-02	9.63452E+00
1.12350E+03	2.18910E-02	9.63452E+00
1.12350E+03	1.69478E-02	1.06817E+01
1.12350E+03	1.83602E-02	1.06817E+01
1.12350E+03	2.75402E-02	1.06817E+01
1.12350E+03	2.40094E-02	1.14148E+01
1.12350E+03	2.54218E-02	1.14148E+01
1.12350E+03	1.76540E-02	1.14148E+01
1.12350E+03	2.75402E-02	1.28809E+01
1.12350E+03	2.61279E-02	1.28809E+01
1.12350E+03	2.18910E-02	1.28809E+01
1.12350E+03	2.25971E-02	1.32998E+01
1.12350E+03	2.68341E-02	1.32998E+01
1.12350E+03	2.18910E-02	1.32998E+01
1.12350E+03	2.96587E-02	1.49754E+01
1.12350E+03	3.38957E-02	1.49754E+01
1.12350E+03	2.61279E-02	1.49754E+01

NBS VERRE 717, SERIES 2

26 OCT 79
09:41:55

NBS 717 GLASS--874.1°C

(NBS 717 S--POST)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -6.49667200E-01	-6.87807210E-01	3.81400102E-02
2 -6.49667200E-01	-6.87807210E-01	3.81400102E-02
3 -6.49667200E-01	-6.87807210E-01	3.81400102E-02
4 -5.08435200E-01	-5.22306298E-01	1.38710978E-02
5 -4.94312000E-01	-5.22306298E-01	2.79942978E-02
6 -5.08435200E-01	-5.22306298E-01	1.38710978E-02
7 -4.94312000E-01	-4.69646917E-01	-2.46650834E-02
8 -4.94312000E-01	-4.69646917E-01	-2.46650834E-02
9 -4.94312000E-01	-4.69646917E-01	-2.46650834E-02
10 -4.09572800E-01	-4.01941998E-01	-7.63080213E-03
11 -4.09572800E-01	-4.01941998E-01	-7.63080213E-03
12 -4.09572800E-01	-4.01941998E-01	-7.63080213E-03
13 -3.67203200E-01	-3.41759848E-01	-2.54433521E-02
14 -3.67203200E-01	-3.41759848E-01	-2.54433521E-02
15 -3.53080000E-01	-3.41759848E-01	-1.13201521E-02
16 -2.68340800E-01	-2.51486623E-01	-1.68541770E-02
17 -2.54217600E-01	-2.51486623E-01	-2.73097703E-03
18 -2.68340800E-01	-2.51486623E-01	-1.68541770E-02
19 -2.54217600E-01	-2.28918317E-01	-2.52992833E-02
20 -2.54217600E-01	-2.28918317E-01	-2.52992833E-02
21 -2.40094400E-01	-2.28918317E-01	-1.11760833E-02
22 -1.69478400E-01	-1.61213398E-01	-8.26500197E-03
23 -1.83601600E-01	-1.61213398E-01	-2.23882020E-02
24 -1.69478400E-01	-1.61213398E-01	-8.26500197E-03
25 -1.41232000E-01	-1.31122323E-01	-1.01096769E-02
26 -1.55355200E-01	-1.31122323E-01	-2.42328769E-02
27 -1.27108800E-01	-1.31122323E-01	4.01352306E-03
28 -7.06160000E-02	-7.09401731E-02	3.24173097E-04
29 -8.47392000E-02	-7.09401731E-02	-1.37990269E-02
30 -9.88624000E-02	-7.09401731E-02	-2.79222269E-02
31 .0E+00	1.18102831E-02	-1.18102831E-02
32 1.27108800E-01	9.45607393E-02	3.25480607E-02
33 9.88624000E-02	9.45607393E-02	4.30166071E-03
34 1.12985600E-01	9.45607393E-02	1.84248607E-02
35 1.83601600E-01	1.54742889E-01	2.88587108E-02
36 1.55355200E-01	1.54742889E-01	6.12310754E-04
37 1.69478400E-01	1.54742889E-01	1.47355108E-02
38 2.11848000E-01	1.99879502E-01	1.19684983E-02
39 1.97724800E-01	1.99879502E-01	-2.15470172E-03
40 2.11848000E-01	1.99879502E-01	1.19684983E-02
41 2.54217600E-01	2.37493345E-01	1.67242546E-02
42 2.68340800E-01	2.37493345E-01	3.08474546E-02
43 2.54217600E-01	2.37493345E-01	1.67242546E-02
44 2.96587200E-01	2.82629958E-01	1.39572421E-02
45 2.96587200E-01	2.82629958E-01	1.39572421E-02
46 2.96587200E-01	2.82629958E-01	1.39572421E-02
47 4.09572800E-01	3.87948720E-01	2.16240797E-02
48 4.09572800E-01	3.87948720E-01	2.16240797E-02
49 4.09572800E-01	3.87948720E-01	2.16240797E-02
50 4.23696000E-01	4.25562564E-01	-1.86656406E-03

	TAUNM	TAUNM (CALC)	RESI DUALS
51	4.37819200E-01	4.25562564E-01	1.22566359E-02
52	4.23696000E-01	4.25562564E-01	-1.86656406E-03
53	5.22558400E-01	5.00790252E-01	2.17681485E-02
54	5.08435200E-01	5.00790252E-01	7.64494849E-03
55	5.22558400E-01	5.00790252E-01	2.17681485E-02
56	5.50804800E-01	5.68495170E-01	-1.76903702E-02
57	5.50804800E-01	5.68495170E-01	-1.76903702E-02
58	5.50804800E-01	5.68495170E-01	-1.76903702E-02
59	6.63790400E-01	6.88859470E-01	-2.50690701E-02
60	6.49667200E-01	6.88859470E-01	-3.91922701E-02
61	6.63790400E-01	6.88859470E-01	-2.50690701E-02

COEFFICIENTS :

1	1.18102831E-02	2.58946495E-03	
2	1.43669837E-01	9.69476842E-04	
STANDARD DEVIATION =		2.02241328E-02	CHI**2 = 1.03679228E-01

T	TAUNM	OMEGRS
8.74100E+02	-6.49667E-01	-4.86962E+00
8.74100E+02	-6.49667E-01	-4.86962E+00
8.74100E+02	-6.49667E-01	-4.86962E+00
8.74100E+02	-5.08435E-01	-3.71767E+00
8.74100E+02	-4.94312E-01	-3.71767E+00
8.74100E+02	-5.08435E-01	-3.71767E+00
8.74100E+02	-4.94312E-01	-3.35114E+00
8.74100E+02	-4.94312E-01	-3.35114E+00
8.74100E+02	-4.94312E-01	-3.35114E+00
8.74100E+02	-4.09573E-01	-2.87988E+00
8.74100E+02	-4.09573E-01	-2.87988E+00
8.74100E+02	-4.09573E-01	-2.87988E+00
8.74100E+02	-3.67203E-01	-2.46099E+00
8.74100E+02	-3.67203E-01	-2.46099E+00
8.74100E+02	-3.53080E-01	-2.46099E+00
8.74100E+02	-2.68341E-01	-1.83265E+00
8.74100E+02	-2.54218E-01	-1.83265E+00
8.74100E+02	-2.68341E-01	-1.83265E+00
8.74100E+02	-2.54218E-01	-1.67557E+00
8.74100E+02	-2.54218E-01	-1.67557E+00
8.74100E+02	-2.40094E-01	-1.67557E+00
8.74100E+02	-1.69478E-01	-1.20431E+00
8.74100E+02	-1.83602E-01	-1.20431E+00
8.74100E+02	-1.69478E-01	-1.20431E+00
8.74100E+02	-1.41232E-01	-9.94869E-01
8.74100E+02	-1.55355E-01	-9.94869E-01
8.74100E+02	-1.27109E-01	-9.94869E-01
8.74100E+02	-7.06160E-02	-5.75977E-01
8.74100E+02	-8.47392E-02	-5.75977E-01
8.74100E+02	-9.88624E-02	-5.75977E-01
8.74100E+02	.0E+00	.0E+00
8.74100E+02	1.27109E-01	5.75977E-01
8.74100E+02	9.88624E-02	5.75977E-01
8.74100E+02	1.12986E-01	5.75977E-01
8.74100E+02	1.83602E-01	9.94869E-01
8.74100E+02	1.55355E-01	9.94869E-01

8.74100E+02	1.69478E-01	9.94869E-01
8.74100E+02	2.11848E-01	1.30904E+00
8.74100E+02	1.97725E-01	1.30904E+00
8.74100E+02	2.11848E-01	1.30904E+00
8.74100E+02	2.54218E-01	1.57085E+00
8.74100E+02	2.68341E-01	1.57085E+00
8.74100E+02	2.54218E-01	1.57085E+00
8.74100E+02	2.96587E-01	1.88501E+00
8.74100E+02	2.96587E-01	1.88501E+00
8.74100E+02	2.96587E-01	1.88501E+00
8.74100E+02	4.09573E-01	2.61808E+00
8.74100E+02	4.09573E-01	2.61808E+00
8.74100E+02	4.09573E-01	2.61808E+00
8.74100E+02	4.23696E-01	2.87988E+00
8.74100E+02	4.37819E-01	2.87988E+00
8.74100E+02	4.23696E-01	2.87988E+00
8.74100E+02	5.22558E-01	3.40350E+00
8.74100E+02	5.08435E-01	3.40350E+00
8.74100E+02	5.22558E-01	3.40350E+00
8.74100E+02	5.50805E-01	3.87475E+00
8.74100E+02	5.50805E-01	3.87475E+00
8.74100E+02	5.50805E-01	3.87475E+00
8.74100E+02	6.63790E-01	4.71254E+00
8.74100E+02	6.49667E-01	4.71254E+00
8.74100E+02	6.63790E-01	4.71254E+00

NBS STANDARD VERRE — 874.1C RUN — SEE BOOK PAGE 235 FOR DETAILS

25 OCT 78
11:37:42

NBS GLASS--915.1°C

(NBS 717 T--POST)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -2.11848000E-01	-2.14997888E-01	3.14988801E-03
2 -2.11848000E-01	-2.14997888E-01	3.14988801E-03
3 -2.11848000E-01	-2.14997888E-01	3.14988801E-03
4 -1.97724800E-01	-1.95624500E-01	-2.10030040E-03
5 -1.97724800E-01	-1.95624500E-01	-2.10030040E-03
6 -1.97724800E-01	-1.95624500E-01	-2.10030040E-03
7 -1.55355200E-01	-1.50419927E-01	-4.93527336E-03
8 -1.55355200E-01	-1.50419927E-01	-4.93527336E-03
9 -1.55355200E-01	-1.50419927E-01	-4.93527336E-03
10 -8.47392000E-02	-7.93841691E-02	-5.35503087E-03
11 -7.06160000E-02	-7.93841691E-02	8.76816913E-03
12 -8.47392000E-02	-7.93841691E-02	-5.35503087E-03
13 -2.82464000E-02	-3.41795962E-02	5.93319617E-03
14 -4.23696000E-02	-3.41795962E-02	-8.19000383E-03
15 -2.82464000E-02	-3.41795962E-02	5.93319617E-03
16 .0E+00	7.79607872E-03	-7.79607872E-03
17 8.47392000E-02	8.20607343E-02	2.67846571E-03
18 8.47392000E-02	8.20607343E-02	2.67846571E-03
19 8.47392000E-02	8.20607343E-02	2.67846571E-03
20 1.55355200E-01	1.53096492E-01	2.25870821E-03
21 1.55355200E-01	1.53096492E-01	2.25870821E-03
22 1.55355200E-01	1.53096492E-01	2.25870821E-03
23 2.25971200E-01	2.14445555E-01	1.15256449E-02
24 2.25971200E-01	2.14445555E-01	1.15256449E-02
25 2.25971200E-01	2.14445555E-01	1.15256449E-02
26 2.68340800E-01	2.79023516E-01	-1.06827165E-02
27 2.68340800E-01	2.79023516E-01	-1.06827165E-02
28 2.68340800E-01	2.79023516E-01	-1.06827165E-02
29 3.24833600E-01	3.11312497E-01	1.35211029E-02
30 3.10710400E-01	3.11312497E-01	-6.02097147E-04
31 3.24833600E-01	3.11312497E-01	1.35211029E-02
32 3.67203200E-01	3.75890459E-01	-8.68725852E-03
33 3.67203200E-01	3.75890459E-01	-8.68725852E-03
34 3.67203200E-01	3.75890459E-01	-8.68725852E-03
COEFFICIENTS :		
1 7.79607872E-03	1.32479857E-03	
2 6.16654953E-02	3.90538351E-04	
STANDARD DEVIATION = 7.42371918E-03 CHI**2 = 1.94268422E-02		

T	TAUNM	OMEGRS
9.15100E+02	-5.08435E-01	-1.01058E+01
9.15100E+02	-5.08435E-01	-1.01058E+01
9.15100E+02	-4.94312E-01	-1.01058E+01
9.15100E+02	-4.51942E-01	-8.95382E+00
9.15100E+02	-4.51942E-01	-8.95382E+00
9.15100E+02	-4.51942E-01	-8.95382E+00
9.15100E+02	-4.51942E-01	-8.95382E+00
9.15100E+02	-4.37819E-01	-8.01131E+00
9.15100E+02	-4.37819E-01	-8.01131E+00

9.15100E+02	-4.37819E-01	-8.01131E+00
9.15100E+02	-4.09573E-01	-7.90659E+00
9.15100E+02	-4.09573E-01	-7.90659E+00
9.15100E+02	-4.09573E-01	-7.90659E+00
9.15100E+02	-3.81326E-01	-6.96408E+00
9.15100E+02	-3.67203E-01	-6.96408E+00
9.15100E+02	-3.81326E-01	-6.96408E+00
9.15100E+02	-3.53080E-01	-5.96921E+00
9.15100E+02	-3.53080E-01	-5.96921E+00
9.15100E+02	-3.53080E-01	-5.96921E+00
9.15000E+02	-3.10710E-01	-5.49796E+00
9.15100E+02	-3.10710E-01	-5.49796E+00
9.15100E+02	-3.10710E-01	-5.49796E+00
9.15100E+02	-2.68341E-01	-4.60781E+00
9.15100E+02	-2.54218E-01	-4.60781E+00
9.15100E+02	-2.68341E-01	-4.60781E+00
9.15100E+02	-2.11848E-01	-3.61294E+00
9.15100E+02	-2.11848E-01	-3.61294E+00
9.15100E+02	-2.11848E-01	-3.61294E+00
9.15100E+02	-1.97725E-01	-3.29877E+00
9.15100E+02	-1.97725E-01	-3.29877E+00
9.15100E+02	-1.97725E-01	-3.29877E+00
9.15100E+02	-1.55355E-01	-2.56571E+00
9.15100E+02	-1.55355E-01	-2.56571E+00
9.15100E+02	-1.55355E-01	-2.56571E+00
9.15100E+02	-8.47392E-02	-1.41376E+00
9.15100E+02	-7.06160E-02	-1.41376E+00
9.15100E+02	-8.47392E-02	-1.41376E+00
9.15100E+02	-2.82464E-02	-6.80700E-01
9.15100E+02	-4.23696E-02	-6.80700E-01
9.15100E+02	-2.82464E-02	-6.80700E-01
9.15100E+02	.0E+00	.0E+00
9.15100E+02	8.47392E-02	1.20431E+00
9.15100E+02	8.47392E-02	1.20431E+00
9.15100E+02	8.47392E-02	1.20431E+00
9.15100E+02	1.55355E-01	2.35627E+00
9.15100E+02	1.55355E-01	2.35627E+00
9.15100E+02	1.55355E-01	2.35627E+00
9.15100E+02	2.25971E-01	3.35114E+00
9.15100E+02	2.25971E-01	3.35114E+00
9.15100E+02	2.25971E-01	3.35114E+00
9.15100E+02	2.68341E-01	4.39837E+00
9.15100E+02	2.68341E-01	4.39837E+00
9.15100E+02	2.68341E-01	4.39837E+00
9.15100E+02	3.24834E-01	4.92198E+00
9.15100E+02	3.10710E-01	4.92198E+00
9.15100E+02	3.24834E-01	4.92198E+00
9.15100E+02	3.67203E-01	5.96921E+00
9.15100E+02	3.67203E-01	5.96921E+00
9.15100E+02	3.67203E-01	5.96921E+00
9.15100E+02	3.67203E-01	6.54519E+00
9.15100E+02	3.67203E-01	6.54519E+00
9.15100E+02	3.67203E-01	6.54519E+00
9.15100E+02	4.37819E-01	7.43533E+00
9.15100E+02	4.37819E-01	7.43533E+00

9.15100E+02	4.37819E-01	7.43533E+00
9.15100E+02	4.51942E-01	8.95382E+00
9.15100E+02	4.66066E-01	8.95382E+00
9.00000E+00	4.66066E-01	8.95382E+00
9.15100E+02	5.22558E-01	9.68688E+00
9.15100E+02	5.08435E-01	9.68688E+00
9.15100E+02	5.22558E-01	9.68688E+00
9.15100E+02	5.22558E-01	1.09436E+01
9.15100E+02	5.22558E-01	1.09436E+01
9.15100E+02	5.22558E-01	1.09436E+01
9.15100E+02	5.79051E-01	1.24097E+01
9.15100E+02	5.79051E-01	1.24097E+01
9.15100E+02	5.79051E-01	1.24097E+01
9.15100E+02	5.93174E-01	1.31951E+01
9.15100E+02	5.93174E-01	1.31951E+01
9.15100E+02	5.93174E-01	1.31951E+01

NBS STANDARD VERRE - 915.1C RUN - SEE BOOK PAGE 233

25 OCT 78
12:53:20

NBS GLASS--978.6°C

(NBS 717 U--POST)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -2.47156000E-01	-2.55643553E-01	8.48755310E-03
2 -2.45743680E-01	-2.55643553E-01	9.89987310E-03
3 -2.46449840E-01	-2.55643553E-01	9.19371310E-03
4 -2.25971200E-01	-2.35090141E-01	9.11894087E-03
5 -2.27383520E-01	-2.35090141E-01	7.70662087E-03
6 -2.26677360E-01	-2.35090141E-01	8.41278087E-03
7 -2.18909600E-01	-2.19207959E-01	2.98358700E-04
8 -2.19615760E-01	-2.19207959E-01	-4.07801300E-04
9 -2.20321920E-01	-2.19207959E-01	-1.11396130E-03
10 -1.98430960E-01	-1.99588792E-01	1.15783248E-03
11 -1.96312480E-01	-1.99588792E-01	3.27631248E-03
12 -1.94900160E-01	-1.99588792E-01	4.68863248E-03
13 -1.83601600E-01	-1.75298396E-01	-8.30320378E-03
14 -1.80776960E-01	-1.75298396E-01	-5.47856378E-03
15 -1.80070800E-01	-1.75298396E-01	-4.77240378E-03
16 -1.65241440E-01	-1.61284706E-01	-3.95673394E-03
17 -1.63829120E-01	-1.61284706E-01	-2.54441394E-03
18 -1.61710640E-01	-1.61284706E-01	-4.25933936E-04
19 -1.48293600E-01	-1.41665540E-01	-6.62806015E-03
20 -1.52530560E-01	-1.41665540E-01	-1.08650202E-02
21 -1.50412080E-01	-1.41665540E-01	-8.74654015E-03
22 -1.30639600E-01	-1.22046374E-01	-8.59322637E-03
23 -1.28521120E-01	-1.22046374E-01	-6.47474637E-03
24 -1.26402640E-01	-1.22046374E-01	-4.35626637E-03
25 -1.12279440E-01	-1.02427207E-01	-9.85223258E-03
26 -1.09454800E-01	-1.02427207E-01	-7.02759258E-03
27 -1.10867120E-01	-1.02427207E-01	-8.43991258E-03
28 -9.32131200E-02	-8.56107792E-02	-7.60234077E-03
29 -8.89761600E-02	-8.56107792E-02	-3.36538077E-03
30 -9.10946400E-02	-8.56107792E-02	-5.48386077E-03
31 -6.99098400E-02	-6.22546290E-02	-7.65521102E-03
32 -6.56728800E-02	-6.22546290E-02	-3.41825102E-03
33 -6.77913600E-02	-6.22546290E-02	-5.53673102E-03
34 -5.50804800E-02	-4.82409388E-02	-6.83954118E-03
35 -5.22558400E-02	-4.82409388E-02	-4.01490118E-03
36 -5.36681600E-02	-4.82409388E-02	-5.42722118E-03
37 -2.82464000E-02	-2.39505426E-02	-4.29585745E-03
38 -2.33032800E-02	-2.39505426E-02	6.47262554E-04
39 -2.61279200E-02	-2.39505426E-02	-2.17737745E-03
40 .0E+00	-5.94392298E-04	5.94392298E-04
41 2.96587200E-02	2.64987420E-02	3.15997800E-03
42 3.31895200E-02	2.64987420E-02	6.69077800E-03
43 3.17772000E-02	2.64987420E-02	5.27845800E-03
44 5.01373600E-02	4.70521542E-02	3.08520577E-03
45 5.22558400E-02	4.70521542E-02	5.20368577E-03
46 5.43743200E-02	4.70521542E-02	7.32216577E-03
47 7.83837600E-02	6.85398125E-02	9.84394754E-03
48 7.62652800E-02	6.85398125E-02	7.72546754E-03
49 7.41468000E-02	6.85398125E-02	5.60698754E-03
50 9.03884800E-02	8.34877486E-02	6.90073137E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	8.89761600E-02	8.34877486E-02	5.48841137E-03
52	8.96823200E-02	8.34877486E-02	6.19457137E-03
53	1.15104080E-01	1.03106915E-01	1.19971652E-02
54	1.12985600E-01	1.03106915E-01	9.87868516E-03
55	1.13691760E-01	1.03106915E-01	1.05848452E-02
56	1.27814960E-01	1.21791835E-01	6.02312495E-03
57	1.25696480E-01	1.21791835E-01	3.90464495E-03
58	1.24284160E-01	1.21791835E-01	2.49232495E-03
59	1.46175120E-01	1.33002787E-01	1.31723328E-02
60	1.43350480E-01	1.33002787E-01	1.03476928E-02
61	1.41232000E-01	1.33002787E-01	8.22921283E-03
62	1.59592160E-01	1.53556199E-01	6.03596060E-03
63	1.56767520E-01	1.53556199E-01	3.21132060E-03
64	1.54649040E-01	1.53556199E-01	1.09284060E-03
65	1.77246160E-01	1.74109612E-01	3.13654838E-03
66	1.81483120E-01	1.74109612E-01	7.37350838E-03
67	1.79364640E-01	1.74109612E-01	5.25502838E-03
68	1.95606320E-01	1.98400008E-01	-2.79368789E-03
69	1.92781680E-01	1.98400008E-01	-5.61832789E-03
70	1.89957040E-01	1.98400008E-01	-8.44296789E-03
71	2.15378800E-01	2.15216436E-01	1.62363926E-04
72	2.11848000E-01	2.15216436E-01	-3.36843607E-03
73	2.13260320E-01	2.15216436E-01	-1.95611607E-03
74	2.21028080E-01	2.28295880E-01	-7.26780022E-03
75	2.20321920E-01	2.28295880E-01	-7.97396022E-03
76	2.17497280E-01	2.28295880E-01	-1.07986002E-02
77	2.39388240E-01	2.48849292E-01	-9.46105244E-03
78	2.33738960E-01	2.48849292E-01	-1.51103324E-02
79	2.36563600E-01	2.48849292E-01	-1.22856924E-02

COEFFICIENTS :

1	-5.94392298E-04	7.81030793E-04
2	1.78422303E-02	8.96587881E-05

STANDARD DEVIATION = 6.94190724E-03 CHI**2 = 3.41643009E-02

T	TAUNM	OMEGRS
9.78600E+02	-2.47156E-01	-1.42947E+01
9.78600E+02	-2.45744E-01	-1.42947E+01
9.78600E+02	-2.46450E-01	-1.42947E+01
9.78600E+02	-2.25971E-01	-1.31427E+01
9.78600E+02	-2.27384E-01	-1.31427E+01
9.78600E+02	-2.26677E-01	-1.31427E+01
9.78600E+02	-2.18910E-01	-1.22526E+01
9.78600E+02	-2.19616E-01	-1.22526E+01
9.78600E+02	-2.20322E-01	-1.22526E+01
9.78600E+02	-1.98431E-01	-1.11530E+01
9.78600E+02	-1.96312E-01	-1.11530E+01
9.78600E+02	-1.94900E-01	-1.11530E+01
9.78600E+02	-1.83602E-01	-9.79160E+00
9.78600E+02	-1.80777E-01	-9.79160E+00
9.78600E+02	-1.80071E-01	-9.79160E+00
9.78600E+02	-1.65241E-01	-9.00618E+00
9.78600E+02	-1.63829E-01	-9.00618E+00
9.78600E+02	-1.61711E-01	-9.00618E+00

9.78600E+02	-1.48294E-01	-7.90659E+00
9.78600E+02	-1.52531E-01	-7.90659E+00
9.78600E+02	-1.50412E-01	-7.90659E+00
9.78600E+02	-1.30640E-01	-6.80700E+00
9.78600E+02	-1.28521E-01	-6.80700E+00
9.78600E+02	-1.26403E-01	-6.80700E+00
9.78600E+02	-1.12279E-01	-5.70740E+00
9.78600E+02	-1.09455E-01	-5.70740E+00
9.78600E+02	-1.10867E-01	-5.70740E+00
9.78600E+02	-9.32131E-02	-4.76490E+00
9.78600E+02	-8.89762E-02	-4.76490E+00
9.78600E+02	-9.10946E-02	-4.76490E+00
9.78600E+02	-6.99098E-02	-3.45586E+00
9.78600E+02	-6.56729E-02	-3.45586E+00
9.78600E+02	-6.77914E-02	-3.45586E+00
9.78600E+02	-5.50805E-02	-2.67044E+00
9.78600E+02	-5.22558E-02	-2.67044E+00
9.78600E+02	-5.36682E-02	-2.67044E+00
9.78600E+02	-2.82464E-02	-1.30904E+00
9.78600E+02	-2.33033E-02	-1.30904E+00
9.78600E+02	-2.61279E-02	-1.30904E+00
9.78600E+02	.0E+00	.0E+00
9.78600E+02	2.96587E-02	1.51848E+00
9.78600E+02	3.31895E-02	1.51848E+00
9.78600E+02	3.17772E-02	1.51848E+00
9.78600E+02	5.01374E-02	2.67044E+00
9.78600E+02	5.22558E-02	2.67044E+00
9.78600E+02	5.43743E-02	2.67044E+00
9.78600E+02	7.83838E-02	3.87475E+00
9.78600E+02	7.62653E-02	3.87475E+00
9.78600E+02	7.41468E-02	3.87475E+00
9.78600E+02	9.03885E-02	4.71254E+00
9.78600E+02	8.89762E-02	4.71254E+00
9.78600E+02	8.96823E-02	4.71254E+00
9.78600E+02	1.15104E-01	5.81213E+00
9.78600E+02	1.12986E-01	5.81213E+00
9.78600E+02	1.13692E-01	5.81213E+00
9.78600E+02	1.27815E-01	6.85936E+00
9.78600E+02	1.25696E-01	6.85936E+00
9.78600E+02	1.24284E-01	6.85936E+00
9.78600E+02	1.46175E-01	7.48770E+00
9.78600E+02	1.43350E-01	7.48770E+00
9.78600E+02	1.41232E-01	7.48770E+00
9.78600E+02	1.59592E-01	8.63965E+00
9.78600E+02	1.56768E-01	8.63965E+00
9.78600E+02	1.54649E-01	8.63965E+00
9.78600E+02	1.77246E-01	9.79160E+00
9.78600E+02	1.81483E-01	9.79160E+00
9.78600E+02	1.79365E-01	9.79160E+00
9.78600E+02	1.95606E-01	1.11530E+01
9.78600E+02	1.92782E-01	1.11530E+01
9.78600E+02	1.89957E-01	1.11530E+01
9.78600E+02	2.15379E-01	1.20955E+01
9.78600E+02	2.11848E-01	1.20955E+01
9.78600E+02	2.13260E-01	1.20955E+01

9.78 600E+02	2.21028 E-01	1.28286E+01
9.78 600E+02	2.20322E-01	1.28286E+01
9.78 600E+02	2.17497E-01	1.28286E+01
9.78 600E+02	2.39388 E-01	1.39805E+01
9.78 600E+02	2.33739 E-01	1.39805E+01
9.78 600E+02	2.36564E-01	1.39805E+01

NBS STANDSRD VERRE - 978.6 C RUN - SEE BOOK PAGE 231

25 OCT 78
12:59:42

NBS GLASS--1013.4°C
(NBS 717 V--POST)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -1.46175120E-01	-1.49570770E-01	3.39564977E-03
2 -1.47587440E-01	-1.49570770E-01	1.98332977E-03
3 -1.46881280E-01	-1.49570770E-01	2.68948977E-03
4 -1.32758080E-01	-1.35405167E-01	2.64708730E-03
5 -1.33464240E-01	-1.35405167E-01	1.94092730E-03
6 -1.32051920E-01	-1.35405167E-01	3.35324730E-03
7 -1.24284160E-01	-1.23963719E-01	-3.20440845E-04
8 -1.23578000E-01	-1.23963719E-01	3.85719155E-04
9 -1.24284160E-01	-1.23963719E-01	-3.20440845E-04
10 -1.15810240E-01	-1.16880918E-01	1.07067792E-03
11 -1.16516400E-01	-1.16880918E-01	3.64517920E-04
12 -1.15104080E-01	-1.16880918E-01	1.77683792E-03
13 -1.05217840E-01	-1.02715315E-01	-2.50252455E-03
14 -1.03805520E-01	-1.02715315E-01	-1.09020455E-03
15 -1.04511680E-01	-1.02715315E-01	-1.79636455E-03
16 -9.74500800E-02	-9.50876834E-02	-2.36239665E-03
17 -9.53316000E-02	-9.50876834E-02	-2.43916650E-04
18 -9.60377600E-02	-9.50876834E-02	-9.50076650E-04
19 -8.05022400E-02	-7.92875883E-02	-1.21465171E-03
20 -8.12084000E-02	-7.92875883E-02	-1.92081171E-03
21 -8.26207200E-02	-7.92875883E-02	-3.33313171E-03
22 -7.48529600E-02	-7.11151253E-02	-3.73783468E-03
23 -7.20283200E-02	-7.11151253E-02	-9.13194676E-04
24 -7.41468000E-02	-7.11151253E-02	-3.03167468E-03
25 -6.07297600E-02	-5.91288463E-02	-1.60091369E-03
26 -6.14359200E-02	-5.91288463E-02	-2.30707369E-03
27 -6.07297600E-02	-5.91288463E-02	-1.60091369E-03
28 -5.01373600E-02	-4.71425673E-02	-2.99479270E-03
29 -4.87250400E-02	-4.71425673E-02	-1.58247270E-03
30 -4.94312000E-02	-4.71425673E-02	-2.28863270E-03
31 -3.74264800E-02	-3.57011191E-02	-1.72536085E-03
32 -3.67203200E-02	-3.57011191E-02	-1.01920085E-03
33 -3.81326400E-02	-3.57011191E-02	-2.43152085E-03
34 -3.24833600E-02	-2.86183179E-02	-3.86504209E-03
35 -2.89525600E-02	-2.86183179E-02	-3.34242086E-04
36 -3.03648800E-02	-2.86183179E-02	-1.74656209E-03
37 -1.62416800E-02	-1.82665315E-02	2.02485149E-03
38 -1.90663200E-02	-1.82665315E-02	-7.99788506E-04
39 -1.76540000E-02	-1.82665315E-02	6.12531494E-04
40 .0E+00	2.57717890E-04	-2.57717890E-04
41 1.48293600E-02	1.44233204E-02	4.06039640E-04
42 1.55355200E-02	1.44233204E-02	1.11219964E-03
43 1.62416800E-02	1.44233204E-02	1.81835964E-03
44 2.75402400E-02	2.74992611E-02	4.09788981E-05
45 3.03648800E-02	2.74992611E-02	2.86561890E-03
46 2.89525600E-02	2.74992611E-02	1.45329890E-03
47 3.88388000E-02	3.62165549E-02	2.62224507E-03
48 3.95449600E-02	3.62165549E-02	3.32840507E-03
49 4.02511200E-02	3.62165549E-02	4.03456507E-03
50 5.01373600E-02	4.76580031E-02	2.47935692E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	4.87250400E-02	4.76580031E-02	1.06703692E-03
52	4.66065600E-02	4.76580031E-02	-1.05144308E-03
53	6.28482400E-02	6.07339438E-02	2.11429618E-03
54	6.56728800E-02	6.07339438E-02	4.93893618E-03
55	6.42605600E-02	6.07339438E-02	3.52661618E-03
56	7.34406400E-02	7.10857302E-02	2.35490976E-03
57	7.20283200E-02	7.10857302E-02	9.42589760E-04
58	7.27344800E-02	7.10857302E-02	1.64874976E-03
59	8.26207200E-02	8.25271784E-02	9.35416107E-05
60	8.61515200E-02	8.25271784E-02	3.62434161E-03
61	8.47392000E-02	8.25271784E-02	2.21202161E-03
62	9.53316000E-02	9.39686265E-02	1.36297346E-03
63	9.46254400E-02	9.39686265E-02	6.56813462E-04
64	9.60377600E-02	9.39686265E-02	2.06913346E-03
65	1.002393200E-01	1.03230751E-01	-8.37551230E-04
66	1.005924000E-01	1.03230751E-01	2.69324877E-03
67	1.004511680E-01	1.03230751E-01	1.28092877E-03
68	1.15104080E-01	1.15761861E-01	-6.57781107E-04
69	1.12279440E-01	1.15761861E-01	-3.48242111E-03
70	1.13691760E-01	1.15761861E-01	-2.07010111E-03
71	1.29933440E-01	1.28292971E-01	1.64046902E-03
72	1.29227280E-01	1.28292971E-01	9.34309015E-04
73	1.28521120E-01	1.28292971E-01	2.28149015E-04
74	1.32758080E-01	1.34830941E-01	-2.07286136E-03
75	1.32051920E-01	1.34830941E-01	-2.77902136E-03
76	1.32051920E-01	1.34830941E-01	-2.77902136E-03
77	1.46175120E-01	1.48451713E-01	-2.27659296E-03
78	1.44762800E-01	1.48451713E-01	-3.68891296E-03
79	1.42644320E-01	1.48451713E-01	-5.80739296E-03

COEFFICIENTS :

1	2.57717890E-04	2.55546850E-04
2	1.04051798E-02	2.91922000E-05

STANDARD DEVIATION = 2.27134534E-03 CHI**2 = 6.73742985E-03

T	TAUNM	OMEGRS
1.01340E+03	-1.46175E-01	-1.43994E+01
1.01340E+03	-1.47587E-01	-1.43994E+01
1.01340E+03	-1.46881E-01	-1.43994E+01
1.01340E+03	-1.32758E-01	-1.30380E+01
1.01340E+03	-1.33464E-01	-1.30380E+01
1.01340E+03	-1.32052E-01	-1.30380E+01
1.01340E+03	-1.24284E-01	-1.19384E+01
1.01340E+03	-1.23578E-01	-1.19384E+01
1.01340E+03	-1.24284E-01	-1.19384E+01
1.01340E+03	-1.15810E-01	-1.12577E+01
1.01340E+03	-1.16516E-01	-1.12577E+01
1.01340E+03	-1.15104E-01	-1.12577E+01
1.01340E+03	-1.05218E-01	-9.89632E+00
1.01340E+03	-1.03806E-01	-9.89632E+00
1.01340E+03	-1.04512E-01	-9.89632E+00
1.01340E+03	-9.74501E-02	-9.16326E+00
1.01340E+03	-9.53316E-02	-9.16326E+00
1.01340E+03	-9.60378E-02	-9.16326E+00

1.01340E+03	-8.05022E-02	-7.64478E+00
1.01340E+03	-8.12084E-02	-7.64478E+00
1.01340E+03	-8.26207E-02	-7.64478E+00
1.01340E+03	-7.48530E-02	-6.85936E+00
1.01340E+03	-7.20283E-02	-6.85936E+00
1.01340E+03	-7.41468E-02	-6.85936E+00
1.01340E+03	-6.07298E-02	-5.70740E+00
1.01340E+03	-6.14359E-02	-5.70740E+00
1.01340E+03	-6.07298E-02	-5.70740E+00
1.01340E+03	-5.01374E-02	-4.55545E+00
1.01340E+03	-4.87250E-02	-4.55545E+00
1.01340E+03	-4.94312E-02	-4.55545E+00
1.01340E+03	-3.74265E-02	-3.45586E+00
1.01340E+03	-3.67203E-02	-3.45586E+00
1.01340E+03	-3.81326E-02	-3.45586E+00
1.01340E+03	-3.24834E-02	-2.77516E+00
1.01340E+03	-2.89526E-02	-2.77516E+00
1.01340E+03	-3.03649E-02	-2.77516E+00
1.01340E+03	-1.62417E-02	-1.78029E+00
1.01340E+03	-1.90663E-02	-1.78029E+00
1.01340E+03	-1.76540E-02	-1.78029E+00
1.01340E+03	.0E+00	.0E+00
1.01340E+03	1.48294E-02	1.36140E+00
1.01340E+03	1.55355E-02	1.36140E+00
1.01340E+03	1.62417E-02	1.36140E+00
1.01340E+03	2.75402E-02	2.61808E+00
1.01340E+03	3.03649E-02	2.61808E+00
1.01340E+03	2.89526E-02	2.61808E+00
1.01340E+03	3.88388E-02	3.45586E+00
1.01340E+03	3.95450E-02	3.45586E+00
1.01340E+03	4.02511E-02	3.45586E+00
1.01340E+03	5.01374E-02	4.55545E+00
1.01340E+03	4.87250E-02	4.55545E+00
1.01340E+03	4.66066E-02	4.55545E+00
1.01340E+03	6.28482E-02	5.81213E+00
1.01340E+03	6.56729E-02	5.81213E+00
1.01340E+03	6.42606E-02	5.81213E+00
1.01340E+03	7.34406E-02	6.80700E+00
1.01340E+03	7.20283E-02	6.80700E+00
1.01340E+03	7.27345E-02	6.80700E+00
1.01340E+03	8.26207E-02	7.90659E+00
1.01340E+03	8.61515E-02	7.90659E+00
1.01340E+03	8.47392E-02	7.90659E+00
1.01340E+03	9.53316E-02	9.00618E+00
1.01340E+03	9.46254E-02	9.00618E+00
1.01340E+03	9.60378E-02	9.00618E+00
1.01340E+03	1.02393E-01	9.89632E+00
1.01340E+03	1.05924E-01	9.89632E+00
1.01340E+03	1.04512E-01	9.89632E+00
1.01340E+03	1.15104E-01	1.11006E+01
1.01340E+03	1.12279E-01	1.11006E+01
1.01340E+03	1.13692E-01	1.11006E+01
1.01340E+03	1.29933E-01	1.23050E+01
1.01340E+03	1.29227E-01	1.23050E+01
1.01340E+03	1.28521E-01	1.23050E+01
1.01340E+03	1.32758E-01	1.29333E+01

1.01340E+03	1.32052E-01	1.29333E+01
1.01340E+03	1.32052E-01	1.29333E+01
1.01340E+03	1.46175E-01	1.42423E+01
1.01340E+03	1.44763E-01	1.42423E+01
1.01340E+03	1.42644E-01	1.42423E+01

NBS STANDARD VERRE - 1013.4C RUN - SEE BOOK PAGE 229

25 OCT 78
13:23:34

NBS 717 GLASS--1079.7°C

(NBS 717 W--POST)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -5.64928000E-02	-5.67036253E-02	2.10825258E-04
2 -5.64928000E-02	-5.67036253E-02	2.10825258E-04
3 -5.64928000E-02	-5.67036253E-02	2.10825258E-04
4 -5.22558400E-02	-5.23227922E-02	6.69522375E-05
5 -5.22558400E-02	-5.23227922E-02	6.69522375E-05
6 -5.22558400E-02	-5.23227922E-02	6.69522375E-05
7 -4.80188800E-02	-4.83591814E-02	3.40301410E-04
8 -4.80188800E-02	-4.83591814E-02	3.40301410E-04
9 -4.80188800E-02	-4.83591814E-02	3.40301410E-04
10 -4.44880800E-02	-4.46041817E-02	1.16101678E-04
11 -4.44880800E-02	-4.46041817E-02	1.16101678E-04
12 -4.51942400E-02	-4.46041817E-02	-5.90058322E-04
13 -3.95449600E-02	-4.00147376E-02	4.69777562E-04
14 -4.02511200E-02	-4.00147376E-02	-2.36382438E-04
15 -3.95449600E-02	-4.00147376E-02	4.69777562E-04
16 -3.67203200E-02	-3.64683489E-02	-2.51971073E-04
17 -3.67203200E-02	-3.64683489E-02	-2.51971073E-04
18 -3.67203200E-02	-3.64683489E-02	-2.51971073E-04
19 -3.03648800E-02	-3.02100160E-02	-1.54863959E-04
20 -3.10710400E-02	-3.02100160E-02	-8.61023959E-04
21 -3.03648800E-02	-3.02100160E-02	-1.54863959E-04
22 -2.75402400E-02	-2.77066829E-02	1.66442886E-04
23 -2.82464000E-02	-2.77066829E-02	-5.39717114E-04
24 -2.75402400E-02	-2.77066829E-02	1.66442886E-04
25 -2.33032800E-02	-2.27000166E-02	-6.03263423E-04
26 -2.25971200E-02	-2.27000166E-02	1.02896577E-04
27 -2.33032800E-02	-2.27000166E-02	-6.03263423E-04
28 -1.97724800E-02	-1.97794612E-02	6.98123074E-06
29 -2.04786400E-02	-1.97794612E-02	-6.99178769E-04
30 -1.97724800E-02	-1.97794612E-02	6.98123074E-06
31 -1.34170400E-02	-1.35211283E-02	1.04088345E-04
32 -1.41232000E-02	-1.35211283E-02	-6.02071655E-04
33 -1.34170400E-02	-1.35211283E-02	1.04088345E-04
34 -1.05924000E-02	-1.06005730E-02	8.17299806E-06
35 -1.05924000E-02	-1.06005730E-02	8.17299806E-06
36 -1.05924000E-02	-1.06005730E-02	8.17299806E-06
37 -6.35544000E-03	-6.21973998E-03	-1.35700022E-04
38 -6.35544000E-03	-6.21973998E-03	-1.35700022E-04
39 -6.35544000E-03	-6.21973998E-03	-1.35700022E-04
40 .0E+00	3.85929080E-05	-3.85929080E-05
41 5.64928000E-03	5.87970360E-03	-2.30423602E-04
42 5.64928000E-03	5.87970360E-03	-2.30423602E-04
43 6.35544000E-03	5.87970360E-03	4.75736398E-04
44 1.12985600E-02	1.10949810E-02	2.03578994E-04
45 1.20047200E-02	1.10949810E-02	9.09738994E-04
46 1.12985600E-02	1.10949810E-02	2.03578994E-04
47 1.48293600E-02	1.48499807E-02	-2.06207380E-05
48 1.48293600E-02	1.48499807E-02	-2.06207380E-05
49 1.48293600E-02	1.48499807E-02	-2.06207380E-05
50 1.90663200E-02	1.88135916E-02	2.52728434E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.90663200E-02	1.88135916E-02	2.52728434E-04
52	1.90663200E-02	1.88135916E-02	2.52728434E-04
53	2.33032800E-02	2.29858135E-02	3.17466510E-04
54	2.33032800E-02	2.29858135E-02	3.17466510E-04
55	2.33032800E-02	2.29858135E-02	3.17466510E-04
56	2.75402400E-02	2.73666465E-02	1.73593490E-04
57	2.75402400E-02	2.73666465E-02	1.73593490E-04
58	2.75402400E-02	2.73666465E-02	1.73593490E-04
59	3.10710400E-02	3.11216462E-02	-5.06062414E-05
60	3.17772000E-02	3.11216462E-02	6.55553759E-04
61	3.10710400E-02	3.11216462E-02	-5.06062414E-05
62	3.67203200E-02	3.63369236E-02	3.83396354E-04
63	3.60141600E-02	3.63369236E-02	-3.22763646E-04
64	3.67203200E-02	3.63369236E-02	3.83396354E-04
65	3.95449600E-02	3.96747012E-02	-1.29741185E-04
66	4.02511200E-02	3.96747012E-02	5.76418815E-04
67	3.95449600E-02	3.96747012E-02	-1.29741185E-04
68	4.37819200E-02	4.40555342E-02	-2.73614206E-04
69	4.44880800E-02	4.40555342E-02	4.32545794E-04
70	4.37819200E-02	4.40555342E-02	-2.73614206E-04
71	4.87250400E-02	4.86449783E-02	8.00616781E-05
72	4.80188800E-02	4.86449783E-02	-6.26098322E-04
73	4.87250400E-02	4.86449783E-02	8.00616781E-05
74	5.15496800E-02	5.17741448E-02	-2.24464765E-04
75	5.08435200E-02	5.17741448E-02	-9.30624765E-04
76	5.15496800E-02	5.17741448E-02	-2.24464765E-04
77	5.64928000E-02	5.63635889E-02	1.29211119E-04
78	5.57866400E-02	5.63635889E-02	-5.76948881E-04
79	5.64928000E-02	5.63635889E-02	1.29211119E-04
COEFFICIENTS :			
1	3.85929080E-05	3.91900351E-05	
2	3.98405472E-03	4.46712230E-06	
STANDARD DEVIATION = 3.48328329E-04 CHI**2 = 4.48289955E-04			

T	TAUNM	OMEGRS
1.07970E+03	-5.64928E-02	-1.42423E+01
1.07970E+03	-5.64928E-02	-1.42423E+01
1.07970E+03	-5.64928E-02	-1.42423E+01
1.07970E+03	-5.22558E-02	-1.31427E+01
1.07970E+03	-5.22558E-02	-1.31427E+01
1.07970E+03	-5.22558E-02	-1.31427E+01
1.07970E+03	-4.80189E-02	-1.21479E+01
1.07970E+03	-4.80189E-02	-1.21479E+01
1.07970E+03	-4.80189E-02	-1.21479E+01
1.07970E+03	-4.44881E-02	-1.12054E+01
1.07970E+03	-4.44881E-02	-1.12054E+01
1.07970E+03	-4.51942E-02	-1.12054E+01
1.07970E+03	-3.95450E-02	-1.00534E+01
1.07970E+03	-4.02511E-02	-1.00534E+01
1.07970E+03	-3.95450E-02	-1.00534E+01
1.07970E+03	-3.67203E-02	-9.16326E+00
1.07970E+03	-3.67203E-02	-9.16326E+00

1.07970E+03	-3.67203E-02	-9.16326E+00
1.07970E+03	-3.03649E-02	-7.59242E+00
1.07970E+03	-3.10710E-02	-7.59242E+00
1.07970E+03	-3.03649E-02	-7.59242E+00
1.07970E+03	-2.75402E-02	-6.96408E+00
1.07970E+03	-2.82464E-02	-6.96408E+00
1.07970E+03	-2.75402E-02	-6.96408E+00
1.07970E+03	-2.33033E-02	-5.70740E+00
1.07970E+03	-2.25971E-02	-5.70740E+00
1.07970E+03	-2.33033E-02	-5.70740E+00
1.07970E+03	-1.97725E-02	-4.97434E+00
1.07970E+03	-2.04786E-02	-4.97434E+00
1.07970E+03	-1.97725E-02	-4.97434E+00
1.07970E+03	-1.34170E-02	-3.40350E+00
1.07970E+03	-1.41232E-02	-3.40350E+00
1.07970E+03	-1.34170E-02	-3.40350E+00
1.07970E+03	-1.05924E-02	-2.67044E+00
1.07970E+03	-1.05924E-02	-2.67044E+00
1.07970E+03	-1.05924E-02	-2.67044E+00
1.07970E+03	-6.35544E-03	-1.57085E+00
1.07970E+03	-6.35544E-03	-1.57085E+00
1.07970E+03	-6.35544E-03	-1.57085E+00
1.07970E+03	.0E+00	.0E+00
1.07970E+03	5.64928E-03	1.46612E+00
1.07970E+03	5.64928E-03	1.46612E+00
1.07970E+03	6.35544E-03	1.46612E+00
1.07970E+03	1.12986E-02	2.77516E+00
1.07970E+03	1.20047E-02	2.77516E+00
1.07970E+03	1.12986E-02	2.77516E+00
1.07970E+03	1.48294E-02	3.71767E+00
1.07970E+03	1.48294E-02	3.71767E+00
1.07970E+03	1.48294E-02	3.71767E+00
1.07970E+03	1.90663E-02	4.71254E+00
1.07970E+03	1.90663E-02	4.71254E+00
1.07970E+03	1.90663E-02	4.71254E+00
1.07970E+03	2.33033E-02	5.75977E+00
1.07970E+03	2.33033E-02	5.75977E+00
1.07970E+03	2.33033E-02	5.75977E+00
1.07970E+03	2.75402E-02	6.85936E+00
1.07970E+03	2.75402E-02	6.85936E+00
1.07970E+03	2.75402E-02	6.85936E+00
1.07970E+03	3.10710E-02	7.80186E+00
1.07970E+03	3.17772E-02	7.80186E+00
1.07970E+03	3.10710E-02	7.80186E+00
1.07970E+03	3.67203E-02	9.11090E+00
1.07970E+03	3.60142E-02	9.11090E+00
1.07970E+03	3.67203E-02	9.11090E+00
1.07970E+03	3.95450E-02	9.94869E+00
1.07970E+03	4.02511E-02	9.94869E+00
1.07970E+03	3.95450E-02	9.94869E+00
1.07970E+03	4.37819E-02	1.10483E+01
1.07970E+03	4.44881E-02	1.10483E+01
1.07970E+03	4.37819E-02	1.10483E+01
1.07970E+03	4.87250E-02	1.22002E+01
1.07970E+03	4.80189E-02	1.22002E+01
1.07970E+03	4.87250E-02	1.22002E+01

1.07970E+03	5.15497E-02	1.29857E+01
1.07970E+03	5.08435E-02	1.29857E+01
1.07970E+03	5.15497E-02	1.29857E+01
1.07970E+03	5.64928E-02	1.41376E+01
1.07970E+03	5.57866E-02	1.41376E+01
1.07970E+03	5.64928E-02	1.41376E+01

NBS STANDARD VERRE - 1079.7C RUN -- SEE BOOK PAGE 227

25 OCT 78
14:24:01

NBS GLASS--116.2°C

(NBS 717 X--POST)

TAUNM	TAUNM (CALC)	RESIDUALS
1 -3.38956800E-02	-3.41486628E-02	2.52982776E-04
2 -3.38956800E-02	-3.41486628E-02	2.52982776E-04
3 -3.38956800E-02	-3.41486628E-02	2.52982776E-04
4 -3.17772000E-02	-3.16144379E-02	-1.62762121E-04
5 -3.17772000E-02	-3.16144379E-02	-1.62762121E-04
6 -3.17772000E-02	-3.16144379E-02	-1.62762121E-04
7 -2.89525600E-02	-2.89535017E-02	9.41736899E-07
8 -2.89525600E-02	-2.89535017E-02	9.41736899E-07
9 -2.89525600E-02	-2.89535017E-02	9.41736899E-07
10 -2.68340800E-02	-2.66726993E-02	-1.61380670E-04
11 -2.61279200E-02	-2.66726993E-02	5.44779330E-04
12 -2.68340800E-02	-2.66726993E-02	-1.61380670E-04
13 -2.40094400E-02	-2.43918969E-02	3.82456922E-04
14 -2.47156000E-02	-2.43918969E-02	-3.23703078E-04
15 -2.40094400E-02	-2.43918969E-02	3.82456922E-04
16 -2.18909600E-02	-2.16042495E-02	-2.86710464E-04
17 -2.11848000E-02	-2.16042495E-02	4.19449536E-04
18 -2.18909600E-02	-2.16042495E-02	-2.86710464E-04
19 -1.90663200E-02	-1.89433134E-02	-1.23006606E-04
20 -1.90663200E-02	-1.89433134E-02	-1.23006606E-04
21 -1.90663200E-02	-1.89433134E-02	-1.23006606E-04
22 -1.69478400E-02	-1.69159335E-02	-3.19065237E-05
23 -1.69478400E-02	-1.69159335E-02	-3.19065237E-05
24 -1.69478400E-02	-1.69159335E-02	-3.19065237E-05
25 -1.41232000E-02	-1.40015748E-02	-1.21625155E-04
26 -1.41232000E-02	-1.40015748E-02	-1.21625155E-04
27 -1.41232000E-02	-1.40015748E-02	-1.21625155E-04
28 -1.05924000E-02	-1.07070825E-02	1.14682479E-04
29 -1.12985600E-02	-1.07070825E-02	-5.91477521E-04
30 -1.05924000E-02	-1.07070825E-02	1.14682479E-04
31 -8.47392000E-03	-8.80641381E-03	3.32493806E-04
32 -9.18008000E-03	-8.80641381E-03	-3.73666194E-04
33 -8.47392000E-03	-8.80641381E-03	3.32493806E-04
34 -5.64928000E-03	-5.76534393E-03	1.16063930E-04
35 -5.64928000E-03	-5.76534393E-03	1.16063930E-04
36 -6.35544000E-03	-5.76534393E-03	-5.90096070E-04
37 -4.23696000E-03	-4.37152024E-03	1.34560236E-04
38 -4.23696000E-03	-4.37152024E-03	1.34560236E-04
39 -4.94312000E-03	-4.37152024E-03	-5.71599764E-04
40 4.94312000E-03	4.49826690E-03	4.44853097E-04
41 4.23696000E-03	4.49826690E-03	-2.61306903E-04
42 4.94312000E-03	4.49826690E-03	4.44853097E-04
43 5.64928000E-03	6.01880184E-03	-3.69521841E-04
44 6.35544000E-03	6.01880184E-03	3.36638159E-04
45 5.64928000E-03	6.01880184E-03	-3.69521841E-04
46 9.18008000E-03	8.93316047E-03	2.46919527E-04
47 8.47392000E-03	8.93316047E-03	-4.59240473E-04
48 9.18008000E-03	8.93316047E-03	2.46919527E-04
49 1.20047200E-02	1.18475191E-02	1.57200896E-04
50 1.12985600E-02	1.18475191E-02	-5.48959104E-04

	TAUNM	TAUNM (CALC)	RESI DUALS
51	1.20047200E-02	1.18475191E-02	1.57200896E-04
52	1.41232000E-02	1.40016103E-02	1.21589733E-04
53	1.41232000E-02	1.40016103E-02	1.21589733E-04
54	1.41232000E-02	1.40016103E-02	1.21589733E-04
55	1.55355200E-02	1.57755677E-02	-2.40047695E-04
56	1.62416800E-02	1.57755677E-02	4.66112305E-04
57	1.55355200E-02	1.57755677E-02	-2.40047695E-04
58	1.90663200E-02	1.88166376E-02	2.49682429E-04
59	1.90663200E-02	1.88166376E-02	2.49682429E-04
60	1.90663200E-02	1.88166376E-02	2.49682429E-04
61	2.18909600E-02	2.21111299E-02	-2.20169937E-04
62	2.18909600E-02	2.21111299E-02	-2.20169937E-04
63	2.18909600E-02	2.21111299E-02	-2.20169937E-04
64	2.40094400E-02	2.42652211E-02	-2.55781099E-04
65	2.47156000E-02	2.42652211E-02	4.50378901E-04
66	2.40094400E-02	2.42652211E-02	-2.55781099E-04
67	2.75402400E-02	2.71795797E-02	3.60660269E-04
68	2.75402400E-02	2.71795797E-02	3.60660269E-04
69	2.75402400E-02	2.71795797E-02	3.60660269E-04
70	2.89525600E-02	2.90802484E-02	-1.27688404E-04
71	2.96587200E-02	2.90802484E-02	5.78471596E-04
72	2.89525600E-02	2.90802484E-02	-1.27688404E-04
73	3.10710400E-02	3.12343396E-02	-1.63299566E-04
74	3.10710400E-02	3.12343396E-02	-1.63299566E-04
75	3.10710400E-02	3.12343396E-02	-1.63299566E-04
76	3.46018400E-02	3.47822544E-02	-1.80414422E-04
77	3.46018400E-02	3.47822544E-02	-1.80414422E-04
78	3.46018400E-02	3.47822544E-02	-1.80414422E-04

COEFFICIENTS :

1	6.33733333E-05	3.27404174E-05
2	2.41993135E-03	3.72132610E-06

STANDARD DEVIATION = 2.89155538E-04 CHI**2 = 6.04295461E-04

T	TAUNM	OMEGRS
1.11620E+03	-3.38957E-02	-1.41376E+01
1.11620E+03	-3.38957E-02	-1.41376E+01
1.11620E+03	-3.38957E-02	-1.41376E+01
1.11620E+03	-3.17772E-02	-1.30904E+01
1.11620E+03	-3.17772E-02	-1.30904E+01
1.11620E+03	-3.17772E-02	-1.30904E+01
1.11620E+03	-2.89526E-02	-1.19908E+01
1.11620E+03	-2.89526E-02	-1.19908E+01
1.11620E+03	-2.89526E-02	-1.19908E+01
1.11620E+03	-2.68341E-02	-1.10483E+01
1.11620E+03	-2.61279E-02	-1.10483E+01
1.11620E+03	-2.68341E-02	-1.10483E+01
1.11620E+03	-2.40094E-02	-1.01058E+01
1.11620E+03	-2.47156E-02	-1.01058E+01
1.11620E+03	-2.40094E-02	-1.01058E+01
1.11620E+03	-2.18910E-02	-8.95382E+00
1.11620E+03	-2.11848E-02	-8.95382E+00
1.11620E+03	-2.18910E-02	-8.95382E+00
1.11620E+03	-1.90663E-02	-7.85423E+00

1.11620E+03	-1.90663E-02	-7.85423E+00
1.11620E+03	-1.90663E-02	-7.85423E+00
1.11620E+03	-1.69478E-02	-7.01644E+00
1.11620E+03	-1.69478E-02	-7.01644E+00
1.11620E+03	-1.69478E-02	-7.01644E+00
1.11620E+03	-1.41232E-02	-5.81213E+00
1.11620E+03	-1.41232E-02	-5.81213E+00
1.11620E+03	-1.41232E-02	-5.81213E+00
1.11620E+03	-1.05924E-02	-4.45073E+00
1.11620E+03	-1.12986E-02	-4.45073E+00
1.11620E+03	-1.05924E-02	-4.45073E+00
1.11620E+03	-8.47392E-03	-3.66531E+00
1.11620E+03	-9.18008E-03	-3.66531E+00
1.11620E+03	-8.47392E-03	-3.66531E+00
1.11650E+03	-5.64928E-03	-2.40863E+00
1.11650E+03	-5.64928E-03	-2.40863E+00
1.11650E+03	-6.35544E-03	-2.40863E+00
1.11620E+03	-4.23696E-03	-1.83265E+00
1.11620E+03	-4.23696E-03	-1.83265E+00
1.11620E+03	-4.94312E-03	-1.83265E+00
1.11620E+03	4.94312E-03	1.83265E+00
1.11620E+03	4.23696E-03	1.83265E+00
1.11620E+03	4.94312E-03	1.83265E+00
1.11620E+03	5.64928E-03	2.46099E+00
1.11620E+03	6.35544E-03	2.46099E+00
1.11620E+03	5.64928E-03	2.46099E+00
1.11620E+03	9.18008E-03	3.66531E+00
1.11620E+03	8.47392E-03	3.66531E+00
1.11620E+03	9.18008E-03	3.66531E+00
1.11620E+03	1.20047E-02	4.86962E+00
1.11620E+03	1.12986E-02	4.86962E+00
1.11620E+03	1.20047E-02	4.86962E+00
1.11620E+03	1.41232E-02	5.75977E+00
1.11620E+03	1.41232E-02	5.75977E+00
1.11620E+03	1.41232E-02	5.75977E+00
1.11620E+03	1.55355E-02	6.49283E+00
1.11620E+03	1.62417E-02	6.49283E+00
1.11620E+03	1.55355E-02	6.49283E+00
1.11620E+03	1.90663E-02	7.74950E+00
1.11620E+03	1.90663E-02	7.74950E+00
1.11620E+03	1.90663E-02	7.74950E+00
1.11620E+03	2.18910E-02	9.11090E+00
1.11620E+03	2.18910E-02	9.11090E+00
1.11620E+03	2.18910E-02	9.11090E+00
1.11620E+03	2.40094E-02	1.00010E+01
1.11620E+03	2.47156E-02	1.00010E+01
1.11620E+03	2.40094E-02	1.00010E+01
1.11620E+03	2.75402E-02	1.12054E+01
1.11620E+03	2.75402E-02	1.12054E+01
1.11620E+03	2.75402E-02	1.12054E+01
1.11620E+03	2.89526E-02	1.19908E+01
1.11620E+03	2.96587E-02	1.19908E+01
1.11620E+03	2.89526E-02	1.19908E+01
1.11620E+03	3.10710E-02	1.28809E+01
1.11620E+03	3.10710E-02	1.28809E+01

1.11620E+03	3.10710E-02	1.28809E+01
1.11620E+03	3.46018E-02	1.43471E+01
1.11620E+03	3.46018E-02	1.43471E+01
1.11620E+03	3.46018E-02	1.43471E+01

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APPENDIX D

DETERMINATION OF LINEAR THERMAL EXPANSION EFFECTS ON THE TORQUE TUBE ASSEMBLY AND CALCULATION OF ℓ , THE IMMERSION DEPTH OF THE BOB

The formula relating torque τ , viscosity η , rotational speed ω , and instrument constant K is

$$\tau = \eta\omega K \quad (D-1)$$

$$K = 4\pi \left[\frac{\ell}{\left(\frac{1}{r_1^2} - \frac{1}{r_2^2}\right)} + \frac{\frac{1}{2}}{\left(\frac{1}{r_1^3} + \frac{1}{r_2^3}\right)} \right] \quad (D-2)$$

It is derived for the case where r_1 and r_2 are the radii for concentric hemispheres on the bob and cup, respectively, and where ℓ is the distance from the center of the hemispheres to the top surface of the fluid. However, if the bob assembly is adjusted to make the hemispheres concentric at room temperature, they will not remain so at high temperatures because of thermal expansion of the Al_2O_3 torque tubes and the bob and cup. Instead, the bob and cup will be displaced by a distance $\Delta\ell$ as shown in Fig. D-1. Also the total volume of fluid V will increase with increasing temperature t so that

$$V = V_0 \exp[\alpha(t - t_0)] = m/\rho_0 \exp[\alpha(t - t_0)] \quad (D-3)$$

assuming a constant value for the thermal expansion coefficient α and a density of ρ_0 at t_0 . The mass of the fluid is m . In terms of the geometric parameters for the bob and cup assembly,

$$V = V_2 - V_1 = \pi r_2^2 \ell_2 + \frac{2}{3}\pi r_2^3 - \left[\pi r_1^2 \ell + \frac{2}{3}\pi r_1^3 \right] \quad (D-4)$$

and

$$\ell_2 = \ell - \Delta\ell \quad (D-5)$$

Substituting (D-5) and (D-3) in (D-4) and solving for ℓ , we obtain

$$\ell = \frac{\left(\frac{m}{\rho_0}\right) \exp[\alpha(t - t_0)] + \pi r_2^2 \Delta\ell - \left(\frac{2}{3}\right)\pi(r_2^3 - r_1^3)}{\pi(r_2^2 - r_1^2)} \quad (D-6)$$

FIG. D-1. Sample assembly, with bob and cup translated vertically with respect to each other because of thermal expansion.

We used the following procedure to determine the displacement Δl of the bob and cup as a function of temperature (relevant data are reported in Table D-1):

1. The viscometer was reassembled with the NBS 717 sample still in the cup and on the outer surface of the bob.
2. At room temperature, the bob was positioned with the tip approximately level with the rim of the cup.
3. The furnace was heated to about 1490°C, and the bob was lowered until it was almost in contact with the bottom of the cup.
4. Temperature was increased to about 1606°C and was stabilized there.
5. The bob was lowered into contact with the bottom of the cup by rotating the z-micrometer screw; the z-micrometer reading at contact was then recorded, and the bob was raised 1 cm.
6. The temperature was reduced about 200°C and step 5 was repeated.
7. Steps 5 and 6 were repeated down to 1198°C. At this temperature the bob was lowered into contact as in step 5, but it was not raised after the micrometer reading was recorded. Instead, it was left in contact with the cup and the z-micrometer setting was increased by about 3 mm to leave some clearance between the upper end of the micrometer spindle and the supporting framework of the bob.

TABLE D-1. Δl as a function of temperature for alumina torque tube and Pt-Rh sample holder assembly.

Temperature, °C	Z_t , cm	Δl , cm ^a
25.0	1.0400	0.0000
686.5	0.6610	0.3790
906.0	0.5614	0.4786
1011.9	0.5066	0.5334
1079.5	0.4719	0.5681
1198.4	0.4104	0.6296
1310.2	0.3484	0.6916
1406.3	0.3016	0.7384
1505.5	0.2342	0.8058
1606.1	0.1650	0.8750

^a $\Delta l = Z_{25^\circ\text{C}} - Z_t$, where Z = z-micrometer reading.

8. Temperature was lowered with the bob left in contact with the cup. At several temperatures the z-micrometer readings were made as in step 7, with the final reading at room temperature.
9. A least-squares analysis was done on Δl as a function of temperature where

$$\Delta l = A_0 + A_1 t + A_2 t^2 + A_3 t^3 \quad (D-7)$$

The result was

$$A_0 = -1.8036 \times 10^{-2}$$

$$A_1 = 7.2997 \times 10^{-4}$$

$$A_2 = -3.0910 \times 10^{-7}$$

$$A_3 = 1.2471 \times 10^{-10}$$

$$\sigma = 2.73 \times 10^{-3} \text{ (the standard deviation in } \Delta l \text{).}$$

When numerical values of

$$r_1 = 1.00$$

$$r_2 = 0.403$$

$$\alpha = 1.59 \times 10^{-5}$$

$$t_0 = 25.0^\circ \text{C}$$

are substituted into Eqs. (D-2) and (D-6), we obtain

$$l = 0.38003 \left(\frac{m}{\rho_0} \right) \exp[1.59 \times 10^{-5}(t - 25.0)] + 1.1939 \Delta l - 0.7438 \quad (D-8)$$

$$K = (2.4366l + 0.44004) \times 10^{-6} \text{ (m}^3\text{)} \quad (D-9)$$

The value of α used in the above calculations is taken as three times the linear expansion coefficient for NBS 717 glass up to approximately 400°C . Because no data exist at higher temperature, we assume that this value applies at all temperatures and melts examined. Viscosities were calculated from Eqs. (D-8), (D-9), and (D-1); $(d\tau/d\omega)$ was obtained from least-squares analysis of τ as a function of ω (see Appendix III for further details).

APPENDIX E

RESULTS FOR Ue20 μ (330') [UØ]

LIST OF SYMBOLS

- TAUNM observed torque, τ (N·m).
- TAUNM (CALC) calculated torque, τ (N·m).
- OMEGRS angular rotation (rad/s).

At each investigated isotherm, torque was recorded both for clockwise angular rotations (positive values) and for counterclockwise angular rotations (negative values). Least-squares analyses of torque (τ) as a function of angular rotation (ω) were then made assuming the following functional relationship:

$$\tau = A_2\omega + A_1$$

The coefficients A_1 and A_2 are tabulated for each isotherm.

All temperatures are uncorrected but can be correlated with corrected values in Table 3 in the text.

Ue20 μ (330')

T = 1693.3°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -5.15496800E-02	-5.35619789E-02	2.01229890E-03
2 -5.29620000E-02	-5.35619789E-02	5.99978899E-04
3 -5.43743200E-02	-5.35619789E-02	-8.12341101E-04
4 -4.80188800E-02	-4.92442275E-02	1.22534754E-03
5 -4.87250400E-02	-4.92442275E-02	5.19187538E-04
6 -5.01373600E-02	-4.92442275E-02	-8.93132462E-04
7 -4.30757600E-02	-4.53189990E-02	2.24323903E-03
8 -4.44880800E-02	-4.53189990E-02	8.30919029E-04
9 -4.66065600E-02	-4.53189990E-02	-1.28756097E-03
10 -4.02511200E-02	-4.17862934E-02	1.53517337E-03
11 -4.16634400E-02	-4.17862934E-02	1.22853371E-04
12 -4.30757600E-02	-4.17862934E-02	-1.28946663E-03
13 -3.60141600E-02	-3.74685420E-02	1.45438201E-03
14 -3.74264800E-02	-3.74685420E-02	4.20620106E-05
15 -3.88388000E-02	-3.74685420E-02	-1.37025799E-03
16 -3.24833600E-02	-3.35433135E-02	1.05995350E-03
17 -3.31895200E-02	-3.35433135E-02	3.53793501E-04
18 -3.46018400E-02	-3.35433135E-02	-1.05852650E-03
19 -2.82464000E-02	-2.96180850E-02	1.37168499E-03
20 -3.03648800E-02	-2.96180850E-02	-7.46795008E-04
21 -3.10710400E-02	-2.96180850E-02	-1.45295501E-03
22 -2.47156000E-02	-2.60853793E-02	1.36977933E-03
23 -2.68340800E-02	-2.60853793E-02	-7.48700666E-04
24 -2.75402400E-02	-2.60853793E-02	-1.45486067E-03
25 -2.04786400E-02	-2.13751051E-02	8.96465123E-04
26 -2.18909600E-02	-2.13751051E-02	-5.15854877E-04
27 -2.25971200E-02	-2.13751051E-02	-1.22201488E-03
28 -1.76540000E-02	-1.78423995E-02	1.88399464E-04
29 -1.83601600E-02	-1.78423995E-02	-5.17760536E-04
30 -1.90663200E-02	-1.78423995E-02	-1.22392054E-03
31 -9.18008000E-03	-9.99194245E-03	8.11862446E-04
32 -1.05924000E-02	-9.99194245E-03	-6.00457554E-04
33 -1.12985600E-02	-9.99194245E-03	-1.30661755E-03
34 -9.18008000E-03	-9.59941959E-03	4.19339595E-04
35 -1.05924000E-02	-9.59941959E-03	-9.92980405E-04
36 -1.12985600E-02	-9.59941959E-03	-1.69914041E-03
37 -5.64928000E-03	-6.06671394E-03	4.17433936E-04
38 -6.35544000E-03	-6.06671394E-03	-2.88726064E-04
39 -7.76776000E-03	-6.06671394E-03	-1.70104606E-03
40 .0E+00	-1.78871173E-04	1.78871173E-04
41 7.76776000E-03	6.10149444E-03	1.66626556E-03
42 5.64928000E-03	6.10149444E-03	-4.52214442E-04
43 4.94312000E-03	6.10149444E-03	-1.15837444E-03
44 8.47392000E-03	9.63420010E-03	-1.16028010E-03
45 9.18008000E-03	9.63420010E-03	-4.54120101E-04
46 1.12985600E-02	9.63420010E-03	1.66435990E-03
47 1.27108800E-02	1.39519515E-02	-1.24107146E-03
48 1.48293600E-02	1.39519515E-02	8.77408539E-04
49 1.55355200E-02	1.39519515E-02	1.58356854E-03
50 1.62416800E-02	1.74846571E-02	-1.24297712E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.76540000E-02	1.74846571E-02	1.69342881E-04
52	1.90663200E-02	1.74846571E-02	1.58166288E-03
53	2.04786400E-02	2.14098856E-02	-9.31245628E-04
54	2.18909600E-02	2.14098856E-02	4.81074372E-04
55	2.33032800E-02	2.14098856E-02	1.89339437E-03
56	2.40094400E-02	2.53351141E-02	-1.32567414E-03
57	2.25971200E-02	2.53351141E-02	-2.73799414E-03
58	2.75402400E-02	2.53351141E-02	2.20512586E-03
59	2.75402400E-02	2.92603426E-02	-1.72010265E-03
60	2.89525600E-02	2.92603426E-02	-3.07782647E-04
61	3.03648800E-02	2.92603426E-02	1.10453735E-03
62	3.17772000E-02	3.31855712E-02	-1.40837116E-03
63	3.38956800E-02	3.31855712E-02	7.10108844E-04
64	3.53080000E-02	3.31855712E-02	2.12242884E-03
65	3.53080000E-02	3.71107997E-02	-1.80279967E-03
66	3.74264800E-02	3.71107997E-02	3.15680335E-04
67	3.81326400E-02	3.71107997E-02	1.02184033E-03
68	4.02511200E-02	4.14285510E-02	-1.17743103E-03
69	4.16634400E-02	4.14285510E-02	2.34888974E-04
70	4.30757600E-02	4.14285510E-02	1.64720897E-03
71	4.30757600E-02	4.49612567E-02	-1.88549668E-03
72	4.44880800E-02	4.49612567E-02	-4.73176684E-04
73	4.66065600E-02	4.49612567E-02	1.64530332E-03
74	4.73127200E-02	4.88864852E-02	-1.57376519E-03
75	4.94312000E-02	4.88864852E-02	5.44714807E-04
76	5.08435200E-02	4.88864852E-02	1.95703481E-03
77	5.08435200E-02	5.28117137E-02	-1.96819370E-03
78	5.36681600E-02	5.28117137E-02	8.56446297E-04
79	5.50804800E-02	5.28117137E-02	2.26876630E-03

COEFFICIENTS :

1	-1.78871173E-04	1.44039437E-04
2	3.74820070E-03	1.65075549E-05

STANDARD DEVIATION = 1.28023138E-03 CHI**2 = 6.07649746E-03

T	TAUNM	OMEGRS
1.69330E+03	-5.15497E-02	-1.42423E+01
1.69330E+03	-5.29620E-02	-1.42423E+01
1.69330E+03	-5.43743E-02	-1.42423E+01
1.69330E+03	-4.80189E-02	-1.30904E+01
1.69330E+03	-4.87250E-02	-1.30904E+01
1.69330E+03	-5.01374E-02	-1.30904E+01
1.69330E+03	-4.30758E-02	-1.20431E+01
1.69330E+03	-4.44881E-02	-1.20431E+01
1.69330E+03	-4.66066E-02	-1.20431E+01
1.69330E+03	-4.02511E-02	-1.11006E+01
1.69330E+03	-4.16634E-02	-1.11006E+01
1.69330E+03	-4.30758E-02	-1.11006E+01
1.69330E+03	-3.60142E-02	-9.94869E+00
1.69330E+03	-3.74265E-02	-9.94869E+00
1.69330E+03	-3.88388E-02	-9.94869E+00
1.69330E+03	-3.24834E-02	-8.90146E+00
1.69330E+03	-3.31895E-02	-8.90146E+00
1.69330E+03	-3.46018E-02	-8.90146E+00
1.69330E+03	-2.82464E-02	-7.85423E+00

1.69330E+03	-3.03649E-02	-7.85423E+00
1.69330E+03	-3.10710E-02	-7.85423E+00
1.69330E+03	-2.47156E-02	-6.91172E+00
1.69330E+03	-2.68341E-02	-6.91172E+00
1.69330E+03	-2.75402E-02	-6.91172E+00
1.69330E+03	-2.04786E-02	-5.65504E+00
1.69330E+03	-2.18910E-02	-5.65504E+00
1.69330E+03	-2.25971E-02	-5.65504E+00
1.69330E+03	-1.76540E-02	-4.71254E+00
1.69330E+03	-1.83602E-02	-4.71254E+00
1.69330E+03	-1.90663E-02	-4.71254E+00
1.69330E+03	-9.18008E-03	-2.61808E+00
1.69330E+03	-1.05924E-02	-2.61808E+00
1.69330E+03	-1.12986E-02	-2.61808E+00
1.69330E+03	-9.18008E-03	-2.51335E+00
1.69330E+03	-1.05924E-02	-2.51335E+00
1.69330E+03	-1.12986E-02	-2.51335E+00
1.69330E+03	-5.64928E-03	-1.57085E+00
1.69330E+03	-6.35544E-03	-1.57085E+00
1.69330E+03	-7.76776E-03	-1.57085E+00
1.69330E+03	.0E+00	.0E+00
1.69330E+03	7.76776E-03	1.67557E+00
1.69330E+03	5.64928E-03	1.67557E+00
1.69330E+03	4.94312E-03	1.67557E+00
1.69330E+03	8.47392E-03	2.61808E+00
1.69330E+03	9.18008E-03	2.61808E+00
1.69330E+03	1.12986E-02	2.61808E+00
1.69330E+03	1.27109E-02	3.77003E+00
1.69330E+03	1.48294E-02	3.77003E+00
1.69330E+03	1.55355E-02	3.77003E+00
1.69330E+03	1.62417E-02	4.71254E+00
1.69330E+03	1.76540E-02	4.71254E+00
1.69330E+03	1.90663E-02	4.71254E+00
1.69330E+03	2.04786E-02	5.75977E+00
1.69330E+03	2.18910E-02	5.75977E+00
1.69330E+03	2.33033E-02	5.75977E+00
1.69330E+03	2.40094E-02	6.80700E+00
1.69330E+03	2.25971E-02	6.80700E+00
1.69330E+03	2.75402E-02	6.80700E+00
1.69330E+03	2.75402E-02	7.85423E+00
1.69330E+03	2.89526E-02	7.85423E+00
1.69330E+03	3.03649E-02	7.85423E+00
1.69330E+03	3.17772E-02	8.90146E+00
1.69330E+03	3.38957E-02	8.90146E+00
1.69330E+03	3.53080E-02	8.90146E+00
1.69330E+03	3.53080E-02	9.94869E+00
1.69330E+03	3.74265E-02	9.94869E+00
1.69330E+03	3.81326E-02	9.94869E+00
1.69330E+03	4.02511E-02	1.11006E+01
1.69330E+03	4.16634E-02	1.11006E+01
1.69330E+03	4.30758E-02	1.11006E+01
1.69330E+03	4.30758E-02	1.20431E+01
1.69330E+03	4.44881E-02	1.20431E+01
1.69330E+03	4.66066E-02	1.20431E+01
1.69330E+03	4.73127E-02	1.30904E+01
1.69330E+03	4.94312E-02	1.30904E+01

1.69330E+03	5.08435E-02	1.30904E+01
1.69330E+03	5.08435E-02	1.41376E+01
1.69330E+03	5.36682E-02	1.41376E+01
1.69330E+03	5.50805E-02	1.41376E+01

UBCOMP - 1693.3C RUN -- SEE NOTEBOOK FOR DETAILS

02 OCT 78
07:40:01

Ue20 μ (330')

T = 1675.8°C

TAUNM	TAUNM (CALC)	RESI DUALS
1 -6.21420800E-02	-5.97792467E-02	-2.36283332E-03
2 -5.86112800E-02	-5.97792467E-02	1.16796668E-03
3 -6.07297600E-02	-5.97792467E-02	-9.50513319E-04
4 -5.22558400E-02	-5.40868479E-02	1.83100794E-03
5 -5.36681600E-02	-5.40868479E-02	4.18687939E-04
6 -5.29620000E-02	-5.40868479E-02	1.12484794E-03
7 -5.57866400E-02	-5.05838333E-02	-5.20280667E-03
8 -5.08435200E-02	-5.05838333E-02	-2.59686672E-04
9 -5.36681600E-02	-5.05838333E-02	-3.08432667E-03
10 -4.66065600E-02	-4.66429419E-02	3.63818903E-05
11 -4.23696000E-02	-4.66429419E-02	4.27334189E-03
12 -4.44880800E-02	-4.66429419E-02	2.15486189E-03
13 -4.59004000E-02	-4.20452352E-02	-3.85516479E-03
14 -4.37819200E-02	-4.20452352E-02	-1.73668479E-03
15 -4.09572800E-02	-4.20452352E-02	1.08795521E-03
16 -3.81326400E-02	-3.74475285E-02	-6.85111463E-04
17 -3.46018400E-02	-3.74475285E-02	2.84568854E-03
18 -3.53080000E-02	-3.74475285E-02	2.13952854E-03
19 -3.60141600E-02	-3.30687603E-02	-2.94539973E-03
20 -3.24833600E-02	-3.30687603E-02	5.85400273E-04
21 -3.38956800E-02	-3.30687603E-02	-8.26919727E-04
22 -2.68340800E-02	-2.86899920E-02	1.85591201E-03
23 -3.03648800E-02	-2.86899920E-02	-1.67488799E-03
24 -2.89525600E-02	-2.86899920E-02	-2.62567991E-04
25 -2.82464000E-02	-2.47491006E-02	-3.49729943E-03
26 -2.47156000E-02	-2.47491006E-02	3.35005721E-05
27 -2.54217600E-02	-2.47491006E-02	-6.72659428E-04
28 -2.33032800E-02	-2.03703323E-02	-2.93294769E-03
29 -1.97724800E-02	-2.03703323E-02	5.97852308E-04
30 -2.18909600E-02	-2.03703323E-02	-1.52062769E-03
31 -1.97724800E-02	-1.57726256E-02	-3.99985437E-03
32 -1.48293600E-02	-1.57726256E-02	9.43265632E-04
33 -1.62416800E-02	-1.57726256E-02	-4.69054368E-04
34 -1.12985600E-02	-1.16127958E-02	3.14235781E-04
35 -1.55355200E-02	-1.16127958E-02	-3.92272422E-03
36 -1.34170400E-02	-1.16127958E-02	-1.80424422E-03
37 -6.35544000E-03	-7.67190434E-03	1.31646434E-03
38 -1.27108800E-02	-7.67190434E-03	-5.03897566E-03
39 -9.88624000E-03	-7.67190434E-03	-2.21433566E-03
40 -7.06160000E-04	-4.46936709E-04	-2.59223291E-04
41 1.34170400E-02	6.12121569E-03	7.29582431E-03
42 1.12985600E-02	6.12121569E-03	5.17734431E-03
43 6.35544000E-03	6.12121569E-03	2.34224313E-04
44 1.55355200E-02	1.07189224E-02	4.81659764E-03
45 1.05924000E-02	1.07189224E-02	-1.26522363E-04
46 1.27108800E-02	1.07189224E-02	1.99195764E-03
47 2.11848000E-02	1.50976906E-02	6.08710937E-03
48 1.48293600E-02	1.50976906E-02	-2.68330627E-04
49 1.83601600E-02	1.50976906E-02	3.26246937E-03
50 2.33032800E-02	1.92575205E-02	4.04575952E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.76540000E-02	1.92575205E-02	-1.60352048E-03
52	2.11848000E-02	1.92575205E-02	1.92727952E-03
53	3.10710400E-02	2.38552272E-02	7.21581285E-03
54	2.54217600E-02	2.38552272E-02	1.56653285E-03
55	2.96587200E-02	2.38552272E-02	5.80349285E-03
56	3.17772000E-02	2.82339954E-02	3.54320458E-03
57	2.54217600E-02	2.82339954E-02	-2.81223542E-03
58	2.89525600E-02	2.82339954E-02	7.18564582E-04
59	3.88388000E-02	3.23938253E-02	6.44497473E-03
60	3.24833600E-02	3.23938253E-02	8.95347315E-05
61	3.60141600E-02	3.23938253E-02	3.62033473E-03
62	3.88388000E-02	3.69915319E-02	1.84726805E-03
63	3.31895200E-02	3.69915319E-02	-3.80201195E-03
64	3.53080000E-02	3.69915319E-02	-1.68353195E-03
65	4.51942400E-02	4.09324234E-02	4.26181662E-03
66	3.88388000E-02	4.09324234E-02	-2.09362338E-03
67	4.16634400E-02	4.09324234E-02	7.31016617E-04
68	4.51942400E-02	4.50922532E-02	1.01986767E-04
69	4.02511200E-02	4.50922532E-02	-4.84113323E-03
70	4.30757600E-02	4.50922532E-02	-2.01649323E-03
71	4.51942400E-02	4.96899599E-02	-4.49571991E-03
72	4.80188800E-02	4.96899599E-02	-1.67107991E-03
73	5.22558400E-02	4.96899599E-02	2.56588009E-03
74	5.29620000E-02	5.34119129E-02	-4.49912934E-04
75	5.01373600E-02	5.34119129E-02	-3.27455293E-03
76	4.59004000E-02	5.34119129E-02	-7.51151293E-03
77	5.93174400E-02	5.91043117E-02	2.13128323E-04
78	5.15496800E-02	5.91043117E-02	-7.55463168E-03
79	5.71989600E-02	5.91043117E-02	-1.90535168E-03
COEFFICIENTS :			
1	-4.46936709E-04	3.56430681E-04	
2	4.18128581E-03	4.09707931E-05	
STANDARD DEVIATION =		3.16802519E-03	CHI**2 = 4.15486854E-02

T	TAUNM	OMEGRS
1.67580E+03	-6.21421E-02	-1.41900E+01
1.67580E+03	-5.86113E-02	-1.41900E+01
1.67580E+03	-6.07298E-02	-1.41900E+01
1.67580E+03	-5.22558E-02	-1.28286E+01
1.67580E+03	-5.36682E-02	-1.28286E+01
1.67580E+03	-5.29620E-02	-1.28286E+01
1.67580E+03	-5.57866E-02	-1.19908E+01
1.67580E+03	-5.08435E-02	-1.19908E+01
1.67580E+03	-5.36682E-02	-1.19908E+01
1.67580E+03	-4.66066E-02	-1.10483E+01
1.67580E+03	-4.23696E-02	-1.10483E+01
1.67580E+03	-4.44881E-02	-1.10483E+01
1.67580E+03	-4.59004E-02	-9.94869E+00
1.67580E+03	-4.37819E-02	-9.94869E+00
1.67580E+03	-4.09573E-02	-9.94869E+00
1.67580E+03	-3.81326E-02	-8.84909E+00
1.67580E+03	-3.46018E-02	-8.84909E+00
1.67580E+03	-3.53080E-02	-8.84909E+00
1.67580E+03	-3.60142E-02	-7.80186E+00
1.67580E+03	-3.24834E-02	-7.80186E+00

1.67580E+03	-3.38957E-02	-7.80186E+00
1.67580E+03	-2.68341E-02	-6.75463E+00
1.67580E+03	-3.03649E-02	-6.75463E+00
1.67580E+03	-2.89526E-02	-6.75463E+00
1.67580E+03	-2.82464E-02	-5.81213E+00
1.67580E+03	-2.47156E-02	-5.81213E+00
1.67580E+03	-2.54218E-02	-5.81213E+00
1.67580E+03	-2.33033E-02	-4.76490E+00
1.67580E+03	-1.97725E-02	-4.76490E+00
1.67580E+03	-2.18910E-02	-4.76490E+00
1.67580E+03	-1.97725E-02	-3.66531E+00
1.67580E+03	-1.48294E-02	-3.66531E+00
1.67580E+03	-1.62417E-02	-3.66531E+00
1.67580E+03	-1.12986E-02	-2.67044E+00
1.67580E+03	-1.55355E-02	-2.67044E+00
1.67580E+03	-1.34170E-02	-2.67044E+00
1.67580E+03	-6.35544E-03	-1.72793E+00
1.67580E+03	-1.27109E-02	-1.72793E+00
1.67580E+03	-9.88624E-03	-1.72793E+00
1.67580E+03	-7.06160E-04	.0E+00
1.67580E+03	1.34170E-02	1.57085E+00
1.67580E+03	1.12986E-02	1.57085E+00
1.67580E+03	6.35544E-03	1.57085E+00
1.67580E+03	1.55355E-02	2.67044E+00
1.67580E+03	1.05924E-02	2.67044E+00
1.67580E+03	1.27109E-02	2.67044E+00
1.67580E+03	2.11848E-02	3.71767E+00
1.67580E+03	1.48294E-02	3.71767E+00
1.67580E+03	1.83602E-02	3.71767E+00
1.67580E+03	2.33033E-02	4.71254E+00
1.67580E+03	1.76540E-02	4.71254E+00
1.67580E+03	2.11848E-02	4.71254E+00
1.67580E+03	3.10710E-02	5.81213E+00
1.67580E+03	2.54218E-02	5.81213E+00
1.67580E+03	2.96587E-02	5.81213E+00
1.67580E+03	3.17772E-02	6.85936E+00
1.67580E+03	2.54218E-02	6.85936E+00
1.67580E+03	2.89526E-02	6.85936E+00
1.67580E+03	3.88388E-02	7.85423E+00
1.67580E+03	3.24834E-02	7.85423E+00
1.67580E+03	3.60142E-02	7.85423E+00
1.67580E+03	3.88388E-02	8.95382E+00
1.67580E+03	3.31895E-02	8.95382E+00
1.67580E+03	3.53080E-02	8.95382E+00
1.67580E+03	4.51942E-02	9.89632E+00
1.67580E+03	3.88388E-02	9.89632E+00
1.67580E+03	4.16634E-02	9.89632E+00
1.67580E+03	4.51942E-02	1.08912E+01
1.67580E+03	4.02511E-02	1.08912E+01
1.67580E+03	4.30758E-02	1.08912E+01
1.67580E+03	4.51942E-02	1.19908E+01
1.67580E+03	4.80189E-02	1.19908E+01
1.67580E+03	5.22558E-02	1.19908E+01
1.67580E+03	5.29620E-02	1.28809E+01
1.67580E+03	5.01374E-02	1.28809E+01
1.67580E+03	4.59004E-02	1.28809E+01

1.67580E+03	5.93174E-02	1.42423E+01
1.67580E+03	5.15497E-02	1.42423E+01
1.67580E+03	5.71990E-02	1.42423E+01

USCOMP - 1675.8 °C RUN -- SEE NOTEBOOK FOR DETAILS

82 OCT 78
87.48.69

Ue20 μ (330')

T = 1635.7°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -1.09454800E-01	-1.09261031E-01	-1.93769472E-04
2 -1.04511680E-01	-1.09261031E-01	4.74935053E-03
3 -1.08042480E-01	-1.09261031E-01	1.21855053E-03
4 -1.01687040E-01	-9.83824932E-02	-3.30454676E-03
5 -9.46254400E-02	-9.83824932E-02	3.75705324E-03
6 -9.95685600E-02	-9.83824932E-02	-1.18606676E-03
7 -9.39192800E-02	-9.27417702E-02	-1.17750979E-03
8 -9.25069600E-02	-9.27417702E-02	2.34810209E-04
9 -9.18008000E-02	-9.27417702E-02	9.40970209E-04
10 -8.68576800E-02	-8.30719593E-02	-3.78572071E-03
11 -7.97960800E-02	-8.30719593E-02	3.27587929E-03
12 -8.54453600E-02	-8.30719593E-02	-2.37340071E-03
13 -7.62652800E-02	-7.29992396E-02	-3.26604041E-03
14 -7.76776000E-02	-7.29992396E-02	-4.67836041E-03
15 -7.06160000E-02	-7.29992396E-02	2.38323959E-03
16 -6.49667200E-02	-6.61497902E-02	1.18307018E-03
17 -7.06160000E-02	-6.61497902E-02	-4.46620982E-03
18 -6.84975200E-02	-6.61497902E-02	-2.34772982E-03
19 -6.21420800E-02	-5.72857968E-02	-4.85628316E-03
20 -5.50804800E-02	-5.72857968E-02	2.20531684E-03
21 -6.00236000E-02	-5.72857968E-02	-2.73780316E-03
22 -5.57866400E-02	-5.04363474E-02	-5.35029256E-03
23 -5.29620000E-02	-5.04363474E-02	-2.52565256E-03
24 -4.94312000E-02	-5.04363474E-02	1.00514744E-03
25 -4.80188800E-02	-4.19752629E-02	-6.04361711E-03
26 -4.23696000E-02	-4.19752629E-02	-3.94337110E-04
27 -4.59004000E-02	-4.19752629E-02	-3.92513711E-03
28 -4.37819200E-02	-3.63345399E-02	-7.44738015E-03
29 -3.60141600E-02	-3.63345399E-02	3.20379855E-04
30 -3.95449600E-02	-3.63345399E-02	-3.21042015E-03
31 -3.53080000E-02	-2.74705465E-02	-7.83745349E-03
32 -2.89525600E-02	-2.74705465E-02	-1.48201349E-03
33 -3.24833600E-02	-2.74705465E-02	-5.01281349E-03
34 -2.61279200E-02	-2.02181883E-02	-5.90973168E-03
35 -2.04786400E-02	-2.02181883E-02	-2.60451675E-04
36 -2.54217600E-02	-2.02181883E-02	-5.20357168E-03
37 -2.82464000E-02	-1.21600126E-02	-1.60863874E-02
38 -1.90663200E-02	-1.21600126E-02	-6.90630744E-03
39 -2.18909600E-02	-1.21600126E-02	-9.73094744E-03
40 -7.06160000E-04	1.94179503E-03	-2.64795503E-03
41 5.36681600E-02	1.16116059E-02	4.20565541E-02
42 5.79051200E-02	1.16116059E-02	4.62935141E-02
43 6.84975200E-02	1.16116059E-02	5.68859141E-02
44 2.68340800E-02	2.12814169E-02	5.55266314E-03
45 1.76540000E-02	2.12814169E-02	-3.62741686E-03
46 2.33032800E-02	2.12814169E-02	2.02186314E-03
47 3.81326400E-02	3.05483190E-02	7.58432101E-03
48 2.61279200E-02	3.05483190E-02	-4.42039899E-03
49 3.24833600E-02	3.05483190E-02	1.93504101E-03
50 4.23696000E-02	3.78006772E-02	4.56892282E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	3.67203200E-02	3.78006772E-02	-1.08035718E-03
52	3.24833600E-02	3.78006772E-02	-5.31731718E-03
53	4.02511200E-02	4.58588529E-02	-5.60773295E-03
54	4.73127200E-02	4.58588529E-02	1.45386705E-03
55	5.29620000E-02	4.58588529E-02	7.10314705E-03
56	5.64928000E-02	5.35141199E-02	2.97868008E-03
57	4.73127200E-02	5.35141199E-02	-6.20139992E-03
58	5.15496800E-02	5.35141199E-02	-1.96443992E-03
59	6.84975200E-02	6.15722957E-02	6.92522431E-03
60	6.07297600E-02	6.15722957E-02	-8.42535690E-04
61	5.50804800E-02	6.15722957E-02	-6.49181569E-03
62	7.55591200E-02	7.24508330E-02	3.10828703E-03
63	6.63790400E-02	7.24508330E-02	-6.07179297E-03
64	7.27344800E-02	7.24508330E-02	2.83647027E-04
65	7.62652800E-02	7.97031912E-02	-3.43791116E-03
66	8.33268800E-02	7.97031912E-02	3.62368884E-03
67	7.34406400E-02	7.97031912E-02	-6.26255116E-03
68	8.89761600E-02	8.69555493E-02	2.02061065E-03
69	8.26207200E-02	8.69555493E-02	-4.33482935E-03
70	8.61515200E-02	8.69555493E-02	-8.04029349E-04
71	9.74500800E-02	9.50137251E-02	2.43635489E-03
72	9.53316000E-02	9.50137251E-02	3.17874886E-04
73	8.61515200E-02	9.50137251E-02	-8.86220511E-03
74	1.02393200E-01	1.00654448E-01	1.73875185E-03
75	9.53316000E-02	1.00654448E-01	-5.32284815E-03
76	9.10946400E-02	1.00654448E-01	-9.55980815E-03
77	1.15104080E-01	1.13950438E-01	1.15364184E-03
78	1.07336320E-01	1.13950438E-01	-6.61411816E-03
79	1.03805520E-01	1.13950438E-01	-1.01449182E-02
COEFFICIENTS :			
1	1.94179503E-03	1.20453098E-03	
2	7.69475204E-03	1.37306941E-04	
STANDARD DEVIATION =		1.07059955E-02	CHI**2 = 6.80315015E-01

T	TAUNM	OMEGRS
1.63570E+03	-1.09455E-01	-1.44518E+01
1.63570E+03	-1.04512E-01	-1.44518E+01
1.63570E+03	-1.08042E-01	-1.44518E+01
1.63570E+03	-1.01687E-01	-1.30380E+01
1.63570E+03	-9.46254E-02	-1.30380E+01
1.63570E+03	-9.95686E-02	-1.30380E+01
1.63570E+03	-9.39193E-02	-1.23050E+01
1.63570E+03	-9.25070E-02	-1.23050E+01
1.63570E+03	-9.18008E-02	-1.23050E+01
1.63570E+03	-8.68577E-02	-1.10483E+01
1.63570E+03	-7.97961E-02	-1.10483E+01
1.63570E+03	-8.54454E-02	-1.10483E+01
1.63570E+03	-7.62653E-02	-9.73924E+00
1.63570E+03	-7.76776E-02	-9.73924E+00
1.63570E+03	-7.06160E-02	-9.73924E+00
1.63570E+03	-6.49667E-02	-8.84909E+00
1.63570E+03	-7.06160E-02	-8.84909E+00
1.63570E+03	-6.84975E-02	-8.84909E+00
1.63570E+03	-6.21421E-02	-7.69714E+00

1.63570E+03	-5.50805E-02	-7.69714E+00
1.63570E+03	-6.00236E-02	-7.69714E+00
1.63570E+03	-5.57866E-02	-6.80700E+00
1.63570E+03	-5.29620E-02	-6.80700E+00
1.63570E+03	-4.94312E-02	-6.80700E+00
1.63570E+03	-4.80189E-02	-5.70740E+00
1.63570E+03	-4.23696E-02	-5.70740E+00
1.63570E+03	-4.59004E-02	-5.70740E+00
1.63570E+03	-4.37819E-02	-4.97434E+00
1.63570E+03	-3.60142E-02	-4.97434E+00
1.63570E+03	-3.95450E-02	-4.97434E+00
1.63570E+03	-3.53080E-02	-3.82239E+00
1.63570E+03	-2.89526E-02	-3.82239E+00
1.63570E+03	-3.24834E-02	-3.82239E+00
1.63570E+03	-2.61279E-02	-2.87988E+00
1.63570E+03	-2.04786E-02	-2.87988E+00
1.63570E+03	-2.54218E-02	-2.87988E+00
1.63570E+03	-2.82464E-02	-1.83265E+00
1.63570E+03	-1.90663E-02	-1.83265E+00
1.63570E+03	-2.18910E-02	-1.83265E+00
1.63570E+03	-7.06160E-04	.0E+00
1.63570E+03	5.36682E-02	1.25668E+00
1.63570E+03	5.79051E-02	1.25668E+00
1.63570E+03	6.84975E-02	1.25668E+00
1.63570E+03	2.68341E-02	2.51335E+00
1.63570E+03	1.76540E-02	2.51335E+00
1.63570E+03	2.33033E-02	2.51335E+00
1.63570E+03	3.81326E-02	3.71767E+00
1.63570E+03	2.61279E-02	3.71767E+00
1.63570E+03	3.24834E-02	3.71767E+00
1.63570E+03	4.23696E-02	4.66017E+00
1.63570E+03	3.67203E-02	4.66017E+00
1.63570E+03	3.24834E-02	4.66017E+00
1.63570E+03	4.02511E-02	5.70740E+00
1.63570E+03	4.73127E-02	5.70740E+00
1.63570E+03	5.29620E-02	5.70740E+00
1.63570E+03	5.64928E-02	6.70227E+00
1.63570E+03	4.73127E-02	6.70227E+00
1.63570E+03	5.15497E-02	6.70227E+00
1.63570E+03	6.84975E-02	7.74950E+00
1.63570E+03	6.07298E-02	7.74950E+00
1.63570E+03	5.50805E-02	7.74950E+00
1.63570E+03	7.55591E-02	9.16326E+00
1.63570E+03	6.63790E-02	9.16326E+00
1.63570E+03	7.27345E-02	9.16326E+00
1.63570E+03	7.62653E-02	1.01058E+01
1.63570E+03	8.33269E-02	1.01058E+01
1.63570E+03	7.34406E-02	1.01058E+01
1.63570E+03	8.89762E-02	1.10483E+01
1.63570E+03	8.26207E-02	1.10483E+01
1.63570E+03	8.61515E-02	1.10483E+01
1.63570E+03	9.74501E-02	1.20955E+01
1.63570E+03	9.53316E-02	1.20955E+01
1.63570E+03	8.61515E-02	1.20955E+01
1.63570E+03	1.02393E-01	1.28286E+01

1.63570E+03	9.53316E-02	1.28286E+01
1.63570E+03	9.10946E-02	1.28286E+01
1.63570E+03	1.15104E-01	1.45565E+01
1.63570E+03	1.07336E-01	1.45565E+01
1.63570E+03	1.03806E-01	1.45565E+01

USCOMPH - 1635.7CRUN - SEE NOTEBOOK PAGE 287 FOR DETAILS

02 OCT 78
07:54:03

Ue20 μ (330')

T = 1598.0°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -1.73715360E-01	-1.77040088E-01	3.32472824E-03
2 -1.68066080E-01	-1.77040088E-01	8.97400824E-03
3 -1.70890720E-01	-1.77040088E-01	6.14936824E-03
4 -1.54649040E-01	-1.59025053E-01	4.37601344E-03
5 -1.58179840E-01	-1.59025053E-01	8.45213442E-04
6 -1.55355200E-01	-1.59025053E-01	3.66985344E-03
7 -1.44056640E-01	-1.49374142E-01	5.31750194E-03
8 -1.44762800E-01	-1.49374142E-01	4.61134194E-03
9 -1.43350480E-01	-1.49374142E-01	6.02366194E-03
10 -1.28521120E-01	-1.32645895E-01	4.12477534E-03
11 -1.33464240E-01	-1.32645895E-01	-8.18344656E-04
12 -1.31345760E-01	-1.32645895E-01	1.30013534E-03
13 -1.24990320E-01	-1.22994984E-01	-1.99533616E-03
14 -1.20047200E-01	-1.22994984E-01	2.94778384E-03
15 -1.18634880E-01	-1.22994984E-01	4.36010384E-03
16 -1.14397920E-01	-1.10770496E-01	-3.62742405E-03
17 -1.10867120E-01	-1.10770496E-01	-9.66240544E-05
18 -1.09454800E-01	-1.10770496E-01	1.31569595E-03
19 -1.03099360E-01	-9.79026139E-02	-5.19674605E-03
20 -1.05924000E-01	-9.79026139E-02	-8.02138605E-03
21 -1.00980880E-01	-9.79026139E-02	-3.07826605E-03
22 -8.54453600E-02	-8.63215201E-02	8.76160148E-04
23 -9.25069600E-02	-8.63215201E-02	-6.18543985E-03
24 -9.03884800E-02	-8.63215201E-02	-4.06695985E-03
25 -7.76776000E-02	-7.21668499E-02	-5.51075005E-03
26 -7.97960800E-02	-7.21668499E-02	-7.62923005E-03
27 -7.34406400E-02	-7.21668499E-02	-1.27379005E-03
28 -5.93174400E-02	-5.80121798E-02	-1.30526025E-03
29 -6.63790400E-02	-5.80121798E-02	-8.36686025E-03
30 -6.21420800E-02	-5.80121798E-02	-4.12990025E-03
31 -5.36681600E-02	-4.38575096E-02	-9.81065045E-03
32 -5.08435200E-02	-4.38575096E-02	-6.98601045E-03
33 -4.66065600E-02	-4.38575096E-02	-2.74905045E-03
34 -3.24833600E-02	-2.84160512E-02	-4.06730885E-03
35 -3.67203200E-02	-2.84160512E-02	-8.30426885E-03
36 -3.60141600E-02	-2.84160512E-02	-7.59810885E-03
37 -4.94312000E-02	-2.19821102E-02	-2.74490898E-02
38 -4.59004000E-02	-2.19821102E-02	-2.39182898E-02
39 -5.79051200E-02	-2.19821102E-02	-3.59230098E-02
40 -1.41232000E-03	5.36683345E-04	-1.94900334E-03
41 -4.23696000E-03	5.36683345E-04	-4.77364334E-03
42 5.86112800E-02	1.66215358E-02	4.19897442E-02
43 4.59004000E-02	1.66215358E-02	2.92788642E-02
44 5.15496800E-02	1.66215358E-02	3.49281442E-02
45 4.51942400E-02	3.39931765E-02	1.12010635E-02
46 4.09572800E-02	3.39931765E-02	6.96410346E-03
47 3.46018400E-02	3.39931765E-02	6.08663458E-04
48 5.64928000E-02	4.49308762E-02	1.15619238E-02
49 4.30757600E-02	4.49308762E-02	-1.85511624E-03
50 5.36681600E-02	4.49308762E-02	8.73728376E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	5.79051200E-02	5.90855464E-02	-1.18042644E-03
52	6.70852000E-02	5.90855464E-02	7.99965356E-03
53	5.86112800E-02	5.90855464E-02	-4.74266440E-04
54	7.13221600E-02	7.19534284E-02	-6.31268439E-04
55	7.62652800E-02	7.19534284E-02	4.31185156E-03
56	6.92036800E-02	7.19534284E-02	-2.74974844E-03
57	9.03884800E-02	8.48213104E-02	5.56716956E-03
58	8.96823200E-02	8.48213104E-02	4.86100956E-03
59	8.54453600E-02	8.48213104E-02	6.24049562E-04
60	9.53316000E-02	9.76891924E-02	-2.35759244E-03
61	1.03099360E-01	9.76891924E-02	5.41016756E-03
62	8.96823200E-02	9.76891924E-02	-8.00687244E-03
63	1.12985600E-01	1.07983498E-01	5.00210196E-03
64	1.07336320E-01	1.07983498E-01	-6.47178036E-04
65	1.08748640E-01	1.07983498E-01	7.65141964E-04
66	1.29227280E-01	1.27285321E-01	1.94195897E-03
67	1.31345760E-01	1.27285321E-01	4.06043897E-03
68	1.20047200E-01	1.27285321E-01	-7.23812103E-03
69	1.34170400E-01	1.38223021E-01	-4.05262073E-03
70	1.36995040E-01	1.38223021E-01	-1.22798073E-03
71	1.39819680E-01	1.38223021E-01	1.59665927E-03
72	1.49705920E-01	1.47230538E-01	2.47538187E-03
73	1.46175120E-01	1.47230538E-01	-1.05541813E-03
74	1.47587440E-01	1.47230538E-01	3.56901867E-04
75	1.53942880E-01	1.58168238E-01	-4.22535783E-03
76	1.55355200E-01	1.58168238E-01	-2.81303783E-03
77	1.57473680E-01	1.58168238E-01	-6.94557832E-04
78	1.78658480E-01	1.78756849E-01	-9.83690299E-05
79	1.75127680E-01	1.78756849E-01	-3.62916903E-03
80	1.68066080E-01	1.78756849E-01	-1.06907690E-02
COEFFICIENTS :			
1	5.36683345E-04	1.14894528E-03	
2	1.22875405E-02	1.31526562E-04	
STANDARD DEVIATION =		1.02764416E-02	CHI**2 = 4.29527811E-01

T	TAUNM	OMEGRS
1.59800E+03	-1.73715E-01	-1.44518E+01
1.59800E+03	-1.68066E-01	-1.44518E+01
1.59800E+03	-1.70891E-01	-1.44518E+01
1.59800E+03	-1.54649E-01	-1.29857E+01
1.59800E+03	-1.58180E-01	-1.29857E+01
1.59800E+03	-1.55355E-01	-1.29857E+01
1.59800E+03	-1.44057E-01	-1.22002E+01
1.59800E+03	-1.44763E-01	-1.22002E+01
1.59800E+03	-1.43350E-01	-1.22002E+01
1.59800E+03	-1.28521E-01	-1.08388E+01
1.59800E+03	-1.33464E-01	-1.08388E+01
1.59800E+03	-1.31346E-01	-1.08388E+01
1.59800E+03	-1.24990E-01	-1.00534E+01
1.59800E+03	-1.20047E-01	-1.00534E+01

1.59800E+03	-1.18635E-01	-1.00534E+01
1.59800E+03	-1.14398E-01	-9.05854E+00
1.59800E+03	-1.10867E-01	-9.05854E+00
1.59800E+03	-1.09455E-01	-9.05854E+00
1.59800E+03	-1.03099E-01	-8.01131E+00
1.59800E+03	-1.05924E-01	-8.01131E+00
1.59800E+03	-1.00981E-01	-8.01131E+00
1.59800E+03	-8.54454E-02	-7.06880E+00
1.59800E+03	-9.25070E-02	-7.06880E+00
1.59800E+03	-9.03885E-02	-7.06880E+00
1.59800E+03	-7.76776E-02	-5.91685E+00
1.59800E+03	-7.97961E-02	-5.91685E+00
1.59800E+03	-7.34406E-02	-5.91685E+00
1.59800E+03	-5.93174E-02	-4.76490E+00
1.59800E+03	-6.63790E-02	-4.76490E+00
1.59800E+03	-6.21421E-02	-4.76490E+00
1.59800E+03	-5.36682E-02	-3.61294E+00
1.59800E+03	-5.08435E-02	-3.61294E+00
1.59800E+03	-4.66066E-02	-3.61294E+00
1.59800E+03	-3.24834E-02	-2.35627E+00
1.59800E+03	-3.67203E-02	-2.35627E+00
1.59800E+03	-3.60142E-02	-2.35627E+00
1.59800E+03	-4.94312E-02	-1.83265E+00
1.59800E+03	-4.59004E-02	-1.83265E+00
1.59800E+03	-5.79051E-02	-1.83265E+00
1.59800E+03	-1.41232E-03	.0E+00
1.59800E+03	-4.23696E-03	.0E+00
1.59800E+03	5.86113E-02	1.30904E+00
1.59800E+03	4.59004E-02	1.30904E+00
1.59800E+03	5.15497E-02	1.30904E+00
1.59800E+03	4.51942E-02	2.72280E+00
1.59800E+03	4.09573E-02	2.72280E+00
1.59800E+03	3.46018E-02	2.72280E+00
1.59800E+03	5.64928E-02	3.61294E+00
1.59800E+03	4.30758E-02	3.61294E+00
1.59800E+03	5.36682E-02	3.61294E+00
1.59800E+03	5.79051E-02	4.76490E+00
1.59800E+03	6.70852E-02	4.76490E+00
1.59800E+03	5.86113E-02	4.76490E+00
1.59800E+03	7.13222E-02	5.81213E+00
1.59800E+03	7.62653E-02	5.81213E+00
1.59800E+03	6.92037E-02	5.81213E+00

1.59800E+03	9.03885E-02	6.85936E+00
1.59800E+03	8.96823E-02	6.85936E+00
1.59800E+03	8.54454E-02	6.85936E+00
1.59800E+03	9.53316E-02	7.90659E+00
1.59800E+03	1.03099E-01	7.90659E+00
1.59800E+03	8.96823E-02	7.90659E+00
1.59800E+03	1.12986E-01	8.74437E+00
1.59800E+03	1.07336E-01	8.74437E+00
1.59800E+03	1.08749E-01	8.74437E+00
1.59800E+03	1.29227E-01	1.03152E+01
1.59800E+03	1.31346E-01	1.03152E+01
1.59800E+03	1.20047E-01	1.03152E+01
1.59800E+03	1.34170E-01	1.12054E+01
1.59800E+03	1.36995E-01	1.12054E+01
1.59800E+03	1.39820E-01	1.12054E+01
1.59800E+03	1.49706E-01	1.19384E+01
1.59800E+03	1.46175E-01	1.19384E+01
1.59800E+03	1.47587E-01	1.19384E+01
1.59800E+03	1.53943E-01	1.28286E+01
1.59800E+03	1.55355E-01	1.28286E+01
1.59800E+03	1.57474E-01	1.28286E+01
1.59800E+03	1.78658E-01	1.45041E+01
1.59800E+03	1.75128E-01	1.45041E+01
1.59800E+03	1.68066E-01	1.45041E+01

UBCONPN - 1598.8C RUN - SEE NOTEBOOK PAGE 285

82 OCT 78
87:58:58

Ue20 μ (330')

T = 1575.3°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -1.80776960E-01	-1.92458236E-01	1.16812763E-02
2 -1.79364640E-01	-1.92458236E-01	1.30935963E-02
3 -1.78658480E-01	-1.92458236E-01	1.37997563E-02
4 -1.64535280E-01	-1.72703952E-01	8.16867174E-03
5 -1.63122960E-01	-1.72703952E-01	9.58099174E-03
6 -1.63829120E-01	-1.72703952E-01	8.87483174E-03
7 -1.75127680E-01	-1.58593748E-01	-1.65339316E-02
8 -1.73715360E-01	-1.58593748E-01	-1.51216116E-02
9 -1.63829120E-01	-1.58593748E-01	-5.23537155E-03
10 -1.43350480E-01	-1.47305586E-01	3.95510581E-03
11 -1.42644320E-01	-1.47305586E-01	4.66126581E-03
12 -1.41232000E-01	-1.47305586E-01	6.07358581E-03
13 -1.38407360E-01	-1.31078852E-01	-7.32850798E-03
14 -1.34170400E-01	-1.31078852E-01	-3.09154798E-03
15 -1.36288880E-01	-1.31078852E-01	-5.21002798E-03
16 -1.16516400E-01	-1.18379669E-01	1.86326906E-03
17 -1.15810240E-01	-1.18379669E-01	2.56942906E-03
18 -1.15104080E-01	-1.18379669E-01	3.27558906E-03
19 -1.08042480E-01	-1.01447425E-01	-6.59505489E-03
20 -1.09454800E-01	-1.01447425E-01	-8.00737489E-03
21 -1.04511680E-01	-1.01447425E-01	-3.06425489E-03
22 -8.82700000E-02	-8.87482421E-02	4.78242144E-04
23 -8.75638400E-02	-8.87482421E-02	1.18440214E-03
24 -8.82700000E-02	-8.87482421E-02	4.78242144E-04
25 -8.82700000E-02	-8.09876303E-02	-7.28236967E-03
26 -8.47392000E-02	-8.09876303E-02	-3.75156967E-03
27 -8.40330400E-02	-8.09876303E-02	-3.04540967E-03
28 -5.86112800E-02	-6.12333457E-02	2.62206572E-03
29 -6.07297600E-02	-6.12333457E-02	5.03585723E-04
30 -5.93174400E-02	-6.12333457E-02	1.91590572E-03
31 -4.94312000E-02	-4.57121221E-02	-3.71907790E-03
32 -5.29620000E-02	-4.57121221E-02	-7.24987790E-03
33 -5.15496800E-02	-4.57121221E-02	-5.83755790E-03
34 -3.10710400E-02	-3.01908985E-02	-8.80141522E-04
35 -3.24833600E-02	-3.01908985E-02	-2.29246152E-03
36 -2.96587200E-02	-3.01908985E-02	5.32178478E-04
37 -2.54217600E-02	-2.10192663E-02	-4.40249366E-03
38 -2.75402400E-02	-2.10192663E-02	-6.52097366E-03
39 -2.47156000E-02	-2.10192663E-02	-3.69633366E-03
40 .0E+00	2.96807926E-03	-2.96807926E-03
41 2.47156000E-02	2.62499147E-02	-1.53431469E-03
42 2.54217600E-02	2.62499147E-02	-8.28154694E-04
43 2.25971200E-02	2.62499147E-02	-3.65279469E-03
44 3.81326400E-02	4.10656282E-02	-2.93298815E-03
45 4.16634400E-02	4.10656282E-02	5.97811848E-04
46 4.23696000E-02	4.10656282E-02	1.30397185E-03
47 5.36681600E-02	5.37648111E-02	-9.66511160E-05
48 5.50804800E-02	5.37648111E-02	1.31566888E-03
49 5.22558400E-02	5.37648111E-02	-1.50897112E-03
50 6.92036800E-02	6.64639941E-02	2.73968592E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	6.70852000E-02	6.64639941E-02	6.21205920E-04
52	6.99098400E-02	6.64639941E-02	3.44584592E-03
53	8.40330400E-02	8.12797075E-02	2.75333246E-03
54	7.97960800E-02	8.12797075E-02	-1.48362754E-03
55	8.33268800E-02	8.12797075E-02	2.04717246E-03
56	9.81562400E-02	9.46844007E-02	3.47183933E-03
57	9.67439200E-02	9.46844007E-02	2.05951933E-03
58	9.46254400E-02	9.46844007E-02	-5.89606659E-05
59	1.15810240E-01	1.12322155E-01	3.48808522E-03
60	1.11573280E-01	1.12322155E-01	-7.48874782E-04
61	1.12985600E-01	1.12322155E-01	6.63445218E-04
62	1.28521120E-01	1.25726848E-01	2.79427209E-03
63	1.24990320E-01	1.25726848E-01	-7.36527911E-04
64	1.27814960E-01	1.25726848E-01	2.08811209E-03
65	1.46175120E-01	1.42659092E-01	3.51602814E-03
66	1.44056640E-01	1.42659092E-01	1.39754814E-03
67	1.41938160E-01	1.42659092E-01	-7.20931862E-04
68	1.51118240E-01	1.51125214E-01	-6.97383835E-06
69	1.53236720E-01	1.51125214E-01	2.11150616E-03
70	1.52530560E-01	1.51125214E-01	1.40534616E-03
71	1.66653760E-01	1.67351948E-01	-6.98187625E-04
72	1.67359920E-01	1.67351948E-01	7.97237458E-06
73	1.67359920E-01	1.67351948E-01	7.97237458E-06
74	1.81483120E-01	1.79345620E-01	2.13749958E-03
75	1.80776960E-01	1.79345620E-01	1.43133958E-03
76	1.78658480E-01	1.79345620E-01	-6.87140425E-04
77	1.94194000E-01	1.96983375E-01	-2.78937454E-03
78	1.98430960E-01	1.96983375E-01	1.44758546E-03
79	1.99137120E-01	1.96983375E-01	2.15374546E-03
COEFFICIENTS :			
1	2.96807926E-03	5.69439352E-04	
2	1.34738331E-02	6.45210164E-05	
STANDARD DEVIATION = 5.06125055E-03 CHI**2 = 2.20160580E-02			

	TAU	OMEG	T	TAUNM	OMEGRS
1	-2.56000E+01	-1.38500E+02	1.57530E+03	-1.80777E-01	-1.45041E+01
2	-2.54000E+01	-1.38500E+02	1.57530E+03	-1.79365E-01	-1.45041E+01
3	-2.53000E+01	-1.38500E+02	1.57530E+03	-1.78658E-01	-1.45041E+01
4	-2.33000E+01	-1.24500E+02	1.57530E+03	-1.64535E-01	-1.30380E+01
5	-2.31000E+01	-1.24500E+02	1.57530E+03	-1.63123E-01	-1.30380E+01
6	-2.32000E+01	-1.24500E+02	1.57530E+03	-1.63829E-01	-1.30380E+01
7	-2.48000E+01	-1.14500E+02	1.57530E+03	-1.75128E-01	-1.19908E+01
8	-2.46000E+01	-1.14500E+02	1.57530E+03	-1.73715E-01	-1.19908E+01
9	-2.32000E+01	-1.14500E+02	1.57530E+03	-1.63829E-01	-1.19908E+01
10	-2.03000E+01	-1.06500E+02	1.57530E+03	-1.43350E-01	-1.11530E+01
11	-2.02000E+01	-1.06500E+02	1.57530E+03	-1.42644E-01	-1.11530E+01
12	-2.00000E+01	-1.06500E+02	1.57530E+03	-1.41232E-01	-1.11530E+01
13	-1.96000E+01	-9.50000E+01	1.57530E+03	-1.38407E-01	-9.94869E+00
14	-1.90000E+01	-9.50000E+01	1.57530E+03	-1.34170E-01	-9.94869E+00
15	-1.93000E+01	-9.50000E+01	1.57530E+03	-1.36289E-01	-9.94869E+00
16	-1.65000E+01	-8.60000E+01	1.57530E+03	-1.16516E-01	-9.00618E+00
17	-1.64000E+01	-8.60000E+01	1.57530E+03	-1.15810E-01	-9.00618E+00
18	-1.63000E+01	-8.60000E+01	1.57530E+03	-1.15104E-01	-9.00618E+00
19	-1.53000E+01	-7.40000E+01	1.57530E+03	-1.08042E-01	-7.74950E+00
20	-1.55000E+01	-7.40000E+01	1.57530E+03	-1.09455E-01	-7.74950E+00

21	-1.48000E+01	-7.40000E+01	1.57530E+03	-1.04512E-01	-7.74950E+00
22	-1.25000E+01	-6.50000E+01	1.57530E+03	-8.82700E-02	-6.80700E+00
23	-1.24000E+01	-6.50000E+01	1.57530E+03	-8.75638E-02	-6.80700E+00
24	-1.25000E+01	-6.50000E+01	1.57530E+03	-8.82700E-02	-6.80700E+00
25	-1.25000E+01	-5.95000E+01	1.57530E+03	-8.82700E-02	-6.23102E+00
26	-1.20000E+01	-5.95000E+01	1.57530E+03	-8.47392E-02	-6.23102E+00
27	-1.19000E+01	-5.95000E+01	1.57530E+03	-8.40330E-02	-6.23102E+00
28	-8.30000E+00	-4.55000E+01	1.57530E+03	-5.86113E-02	-4.76490E+00
29	-8.60000E+00	-4.55000E+01	1.57530E+03	-6.07298E-02	-4.76490E+00
30	-8.40000E+00	-4.55000E+01	1.57530E+03	-5.93174E-02	-4.76490E+00
31	-7.00000E+00	-3.45000E+01	1.57530E+03	-4.94312E-02	-3.61294E+00
32	-7.50000E+00	-3.45000E+01	1.57530E+03	-5.29620E-02	-3.61294E+00
33	-7.30000E+00	-3.45000E+01	1.57530E+03	-5.15497E-02	-3.61294E+00
34	-4.40000E+00	-2.35000E+01	1.57530E+03	-3.10710E-02	-2.46099E+00
35	-4.60000E+00	-2.35000E+01	1.57530E+03	-3.24834E-02	-2.46099E+00
36	-4.20000E+00	-2.35000E+01	1.57530E+03	-2.96587E-02	-2.46099E+00
37	-3.60000E+00	-1.70000E+01	1.57530E+03	-2.54218E-02	-1.78029E+00
38	-3.90000E+00	-1.70000E+01	1.57530E+03	-2.75402E-02	-1.78029E+00
39	-3.50000E+00	-1.70000E+01	1.57530E+03	-2.47156E-02	-1.78029E+00
40	.0E+00	.0E+00	1.57530E+03	.0E+00	.0E+00
41	3.50000E+00	1.65000E+01	1.57530E+03	2.47156E-02	1.72793E+00
42	3.60000E+00	1.65000E+01	1.57530E+03	2.54218E-02	1.72793E+00
43	3.20000E+00	1.65000E+01	1.57530E+03	2.25971E-02	1.72793E+00
44	5.40000E+00	2.70000E+01	1.57530E+03	3.81326E-02	2.82752E+00
45	5.90000E+00	2.70000E+01	1.57530E+03	4.16634E-02	2.82752E+00
46	6.00000E+00	2.70000E+01	1.57530E+03	4.23696E-02	2.82752E+00
47	7.60000E+00	3.60000E+01	1.57530E+03	5.36682E-02	3.77003E+00
48	7.80000E+00	3.60000E+01	1.57530E+03	5.50805E-02	3.77003E+00
49	7.40000E+00	3.60000E+01	1.57530E+03	5.22558E-02	3.77003E+00
50	9.80000E+00	4.50000E+01	1.57530E+03	6.92037E-02	4.71254E+00
51	9.50000E+00	4.50000E+01	1.57530E+03	6.70852E-02	4.71254E+00
52	9.90000E+00	4.50000E+01	1.57530E+03	6.99098E-02	4.71254E+00
53	1.19000E+01	5.55000E+01	1.57530E+03	8.40330E-02	5.81213E+00
54	1.13000E+01	5.55000E+01	1.57530E+03	7.97961E-02	5.81213E+00
55	1.18000E+01	5.55000E+01	1.57530E+03	8.33269E-02	5.81213E+00
56	1.39000E+01	6.50000E+01	1.57530E+03	9.81562E-02	6.80700E+00
57	1.37000E+01	6.50000E+01	1.57530E+03	9.67439E-02	6.80700E+00
58	1.34000E+01	6.50000E+01	1.57530E+03	9.46254E-02	6.80700E+00
59	1.64000E+01	7.75000E+01	1.57530E+03	1.15810E-01	8.11603E+00
60	1.58000E+01	7.75000E+01	1.57530E+03	1.11573E-01	8.11603E+00
61	1.60000E+01	7.75000E+01	1.57530E+03	1.12986E-01	8.11603E+00
62	1.82000E+01	8.70000E+01	1.57530E+03	1.28521E-01	9.11090E+00
63	1.77000E+01	8.70000E+01	1.57530E+03	1.24990E-01	9.11090E+00
64	1.81000E+01	8.70000E+01	1.57530E+03	1.27815E-01	9.11090E+00
65	2.07000E+01	9.90000E+01	1.57530E+03	1.46175E-01	1.03676E+01
66	2.04000E+01	9.90000E+01	1.57530E+03	1.44057E-01	1.03676E+01
67	2.01000E+01	9.90000E+01	1.57530E+03	1.41938E-01	1.03676E+01
68	2.14000E+01	1.05000E+02	1.57530E+03	1.51118E-01	1.09959E+01
69	2.17000E+01	1.05000E+02	1.57530E+03	1.53237E-01	1.09959E+01
70					
	2.16000E+01	1.05000E+02	1.57530E+03	1.52531E-01	1.09959E+01
71	2.36000E+01	1.16500E+02	1.57530E+03	1.66654E-01	1.22002E+01
72	2.37000E+01	1.16500E+02	1.57530E+03	1.67360E-01	1.22002E+01
73	2.37000E+01	1.16500E+02	1.57530E+03	1.67360E-01	1.22002E+01
74					
	2.57000E+01	1.25000E+02	1.57530E+03	1.81483E-01	1.30904E+01
75	2.56000E+01	1.25000E+02	1.57530E+03	1.80777E-01	1.30904E+01

76	2.53000E+01	1.25000E+02	1.57530E+03	1.78658E-01	1.30904E+01
77	2.75000E+01	1.37500E+02	1.57530E+03	1.94194E-01	1.43994E+01
78	2.81000E+01	1.37500E+02	1.57530E+03	1.98431E-01	1.43994E+01
79	2.82000E+01	1.37500E+02	1.57530E+03	1.99137E-01	1.43994E+01

USCOMEX -- 1575.60 RUN -- SEE NOTEBOOK PAGE 213 FOR DETAILS

82 OCT 78
08:04:55

Ue20 μ (330')

T = 1539.8°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -3.05061120E-01	-3.13270327E-01	8.20920681E-03
2 -3.02942640E-01	-3.13270327E-01	1.03276868E-02
3 -3.00824160E-01	-3.13270327E-01	1.24461668E-02
4 -2.68340800E-01	-2.72464110E-01	4.12330962E-03
5 -2.69046960E-01	-2.72464110E-01	3.41714962E-03
6 -2.68340800E-01	-2.72464110E-01	4.12330962E-03
7 -2.59866880E-01	-2.61129049E-01	1.26216929E-03
8 -2.59160720E-01	-2.61129049E-01	1.96832929E-03
9 -2.58454560E-01	-2.61129049E-01	2.67448929E-03
10 -2.73990080E-01	-2.42992953E-01	-3.09971272E-02
11 -2.42919040E-01	-2.42992953E-01	7.39127596E-05
12 -2.41506720E-01	-2.42992953E-01	1.48623276E-03
13 -2.18203440E-01	-2.15788808E-01	-2.41463204E-03
14 -2.14672640E-01	-2.15788808E-01	1.11616796E-03
15 -2.16791120E-01	-2.15788808E-01	-1.00231204E-03
16 -1.99137120E-01	-1.96519205E-01	-2.61791460E-03
17 -1.96312480E-01	-1.96519205E-01	2.06725401E-04
18 -1.97018640E-01	-1.96519205E-01	-4.99434599E-04
19 -1.70890720E-01	-1.65914543E-01	-4.97617749E-03
20 -1.65947600E-01	-1.65914543E-01	-3.30574936E-05
21 -1.68066080E-01	-1.65914543E-01	-2.15153749E-03
22 -1.44762800E-01	-1.39843904E-01	-4.91889626E-03
23 -1.42644320E-01	-1.39843904E-01	-2.80041626E-03
24 -1.43350480E-01	-1.39843904E-01	-3.50657626E-03
25 -1.30639600E-01	-1.27375337E-01	-3.26426262E-03
26 -1.26402640E-01	-1.27375337E-01	9.72697380E-04
27 -1.28521120E-01	-1.27375337E-01	-1.14578262E-03
28 -1.05217840E-01	-9.90376866E-02	-6.18015345E-03
29 -1.03099360E-01	-9.90376866E-02	-4.06167345E-03
30 -1.04511680E-01	-9.90376866E-02	-5.47399345E-03
31 -7.69714400E-02	-7.52340599E-02	-1.73738014E-03
32 -7.76776000E-02	-7.52340599E-02	-2.44354014E-03
33 -7.34406400E-02	-7.52340599E-02	1.79341986E-03
34 -7.06160000E-02	-6.61660116E-02	-4.44998841E-03
35 -6.77913600E-02	-6.61660116E-02	-1.62534841E-03
36 -6.56728800E-02	-6.61660116E-02	4.93131590E-04
37 -4.23696000E-02	-4.12288789E-02	-1.14072114E-03
38 -3.95449600E-02	-4.12288789E-02	1.68391886E-03
39 -4.16634400E-02	-4.12288789E-02	-4.34561138E-04
40 .0E+00	7.10844364E-04	-7.10844364E-04
41 3.38956800E-02	3.35825193E-02	3.13160675E-04
42 3.24833600E-02	3.35825193E-02	-1.09915933E-03
43 3.10710400E-02	3.35825193E-02	-2.51147933E-03
44 5.93174400E-02	5.85196521E-02	7.97787946E-04
45 6.28482400E-02	5.85196521E-02	4.32858795E-03
46 5.64928000E-02	5.85196521E-02	-2.02685205E-03
47 8.54453600E-02	8.23232788E-02	3.12208125E-03
48 8.05022400E-02	8.23232788E-02	-1.82103875E-03
49 8.26207200E-02	8.23232788E-02	2.97441250E-04
50 1.15810240E-01	1.07260411E-01	8.54982852E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.08042480E-01	1.07260411E-01	7.82068521E-04
52	1.10867120E-01	1.07260411E-01	3.60670852E-03
53	1.27108800E-01	1.21995990E-01	5.11281009E-03
54	1.23578000E-01	1.21995990E-01	1.58201009E-03
55	1.27108800E-01	1.21995990E-01	5.11281009E-03
56	1.52530560E-01	1.45799617E-01	6.73094339E-03
57	1.50412080E-01	1.45799617E-01	4.61246339E-03
58	1.47587440E-01	1.45799617E-01	1.78782339E-03
59	1.80070800E-01	1.75270773E-01	4.80002653E-03
60	1.77246160E-01	1.75270773E-01	1.97538653E-03
61	1.75127680E-01	1.75270773E-01	-1.43093467E-04
62	1.94900160E-01	1.91139858E-01	3.76030207E-03
63	1.92781680E-01	1.91139858E-01	1.64182207E-03
64	1.90663200E-01	1.91139858E-01	-4.76657931E-04
65	2.25971200E-01	2.22878027E-01	3.09317314E-03
66	2.23146560E-01	2.22878027E-01	2.68533141E-04
67	2.21028080E-01	2.22878027E-01	-1.84994686E-03
68	2.45037520E-01	2.42147629E-01	2.88989058E-03
69	2.42919040E-01	2.42147629E-01	7.71410578E-04
70	2.44331360E-01	2.42147629E-01	2.18373058E-03
71	2.61985360E-01	2.59150220E-01	2.83514008E-03
72	2.60573040E-01	2.59150220E-01	1.42282008E-03
73	2.59160720E-01	2.59150220E-01	1.05000806E-05
74	2.77520880E-01	2.79553329E-01	-2.03244852E-03
75	2.76108560E-01	2.79553329E-01	-3.44476852E-03
76	2.74696240E-01	2.79553329E-01	-4.85708852E-03
77	3.00118000E-01	3.06757473E-01	-6.63947331E-03
78	3.02236480E-01	3.06757473E-01	-4.52099331E-03
79	2.97999520E-01	3.06757473E-01	-8.75795331E-03
COEFFICIENTS :			
1	7.10844364E-04	5.82910922E-04	
2	2.16476982E-02	6.66612893E-05	
STANDARD DEVIATION =		5.18101703E-03	CHI**2 = 1.15973861E-02

T	TAUNM	OMEGRS
1.53980E+03	-3.05061E-01	-1.45041E+01
1.53980E+03	-3.02943E-01	-1.45041E+01
1.53980E+03	-3.00824E-01	-1.45041E+01
1.53980E+03	-2.68341E-01	-1.26191E+01
1.53980E+03	-2.69047E-01	-1.26191E+01
1.53980E+03	-2.68341E-01	-1.26191E+01
1.53980E+03	-2.59867E-01	-1.20955E+01
1.53980E+03	-2.59161E-01	-1.20955E+01
1.53980E+03	-2.58455E-01	-1.20955E+01
1.53980E+03	-2.73990E-01	-1.12577E+01
1.53980E+03	-2.42919E-01	-1.12577E+01
1.53980E+03	-2.41507E-01	-1.12577E+01
1.53980E+03	-2.18203E-01	-1.00010E+01
1.53980E+03	-2.14673E-01	-1.00010E+01
1.53980E+03	-2.16791E-01	-1.00010E+01
1.53980E+03	-1.99137E-01	-9.11090E+00
1.53980E+03	-1.96312E-01	-9.11090E+00
1.53980E+03	-1.97019E-01	-9.11090E+00

1.53980E+03	-1.70891E-01	-7.69714E+00
1.53980E+03	-1.65948E-01	-7.69714E+00
1.53980E+03	-1.68066E-01	-7.69714E+00
1.53980E+03	-1.44763E-01	-6.49283E+00
1.53980E+03	-1.42644E-01	-6.49283E+00
1.53980E+03	-1.43350E-01	-6.49283E+00
1.53980E+03	-1.30640E-01	-5.91685E+00
1.53980E+03	-1.26403E-01	-5.91685E+00
1.53980E+03	-1.28521E-01	-5.91685E+00
1.53980E+03	-1.05218E-01	-4.60781E+00
1.53980E+03	-1.03099E-01	-4.60781E+00
1.53980E+03	-1.04512E-01	-4.60781E+00
1.53980E+03	-7.69714E-02	-3.50822E+00
1.53980E+03	-7.76776E-02	-3.50822E+00
1.53980E+03	-7.34406E-02	-3.50822E+00
1.53980E+03	-7.06160E-02	-3.08933E+00
1.53980E+03	-6.77914E-02	-3.08933E+00
1.53980E+03	-6.56729E-02	-3.08933E+00
1.53980E+03	-4.23696E-02	-1.93738E+00
1.53980E+03	-3.95450E-02	-1.93738E+00
1.53980E+03	-4.16634E-02	-1.93738E+00
1.53980E+03	.0E+00	.0E+00
1.53980E+03	3.38957E-02	1.51848E+00
1.53980E+03	3.24834E-02	1.51848E+00
1.53980E+03	3.10710E-02	1.51848E+00
1.53980E+03	5.93174E-02	2.67044E+00
1.53980E+03	6.28482E-02	2.67044E+00
1.53980E+03	5.64928E-02	2.67044E+00
1.53980E+03	8.54454E-02	3.77003E+00
1.53980E+03	8.05022E-02	3.77003E+00
1.53980E+03	8.26207E-02	3.77003E+00
1.53980E+03	1.15810E-01	4.92198E+00
1.53980E+03	1.08042E-01	4.92198E+00
1.53980E+03	1.10867E-01	4.92198E+00
1.53980E+03	1.27109E-01	5.60268E+00
1.53980E+03	1.23578E-01	5.60268E+00
1.53980E+03	1.27109E-01	5.60268E+00
1.53980E+03	1.52531E-01	6.70227E+00
1.53980E+03	1.50412E-01	6.70227E+00
1.53980E+03	1.47587E-01	6.70227E+00
1.53980E+03	1.80071E-01	8.06367E+00
1.53980E+03	1.77246E-01	8.06367E+00
1.53980E+03	1.75128E-01	8.06367E+00
1.53980E+03	1.94900E-01	8.79673E+00
1.53980E+03	1.92782E-01	8.79673E+00
1.53980E+03	1.90663E-01	8.79673E+00
1.53980E+03	2.25971E-01	1.02629E+01
1.53980E+03	2.23147E-01	1.02629E+01
1.53980E+03	2.21028E-01	1.02629E+01
1.53980E+03	2.45038E-01	1.11530E+01
1.53980E+03	2.42919E-01	1.11530E+01
1.53980E+03	2.44331E-01	1.11530E+01
1.53980E+03	2.61985E-01	1.19384E+01
1.53980E+03	2.60573E-01	1.19384E+01
1.53980E+03	2.59161E-01	1.19384E+01
1.53980E+03	2.77521E-01	1.28809E+01

1.53980E+03	2.76109E-01	1.28809E+01
1.53980E+03	2.74696E-01	1.28809E+01
1.53980E+03	3.00118E-01	1.41376E+01
1.53980E+03	3.02236E-01	1.41376E+01
1.53980E+03	2.98000E-01	1.41376E+01

UBCOFEN - 1539.80 RUN - SEE NOTEBOOK PAGE 216 FOR DETAILS

28 SEP 78
11:53:33

Ue20 μ (330')

T = 1493.0°C

	TAUNM	TAUNM (CALC)	RESIDUALS
1	7.06160000E-02	7.20429554E-02	-1.42695544E-03
2	7.06160000E-02	7.20429554E-02	-1.42695544E-03
3	7.06160000E-02	7.20429554E-02	-1.42695544E-03
4	1.55355200E-01	1.48110657E-01	7.24454301E-03
5	1.41232000E-01	1.48110657E-01	-6.87865699E-03
6	1.55355200E-01	1.48110657E-01	7.24454301E-03
7	2.40094400E-01	2.45911988E-01	-5.81758756E-03
8	2.54217600E-01	2.45911988E-01	8.30561244E-03
9	2.40094400E-01	2.45911988E-01	-5.81758756E-03

COEFFICIENTS :

1	4.66870549E-03	4.74037722E-03
2	4.15068847E-02	1.18069235E-03

STANDARD DEVIATION = 6.07312916E-03 CHI**2 = 1.66873523E-03

	TAU	OMEG	T	TAUNM	OMEGRS
1	1.000000E+01	1.550000E+01	1.493000E+03	7.06160E-02	1.62321E+00
2	1.000000E+01	1.550000E+01	1.493000E+03	7.06160E-02	1.62321E+00
3	1.000000E+01	1.550000E+01	1.493000E+03	7.06160E-02	1.62321E+00
4	2.200000E+01	3.300000E+01	1.493000E+03	1.55355E-01	3.45586E+00
5	2.000000E+01	3.300000E+01	1.493000E+03	1.41232E-01	3.45586E+00
6	2.200000E+01	3.300000E+01	1.493000E+03	1.55355E-01	3.45586E+00
7	3.400000E+01	5.550000E+01	1.493000E+03	2.40094E-01	5.81213E+00
8	3.600000E+01	5.550000E+01	1.493000E+03	2.54218E-01	5.81213E+00
9	3.400000E+01	5.550000E+01	1.493000E+03	2.40094E-01	5.81213E+00

USCONPH - 1493C RUN - SEE NOTEBOOK PAGE 217 FOR DETAILS

28 SEP 78
18.00.52

APPENDIX F

U10ba [U1]

LIST OF SYMBOLS

- TAUNM observed torque, τ (N·m).
- TAUNM (CALC) calculated torque, τ (N·m).
- OMEGRS angular rotation (rad/s).

At each investigated isotherm, torque was recorded both for clockwise angular rotations (positive values) and for counterclockwise angular rotations (negative values). Least-squares analyses of torque (τ) as a function of angular rotation (ω) were then made assuming the following functional relationship:

$$\tau = A_2\omega + A_1$$

The coefficients A_1 and A_2 are tabulated for each isotherm.

All temperatures are uncorrected but can be correlated with corrected values in Table 3 in the text.

U10ba
T = 1539.2°C

	TAUNM	TAUNM (CALC)	RESIDUALS
1	-7.41468000E-02	-7.46229050E-02	4.76105014E-04
2	-7.48529600E-02	-7.46229050E-02	-2.30054986E-04
3	-7.34406400E-02	-7.46229050E-02	1.18226501E-03
4	-6.56728800E-02	-6.66512256E-02	9.78345586E-04
5	-6.63790400E-02	-6.66512256E-02	2.72185586E-04
6	-6.70852000E-02	-6.66512256E-02	-4.33974414E-04
7	-6.14359200E-02	-6.22530576E-02	8.17137625E-04
8	-6.21420800E-02	-6.22530576E-02	1.10977625E-04
9	-6.21420800E-02	-6.22530576E-02	1.10977625E-04
10	-5.57866400E-02	-5.51060347E-02	-6.80605311E-04
11	-5.57866400E-02	-5.51060347E-02	-6.80605311E-04
12	-5.50804800E-02	-5.51060347E-02	2.55546893E-05
13	-5.15496800E-02	-5.18074087E-02	2.57728719E-04
14	-5.22558400E-02	-5.18074087E-02	-4.48431281E-04
15	-5.15496800E-02	-5.18074087E-02	2.57728719E-04
16	-4.44880800E-02	-4.38357293E-02	-6.52350710E-04
17	-4.37819200E-02	-4.38357293E-02	5.38092904E-05
18	-4.30757600E-02	-4.38357293E-02	7.59969290E-04
19	-4.09572800E-02	-4.05371033E-02	-4.20176680E-04
20	-3.95449600E-02	-4.05371033E-02	9.92143320E-04
21	-4.09572800E-02	-4.05371033E-02	-4.20176680E-04
22	-3.46018400E-02	-3.42147369E-02	-3.87103123E-04
23	-3.38956800E-02	-3.42147369E-02	3.19056877E-04
24	-3.46018400E-02	-3.42147369E-02	-3.87103123E-04
25	-3.03648800E-02	-2.92667979E-02	-1.09808208E-03
26	-2.96587200E-02	-2.92667979E-02	-3.91922079E-04
27	-2.89525600E-02	-2.92667979E-02	3.14237921E-04
28	-2.54217600E-02	-2.43188590E-02	-1.10290103E-03
29	-2.47156000E-02	-2.43188590E-02	-3.96741035E-04
30	-2.40094400E-02	-2.43188590E-02	3.09418965E-04
31	-1.76540000E-02	-1.79964925E-02	3.42492522E-04
32	-1.90663200E-02	-1.79964925E-02	-1.06982748E-03
33	-1.83601600E-02	-1.79964925E-02	-3.63667478E-04
34	-1.34170400E-02	-1.30485536E-02	-3.68486433E-04
35	-1.34170400E-02	-1.30485536E-02	-3.68486433E-04
36	-1.27108800E-02	-1.30485536E-02	3.37673567E-04
37	-7.06160000E-03	-7.27595812E-03	2.14358118E-04
38	-7.06160000E-03	-7.27595812E-03	2.14358118E-04
39	-7.06160000E-03	-7.27595812E-03	2.14358118E-04
40	.0E+00	6.95721310E-04	-6.95721310E-04
41	7.06160000E-03	8.11762974E-03	-1.05602974E-03
42	7.76776000E-03	8.11762974E-03	-3.49869744E-04
43	7.76776000E-03	8.11762974E-03	-3.49869744E-04
44	1.41232000E-02	1.41651107E-02	-4.19106894E-05
45	1.55355200E-02	1.41651107E-02	1.37040931E-03
46	1.34170400E-02	1.41651107E-02	-7.48070689E-04
47	2.11848000E-02	1.93879351E-02	1.79686486E-03
48	1.97724800E-02	1.93879351E-02	3.84544857E-04
49	1.90663200E-02	1.93879351E-02	-3.21615143E-04
50	2.54217600E-02	2.57103016E-02	-2.88541586E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	2.61279200E-02	2.57103016E-02	4.17618414E-04
52	2.47156000E-02	2.57103016E-02	-9.94701586E-04
53	3.03648800E-02	3.12080115E-02	-8.43131537E-04
54	3.10710400E-02	3.12080115E-02	-1.36971537E-04
55	3.24833600E-02	3.12080115E-02	1.27534846E-03
56	3.74264800E-02	3.64308360E-02	9.95644010E-04
57	3.60141600E-02	3.64308360E-02	-4.16675990E-04
58	3.60141600E-02	3.64308360E-02	-4.16675990E-04
59	4.16634400E-02	4.19285459E-02	-2.65105940E-04
60	4.23696000E-02	4.19285459E-02	4.41054060E-04
61	4.16634400E-02	4.19285459E-02	-2.65105940E-04
62	4.66065600E-02	4.66015994E-02	4.96060148E-06
63	4.80188800E-02	4.66015994E-02	1.41728060E-03
64	4.73127200E-02	4.66015994E-02	7.11120601E-04
65	5.29620000E-02	5.31988513E-02	-2.36851339E-04
66	5.36681600E-02	5.31988513E-02	4.69308661E-04
67	5.43743200E-02	5.31988513E-02	1.17546866E-03
68	5.64928000E-02	5.64974773E-02	-4.67730978E-06
69	5.57866400E-02	5.64974773E-02	-7.10837310E-04
70	5.71989600E-02	5.64974773E-02	7.01482690E-04
71	6.49667200E-02	6.39193857E-02	1.04733426E-03
72	6.42605600E-02	6.39193857E-02	3.41174257E-04
73	6.35544000E-02	6.39193857E-02	-3.64985743E-04
74	6.70852000E-02	6.74928972E-02	-4.07697211E-04
75	6.63790400E-02	6.74928972E-02	-1.11385721E-03
76	6.70852000E-02	6.74928972E-02	-4.07697211E-04
77	7.48529600E-02	7.46399201E-02	2.13039853E-04
78	7.41468000E-02	7.46399201E-02	-4.93120147E-04
79	7.41468000E-02	7.46399201E-02	-4.93120147E-04

COEFFICIENTS :

1	6.95721310E-04	7.43925100E-05
2	5.24976323E-03	8.61689527E-06

STANDARD DEVIATION = 6.61215074E-04 CHI**2 = 1.91703169E-03

T	TAUNM	OMEGRS
1.53920E+03	-7.41468E-02	-1.43471E+01
1.53920E+03	-7.48530E-02	-1.43471E+01
1.53920E+03	-7.34406E-02	-1.43471E+01
1.53920E+03	-6.56729E-02	-1.28286E+01
1.53920E+03	-6.63790E-02	-1.28286E+01
1.53920E+03	-6.70852E-02	-1.28286E+01
1.53920E+03	-6.14359E-02	-1.19908E+01
1.53920E+03	-6.21421E-02	-1.19908E+01
1.53920E+03	-6.21421E-02	-1.19908E+01
1.53920E+03	-5.57866E-02	-1.06294E+01
1.53920E+03	-5.57866E-02	-1.06294E+01
1.53920E+03	-5.50805E-02	-1.06294E+01
1.53920E+03	-5.15497E-02	-1.00010E+01
1.53920E+03	-5.22558E-02	-1.00010E+01
1.53920E+03	-5.15497E-02	-1.00010E+01
1.53920E+03	-4.44881E-02	-8.48256E+00
1.53920E+03	-4.37819E-02	-8.48256E+00
1.53920E+03	-4.30758E-02	-8.48256E+00

1.53920E+03	-4.09573E-02	-7.85423E+00
1.53920E+03	-3.95450E-02	-7.85423E+00
1.53920E+03	-4.09573E-02	-7.85423E+00
1.53920E+03	-3.46018E-02	-6.64991E+00
1.53920E+03	-3.38957E-02	-6.64991E+00
1.53920E+03	-3.46018E-02	-6.64991E+00
1.53920E+03	-3.03649E-02	-5.70740E+00
1.53920E+03	-2.96587E-02	-5.70740E+00
1.53920E+03	-2.89526E-02	-5.70740E+00
1.53920E+03	-2.54218E-02	-4.76490E+00
1.53920E+03	-2.47156E-02	-4.76490E+00
1.53920E+03	-2.40094E-02	-4.76490E+00
1.53920E+03	-1.76540E-02	-3.56058E+00
1.53920E+03	-1.90663E-02	-3.56058E+00
1.53920E+03	-1.83602E-02	-3.56058E+00
1.53920E+03	-1.34170E-02	-2.61808E+00
1.53920E+03	-1.34170E-02	-2.61808E+00
1.53920E+03	-1.27109E-02	-2.61808E+00
1.53920E+03	-7.06160E-03	-1.51848E+00
1.53920E+03	-7.06160E-03	-1.51848E+00
1.53920E+03	-7.06160E-03	-1.51848E+00
1.53920E+03	.0E+00	.0E+00
1.53920E+03	7.06160E-03	1.41376E+00
1.53920E+03	7.76776E-03	1.41376E+00
1.53920E+03	7.76776E-03	1.41376E+00
1.53920E+03	1.41232E-02	2.56571E+00
1.53920E+03	1.55355E-02	2.56571E+00
1.53920E+03	1.34170E-02	2.56571E+00
1.53920E+03	2.11848E-02	3.56058E+00
1.53920E+03	1.97725E-02	3.56058E+00
1.53920E+03	1.90663E-02	3.56058E+00
1.53920E+03	2.54218E-02	4.76490E+00
1.53920E+03	2.61279E-02	4.76490E+00
1.53920E+03	2.47156E-02	4.76490E+00
1.53920E+03	3.03649E-02	5.81213E+00
1.53920E+03	3.10710E-02	5.81213E+00
1.53920E+03	3.24834E-02	5.81213E+00
1.53920E+03	3.74265E-02	6.80700E+00
1.53920E+03	3.60142E-02	6.80700E+00
1.53920E+03	3.60142E-02	6.80700E+00
1.53920E+03	4.16634E-02	7.85423E+00
1.53920E+03	4.23696E-02	7.85423E+00
1.53920E+03	4.16634E-02	7.85423E+00
1.53920E+03	4.66066E-02	8.74437E+00
1.53920E+03	4.80189E-02	8.74437E+00
1.53920E+03	4.73127E-02	8.74437E+00
1.53920E+03	5.29620E-02	1.00010E+01
1.53920E+03	5.36682E-02	1.00010E+01
1.53920E+03	5.43743E-02	1.00010E+01
1.53920E+03	5.64928E-02	1.06294E+01
1.53920E+03	5.57866E-02	1.06294E+01
1.53920E+03	5.71990E-02	1.06294E+01
1.53920E+03	6.49667E-02	1.20431E+01
1.53920E+03	6.42606E-02	1.20431E+01
1.53920E+03	6.35544E-02	1.20431E+01
1.53920E+03	6.70852E-02	1.27238E+01

1.53920E+03	6.63790E-02	1.27238E+01
1.53920E+03	6.70852E-02	1.27238E+01
1.53920E+03	7.48530E-02	1.40852E+01
1.53920E+03	7.41468E-02	1.40852E+01
1.53920E+03	7.41468E-02	1.40852E+01

U1 COMPH 1539.20 RUN SEE NOTEBOOK PAGE 151

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19:45:49

U10ba

T = 1501.7°C

	TAUNM	TAUNM (CALC)	RESI DUALS
1	-9.53316000E-02	-1.43828616E-01	4.84970156E-02
2	-9.18008000E-02	-1.43828616E-01	5.20278156E-02
3	-9.32131200E-02	-1.43828616E-01	5.06154956E-02
4	-9.18008000E-02	-1.23152219E-01	3.13514187E-02
5	-8.96823200E-02	-1.23152219E-01	3.34698987E-02
6	-8.89761600E-02	-1.23152219E-01	3.41760587E-02
7	-1.12279440E-01	-1.17850578E-01	5.57113846E-03
8	-9.74500800E-02	-1.17850578E-01	2.04004985E-02
9	-9.10946400E-02	-1.17850578E-01	2.67559385E-02
10	-8.75638400E-02	-1.00885330E-01	1.33214897E-02
11	-8.82700000E-02	-1.00885330E-01	1.26153297E-02
12	-9.18008000E-02	-1.00885330E-01	9.08452974E-03
13	-9.39192800E-02	-9.61138535E-02	2.19457354E-03
14	-1.00274720E-01	-9.61138535E-02	-4.16086646E-03
15	-9.10946400E-02	-9.61138535E-02	5.01921354E-03
16	-8.68576800E-02	-8.39200810E-02	-2.93759897E-03
17	-8.75638400E-02	-8.39200810E-02	-3.64375897E-03
18	-8.96823200E-02	-8.39200810E-02	-5.76223897E-03
19	-1.04511680E-01	-7.54374567E-02	-2.90742233E-02
20	-9.10946400E-02	-7.54374567E-02	-1.56571833E-02
21	-9.74500800E-02	-7.54374567E-02	-2.20126233E-02
22	-7.97960800E-02	-6.48341762E-02	-1.49619038E-02
23	-8.05022400E-02	-6.48341762E-02	-1.56680638E-02
24	-7.76776000E-02	-6.48341762E-02	-1.28434238E-02
25	-8.54453600E-02	-5.37007318E-02	-3.17446282E-02
26	-8.82700000E-02	-5.37007318E-02	-3.45692682E-02
27	-9.95685600E-02	-5.37007318E-02	-4.58678282E-02
28	-7.83837600E-02	-4.36276153E-02	-3.47561447E-02
29	-8.26207200E-02	-4.36276153E-02	-3.89931047E-02
30	-8.47392000E-02	-4.36276153E-02	-4.11115847E-02
31	-8.12084000E-02	-3.35544989E-02	-4.76539011E-02
32	-7.27344800E-02	-3.35544989E-02	-3.91799811E-02
33	-6.84975200E-02	-3.35544989E-02	-3.49430211E-02
34	-6.92036800E-02	-2.24210544E-02	-4.67826256E-02
35	-7.48529600E-02	-2.24210544E-02	-5.24319056E-02
36	-8.05022400E-02	-2.24210544E-02	-5.80811856E-02
37	-7.20283200E-02	-9.69711790E-03	-6.23312021E-02
38	-6.77913600E-02	-9.69711790E-03	-5.80942421E-02
39	-5.36681600E-02	-9.69711790E-03	-4.39710421E-02
40	.0E+00	4.61731070E-03	-4.61731070E-03
41	3.88388000E-02	1.84015753E-02	2.04372247E-02
42	3.10710400E-02	1.84015753E-02	1.26694647E-02
43	3.24833600E-02	1.84015753E-02	1.40817847E-02
44	5.36681600E-02	3.11255118E-02	2.25426482E-02
45	5.08435200E-02	3.11255118E-02	1.97180082E-02
46	5.50804800E-02	3.11255118E-02	2.39549682E-02
47	6.63790400E-02	4.27891203E-02	2.35899197E-02
48	6.28482400E-02	4.27891203E-02	2.00591197E-02
49	6.42605600E-02	4.27891203E-02	2.14714397E-02
50	7.90899200E-02	5.33924008E-02	2.56975192E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	8.33268800E-02	5.33924008E-02	2.99344792E-02
52	7.48529600E-02	5.33924008E-02	2.14605592E-02
53	9.67439200E-02	6.29353532E-02	3.38085668E-02
54	9.88624000E-02	6.29353532E-02	3.59270468E-02
55	1.00980880E-01	6.29353532E-02	3.80455268E-02
56	8.40330400E-02	7.40687976E-02	9.96424237E-03
57	8.75638400E-02	7.40687976E-02	1.34950424E-02
58	8.89761600E-02	7.40687976E-02	1.49073624E-02
59	1.28521120E-01	8.41419141E-02	4.43792059E-02
60	1.22165680E-01	8.41419141E-02	3.80237659E-02
61	1.26402640E-01	8.41419141E-02	4.22607259E-02
62	1.12279440E-01	9.47451945E-02	1.75342455E-02
63	1.22871840E-01	9.47451945E-02	2.81266455E-02
64	1.01687040E-01	9.47451945E-02	6.94184550E-03
65	1.28521120E-01	1.03227819E-01	2.52933011E-02
66	1.47587440E-01	1.03227819E-01	4.43596211E-02
67	1.14397920E-01	1.03227819E-01	1.11701011E-02
68	1.22871840E-01	1.11180279E-01	1.16915608E-02
69	1.27108800E-01	1.11180279E-01	1.59285208E-02
70	1.24990320E-01	1.11180279E-01	1.38100408E-02
71	8.75638400E-02	1.24434380E-01	-3.68705397E-02
72	1.05217840E-01	1.24434380E-01	-1.92165397E-02
73	9.67439200E-02	1.24434380E-01	-2.76904597E-02
74	1.05924000E-01	1.31326512E-01	-2.54025120E-02
75	1.21459520E-01	1.31326512E-01	-9.86699204E-03
76	1.09454800E-01	1.31326512E-01	-2.18717120E-02
77	1.13691760E-01	1.45640941E-01	-3.19491806E-02
78	1.11573280E-01	1.45640941E-01	-3.40676606E-02
79	1.08042480E-01	1.45640941E-01	-3.75984606E-02
COEFFICIENTS :			
1	4.61731070E-03	3.44446424E-03	
2	1.01250725E-02	3.99574106E-04	
STANDARD DEVIATION = 3.06146736E-02 CHI**2 = 2.16858012E+00			

T	TAUNM	OMEGRS
1.50170E+03	-9.53316E-02	-1.46612E+01
1.50170E+03	-9.18008E-02	-1.46612E+01
1.50170E+03	-9.32131E-02	-1.46612E+01
1.50170E+03	-9.18008E-02	-1.26191E+01
1.50170E+03	-8.96823E-02	-1.26191E+01
1.50170E+03	-8.89762E-02	-1.26191E+01
1.50170E+03	-1.12279E-01	-1.20955E+01
1.50170E+03	-9.74501E-02	-1.20955E+01
1.50170E+03	-9.10946E-02	-1.20955E+01
1.50170E+03	-8.75638E-02	-1.04199E+01
1.50170E+03	-8.82700E-02	-1.04199E+01
1.50170E+03	-9.18008E-02	-1.04199E+01
1.50170E+03	-9.39193E-02	-9.94869E+00
1.50170E+03	-1.00275E-01	-9.94869E+00
1.50170E+03	-9.10946E-02	-9.94869E+00
1.50170E+03	-8.68577E-02	-8.74437E+00
1.50170E+03	-8.75638E-02	-8.74437E+00
1.50170E+03	-8.96823E-02	-8.74437E+00

1.50170E+03	-8.05022E-02	-6.85936E+00
1.50170E+03	-7.76776E-02	-6.85936E+00
1.50170E+03	-8.54454E-02	-5.75977E+00
1.50170E+03	-8.82700E-02	-5.75977E+00
1.50170E+03	-9.95686E-02	-5.75977E+00
1.50170E+03	-7.83838E-02	-4.76490E+00
1.50170E+03	-8.26207E-02	-4.76490E+00
1.50170E+03	-8.47392E-02	-4.76490E+00
1.50170E+03	-8.12084E-02	-3.77003E+00
1.50170E+03	-7.27345E-02	-3.77003E+00
1.50170E+03	-6.84975E-02	-3.77003E+00
1.50170E+03	-6.92037E-02	-2.67044E+00
1.50170E+03	-7.48530E-02	-2.67044E+00
1.50170E+03	-8.05022E-02	-2.67044E+00
1.50170E+03	-7.20283E-02	-1.41376E+00
1.50170E+03	-6.77914E-02	-1.41376E+00
1.50170E+03	-5.36682E-02	-1.41376E+00
1.50170E+03	.0E+00	.0E+00
1.50170E+03	3.88388E-02	1.36140E+00
1.50170E+03	3.10710E-02	1.36140E+00
1.50170E+03	3.24834E-02	1.36140E+00
1.50170E+03	5.36682E-02	2.61808E+00
1.50170E+03	5.08435E-02	2.61808E+00
1.50170E+03	5.50805E-02	2.61808E+00
1.50170E+03	6.63790E-02	3.77003E+00
1.50170E+03	6.28482E-02	3.77003E+00
1.50170E+03	6.42606E-02	3.77003E+00
1.50170E+03	7.90899E-02	4.81726E+00
1.50170E+03	8.33269E-02	4.81726E+00
1.50170E+03	7.48530E-02	4.81726E+00
1.50170E+03	9.67439E-02	5.75977E+00
1.50170E+03	9.88624E-02	5.75977E+00
1.50170E+03	1.00981E-01	5.75977E+00
1.50170E+03	8.40330E-02	6.85936E+00
1.50170E+03	8.75638E-02	6.85936E+00
1.50170E+03	8.89762E-02	6.85936E+00
1.50170E+03	1.28521E-01	7.85423E+00
1.50170E+03	1.22166E-01	7.85423E+00
1.50170E+03	1.26403E-01	7.85423E+00
1.50170E+03	1.12279E-01	8.90146E+00
1.50170E+03	1.22872E-01	8.90146E+00
1.50170E+03	1.01687E-01	8.90146E+00
1.50170E+03	1.28521E-01	9.73924E+00
1.50170E+03	1.47587E-01	9.73924E+00
1.50170E+03	1.14398E-01	9.73924E+00
1.50170E+03	1.22872E-01	1.05247E+01
1.50170E+03	1.27109E-01	1.05247E+01
1.50170E+03	1.24990E-01	1.05247E+01
1.50170E+03	8.75638E-02	1.18337E+01
1.50170E+03	1.05218E-01	1.18337E+01
1.50170E+03	9.67439E-02	1.18337E+01
1.50170E+03	1.05924E-01	1.25144E+01
1.50170E+03	1.21460E-01	1.25144E+01
1.50170E+03	1.09455E-01	1.25144E+01
1.50170E+03	1.13692E-01	1.39282E+01

1.50170E+03 1.11573E-01 1.39282E+01
 1.50170E+03 1.08042E-01 1.39282E+01

1591 C RUN ON THU U1 COMPN - SEE NOTEBOOK PAGE 141

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 18:51:24

U10ba

T = 1455.1°C

TAUNM	TAUNM (CALC)	RESI DUALS
1 -2.05492560E-01	-2.08796138E-01	3.30357844E-03
2 -2.06198720E-01	-2.08796138E-01	2.59741844E-03
3 -2.04080240E-01	-2.08796138E-01	4.71589844E-03
4 -1.83601600E-01	-1.85174952E-01	1.57335212E-03
5 -1.84307760E-01	-1.85174952E-01	8.67192124E-04
6 -1.82895440E-01	-1.85174952E-01	2.27951212E-03
7 -1.71596880E-01	-1.74507320E-01	2.91043960E-03
8 -1.73009200E-01	-1.74507320E-01	1.49811960E-03
9 -1.73715360E-01	-1.74507320E-01	7.91959596E-04
10 -1.53236720E-01	-1.53172055E-01	-6.46654600E-05
11 -1.55355200E-01	-1.53172055E-01	-2.18314546E-03
12 -1.51118240E-01	-1.53172055E-01	2.05381454E-03
13 -1.44056640E-01	-1.43266396E-01	-7.90244236E-04
14 -1.46175120E-01	-1.43266396E-01	-2.90872424E-03
15 -1.44762800E-01	-1.43266396E-01	-1.49640424E-03
16 -1.29933440E-01	-1.29550868E-01	-3.82571772E-04
17 -1.31345760E-01	-1.29550868E-01	-1.79489177E-03
18 -1.29227280E-01	-1.29550868E-01	3.23588228E-04
19 -1.15810240E-01	-1.14311393E-01	-1.49884681E-03
20 -1.15104080E-01	-1.14311393E-01	-7.92686813E-04
21 -1.15810240E-01	-1.14311393E-01	-1.49884681E-03
22 -1.00980880E-01	-1.00595866E-01	-3.85014349E-04
23 -1.02393200E-01	-1.00595866E-01	-1.79733435E-03
24 -1.03805520E-01	-1.00595866E-01	-3.20965435E-03
25 -8.68576800E-02	-8.38324431E-02	-3.02523689E-03
26 -8.61515200E-02	-8.38324431E-02	-2.31907689E-03
27 -8.54453600E-02	-8.38324431E-02	-1.61291689E-03
28 -6.99098400E-02	-6.85929681E-02	-1.31687193E-03
29 -6.92036800E-02	-6.85929681E-02	-6.10711933E-04
30 -7.13221600E-02	-6.85929681E-02	-2.72919193E-03
31 -5.43743200E-02	-5.25915193E-02	-1.78280073E-03
32 -5.43743200E-02	-5.25915193E-02	-1.78280073E-03
33 -5.64928000E-02	-5.25915193E-02	-3.90128073E-03
34 -2.47156000E-02	-2.43984905E-02	-3.17109550E-04
35 -2.54217600E-02	-2.43984905E-02	-1.02326955E-03
36 -2.61279200E-02	-2.43984905E-02	-1.72942955E-03
37 -1.69478400E-02	-1.52548054E-02	-1.69303457E-03
38 -1.48293600E-02	-1.52548054E-02	4.25445426E-04
39 -1.97724800E-02	-1.52548054E-02	-4.51767457E-03
40 .0E+00	7.46643366E-04	-7.46643366E-04
41 1.69478400E-02	1.67480922E-02	1.99747841E-04
42 1.55355200E-02	1.67480922E-02	-1.21257216E-03
43 1.83601600E-02	1.67480922E-02	1.61206784E-03
44 2.68340800E-02	2.66537509E-02	1.80329065E-04
45 2.82464000E-02	2.66537509E-02	1.59264907E-03
46 2.54217600E-02	2.66537509E-02	-1.23199093E-03
47 4.37819200E-02	4.03692785E-02	3.41264153E-03
48 3.95449600E-02	4.03692785E-02	-8.24318471E-04
49 4.23696000E-02	4.03692785E-02	2.00032153E-03
50 5.64928000E-02	5.40848060E-02	2.40799399E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	5.43743200E-02	5.40848060E-02	2.89513993E-04
52	5.29620000E-02	5.40848060E-02	-1.12280601E-03
53	7.20283200E-02	6.93242810E-02	2.70403895E-03
54	6.84975200E-02	6.93242810E-02	-8.26761047E-04
55	7.13221600E-02	6.93242810E-02	1.99787895E-03
56	8.61515200E-02	8.45637561E-02	1.58776391E-03
57	8.68576800E-02	8.45637561E-02	2.29392391E-03
58	8.54453600E-02	8.45637561E-02	8.81603912E-04
59	1.01687040E-01	9.98032311E-02	1.88380887E-03
60	1.03099360E-01	9.98032311E-02	3.29612887E-03
61	1.04511680E-01	9.98032311E-02	4.70844887E-03
62	1.16516400E-01	1.15042706E-01	1.47369383E-03
63	1.17928720E-01	1.15042706E-01	2.88601383E-03
64	1.15104080E-01	1.15042706E-01	6.13738320E-05
65	1.24990320E-01	1.24186391E-01	8.03928808E-04
66	1.25696480E-01	1.24186391E-01	1.51008881E-03
67	1.29227280E-01	1.24186391E-01	5.04088881E-03
68	1.43350480E-01	1.44759682E-01	-1.40920250E-03
69	1.44056640E-01	1.44759682E-01	-7.03042496E-04
70	1.47587440E-01	1.44759682E-01	2.82775750E-03
71	1.54649040E-01	1.53903368E-01	7.45672479E-04
72	1.53236720E-01	1.53903368E-01	-6.66647521E-04
73	1.56767520E-01	1.53903368E-01	2.86415248E-03
74	1.77246160E-01	1.77524554E-01	-2.78393833E-04
75	1.77952320E-01	1.77524554E-01	4.27766167E-04
76	1.78658480E-01	1.77524554E-01	1.13392617E-03
77	1.85720080E-01	1.86668239E-01	-9.48158857E-04
78	1.85013920E-01	1.86668239E-01	-1.65431886E-03
79	1.83601600E-01	1.86668239E-01	-3.06663886E-03
80	2.05492560E-01	2.07241530E-01	-1.74897016E-03
81	2.02667920E-01	2.07241530E-01	-4.57361016E-03
82	2.01255600E-01	2.07241530E-01	-5.98593016E-03

COEFFICIENTS :

1	7.46643366E-04	2.45528248E-04
2	1.45521747E-02	2.89051675E-05

STANDARD DEVIATION = 2.22328359E-03 CHI**2 = 6.24946973E-03

T	TAUNM	OMEGRS
1.45510E+03	-2.05493E-01	-1.43994E+01
1.45510E+03	-2.06199E-01	-1.43994E+01
1.45510E+03	-2.04080E-01	-1.43994E+01
1.45510E+03	-1.83602E-01	-1.27762E+01
1.45510E+03	-1.84308E-01	-1.27762E+01
1.45510E+03	-1.82895E-01	-1.27762E+01
1.45510E+03	-1.71597E-01	-1.20431E+01
1.45510E+03	-1.73009E-01	-1.20431E+01
1.45510E+03	-1.73715E-01	-1.20431E+01
1.45510E+03	-1.53237E-01	-1.05770E+01
1.45510E+03	-1.55355E-01	-1.05770E+01
1.45510E+03	-1.51118E-01	-1.05770E+01
1.45510E+03	-1.44057E-01	-9.89632E+00
1.45510E+03	-1.46175E-01	-9.89632E+00
1.45510E+03	-1.44763E-01	-9.89632E+00

1.45510E+03	-1.29933E-01	-8.95382E+00
1.45510E+03	-1.31346E-01	-8.95382E+00
1.45510E+03	-1.29227E-01	-8.95382E+00
1.45510E+03	-1.15810E-01	-7.90659E+00
1.45510E+03	-1.15104E-01	-7.90659E+00
1.45510E+03	-1.15810E-01	-7.90659E+00
1.45510E+03	-1.00981E-01	-6.96408E+00
1.45510E+03	-1.02393E-01	-6.96408E+00
1.45510E+03	-1.03806E-01	-6.96408E+00
1.45510E+03	-8.68577E-02	-5.81213E+00
1.45510E+03	-8.61515E-02	-5.81213E+00
1.45510E+03	-8.54454E-02	-5.81213E+00
1.45510E+03	-6.99098E-02	-4.76490E+00
1.45510E+03	-6.92037E-02	-4.76490E+00
1.45510E+03	-7.13222E-02	-4.76490E+00
1.45510E+03	-5.43743E-02	-3.66531E+00
1.45510E+03	-5.43743E-02	-3.66531E+00
1.45510E+03	-5.64928E-02	-3.66531E+00
1.45510E+03	-2.47156E-02	-1.72793E+00
1.45510E+03	-2.54218E-02	-1.72793E+00
1.45510E+03	-2.61279E-02	-1.72793E+00
1.45510E+03	-1.69478E-02	-1.09959E+00
1.45510E+03	-1.48294E-02	-1.09959E+00
1.45510E+03	-1.97725E-02	-1.09959E+00
1.45510E+03	.0E+00	.0E+00
1.45510E+03	1.69478E-02	1.09959E+00
1.45510E+03	1.55355E-02	1.09959E+00
1.45510E+03	1.83602E-02	1.09959E+00
1.45510E+03	2.68341E-02	1.78029E+00
1.45510E+03	2.82464E-02	1.78029E+00
1.45510E+03	2.54218E-02	1.78029E+00
1.45510E+03	4.37819E-02	2.72280E+00
1.45510E+03	3.95450E-02	2.72280E+00
1.45510E+03	4.23696E-02	2.72280E+00
1.45510E+03	5.64928E-02	3.66531E+00
1.45510E+03	5.43743E-02	3.66531E+00
1.45510E+03	5.29620E-02	3.66531E+00
1.45510E+03	7.20283E-02	4.71254E+00
1.45510E+03	6.84975E-02	4.71254E+00
1.45510E+03	7.13222E-02	4.71254E+00
1.45510E+03	8.61515E-02	5.75977E+00
1.45510E+03	8.68577E-02	5.75977E+00
1.45510E+03	8.54454E-02	5.75977E+00
1.45510E+03	1.01687E-01	6.80700E+00
1.45510E+03	1.03099E-01	6.80700E+00
1.45510E+03	1.04512E-01	6.80700E+00
1.45510E+03	1.16516E-01	7.85423E+00
1.45510E+03	1.17929E-01	7.85423E+00
1.45510E+03	1.15104E-01	7.85423E+00
1.45510E+03	1.24990E-01	8.48256E+00
1.45510E+03	1.25696E-01	8.48256E+00
1.45510E+03	1.29227E-01	8.48256E+00
1.45510E+03	1.43350E-01	9.89632E+00
1.45510E+03	1.44057E-01	9.89632E+00
1.45510E+03	1.47587E-01	9.89632E+00
1.45510E+03	1.54649E-01	1.05247E+01

1.45510E+03	1.53237E-01	1.05247E+01
1.45510E+03	1.56768E-01	1.05247E+01
1.45510E+03	1.77246E-01	1.21479E+01
1.45510E+03	1.77952E-01	1.21479E+01
1.45510E+03	1.78658E-01	1.21479E+01
1.45510E+03	1.85720E-01	1.27762E+01
1.45510E+03	1.85014E-01	1.27762E+01
1.45510E+03	1.83602E-01	1.27762E+01
1.45510E+03	2.05493E-01	1.41900E+01
1.45510E+03	2.02668E-01	1.41900E+01
1.45510E+03	2.01256E-01	1.41900E+01

U1 COMPN 1455.1C RUN SEE NOTEBOOK PAGE 153

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11:23:23

U10ba
T = 1413.7°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -2.42212880E-01	-3.13053789E-01	7.08409086E-02
2 -2.46449840E-01	-3.13053789E-01	6.66039486E-02
3 -2.43625200E-01	-3.13053789E-01	6.94285886E-02
4 -2.30208160E-01	-2.68702378E-01	3.84942184E-02
5 -2.31620480E-01	-2.68702378E-01	3.70818984E-02
6 -2.26677360E-01	-2.68702378E-01	4.20250184E-02
7 -1.88544720E-01	-2.28786109E-01	4.02413892E-02
8 -1.87838560E-01	-2.28786109E-01	4.09475492E-02
9 -1.87838560E-01	-2.28786109E-01	4.09475492E-02
10 -2.06198720E-01	-2.18807042E-01	1.26083219E-02
11 -2.05492560E-01	-2.18807042E-01	1.33144819E-02
12 -2.04080240E-01	-2.18807042E-01	1.47268019E-02
13 -1.85720080E-01	-1.75564417E-01	-1.01556631E-02
14 -1.82895440E-01	-1.75564417E-01	-7.33102309E-03
15 -1.85013920E-01	-1.75564417E-01	-9.44950309E-03
16 -1.44056640E-01	-1.60041423E-01	1.59847833E-02
17 -1.43350480E-01	-1.60041423E-01	1.66909433E-02
18 -1.46175120E-01	-1.60041423E-01	1.38663033E-02
19 -1.58886000E-01	-1.36756933E-01	-2.21290670E-02
20 -1.61004480E-01	-1.36756933E-01	-2.42475470E-02
21 -1.58886000E-01	-1.36756933E-01	-2.21290670E-02
22 -1.14397920E-01	-1.13472443E-01	-9.25477415E-04
23 -1.15104080E-01	-1.13472443E-01	-1.63163742E-03
24 -1.15810240E-01	-1.13472443E-01	-2.33779742E-03
25 -1.59592160E-01	-8.68615964E-02	-7.27305636E-02
26 -1.56767520E-01	-8.68615964E-02	-6.99059236E-02
27 -1.58179840E-01	-8.68615964E-02	-7.13182436E-02
28 -8.40330400E-02	-6.69034618E-02	-1.71295782E-02
29 -7.97960800E-02	-6.69034618E-02	-1.28926182E-02
30 -8.47392000E-02	-6.69034618E-02	-1.78357382E-02
31 -1.05924000E-01	-4.58365420E-02	-6.00874580E-02
32 -1.00980880E-01	-4.58365420E-02	-5.51443380E-02
33 -1.05217840E-01	-4.58365420E-02	-5.93812980E-02
34 -7.48529600E-02	-2.47696221E-02	-5.00833379E-02
35 -7.55591200E-02	-2.47696221E-02	-5.07894979E-02
36 -7.27344800E-02	-2.47696221E-02	-4.79648579E-02
37 -3.60141600E-02	5.16757979E-03	-4.11817398E-02
38 -3.38956800E-02	5.16757979E-03	-3.90632598E-02
39 -3.88388000E-02	5.16757979E-03	-4.40063798E-02
40 .0E+00	3.28872112E-02	-3.28872112E-02
41 5.01373600E-02	6.61507689E-02	-1.60134089E-02
42 5.08435200E-02	6.61507689E-02	-1.53072489E-02
43 4.87250400E-02	6.61507689E-02	-1.74257289E-02
44 7.48529600E-02	8.94352592E-02	-1.45822992E-02
45 7.62652800E-02	8.94352592E-02	-1.31699792E-02
46 7.34406400E-02	8.94352592E-02	-1.59946192E-02
47 1.12279440E-01	1.11610964E-01	6.68475642E-04
48 1.14397920E-01	1.11610964E-01	2.78695564E-03
49 1.11573280E-01	1.11610964E-01	-3.76843578E-05
50 1.27814960E-01	1.33786669E-01	-5.97170948E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.32051920E-01	1.33786669E-01	-1.73474948E-03
52	1.30639600E-01	1.33786669E-01	-3.14706948E-03
53	1.63829120E-01	1.52636019E-01	1.11931012E-02
54	1.66653760E-01	1.52636019E-01	1.40177412E-02
55	1.61710640E-01	1.52636019E-01	9.07462117E-03
56	1.78658480E-01	1.75920509E-01	2.73797080E-03
57	1.80776960E-01	1.75920509E-01	4.85645080E-03
58	1.77952320E-01	1.75920509E-01	2.03181080E-03
59	2.16791120E-01	1.98096214E-01	1.86949057E-02
60	2.13966480E-01	1.98096214E-01	1.58702657E-02
61	2.25265040E-01	1.98096214E-01	2.71688257E-02
62	2.35151280E-01	2.21380705E-01	1.37705753E-02
63	2.39388240E-01	2.21380705E-01	1.80075353E-02
64	2.30208160E-01	2.21380705E-01	8.82745531E-03
65	2.64103840E-01	2.42447625E-01	2.16562154E-02
66	2.65516160E-01	2.42447625E-01	2.30685354E-02
67	2.61985360E-01	2.42447625E-01	1.95377354E-02
68	2.75402400E-01	2.60188189E-01	1.52142114E-02
69	2.78933200E-01	2.60188189E-01	1.87450114E-02
70	2.71165440E-01	2.60188189E-01	1.09772514E-02
71	3.10004240E-01	2.89016605E-01	2.09876347E-02
72	3.08591920E-01	2.89016605E-01	1.95753147E-02
73	3.10710400E-01	2.89016605E-01	2.16937947E-02
74	3.19184320E-01	3.05648384E-01	1.35359359E-02
75	3.19890480E-01	3.05648384E-01	1.42420959E-02
76	3.18478160E-01	3.05648384E-01	1.28297759E-02
77	3.47430720E-01	3.28932875E-01	1.84978455E-02
78	3.46724560E-01	3.28932875E-01	1.77916855E-02
79	3.43193760E-01	3.28932875E-01	1.42608855E-02
COEFFICIENTS :			
1	3.28872112E-02	3.50072403E-03	
2	2.11755808E-02	3.90401078E-04	
STANDARD DEVIATION = 3.11069989E-02 CHI**2 = 1.89254931E+00			

T	TAUNM	OMEGRS
1.41370E+03	-2.42213E-01	-1.63368E+01
1.41370E+03	-2.46450E-01	-1.63368E+01
1.41370E+03	-2.43625E-01	-1.63368E+01
1.41370E+03	-2.30208E-01	-1.42423E+01
1.41370E+03	-2.31620E-01	-1.42423E+01
1.41370E+03	-2.26677E-01	-1.42423E+01
1.41370E+03	-1.88545E-01	-1.23573E+01
1.41370E+03	-1.87839E-01	-1.23573E+01
1.41370E+03	-1.87839E-01	-1.23573E+01
1.41370E+03	-2.06199E-01	-1.18861E+01
1.41370E+03	-2.05493E-01	-1.18861E+01
1.41370E+03	-2.04080E-01	-1.18861E+01
1.41370E+03	-1.85720E-01	-9.84396E+00
1.41370E+03	-1.82895E-01	-9.84396E+00
1.41370E+03	-1.85014E-01	-9.84396E+00
1.41370E+03	-1.44057E-01	-9.11090E+00
1.41370E+03	-1.43350E-01	-9.11090E+00
1.41370E+03	-1.46175E-01	-9.11090E+00

1.41370E+03	-1.58886E-01	-8.01131E+00
1.41370E+03	-1.61004E-01	-8.01131E+00
1.41370E+03	-1.58886E-01	-8.01131E+00
1.41370E+03	-1.14398E-01	-6.91172E+00
1.41370E+03	-1.15104E-01	-6.91172E+00
1.41370E+03	-1.15810E-01	-6.91172E+00
1.41370E+03	-1.59592E-01	-5.65504E+00
1.41370E+03	-1.56768E-01	-5.65504E+00
1.41370E+03	-1.58180E-01	-5.65504E+00
1.41370E+03	-8.40330E-02	-4.71254E+00
1.41370E+03	-7.97961E-02	-4.71254E+00
1.41370E+03	-8.47392E-02	-4.71254E+00
1.41370E+03	-1.05924E-01	-3.71767E+00
1.41370E+03	-1.00981E-01	-3.71767E+00
1.41370E+03	-1.05218E-01	-3.71767E+00
1.41370E+03	-7.48530E-02	-2.72280E+00
1.41370E+03	-7.55591E-02	-2.72280E+00
1.41370E+03	-7.27345E-02	-2.72280E+00
1.41370E+03	-3.60142E-02	-1.30904E+00
1.41370E+03	-3.38957E-02	-1.30904E+00
1.41370E+03	-3.88388E-02	-1.30904E+00
1.41370E+03	.0E+00	.0E+00
1.41370E+03	5.01374E-02	1.57085E+00
1.41370E+03	5.08435E-02	1.57085E+00
1.41370E+03	4.87250E-02	1.57085E+00
1.41370E+03	7.48530E-02	2.67044E+00
1.41370E+03	7.62653E-02	2.67044E+00
1.41370E+03	7.34406E-02	2.67044E+00
1.41370E+03	1.12279E-01	3.71767E+00
1.41370E+03	1.14398E-01	3.71767E+00
1.41370E+03	1.11573E-01	3.71767E+00
1.41370E+03	1.27815E-01	4.76490E+00
1.41370E+03	1.32052E-01	4.76490E+00
1.41370E+03	1.30640E-01	4.76490E+00
1.41370E+03	1.63829E-01	5.65504E+00
1.41370E+03	1.66654E-01	5.65504E+00
1.41370E+03	1.61711E-01	5.65504E+00
1.41370E+03	1.78658E-01	6.75463E+00
1.41370E+03	1.80777E-01	6.75463E+00
1.41370E+03	1.77952E-01	6.75463E+00
1.41370E+03	2.16791E-01	7.80186E+00
1.41370E+03	2.13966E-01	7.80186E+00
1.41370E+03	2.25265E-01	7.80186E+00
1.41370E+03	2.35151E-01	8.90146E+00
1.41370E+03	2.39388E-01	8.90146E+00
1.41370E+03	2.30208E-01	8.90146E+00
1.41370E+03	2.64104E-01	9.89632E+00
1.41370E+03	2.65516E-01	9.89632E+00
1.41370E+03	2.61985E-01	9.89632E+00
1.41370E+03	2.75402E-01	1.07341E+01
1.41370E+03	2.78933E-01	1.07341E+01
1.41370E+03	2.71165E-01	1.07341E+01
1.41370E+03	3.10004E-01	1.20955E+01
1.41370E+03	3.08592E-01	1.20955E+01
1.41370E+03	3.10710E-01	1.20955E+01
1.41370E+03	3.19184E-01	1.28809E+01

1.41370E+03	3.19890E-01	1.28809E+01
1.41370E+03	3.18478E-01	1.28809E+01
1.41370E+03	3.47431E-01	1.39805E+01
1.41370E+03	3.46725E-01	1.39805E+01
1.41370E+03	3.43194E-01	1.39805E+01

U1 COMP 1412C RUN SEE NOTEBOOK PAGE 155

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U10ba
T = 1376.6°C

TAUNM	TAUNM (CALC)	RESI DUALS
1 -3.38956800E-01	-4.12954670E-01	7.39978701E-02
2 -3.24833600E-01	-4.12954670E-01	8.81210701E-02
3 -3.24833600E-01	-4.12954670E-01	8.81210701E-02
4 -3.67203200E-01	-3.62878440E-01	-4.32476004E-03
5 -3.67203200E-01	-3.62878440E-01	-4.32476004E-03
6 -3.67203200E-01	-3.62878440E-01	-4.32476004E-03
7 -3.81326400E-01	-3.42534971E-01	-3.87914285E-02
8 -3.81326400E-01	-3.42534971E-01	-3.87914285E-02
9 -3.81326400E-01	-3.42534971E-01	-3.87914285E-02
10 -2.68340800E-01	-3.04977799E-01	3.66369989E-02
11 -2.68340800E-01	-3.04977799E-01	3.66369989E-02
12 -2.68340800E-01	-3.04977799E-01	3.66369989E-02
13 -3.24833600E-01	-2.76809919E-01	-4.80236806E-02
14 -3.24833600E-01	-2.76809919E-01	-4.80236806E-02
15 -3.10710400E-01	-2.76809919E-01	-3.39004806E-02
16 -2.96587200E-01	-2.47077158E-01	-4.95100422E-02
17 -2.82464000E-01	-2.47077158E-01	-3.53868422E-02
18 -2.82464000E-01	-2.47077158E-01	-3.53868422E-02
19 -1.83601600E-01	-2.17344396E-01	3.37427961E-02
20 -1.83601600E-01	-2.17344396E-01	3.37427961E-02
21 -1.83601600E-01	-2.17344396E-01	3.37427961E-02
22 -1.83601600E-01	-1.89176517E-01	5.57491670E-03
23 -1.83601600E-01	-1.89176517E-01	5.57491670E-03
24 -1.83601600E-01	-1.89176517E-01	5.57491670E-03
25 -1.55355200E-01	-1.51619344E-01	-3.73585590E-03
26 -1.69478400E-01	-1.51619344E-01	-1.78590559E-02
27 -1.62416800E-01	-1.51619344E-01	-1.07974559E-02
28 -1.27108800E-01	-1.20321700E-01	-6.78709973E-03
29 -1.27108800E-01	-1.20321700E-01	-6.78709973E-03
30 -1.12985600E-01	-1.20321700E-01	7.33610027E-03
31 -1.27108800E-01	-9.68484674E-02	-3.02603326E-02
32 -1.27108800E-01	-9.68484674E-02	-3.02603326E-02
33 -1.27108800E-01	-9.68484674E-02	-3.02603326E-02
34 -7.06160000E-02	-6.24210592E-02	-8.19494081E-03
35 -7.06160000E-02	-6.24210592E-02	-8.19494081E-03
36 -7.06160000E-02	-6.24210592E-02	-8.19494081E-03
37 -5.64928000E-02	-2.79936510E-02	-2.84991490E-02
38 -5.64928000E-02	-2.79936510E-02	-2.84991490E-02
39 -4.23696000E-02	-2.79936510E-02	-1.43759490E-02
40 .0E+00	1.58230504E-02	-1.58230504E-02
41 7.06160000E-02	5.96397518E-02	1.09762482E-02
42 7.06160000E-02	5.96397518E-02	1.09762482E-02
43 7.06160000E-02	5.96397518E-02	1.09762482E-02
44 8.47392000E-02	9.56320422E-02	-1.08928422E-02
45 8.47392000E-02	9.56320422E-02	-1.08928422E-02
46 8.47392000E-02	9.56320422E-02	-1.08928422E-02
47 1.27108800E-01	1.19105275E-01	8.00352497E-03
48 1.27108800E-01	1.19105275E-01	8.00352497E-03
49 1.41232000E-01	1.19105275E-01	2.21267250E-02
50 1.41232000E-01	1.55097565E-01	-1.38655654E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.41232000E-01	1.55097565E-01	-1.38655654E-02
52	1.41232000E-01	1.55097565E-01	-1.38655654E-02
53	2.40094400E-01	1.91089856E-01	4.90045442E-02
54	2.40094400E-01	1.91089856E-01	4.90045442E-02
55	2.40094400E-01	1.91089856E-01	4.90045442E-02
56	2.11848000E-01	2.20822617E-01	-8.97461748E-03
57	2.11848000E-01	2.20822617E-01	-8.97461748E-03
58	2.11848000E-01	2.20822617E-01	-8.97461748E-03
59	2.96587200E-01	2.50555379E-01	4.60318209E-02
60	2.96587200E-01	2.50555379E-01	4.60318209E-02
61	2.96587200E-01	2.50555379E-01	4.60318209E-02
62	2.68340800E-01	2.83417905E-01	-1.50771051E-02
63	2.54217600E-01	2.83417905E-01	-2.92003051E-02
64	2.68340800E-01	2.83417905E-01	-1.50771051E-02
65	3.10710400E-01	3.11585785E-01	-8.75384592E-04
66	3.10710400E-01	3.11585785E-01	-8.75384592E-04
67	2.96587200E-01	3.11585785E-01	-1.49985846E-02
68	2.96587200E-01	3.36623900E-01	-4.00366997E-02
69	2.96587200E-01	3.36623900E-01	-4.00366997E-02
70	2.96587200E-01	3.36623900E-01	-4.00366997E-02
71	3.38956800E-01	3.77310837E-01	-3.83540366E-02
72	3.38956800E-01	3.77310837E-01	-3.83540366E-02
73	3.24833600E-01	3.77310837E-01	-5.24772366E-02
74	4.23696000E-01	4.02348952E-01	2.13470483E-02
75	4.09572800E-01	4.02348952E-01	7.22384830E-03
76	4.09572800E-01	4.02348952E-01	7.22384830E-03
77	4.94312000E-01	4.35211478E-01	5.91005223E-02
78	4.94312000E-01	4.35211478E-01	5.91005223E-02
79	4.94312000E-01	4.35211478E-01	5.91005223E-02

COEFFICIENTS :

1	1.58230504E-02	3.78434483E-03
2	2.98861201E-02	4.37328903E-04

STANDARD DEVIATION = 3.36359207E-02 CHI**2 = 3.94533451E-01

T	TAUNM	OMEGRS
1.37660E+03	-3.38957E-01	-1.43471E+01
1.37660E+03	-3.24834E-01	-1.43471E+01
1.37660E+03	-3.24834E-01	-1.43471E+01
1.37660E+03	-3.67203E-01	-1.26715E+01
1.37660E+03	-3.67203E-01	-1.26715E+01
1.37660E+03	-3.67203E-01	-1.26715E+01
1.37660E+03	-3.81326E-01	-1.19908E+01
1.37660E+03	-3.81326E-01	-1.19908E+01
1.37660E+03	-3.81326E-01	-1.19908E+01
1.37660E+03	-2.68341E-01	-1.07341E+01
1.37660E+03	-2.68341E-01	-1.07341E+01
1.37660E+03	-2.68341E-01	-1.07341E+01
1.37660E+03	-3.24834E-01	-9.79160E+00
1.37660E+03	-3.24834E-01	-9.79160E+00
1.37660E+03	-3.10710E-01	-9.79160E+00
1.37660E+03	-2.96587E-01	-8.79673E+00
1.37660E+03	-2.82464E-01	-8.79673E+00
1.37660E+03	-2.82464E-01	-8.79673E+00

1.37660E+03	-1.83602E-01	-7.80186E+00
1.37660E+03	-1.83602E-01	-7.80186E+00
1.37660E+03	-1.83602E-01	-7.80186E+00
1.37660E+03	-1.83602E-01	-6.85936E+00
1.37660E+03	-1.83602E-01	-6.85936E+00
1.37660E+03	-1.83602E-01	-6.85936E+00
1.37660E+03	-1.55355E-01	-5.60268E+00
1.37660E+03	-1.69478E-01	-5.60268E+00
1.37660E+03	-1.62417E-01	-5.60268E+00
1.37660E+03	-1.27109E-01	-4.55545E+00
1.37600E+03	-1.27109E-01	-4.55545E+00
1.37660E+03	-1.12986E-01	-4.55545E+00
1.37660E+03	-1.27109E-01	-3.77003E+00
1.37660E+03	-1.27109E-01	-3.77003E+00
1.37660E+03	-1.27109E-01	-3.77003E+00
1.37660E+03	-7.06160E-02	-2.61808E+00
1.37660E+03	-7.06160E-02	-2.61808E+00
1.37660E+03	-7.06160E-02	-2.61808E+00
1.37660E+03	-5.64928E-02	-1.46612E+00
1.37660E+03	-5.64928E-02	-1.46612E+00
1.37660E+03	-4.23696E-02	-1.46612E+00
1.37660E+03	.0E+00	.0E+00
1.37660E+03	7.06160E-02	1.46612E+00
1.37660E+03	7.06160E-02	1.46612E+00
1.37660E+03	7.06160E-02	1.46612E+00
1.37660E+03	8.47392E-02	2.67044E+00
1.37660E+03	8.47392E-02	2.67044E+00
1.37660E+03	8.47392E-02	2.67044E+00
1.37660E+03	1.27109E-01	3.45586E+00
1.37660E+03	1.27109E-01	3.45586E+00
1.37660E+03	1.41232E-01	3.45586E+00
1.37660E+03	1.41232E-01	4.66017E+00
1.37660E+03	1.41232E-01	4.66017E+00
1.37660E+03	1.41232E-01	4.66017E+00
1.37660E+03	2.40094E-01	5.86449E+00
1.37660E+03	2.40094E-01	5.86449E+00
1.37660E+03	2.40094E-01	5.86449E+00
1.37660E+03	2.11848E-01	6.85936E+00
1.37660E+03	2.11848E-01	6.85936E+00
1.37660E+03	2.11848E-01	6.85936E+00
1.37660E+03	2.96587E-01	7.85423E+00
1.37660E+03	2.96587E-01	7.85423E+00
1.37660E+03	2.96587E-01	7.85423E+00
1.37660E+03	2.68341E-01	8.95382E+00
1.37660E+03	2.54218E-01	8.95382E+00
1.37660E+03	2.68341E-01	8.95382E+00
1.37660E+03	3.10710E-01	9.89632E+00
1.37660E+03	3.10710E-01	9.89632E+00
1.37660E+03	2.96587E-01	9.89632E+00
1.37660E+03	2.96587E-01	1.07341E+01
1.37660E+03	2.96587E-01	1.07341E+01
1.37660E+03	2.96587E-01	1.07341E+01
1.37660E+03	3.38957E-01	1.20955E+01
1.37660E+03	3.38957E-01	1.20955E+01
1.37660E+03	3.24834E-01	1.20955E+01
1.37660E+03	4.23696E-01	1.29333E+01

1.37660E+03	4.09573E-01	1.29333E+01
1.37660E+03	4.09573E-01	1.29333E+01
1.37660E+03	4.94312E-01	1.40329E+01
1.37660E+03	4.94312E-01	1.40329E+01
1.37660E+03	4.94312E-01	1.40329E+01

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APPENDIX G

Ue20 (357') [U7]

LIST OF SYMBOLS

- TAUNM observed torque, τ (N·m).
- TAUNM (CALC) calculated torque, τ (N·m).
- OMEGRS angular rotation (rad/s).

At each investigated isotherm, torque was recorded both for clockwise angular rotations (positive values) and for counterclockwise angular rotations (negative values). Least-squares analyses of torque (τ) as a function of angular rotation (ω) were then made assuming the following functional relationship:

$$\tau = A_2\omega + A_1$$

The coefficients A_1 and A_2 are tabulated for each isotherm.

All temperatures are uncorrected but can be correlated with corrected values in Table 3 in the text.

Ue20 μ (357')

T = 1536.5°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -8.75638400E-02	-1.12936068E-01	2.53722285E-02
2 -1.08748640E-01	-1.12936068E-01	4.18742845E-03
3 -9.95685600E-02	-1.12936068E-01	1.33675085E-02
4 -1.02393200E-01	-1.04685508E-01	2.29230847E-03
5 -9.67439200E-02	-1.04685508E-01	7.94158847E-03
6 -8.26207200E-02	-1.04685508E-01	2.20647885E-02
7 -9.88624000E-02	-9.72600045E-02	-1.60239552E-03
8 -7.69714400E-02	-9.72600045E-02	2.02885645E-02
9 -8.61515200E-02	-9.72600045E-02	1.11084845E-02
10 -8.61515200E-02	-8.69468045E-02	7.95284501E-04
11 -6.92036800E-02	-8.69468045E-02	1.77431245E-02
12 -7.97960800E-02	-8.69468045E-02	7.15072450E-03
13 -8.68576800E-02	-8.19964685E-02	-4.86121149E-03
14 -7.69714400E-02	-8.19964685E-02	5.02502851E-03
15 -8.26207200E-02	-8.19964685E-02	-6.24251489E-04
16 -7.41468000E-02	-7.25083245E-02	-1.63847547E-03
17 -6.00236000E-02	-7.25083245E-02	1.24847245E-02
18 -6.77913600E-02	-7.25083245E-02	4.71696453E-03
19 -6.92036800E-02	-6.59078765E-02	-3.29580346E-03
20 -7.27344800E-02	-6.59078765E-02	-6.82660346E-03
21 -6.07297600E-02	-6.59078765E-02	5.17811654E-03
22 -5.79051200E-02	-5.76573166E-02	-2.47803443E-04
23 -5.36681600E-02	-5.76573166E-02	3.98915656E-03
24 -5.08435200E-02	-5.76573166E-02	6.81379656E-03
25 -5.43743200E-02	-4.89942286E-02	-5.38009143E-03
26 -4.73127200E-02	-4.89942286E-02	1.68150857E-03
27 -5.79051200E-02	-4.89942286E-02	-8.91089143E-03
28 -4.37819200E-02	-4.15687246E-02	-2.21319541E-03
29 -4.16634400E-02	-4.15687246E-02	-9.47154119E-05
30 -3.81326400E-02	-4.15687246E-02	3.43608459E-03
31 -4.23696000E-02	-3.08429966E-02	-1.15266034E-02
32 -5.22558400E-02	-3.08429966E-02	-2.14128434E-02
33 -4.02511200E-02	-3.08429966E-02	-9.40812339E-03
34 -9.18008000E-02	-2.38300206E-02	-6.79707794E-02
35 -1.19341040E-01	-2.38300206E-02	-9.55110194E-02
36 -9.46254400E-02	-2.38300206E-02	-7.07954194E-02
37 -1.29933440E-01	-1.35168206E-02	-1.16416619E-01
38 -1.49705920E-01	-1.35168206E-02	-1.36189099E-01
39 -1.33464240E-01	-1.35168206E-02	-1.19947419E-01
40 6.35544000E-03	-4.02867666E-03	1.03841167E-02
41 -1.12985600E-02	-4.02867666E-03	-7.26988334E-03
42 5.64928000E-02	5.45946732E-03	5.10333327E-02
43 6.35544000E-02	5.45946732E-03	5.80949327E-02
44 6.21420800E-02	5.45946732E-03	5.66826127E-02
45 6.70852000E-02	1.61851953E-02	5.09000047E-02
46 7.06160000E-02	1.61851953E-02	5.44308047E-02
47 9.32131200E-02	1.61851953E-02	7.70279247E-02
48 1.03805520E-01	2.60858673E-02	7.77196527E-02
49 7.83837600E-02	2.60858673E-02	5.22978927E-02
50 6.92036800E-02	2.60858673E-02	4.31178127E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	3.74264800E-02	3.26863153E-02	4.74016473E-03
52	4.44880800E-02	3.26863153E-02	1.18017647E-02
53	4.80188800E-02	3.26863153E-02	1.53325647E-02
54	5.29620000E-02	4.13494033E-02	1.16125967E-02
55	4.73127200E-02	4.13494033E-02	5.96331675E-03
56	5.01373600E-02	4.13494033E-02	8.78795675E-03
57	6.14359200E-02	4.87749072E-02	1.26610128E-02
58	4.73127200E-02	4.87749072E-02	-1.46218724E-03
59	5.79051200E-02	4.87749072E-02	9.13021276E-03
60	5.79051200E-02	5.82630512E-02	-3.57931221E-04
61	6.07297600E-02	5.82630512E-02	2.46670878E-03
62	6.84975200E-02	5.82630512E-02	1.02344688E-02
63	5.79051200E-02	6.81637232E-02	-1.02586032E-02
64	6.42605600E-02	6.81637232E-02	-3.90316320E-03
65	7.34406400E-02	6.81637232E-02	5.27691680E-03
66	8.19145600E-02	7.47641712E-02	7.15038881E-03
67	7.76776000E-02	7.47641712E-02	2.91342881E-03
68	7.27344800E-02	7.47641712E-02	-2.02969119E-03
69	6.99098400E-02	8.38397872E-02	-1.39299472E-02
70	7.27344800E-02	8.38397872E-02	-1.11053072E-02
71	8.05022400E-02	8.38397872E-02	-3.33754717E-03
72	8.05022400E-02	9.20903472E-02	-1.15881072E-02
73	9.10946400E-02	9.20903472E-02	-9.95707156E-04
74	9.74500800E-02	9.20903472E-02	5.35973284E-03
75	7.62652800E-02	9.53905712E-02	-1.91252912E-02
76	7.90899200E-02	9.53905712E-02	-1.63006512E-02
77	8.75638400E-02	9.53905712E-02	-7.82673115E-03
78	9.60377600E-02	1.05703771E-01	-9.66601113E-03
79	8.89761600E-02	1.05703771E-01	-1.67276111E-02

COEFFICIENTS :

1	-4.02867666E-03	4.08819990E-03
2	7.87845973E-03	4.82304276E-04

STANDARD DEVIATION = 3.63339423E-02 CHI**2 = 7.16451671E+00

T	TAUNM	OMEGRS
1.53650E+03	-8.75638E-02	-1.38234E+01
1.53650E+03	-1.08749E-01	-1.38234E+01
1.53650E+03	-9.95686E-02	-1.38234E+01
1.53650E+03	-1.02393E-01	-1.27762E+01
1.53650E+03	-9.67439E-02	-1.27762E+01
1.53650E+03	-8.26207E-02	-1.27762E+01
1.53650E+03	-9.88624E-02	-1.18337E+01
1.53650E+03	-7.69714E-02	-1.18337E+01
1.53650E+03	-8.61515E-02	-1.18337E+01
1.53650E+03	-8.61515E-02	-1.05247E+01
1.53650E+03	-6.92037E-02	-1.05247E+01
1.53650E+03	-7.97961E-02	-1.05247E+01
1.53650E+03	-8.68577E-02	-9.89632E+00
1.53650E+03	-7.69714E-02	-9.89632E+00
1.53650E+03	-8.26207E-02	-9.89632E+00
1.53650E+03	-7.41468E-02	-8.69201E+00

1.53650E+03	-6.00236E-02	-8.69201E+00
1.53650E+03	-6.77914E-02	-8.69201E+00
1.53650E+03	-6.92037E-02	-7.85423E+00
1.53650E+03	-7.27345E-02	-7.85423E+00
1.53650E+03	-6.07298E-02	-7.85423E+00
1.53650E+03	-5.79051E-02	-6.80700E+00
1.53650E+03	-5.36682E-02	-6.80700E+00
1.53650E+03	-5.08435E-02	-6.80700E+00
1.53650E+03	-5.43743E-02	-5.70740E+00
1.53650E+03	-4.73127E-02	-5.70740E+00
1.53650E+03	-5.79051E-02	-5.70740E+00
1.53650E+03	-4.37819E-02	-4.76490E+00
1.53650E+03	-4.16634E-02	-4.76490E+00
1.53650E+03	-3.81326E-02	-4.76490E+00
1.53650E+03	-4.23696E-02	-3.40350E+00
1.53650E+03	-5.22558E-02	-3.40350E+00
1.53650E+03	-4.02511E-02	-3.40350E+00
1.53650E+03	-9.18008E-02	-2.51335E+00
1.53650E+03	-1.19341E-01	-2.51335E+00
1.53650E+03	-9.46254E-02	-2.51335E+00
1.53650E+03	-1.29933E-01	-1.20431E+00
1.53650E+03	-1.49706E-01	-1.20431E+00
1.53650E+03	-1.33464E-01	-1.20431E+00
1.53650E+03	6.35544E-03	.0E+00
1.53650E+03	-1.12986E-02	.0E+00
1.53650E+03	5.64928E-02	1.20431E+00
1.53650E+03	6.35544E-02	1.20431E+00
1.53650E+03	6.21421E-02	1.20431E+00
1.53650E+03	6.70852E-02	2.56571E+00
1.53650E+03	7.06160E-02	2.56571E+00
1.53650E+03	9.32131E-02	2.56571E+00
1.53650E+03	1.03806E-01	3.82239E+00
1.53650E+03	7.83838E-02	3.82239E+00
1.53650E+03	6.92037E-02	3.82239E+00
1.53650E+03	3.74265E-02	4.66017E+00
1.53650E+03	4.44881E-02	4.66017E+00
1.53650E+03	4.80189E-02	4.66017E+00
1.53650E+03	5.29620E-02	5.75977E+00
1.53650E+03	4.73127E-02	5.75977E+00
1.53650E+03	5.01374E-02	5.75977E+00
1.53650E+03	6.14359E-02	6.70227E+00
1.53650E+03	4.73127E-02	6.70227E+00
1.53650E+03	5.79051E-02	6.70227E+00
1.53650E+03	5.79051E-02	7.90659E+00
1.53650E+03	6.07298E-02	7.90659E+00
1.53650E+03	6.84975E-02	7.90659E+00
1.53650E+03	5.79051E-02	9.16326E+00
1.53650E+03	6.42606E-02	9.16326E+00
1.53650E+03	7.34406E-02	9.16326E+00
1.53650E+03	8.19146E-02	1.00010E+01
1.53650E+03	7.76776E-02	1.00010E+01
1.53650E+03	7.27345E-02	1.00010E+01
1.53650E+03	6.99098E-02	1.11530E+01
1.53650E+03	7.27345E-02	1.11530E+01

1.53650E+03	8.05022E-02	1.11530E+01
1.53650E+03	8.05022E-02	1.22002E+01
1.53650E+03	9.10946E-02	1.22002E+01
1.53650E+03	9.74501E-02	1.22002E+01
1.53650E+03	7.62653E-02	1.26191E+01
1.53650E+03	7.90899E-02	1.26191E+01
1.53650E+03	8.75638E-02	1.26191E+01
1.53650E+03	9.60378E-02	1.39282E+01
1.53650E+03	8.89762E-02	1.39282E+01
1.53650E+03	8.33269E-02	1.39282E+01

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Ue20 μ (357')

T = 1494.5°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -1.32758080E-01	-1.42291756E-01	9.53367570E-03
2 -1.36288880E-01	-1.42291756E-01	6.00287570E-03
3 -1.41232000E-01	-1.42291756E-01	1.05975570E-03
4 -1.22871840E-01	-1.33069917E-01	1.01980775E-02
5 -1.25696480E-01	-1.33069917E-01	7.37343747E-03
6 -1.29933440E-01	-1.33069917E-01	3.13647747E-03
7 -1.22871840E-01	-1.21678235E-01	-1.19360504E-03
8 -1.19341040E-01	-1.21678235E-01	2.33719496E-03
9 -1.16516400E-01	-1.21678235E-01	5.16183496E-03
10 -1.12279440E-01	-1.11371475E-01	-9.07965406E-04
11 -1.07336320E-01	-1.11371475E-01	4.03515459E-03
12 -1.03805520E-01	-1.11371475E-01	7.56595459E-03
13 -1.03805520E-01	-1.01064714E-01	-2.74080577E-03
14 -1.07336320E-01	-1.01064714E-01	-6.27160577E-03
15 -1.01687040E-01	-1.01064714E-01	-6.22325773E-04
16 -8.89761600E-02	-8.80456485E-02	-9.30511500E-04
17 -8.47392000E-02	-8.80456485E-02	3.30644850E-03
18 -8.61515200E-02	-8.80456485E-02	1.89412850E-03
19 -8.47392000E-02	-8.04511935E-02	-4.28800651E-03
20 -8.89761600E-02	-8.04511935E-02	-8.52496651E-03
21 -8.40330400E-02	-8.04511935E-02	-3.58184651E-03
22 -7.20283200E-02	-7.01444331E-02	-1.88388687E-03
23 -6.84975200E-02	-7.01444331E-02	1.64691313E-03
24 -7.34406400E-02	-7.01444331E-02	-3.29620687E-03
25 -7.06160000E-02	-6.14650560E-02	-9.15094403E-03
26 -6.70852000E-02	-6.14650560E-02	-5.62014403E-03
27 -6.92036800E-02	-6.14650560E-02	-7.73862403E-03
28 -5.36681600E-02	-4.95309124E-02	-4.13724761E-03
29 -5.15496800E-02	-4.95309124E-02	-2.01876761E-03
30 -5.22558400E-02	-4.95309124E-02	-2.72492761E-03
31 -4.73127200E-02	-3.97666131E-02	-7.54610690E-03
32 -4.87250400E-02	-3.97666131E-02	-8.95842690E-03
33 -4.59004000E-02	-3.97666131E-02	-6.13378690E-03
34 -3.17772000E-02	-2.67475474E-02	-5.02965263E-03
35 -2.75402400E-02	-2.67475474E-02	-7.92692631E-04
36 -2.82464000E-02	-2.67475474E-02	-1.49885263E-03
37 -2.68340800E-02	-1.69832481E-02	-9.85083193E-03
38 -2.54217600E-02	-1.69832481E-02	-8.43851193E-03
39 -2.33032800E-02	-1.69832481E-02	-6.32003193E-03
40 1.41232000E-03	9.17967301E-04	4.94352699E-04
41 1.34170400E-02	1.44794941E-02	-1.06245410E-03
42 1.62416800E-02	1.44794941E-02	1.76218590E-03
43 1.69478400E-02	1.44794941E-02	2.46834590E-03
44 3.10710400E-02	2.91259430E-02	1.94509696E-03
45 3.24833600E-02	2.91259430E-02	3.35741696E-03
46 2.96587200E-02	2.91259430E-02	5.32776957E-04
47 4.59004000E-02	4.10600866E-02	4.84031337E-03
48 5.08435200E-02	4.10600866E-02	9.78343337E-03
49 4.80188800E-02	4.10600866E-02	6.95879337E-03
50 5.22558400E-02	4.81120806E-02	4.14375944E-03

	TAUNM	TAUNM (CALC)	RESI DUALS
51	4.87250400E-02	4.81120806E-02	6.12959439E-04
52	5.08435200E-02	4.81120806E-02	2.73143944E-03
53	6.28482400E-02	6.00462241E-02	2.80201586E-03
54	6.92036800E-02	6.00462241E-02	9.15745586E-03
55	6.63790400E-02	6.00462241E-02	6.33281586E-03
56	7.41468000E-02	7.08954456E-02	3.25135442E-03
57	6.92036800E-02	7.08954456E-02	-1.69176558E-03
58	7.06160000E-02	7.08954456E-02	-2.79445583E-04
59	8.26207200E-02	8.22871281E-02	3.33591905E-04
60	8.89761600E-02	8.22871281E-02	6.68903191E-03
61	8.68576800E-02	8.22871281E-02	4.57055191E-03
62	8.89761600E-02	9.31363495E-02	-4.16018953E-03
63	9.81562400E-02	9.31363495E-02	5.01989047E-03
64	9.46254400E-02	9.31363495E-02	1.48909047E-03
65	1.08042480E-01	1.04528032E-01	3.51444796E-03
66	1.03099360E-01	1.04528032E-01	-1.42867204E-03
67	1.09454800E-01	1.04528032E-01	4.92676796E-03
68	1.05924000E-01	1.13207409E-01	-7.28340920E-03
69	1.09454800E-01	1.13207409E-01	-3.75260920E-03
70	1.13691760E-01	1.13207409E-01	4.84350804E-04
71	1.28521120E-01	1.25141553E-01	3.37956722E-03
72	1.27814960E-01	1.25141553E-01	2.67340722E-03
73	1.24990320E-01	1.25141553E-01	-1.51232779E-04
74	1.31345760E-01	1.33820930E-01	-2.47516993E-03
75	1.33464240E-01	1.33820930E-01	-3.56689930E-04
76	1.29933440E-01	1.33820930E-01	-3.88748993E-03
77	1.45468960E-01	1.51179684E-01	-5.71072423E-03
78	1.50412080E-01	1.51179684E-01	-7.67604233E-04
79	1.46881280E-01	1.51179684E-01	-4.29840423E-03

COEFFICIENTS :

1	9.17967301E-04	5.51580477E-04
2	1.03599216E-02	6.35943372E-05

STANDARD DEVIATION = 4.90255439E-03 CHI**2 = 3.78080009E-02

T	TAUNM	OMEGRS
1.49450E+03	-1.32758E-01	-1.38234E+01
1.49450E+03	-1.36289E-01	-1.38234E+01
1.49450E+03	-1.41232E-01	-1.38234E+01
1.49450E+03	-1.22872E-01	-1.29333E+01
1.49450E+03	-1.25696E-01	-1.29333E+01
1.49450E+03	-1.29933E-01	-1.29333E+01
1.49450E+03	-1.22872E-01	-1.18337E+01
1.49450E+03	-1.19341E-01	-1.18337E+01
1.49450E+03	-1.16516E-01	-1.18337E+01
1.49450E+03	-1.12279E-01	-1.08388E+01
1.49450E+03	-1.07336E-01	-1.08388E+01
1.49450E+03	-1.03806E-01	-1.08388E+01
1.49450E+03	-1.03806E-01	-9.84396E+00
1.49450E+03	-1.07336E-01	-9.84396E+00
1.49450E+03	-1.01687E-01	-9.84396E+00
1.49450E+03	-8.89762E-02	-8.58729E+00
1.49450E+03	-8.47392E-02	-8.58729E+00
1.49450E+03	-8.61515E-02	-8.58729E+00

1.49450E+03	-8.47392E-02	-7.85423E+00
1.49450E+03	-8.89762E-02	-7.85423E+00
1.49450E+03	-8.40330E-02	-7.85423E+00
1.49450E+03	-7.20283E-02	-6.85936E+00
1.49450E+03	-6.84975E-02	-6.85936E+00
1.49450E+03	-7.34406E-02	-6.85936E+00
1.49450E+03	-7.06160E-02	-6.02157E+00
1.49450E+03	-6.70852E-02	-6.02157E+00
1.49450E+03	-6.92037E-02	-6.02157E+00
1.49450E+03	-5.36682E-02	-4.86962E+00
1.49450E+03	-5.15497E-02	-4.86962E+00
1.49450E+03	-5.22558E-02	-4.86962E+00
1.49450E+03	-4.73127E-02	-3.92711E+00
1.49450E+03	-4.87250E-02	-3.92711E+00
1.49450E+03	-4.59004E-02	-3.92711E+00
1.49450E+03	-3.17772E-02	-2.67044E+00
1.49450E+03	-2.75402E-02	-2.67044E+00
1.49450E+03	-2.82464E-02	-2.67044E+00
1.49450E+03	-2.68341E-02	-1.72793E+00
1.49450E+03	-2.54218E-02	-1.72793E+00
1.49450E+03	-2.33033E-02	-1.72793E+00
1.49450E+03	1.41232E-03	.0E+00
1.49450E+03	1.34170E-02	1.30904E+00
1.49450E+03	1.62417E-02	1.30904E+00
1.49450E+03	1.69478E-02	1.30904E+00
1.49450E+03	3.10710E-02	2.72280E+00
1.49450E+03	3.24834E-02	2.72280E+00
1.49450E+03	2.96587E-02	2.72280E+00
1.49450E+03	4.59004E-02	3.87475E+00
1.49450E+03	5.08435E-02	3.87475E+00
1.49450E+03	4.80189E-02	3.87475E+00
1.49450E+03	5.22558E-02	4.55545E+00
1.49450E+03	4.87250E-02	4.55545E+00
1.49450E+03	5.08435E-02	4.55545E+00
1.49450E+03	6.28482E-02	5.70740E+00
1.49450E+03	6.92037E-02	5.70740E+00
1.49450E+03	6.63790E-02	5.70740E+00
1.49450E+03	7.41468E-02	6.75463E+00
1.49450E+03	6.92037E-02	6.75463E+00
1.49450E+03	7.06160E-02	6.75463E+00
1.49450E+03	8.26207E-02	7.85423E+00
1.49450E+03	8.89762E-02	7.85423E+00
1.49450E+03	8.68577E-02	7.85423E+00
1.49450E+03	8.89762E-02	8.90146E+00
1.49450E+03	9.81562E-02	8.90146E+00
1.49450E+03	9.46254E-02	8.90146E+00
1.49450E+03	1.08042E-01	1.00010E+01
1.49450E+03	1.03099E-01	1.00010E+01
1.49450E+03	1.09455E-01	1.00010E+01
1.49450E+03	1.05924E-01	1.08388E+01
1.49450E+03	1.09455E-01	1.08388E+01
1.49450E+03	1.13692E-01	1.08388E+01
1.49450E+03	1.28521E-01	1.19908E+01
1.49450E+03	1.27815E-01	1.19908E+01
1.49450E+03	1.24990E-01	1.19908E+01

1.49450E+03	1.31346E-01	1.28286E+01
1.49450E+03	1.33464E-01	1.28286E+01
1.49450E+03	1.29933E-01	1.28286E+01
1.49450E+03	1.45469E-01	1.45041E+01
1.49450E+03	1.50412E-01	1.45041E+01
1.49450E+03	1.46881E-01	1.45041E+01

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69.23.24

Ue20 μ (357')

T = 1458.4°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -2.33738960E-01	-2.49341159E-01	1.56021994E-02
2 -2.33032800E-01	-2.49341159E-01	1.63083594E-02
3 -2.30208160E-01	-2.49341159E-01	1.91329994E-02
4 -2.18203440E-01	-2.26634495E-01	8.43105503E-03
5 -2.18909600E-01	-2.26634495E-01	7.72489503E-03
6 -2.17497280E-01	-2.26634495E-01	9.13721503E-03
7 -2.05492560E-01	-2.17173385E-01	1.16808249E-02
8 -2.06198720E-01	-2.17173385E-01	1.09746649E-02
9 -2.07611040E-01	-2.17173385E-01	9.56234488E-03
10 -1.99137120E-01	-2.02035609E-01	2.89848866E-03
11 -2.00549440E-01	-2.02035609E-01	1.48616866E-03
12 -2.01255600E-01	-2.02035609E-01	7.80008655E-04
13 -1.79364640E-01	-1.86897832E-01	7.53319243E-03
14 -1.77952320E-01	-1.86897832E-01	8.94551243E-03
15 -1.82189280E-01	-1.86897832E-01	4.70855243E-03
16 -1.67359920E-01	-1.60406724E-01	-6.95319597E-03
17 -1.58179840E-01	-1.60406724E-01	2.22688403E-03
18 -1.61004480E-01	-1.60406724E-01	-5.97755973E-04
19 -1.48293600E-01	-1.51891725E-01	3.59812490E-03
20 -1.52530560E-01	-1.51891725E-01	-6.38835101E-04
21 -1.44056640E-01	-1.51891725E-01	7.83508490E-03
22 -1.25696480E-01	-1.30131172E-01	4.43469157E-03
23 -1.31345760E-01	-1.30131172E-01	-1.21458843E-03
24 -1.28521120E-01	-1.30131172E-01	1.61005157E-03
25 -1.20047200E-01	-1.09316729E-01	-1.07304707E-02
26 -1.23578000E-01	-1.09316729E-01	-1.42612707E-02
27 -1.19341040E-01	-1.09316729E-01	-1.00243107E-02
28 -1.05924000E-01	-8.94483980E-02	-1.64756020E-02
29 -1.21459520E-01	-8.94483980E-02	-3.20111220E-02
30 -1.17928720E-01	-8.94483980E-02	-2.84803220E-02
31 -9.67439200E-02	-6.86339556E-02	-2.81099644E-02
32 -1.00980880E-01	-6.86339556E-02	-3.23469244E-02
33 -9.32131200E-02	-6.86339556E-02	-2.45791644E-02
34 -7.06160000E-02	-5.44422904E-02	-1.61737096E-02
35 -6.63790400E-02	-5.44422904E-02	-1.19367496E-02
36 -6.77913600E-02	-5.44422904E-02	-1.33490696E-02
37 -1.08042480E-01	-3.55200701E-02	-7.25224099E-02
38 -9.95685600E-02	-3.55200701E-02	-6.40484899E-02
39 -9.10946400E-02	-3.55200701E-02	-5.55745699E-02
40 .0E+00	-4.29840667E-03	4.29840667E-03
41 -4.23696000E-03	-4.29840667E-03	6.14466739E-05
42 7.90899200E-02	1.55699246E-02	6.35199954E-02
43 6.42605600E-02	1.55699246E-02	4.86906354E-02
44 5.50804800E-02	1.55699246E-02	3.95105554E-02
45 7.27344800E-02	4.77376991E-02	2.49967809E-02
46 7.90899200E-02	4.77376991E-02	3.13522209E-02
47 6.77913600E-02	4.77376991E-02	2.00536609E-02
48 7.90899200E-02	6.09832533E-02	1.81066667E-02
49 7.34406400E-02	6.09832533E-02	1.24573867E-02
50 7.48529600E-02	6.09832533E-02	1.38697067E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	9.39192800E-02	8.55821397E-02	8.33714032E-03
52	9.74500800E-02	8.55821397E-02	1.18679403E-02
53	8.75638400E-02	8.55821397E-02	1.98170032E-03
54	1.09454800E-01	1.05450471E-01	4.00432902E-03
55	1.08042480E-01	1.05450471E-01	2.59200902E-03
56	1.13691760E-01	1.05450471E-01	8.24128902E-03
57	1.29227280E-01	1.19642136E-01	9.58514381E-03
58	1.21459520E-01	1.19642136E-01	1.81738381E-03
59	1.26402640E-01	1.19642136E-01	6.76050381E-03
60	1.35582720E-01	1.39510467E-01	-3.92774749E-03
61	1.32051920E-01	1.39510467E-01	-7.45854749E-03
62	1.41938160E-01	1.39510467E-01	2.42769251E-03
63	1.51824400E-01	1.51809911E-01	1.44893204E-05
64	1.58179840E-01	1.51809911E-01	6.36992932E-03
65	1.47587440E-01	1.51809911E-01	-4.22247068E-03
66	1.72303040E-01	1.71678242E-01	6.24798021E-04
67	1.60298320E-01	1.71678242E-01	-1.13799220E-02
68	1.64535280E-01	1.71678242E-01	-7.14296198E-03
69	1.89250880E-01	1.87762129E-01	1.48875078E-03
70	1.90663200E-01	1.87762129E-01	2.90107078E-03
71	1.81483120E-01	1.87762129E-01	-6.27900922E-03
72	1.96312480E-01	2.10468794E-01	-1.41563136E-02
73	2.00549440E-01	2.10468794E-01	-9.91935356E-03
74	1.85720080E-01	2.10468794E-01	-2.47487136E-02
75	2.35857440E-01	2.23714348E-01	1.21430922E-02
76	2.30208160E-01	2.23714348E-01	6.49381224E-03
77	2.29502000E-01	2.23714348E-01	5.78765224E-03
78	2.47862160E-01	2.48313234E-01	-4.51074135E-04
79	2.52805280E-01	2.48313234E-01	4.49204587E-03
80	2.48568320E-01	2.48313234E-01	2.55085865E-04

COEFFICIENTS :

1	-4.29840667E-03	2.26410136E-03
2	1.80688282E-02	2.65565668E-04

STANDARD DEVIATION = 2.02507361E-02 CHI**2 = 1.01349049E+00

T	TAUNM	OMEGRS
1.45840E+03	-2.33739E-01	-1.35616E+01
1.45840E+03	-2.33033E-01	-1.35616E+01
1.45840E+03	-2.30208E-01	-1.35616E+01
1.45840E+03	-2.18203E-01	-1.23050E+01
1.45840E+03	-2.18910E-01	-1.23050E+01
1.45840E+03	-2.17497E-01	-1.23050E+01
1.45840E+03	-2.05493E-01	-1.17813E+01
1.45840E+03	-2.06199E-01	-1.17813E+01
1.45840E+03	-2.07611E-01	-1.17813E+01
1.45840E+03	-1.99137E-01	-1.09436E+01
1.45840E+03	-2.00549E-01	-1.09436E+01
1.45840E+03	-2.01256E-01	-1.09436E+01
1.45840E+03	-1.79365E-01	-1.01058E+01
1.45840E+03	-1.77952E-01	-1.01058E+01
1.45840E+03	-1.82189E-01	-1.01058E+01
1.45840E+03	-1.67360E-01	-8.63965E+00

1.45840E+03	-1.58180E-01	-8.63965E+00
1.45840E+03	-1.61004E-01	-8.63965E+00
1.45840E+03	-1.48294E-01	-8.16839E+00
1.45840E+03	-1.52531E-01	-8.16839E+00
1.45840E+03	-1.44057E-01	-8.16839E+00
1.45840E+03	-1.25696E-01	-6.96408E+00
1.45840E+03	-1.31346E-01	-6.96408E+00
1.45840E+03	-1.28521E-01	-6.96408E+00
1.45840E+03	-1.20047E-01	-5.81213E+00
1.45840E+03	-1.23578E-01	-5.81213E+00
1.45840E+03	-1.19341E-01	-5.81213E+00
1.45840E+03	-1.05924E-01	-4.71254E+00
1.45840E+03	-1.21460E-01	-4.71254E+00
1.45840E+03	-1.17929E-01	-4.71254E+00
1.45840E+03	-9.67439E-02	-3.56058E+00
1.45840E+03	-1.00981E-01	-3.56058E+00
1.45840E+03	-9.32131E-02	-3.56058E+00
1.45840E+03	-7.06160E-02	-2.77516E+00
1.45840E+03	-6.63790E-02	-2.77516E+00
1.45840E+03	-6.77914E-02	-2.77516E+00
1.45840E+03	-1.08042E-01	-1.72793E+00
1.45840E+03	-9.95686E-02	-1.72793E+00
1.45840E+03	-9.10946E-02	-1.72793E+00
1.45840E+03	.0E+00	.0E+00
1.45840E+03	-4.23696E-03	.0E+00
1.45840E+03	7.90899E-02	1.09959E+00
1.45840E+03	6.42606E-02	1.09959E+00
1.45840E+03	5.50805E-02	1.09959E+00
1.45840E+03	7.27345E-02	2.87988E+00
1.45840E+03	7.90899E-02	2.87988E+00
1.45840E+03	6.77914E-02	2.87988E+00
1.45840E+03	7.90899E-02	3.61294E+00
1.45840E+03	7.34406E-02	3.61294E+00
1.45840E+03	7.48530E-02	3.61294E+00
1.45840E+03	9.39193E-02	4.97434E+00
1.45840E+03	9.74501E-02	4.97434E+00
1.45840E+03	8.75638E-02	4.97434E+00
1.45840E+03	1.09455E-01	6.07393E+00
1.45840E+03	1.08042E-01	6.07393E+00
1.45840E+03	1.13692E-01	6.07393E+00
1.45840E+03	1.29227E-01	6.85936E+00
1.45840E+03	1.21460E-01	6.85936E+00
1.45840E+03	1.26403E-01	6.85936E+00
1.45840E+03	1.35583E-01	7.95895E+00
1.45840E+03	1.32052E-01	7.95895E+00
1.45840E+03	1.41938E-01	7.95895E+00
1.45840E+03	1.51824E-01	8.63965E+00
1.45840E+03	1.58180E-01	8.63965E+00
1.45840E+03	1.47587E-01	8.63965E+00
1.45840E+03	1.72303E-01	9.73924E+00
1.45840E+03	1.60298E-01	9.73924E+00
1.45840E+03	1.64535E-01	9.73924E+00
1.45840E+03	1.89251E-01	1.06294E+01
1.45840E+03	1.90663E-01	1.06294E+01
1.45840E+03	1.81483E-01	1.06294E+01

1.45840E+03	1.96312E-01	1.18861E+01
1.45840E+03	2.00549E-01	1.18861E+01
1.45840E+03	1.85720E-01	1.18861E+01
1.45840E+03	2.35857E-01	1.26191E+01
1.45840E+03	2.30208E-01	1.26191E+01
1.45840E+03	2.29502E-01	1.26191E+01
1.45840E+03	2.47862E-01	1.39805E+01
1.45840E+03	2.52805E-01	1.39805E+01
1.45840E+03	2.48568E-01	1.39805E+01

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14:23:39

Ue20 μ (357')

T = 1415.7°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -3.20596640E-01	-3.26656400E-01	6.05976002E-03
2 -3.13535040E-01	-3.26656400E-01	1.31213600E-02
3 -3.09298080E-01	-3.26656400E-01	1.73583200E-02
4 -2.93056400E-01	-2.82755382E-01	-1.03010180E-02
5 -2.87407120E-01	-2.82755382E-01	-4.65173801E-03
6 -2.73990080E-01	-2.82755382E-01	8.76530199E-03
7 -2.53511440E-01	-2.65870375E-01	1.23589351E-02
8 -2.44331360E-01	-2.65870375E-01	2.15390151E-02
9 -2.52805280E-01	-2.65870375E-01	1.30650951E-02
10 -2.22440400E-01	-2.15215354E-01	-7.22504575E-03
11 -2.18909600E-01	-2.15215354E-01	-3.69424575E-03
12 -2.23146560E-01	-2.15215354E-01	-7.93120575E-03
13 -1.99137120E-01	-1.88199343E-01	-1.09377768E-02
14 -2.00549440E-01	-1.88199343E-01	-1.23500968E-02
15 -2.03374080E-01	-1.88199343E-01	-1.51747368E-02
16 -1.56767520E-01	-1.49363827E-01	-7.40369279E-03
17 -1.60298320E-01	-1.49363827E-01	-1.09344928E-02
18 -1.62416800E-01	-1.49363827E-01	-1.30529728E-02
19 -1.19341040E-01	-1.07151310E-01	-1.21897301E-02
20 -1.23578000E-01	-1.07151310E-01	-1.64266901E-02
21 -1.20753360E-01	-1.07151310E-01	-1.36020501E-02
22 -9.46254400E-02	-8.85778022E-02	-6.04763776E-03
23 -9.88624000E-02	-8.85778022E-02	-1.02845978E-02
24 -1.00980880E-01	-8.85778022E-02	-1.24030778E-02
25 -7.76776000E-02	-3.79227814E-02	-3.97548186E-02
26 -7.69714400E-02	-3.79227814E-02	-3.90486586E-02
27 -8.68576800E-02	-3.79227814E-02	-4.89348986E-02
28 1.41232000E-03	-7.75766183E-04	2.18808618E-03
29 -2.82464000E-03	-7.75766183E-04	-2.04887382E-03
30 7.62652800E-02	3.29942477E-02	4.32710323E-02
31 7.97960800E-02	3.29942477E-02	4.68018323E-02
32 7.06160000E-02	3.29942477E-02	3.76217523E-02
33 1.10160960E-01	8.36492685E-02	2.65116915E-02
34 1.10867120E-01	8.36492685E-02	2.72178515E-02
35 1.00274720E-01	8.36492685E-02	1.66254515E-02
36 1.25696480E-01	1.12353780E-01	1.33426997E-02
37 1.22871840E-01	1.12353780E-01	1.05180597E-02
38 1.27108800E-01	1.12353780E-01	1.47550197E-02
39 1.73715360E-01	1.54566298E-01	1.91490624E-02
40 1.67359920E-01	1.54566298E-01	1.27936224E-02
41 1.61710640E-01	1.54566298E-01	7.14434239E-03
42 1.99843280E-01	1.84959310E-01	1.48839699E-02
43 2.04786400E-01	1.84959310E-01	1.98270899E-02
44 1.99843280E-01	1.84959310E-01	1.48839699E-02
45 2.25971200E-01	2.20417825E-01	5.55337534E-03
46 2.25265040E-01	2.20417825E-01	4.84721534E-03
47 2.24558880E-01	2.20417825E-01	4.14105534E-03
48 2.46449840E-01	2.62630342E-01	-1.61805020E-02
49 2.47862160E-01	2.62630342E-01	-1.47681820E-02
50 2.35857440E-01	2.62630342E-01	-2.67729020E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	2.81757840E-01	2.82892350E-01	-1.13451032E-03
52	2.80345520E-01	2.82892350E-01	-2.54683032E-03
53	2.84582480E-01	2.82892350E-01	1.69012968E-03
54	2.97293360E-01	3.18350865E-01	-2.10575049E-02
55	3.05767280E-01	3.18350865E-01	-1.25835849E-02
56	2.81757840E-01	3.18350865E-01	-3.65930249E-02

COEFFICIENTS :

1	-7.75766183E-04	2.62533013E-03
2	3.22469862E-02	4.19594421E-04

STANDARD DEVIATION = 1.96461540E-02 CHI**2 = 3.86811406E-01

T	TAUNM	OMEGRS
1.41510E+03	-3.20597E-01	-1.01058E+01
1.41510E+03	-3.13535E-01	-1.01058E+01
1.41510E+03	-3.09298E-01	-1.01058E+01
1.41510E+03	-2.93056E-01	-8.74437E+00
1.41510E+03	-2.87407E-01	-8.74437E+00
1.41510E+03	-2.73990E-01	-8.74437E+00
1.41510E+03	-2.53511E-01	-8.22076E+00
1.41510E+03	-2.44331E-01	-8.22076E+00
1.41510E+03	-2.52805E-01	-8.22076E+00
1.41510E+03	-2.22440E-01	-6.64991E+00
1.41510E+03	-2.18910E-01	-6.64991E+00
1.41510E+03	-2.23147E-01	-6.64991E+00
1.41510E+03	-1.99137E-01	-5.81213E+00
1.41510E+03	-2.00549E-01	-5.81213E+00
1.41510E+03	-2.03374E-01	-5.81213E+00
1.41510E+03	-1.56768E-01	-4.60781E+00
1.41510E+03	-1.60298E-01	-4.60781E+00
1.41510E+03	-1.62417E-01	-4.60781E+00
1.41510E+03	-1.19341E-01	-3.29877E+00
1.41510E+03	-1.23578E-01	-3.29877E+00
1.41510E+03	-1.20753E-01	-3.29877E+00
1.41510E+03	-9.46254E-02	-2.72280E+00
1.41510E+03	-9.88624E-02	-2.72280E+00
1.41510E+03	-1.00981E-01	-2.72280E+00
1.41510E+03	-7.76776E-02	-1.15195E+00
1.41510E+03	-7.69714E-02	-1.15195E+00
1.41510E+03	-8.68577E-02	-1.15195E+00
1.41510E+03	1.41232E-03	.0E+00
1.41510E+03	-2.82464E-03	.0E+00
1.41510E+03	7.62653E-02	1.04723E+00
1.41510E+03	7.97961E-02	1.04723E+00
1.41510E+03	7.06160E-02	1.04723E+00
1.41510E+03	1.10161E-01	2.61808E+00
1.41510E+03	1.10867E-01	2.61808E+00
1.41510E+03	1.00275E-01	2.61808E+00
1.41510E+03	1.25696E-01	3.50822E+00
1.41510E+03	1.22872E-01	3.50822E+00
1.41510E+03	1.27109E-01	3.50822E+00
1.41510E+03	1.73715E-01	4.81726E+00
1.41510E+03	1.67360E-01	4.81726E+00

1.41510E+03	1.61711E-01	4.81726E+00
1.41510E+03	1.99843E-01	5.75977E+00
1.41510E+03	2.04786E-01	5.75977E+00
1.41510E+03	1.99843E-01	5.75977E+00
1.41510E+03	2.25971E-01	6.85936E+00
1.41510E+03	2.25265E-01	6.85936E+00
1.41510E+03	2.24559E-01	6.85936E+00
1.41510E+03	2.46450E-01	8.16839E+00
1.41510E+03	2.47862E-01	8.16839E+00
1.41510E+03	2.35857E-01	8.16839E+00
1.41510E+03	2.81758E-01	8.79673E+00
1.41510E+03	2.80346E-01	8.79673E+00
1.41510E+03	2.84582E-01	8.79673E+00
1.41510E+03	2.97293E-01	9.89632E+00
1.41510E+03	3.05767E-01	9.89632E+00
1.41510E+03	2.81758E-01	9.89632E+00

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02 OCT 78
14:01:13

Ue20 μ (357')

T = 1357.9°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -7.06160000E-01	-7.56812044E-01	5.06520445E-02
2 -7.06160000E-01	-7.56812044E-01	5.06520445E-02
3 -7.20283200E-01	-7.56812044E-01	3.65288445E-02
4 -6.63790400E-01	-6.86837224E-01	2.30468242E-02
5 -6.63790400E-01	-6.86837224E-01	2.30468242E-02
6 -6.63790400E-01	-6.86837224E-01	2.30468242E-02
7 -6.21420800E-01	-6.23526672E-01	2.10587250E-03
8 -6.35544000E-01	-6.23526672E-01	-1.20173275E-02
9 -6.21420800E-01	-6.23526672E-01	2.10587250E-03
10 -5.36681600E-01	-5.50219718E-01	1.35381179E-02
11 -5.50804800E-01	-5.50219718E-01	-5.85082079E-04
12 -5.64928000E-01	-5.50219718E-01	-1.47082821E-02
13 -5.36681600E-01	-5.10234106E-01	-2.64474937E-02
14 -5.22558400E-01	-5.10234106E-01	-1.23242937E-02
15 -5.36681600E-01	-5.10234106E-01	-2.64474937E-02
16 -4.66065600E-01	-4.43591420E-01	-2.24741796E-02
17 -4.51942400E-01	-4.43591420E-01	-8.35097964E-03
18 -4.66065600E-01	-4.43591420E-01	-2.24741796E-02
19 -3.95449600E-01	-3.70284466E-01	-2.51651342E-02
20 -3.95449600E-01	-3.70284466E-01	-2.51651342E-02
21 -3.81326400E-01	-3.70284466E-01	-1.10419342E-02
22 -3.38956800E-01	-3.03641780E-01	-3.53150202E-02
23 -3.24833600E-01	-3.03641780E-01	-2.11918202E-02
24 -3.10710400E-01	-3.03641780E-01	-7.06862020E-03
25 -2.54217600E-01	-2.30334825E-01	-2.38827748E-02
26 -2.54217600E-01	-2.30334825E-01	-2.38827748E-02
27 -2.54217600E-01	-2.30334825E-01	-2.38827748E-02
28 -1.97724800E-01	-1.70356408E-01	-2.73683922E-02
29 -1.83601600E-01	-1.70356408E-01	-1.32451922E-02
30 -1.97724800E-01	-1.70356408E-01	-2.73683922E-02
31 -1.12985600E-01	-1.03713722E-01	-9.27187813E-03
32 -1.12985600E-01	-1.03713722E-01	-9.27187813E-03
33 -1.27108800E-01	-1.03713722E-01	-2.33950781E-02
34 -9.88624000E-02	-7.70566475E-02	-2.18057525E-02
35 -8.47392000E-02	-7.70566475E-02	-7.68255252E-03
36 -9.88624000E-02	-7.70566475E-02	-2.18057525E-02
37 -4.23696000E-02	-3.70710359E-02	-5.29856411E-03
38 -4.23696000E-02	-3.70710359E-02	-5.29856411E-03
39 -2.82464000E-02	-3.70710359E-02	8.82463589E-03
40 .0E+00	6.24671000E-03	-6.24671000E-03
41 5.64928000E-02	5.62287245E-02	2.64075519E-04
42 5.64928000E-02	5.62287245E-02	2.64075519E-04
43 5.64928000E-02	5.62287245E-02	2.64075519E-04
44 9.88624000E-02	8.95500675E-02	9.31233253E-03
45 9.88624000E-02	8.95500675E-02	9.31233253E-03
46 9.88624000E-02	8.95500675E-02	9.31233253E-03
47 1.27108800E-01	1.16207142E-01	1.09016581E-02
48 1.27108800E-01	1.16207142E-01	1.09016581E-02
49 1.27108800E-01	1.16207142E-01	1.09016581E-02
50 1.97724800E-01	1.76185559E-01	2.15392408E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.97724800E-01	1.76185559E-01	2.15392408E-02
52	1.97724800E-01	1.76185559E-01	2.15392408E-02
53	2.40094400E-01	2.22835439E-01	1.72589606E-02
54	2.40094400E-01	2.22835439E-01	1.72589606E-02
55	2.54217600E-01	2.22835439E-01	3.13821606E-02
56	3.24833600E-01	3.02806663E-01	2.20269374E-02
57	3.38956800E-01	3.02806663E-01	3.61501374E-02
58	3.24833600E-01	3.02806663E-01	2.20269374E-02
59	3.95449600E-01	3.82777886E-01	1.26717142E-02
60	4.09572800E-01	3.82777886E-01	2.67949142E-02
61	4.09572800E-01	3.82777886E-01	2.67949142E-02
62	4.51942400E-01	4.42756303E-01	9.18609685E-03
63	4.66065600E-01	4.42756303E-01	2.33092968E-02
64	4.66065600E-01	4.42756303E-01	2.33092968E-02
65	5.22558400E-01	5.02734721E-01	1.98236795E-02
66	5.22558400E-01	5.02734721E-01	1.98236795E-02
67	5.22558400E-01	5.02734721E-01	1.98236795E-02
68	5.50804800E-01	5.49384601E-01	1.42019928E-03
69	5.64928000E-01	5.49384601E-01	1.55433993E-02
70	5.50804800E-01	5.49384601E-01	1.42019928E-03
71	6.21420800E-01	6.26023690E-01	-4.60288959E-03
72	6.35544000E-01	6.26023690E-01	9.52031041E-03
73	6.21420800E-01	6.26023690E-01	-4.60288959E-03
74	6.63790400E-01	6.92666376E-01	-2.88759756E-02
75	6.77913600E-01	6.92666376E-01	-1.47527756E-02
76	6.63790400E-01	6.92666376E-01	-2.88759756E-02
77	7.20283200E-01	7.62641196E-01	-4.23579959E-02
78	7.34406400E-01	7.62641196E-01	-2.82347959E-02
79	7.20283200E-01	7.62641196E-01	-4.23579959E-02
COEFFICIENTS :			
1	6.24671000E-03	2.42144156E-03	
2	6.36371008E-02	3.51169578E-04	
STANDARD DEVIATION =		2.15213834E-02	CHI**2 = 1.20750275E-01

T	TAUNM	OMEGRS
1.35790E+03	-7.06160E-01	-1.19908E+01
1.35790E+03	-7.06160E-01	-1.19908E+01
1.35790E+03	-7.20283E-01	-1.19908E+01
1.35790E+03	-6.63790E-01	-1.08912E+01
1.35790E+03	-6.63790E-01	-1.08912E+01
1.35790E+03	-6.63790E-01	-1.08912E+01
1.35790E+03	-6.21421E-01	-9.89632E+00
1.35790E+03	-6.35544E-01	-9.89632E+00
1.35790E+03	-6.21421E-01	-9.89632E+00
1.35790E+03	-5.36682E-01	-8.74437E+00
1.35790E+03	-5.50805E-01	-8.74437E+00
1.35790E+03	-5.64928E-01	-8.74437E+00
1.35790E+03	-5.36682E-01	-8.11603E+00
1.35790E+03	-5.22558E-01	-8.11603E+00
1.35790E+03	-5.36682E-01	-8.11603E+00
1.35790E+03	-4.66066E-01	-7.06880E+00
1.35790E+03	-4.51942E-01	-7.06880E+00

1.35790E+03	-4.66066E-01	-7.06880E+00
1.35790E+03	-3.95450E-01	-5.91685E+00
1.35790E+03	-3.95450E-01	-5.91685E+00
1.35790E+03	-3.81326E-01	-5.91685E+00
1.35790E+03	-3.38957E-01	-4.86962E+00
1.35790E+03	-3.24834E-01	-4.86962E+00
1.35790E+03	-3.10710E-01	-4.86962E+00
1.35790E+03	-2.54218E-01	-3.71767E+00
1.35790E+03	-2.54218E-01	-3.71767E+00
1.35790E+03	-2.54218E-01	-3.71767E+00
1.35790E+03	-1.97725E-01	-2.77516E+00
1.35790E+03	-1.83602E-01	-2.77516E+00
1.35790E+03	-1.97725E-01	-2.77516E+00
1.35790E+03	-1.12986E-01	-1.72793E+00
1.35790E+03	-1.12986E-01	-1.72793E+00
1.35790E+03	-1.27109E-01	-1.72793E+00
1.35790E+03	-9.88624E-02	-1.30904E+00
1.35790E+03	-8.47392E-02	-1.30904E+00
1.35790E+03	-9.88624E-02	-1.30904E+00
1.35790E+03	-4.23696E-02	-6.80700E-01
1.35790E+03	-4.23696E-02	-6.80700E-01
1.35790E+03	-2.82464E-02	-6.80700E-01
1.35790E+03	.0E+00	.0E+00
1.35790E+03	5.64928E-02	7.85423E-01
1.35790E+03	5.64928E-02	7.85423E-01
1.35790E+03	5.64928E-02	7.85423E-01
1.35790E+03	9.88624E-02	1.30904E+00
1.35790E+03	9.88624E-02	1.30904E+00
1.35790E+03	9.88624E-02	1.30904E+00
1.35790E+03	1.27109E-01	1.72793E+00
1.35790E+03	1.27109E-01	1.72793E+00
1.35790E+03	1.27109E-01	1.72793E+00
1.35790E+03	1.97725E-01	2.67044E+00
1.35790E+03	1.97725E-01	2.67044E+00
1.35790E+03	1.97725E-01	2.67044E+00
1.35790E+03	2.40094E-01	3.40350E+00
1.35790E+03	2.40094E-01	3.40350E+00
1.35790E+03	2.54218E-01	3.40350E+00
1.35790E+03	3.24834E-01	4.66017E+00
1.35790E+03	3.38957E-01	4.66017E+00
1.35790E+03	3.24834E-01	4.66017E+00
1.35790E+03	3.95450E-01	5.91685E+00
1.35790E+03	4.09573E-01	5.91685E+00
1.35790E+03	4.09573E-01	5.91685E+00
1.35790E+03	4.51942E-01	6.85936E+00
1.35790E+03	4.66066E-01	6.85936E+00
1.35790E+03	4.66066E-01	6.85936E+00
1.35790E+03	5.22558E-01	7.80186E+00
1.35790E+03	5.22558E-01	7.80186E+00
1.35790E+03	5.22558E-01	7.80186E+00
1.35790E+03	5.50805E-01	8.53493E+00
1.35790E+03	5.64928E-01	8.53493E+00
1.35790E+03	5.50805E-01	8.53493E+00
1.35790E+03	6.21421E-01	9.73924E+00
1.35790E+03	6.35544E-01	9.73924E+00

1.35790E+03	5.21421E-01	9.73924E+00
1.35790E+03	6.63790E-01	1.07865E+01
1.35790E+03	6.77914E-01	1.07865E+01
1.35790E+03	6.63790E-01	1.07865E+01
1.35790E+03	7.20283E-01	1.18861E+01
1.35790E+03	7.34406E-01	1.18861E+01
1.35790E+03	7.20283E-01	1.18861E+01

U7 COMPN - 1357.9C RUN -- SEE NOTEBOOK PAGE 179

03 OCT 78
09:58:43

Ue20 μ (357')

T = 1313.5°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -7.34406400E-01	-7.58285109E-01	2.38787088E-02
2 -7.20283200E-01	-7.58285109E-01	3.80019088E-02
3 -7.34406400E-01	-7.58285109E-01	2.38787088E-02
4 -6.35544000E-01	-6.57852750E-01	2.23087497E-02
5 -6.49667200E-01	-6.57852750E-01	8.18554969E-03
6 -6.49667200E-01	-6.57852750E-01	8.18554969E-03
7 -5.93174400E-01	-5.93289090E-01	1.14690259E-04
8 -5.79051200E-01	-5.93289090E-01	1.42378903E-02
9 -5.93174400E-01	-5.93289090E-01	1.14690259E-04
10 -5.36681600E-01	-5.28725431E-01	-7.95616918E-03
11 -5.36681600E-01	-5.28725431E-01	-7.95616918E-03
12 -5.22558400E-01	-5.28725431E-01	6.16703082E-03
13 -4.80188800E-01	-4.71335511E-01	-8.85328867E-03
14 -4.80188800E-01	-4.71335511E-01	-8.85328867E-03
15 -4.80188800E-01	-4.71335511E-01	-8.85328867E-03
16 -4.09572800E-01	-3.99598112E-01	-9.97468804E-03
17 -3.95449600E-01	-3.99598112E-01	4.14851196E-03
18 -4.09572800E-01	-3.99598112E-01	-9.97468804E-03
19 -3.24833600E-01	-2.99165753E-01	-2.56678472E-02
20 -3.10710400E-01	-2.99165753E-01	-1.15446472E-02
21 -3.24833600E-01	-2.99165753E-01	-2.56678472E-02
22 -2.54217600E-01	-2.41775833E-01	-1.24417667E-02
23 -2.68340800E-01	-2.41775833E-01	-2.65649667E-02
24 -2.54217600E-01	-2.41775833E-01	-1.24417667E-02
25 -1.97724800E-01	-1.70038434E-01	-2.76863660E-02
26 -1.83601600E-01	-1.70038434E-01	-1.35631660E-02
27 -1.69478400E-01	-1.70038434E-01	5.60033968E-04
28 -9.88624000E-02	-9.83010346E-02	-5.61365404E-04
29 -9.88624000E-02	-9.83010346E-02	-5.61365404E-04
30 -1.12985600E-01	-9.83010346E-02	-1.46845654E-02
31 -5.64928000E-02	-5.52585950E-02	-1.23420503E-03
32 -7.06160000E-02	-5.52585950E-02	-1.53574050E-02
33 -5.64928000E-02	-5.52585950E-02	-1.23420503E-03
34 .0E+00	9.30506446E-03	-9.30506446E-03
35 5.64928000E-02	6.66949840E-02	-1.02021840E-02
36 7.06160000E-02	6.66949840E-02	3.92101604E-03
37 7.06160000E-02	6.66949840E-02	3.92101604E-03
38 1.27108800E-01	1.24084903E-01	3.02389654E-03
39 1.12985600E-01	1.24084903E-01	-1.10993035E-02
40 1.27108800E-01	1.24084903E-01	3.02389654E-03
41 1.97724800E-01	1.95822303E-01	1.90249717E-03
42 2.11848000E-01	1.95822303E-01	1.60256972E-02
43 1.97724800E-01	1.95822303E-01	1.90249717E-03
44 2.54217600E-01	2.46038482E-01	8.17911761E-03
45 2.40094400E-01	2.46038482E-01	-5.94408239E-03
46 2.54217600E-01	2.46038482E-01	8.17911761E-03
47 3.38956800E-01	3.32123362E-01	6.83343837E-03
48 3.53080000E-01	3.32123362E-01	2.09566384E-02
49 3.38956800E-01	3.32123362E-01	6.83343837E-03
50 4.09572800E-01	4.03860761E-01	5.71203900E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	4.09572800E-01	4.03860761E-01	5.71203900E-03
52	4.09572800E-01	4.03860761E-01	5.71203900E-03
53	4.80188800E-01	4.75598160E-01	4.59063963E-03
54	4.94312000E-01	4.75598160E-01	1.87138396E-02
55	4.80188800E-01	4.75598160E-01	4.59063963E-03
56	5.50804800E-01	5.40161820E-01	1.06429802E-02
57	5.64928000E-01	5.40161820E-01	2.47661802E-02
58	5.50804800E-01	5.40161820E-01	1.06429802E-02
59	6.21420800E-01	6.19072959E-01	2.34784088E-03
60	6.21420800E-01	6.19072959E-01	2.34784088E-03
61	6.21420800E-01	6.19072959E-01	2.34784088E-03
62	6.77913600E-01	6.83636619E-01	-5.72301855E-03
63	6.77913600E-01	6.83636619E-01	-5.72301855E-03
64	6.77913600E-01	6.83636619E-01	-5.72301855E-03
65	7.34406400E-01	7.48200278E-01	-1.37938780E-02
66	7.34406400E-01	7.48200278E-01	-1.37938780E-02
67	7.48529600E-01	7.48200278E-01	3.29322014E-04

COEFFICIENTS :

1	9.30506446E-03	1.58161176E-03
2	1.37004085E-01	4.81120797E-04

STANDARD DEVIATION = 1.29459316E-02 CHI**2 = 4.66337708E-02

T	TAUNM	OMEGRS
1.31350E+03	-7.34406E-01	-5.60268E+00
1.31350E+03	-7.20283E-01	-5.60268E+00
1.31350E+03	-7.34406E-01	-5.60268E+00
1.31350E+03	-6.35544E-01	-4.86962E+00
1.31350E+03	-6.49667E-01	-4.86962E+00
1.31350E+03	-6.49667E-01	-4.86962E+00
1.31350E+03	-5.93174E-01	-4.39837E+00
1.31350E+03	-5.79051E-01	-4.39837E+00
1.31350E+03	-5.93174E-01	-4.39837E+00
1.31350E+03	-5.36682E-01	-3.92711E+00
1.31350E+03	-5.36682E-01	-3.92711E+00
1.31350E+03	-5.22558E-01	-3.92711E+00
1.31350E+03	-4.80189E-01	-3.50822E+00
1.31350E+03	-4.80189E-01	-3.50822E+00
1.31350E+03	-4.80189E-01	-3.50822E+00
1.31350E+03	-4.09573E-01	-2.98461E+00
1.31350E+03	-3.95450E-01	-2.98461E+00
1.31350E+03	-4.09573E-01	-2.98461E+00
1.31350E+03	-3.24834E-01	-2.25154E+00
1.31350E+03	-3.10710E-01	-2.25154E+00
1.31350E+03	-3.24834E-01	-2.25154E+00
1.31350E+03	-2.54218E-01	-1.83265E+00
1.31350E+03	-2.68341E-01	-1.83265E+00
1.31350E+03	-2.54218E-01	-1.83265E+00
1.31350E+03	-1.97725E-01	-1.30904E+00
1.31350E+03	-1.83602E-01	-1.30904E+00
1.31350E+03	-1.69478E-01	-1.30904E+00
1.31350E+03	-9.88624E-02	-7.85423E-01
1.31350E+03	-9.88624E-02	-7.85423E-01

1.31350E+03	-1.12986E-01	-7.85423E-01
1.31350E+03	-5.64928E-02	-4.71254E-01
1.31350E+03	-7.06160E-02	-4.71254E-01
1.31350E+03	-5.64928E-02	-4.71254E-01
1.31350E+03	.0E+00	.0E+00
1.31350E+03	5.64928E-02	4.18892E-01
1.31350E+03	7.06160E-02	4.18892E-01
1.31350E+03	7.06160E-02	4.18892E-01
1.31350E+03	1.27109E-01	8.37784E-01
1.31350E+03	1.12986E-01	8.37784E-01
1.31350E+03	1.27109E-01	8.37784E-01
1.31350E+03	1.97725E-01	1.36140E+00
1.31350E+03	2.11848E-01	1.36140E+00
1.31350E+03	1.97725E-01	1.36140E+00
1.31350E+03	2.54218E-01	1.72793E+00
1.31350E+03	2.40094E-01	1.72793E+00
1.31350E+03	2.54218E-01	1.72793E+00
1.31350E+03	3.38957E-01	2.35627E+00
1.31350E+03	3.53080E-01	2.35627E+00
1.31350E+03	3.38957E-01	2.35627E+00
1.31350E+03	4.09573E-01	2.87988E+00
1.31350E+03	4.09573E-01	2.87988E+00
1.31350E+03	4.09573E-01	2.87988E+00
1.31350E+03	4.80189E-01	3.40350E+00
1.31350E+03	4.94312E-01	3.40350E+00
1.31350E+03	4.80189E-01	3.40350E+00
1.31350E+03	5.50805E-01	3.87475E+00
1.31350E+03	5.64928E-01	3.87475E+00
1.31350E+03	5.50805E-01	3.87475E+00
1.31350E+03	6.21421E-01	4.45073E+00
1.31350E+03	6.21421E-01	4.45073E+00
1.31350E+03	6.21421E-01	4.45073E+00
1.31350E+03	6.77914E-01	4.92198E+00
1.31350E+03	6.77914E-01	4.92198E+00
1.31350E+03	6.77914E-01	4.92198E+00
1.31350E+03	7.34406E-01	5.39323E+00
1.31350E+03	7.34406E-01	5.39323E+00
1.31350E+03	7.48530E-01	5.39323E+00

U7 COMP * 1313.6C RUN- SEE NOTEBOOK PAGE 181

05 OCT 78
09:25:34

Ue20 μ (357')

T = 1274.2°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -7.90899200E-01	-8.02718088E-01	1.18188883E-02
2 -7.90899200E-01	-8.02718088E-01	1.18188883E-02
3 -7.76776000E-01	-8.02718088E-01	2.59420883E-02
4 -7.20283200E-01	-7.07930462E-01	-1.23527382E-02
5 -7.06160000E-01	-7.07930462E-01	1.77046183E-03
6 -7.06160000E-01	-7.07930462E-01	1.77046183E-03
7 -6.63790400E-01	-6.67307193E-01	3.51679335E-03
8 -6.63790400E-01	-6.67307193E-01	3.51679335E-03
9 -6.77913600E-01	-6.67307193E-01	-1.06064067E-02
10 -6.21420800E-01	-6.26683925E-01	5.26312486E-03
11 -6.21420800E-01	-6.26683925E-01	5.26312486E-03
12 -6.07297600E-01	-6.26683925E-01	1.93863249E-02
13 -5.64928000E-01	-5.58978477E-01	-5.94952261E-03
14 -5.64928000E-01	-5.58978477E-01	-5.94952261E-03
15 -5.50804800E-01	-5.58978477E-01	8.17367739E-03
16 -4.66065600E-01	-4.64190851E-01	-1.87474908E-03
17 -4.51942400E-01	-4.64190851E-01	1.22484509E-02
18 -4.66065600E-01	-4.64190851E-01	-1.87474908E-03
19 -4.37819200E-01	-4.23567582E-01	-1.42516176E-02
20 -4.37819200E-01	-4.23567582E-01	-1.42516176E-02
21 -4.37819200E-01	-4.23567582E-01	-1.42516176E-02
22 -3.24833600E-01	-3.15238866E-01	-9.59473352E-03
23 -3.10710400E-01	-3.15238866E-01	4.52846648E-03
24 -3.24833600E-01	-3.15238866E-01	-9.59473352E-03
25 -2.25971200E-01	-2.20451240E-01	-5.51995999E-03
26 -2.40094400E-01	-2.20451240E-01	-1.96431600E-02
27 -2.54217600E-01	-2.20451240E-01	-3.37663600E-02
28 -1.83601600E-01	-1.79827972E-01	-3.77362847E-03
29 -1.97724800E-01	-1.79827972E-01	-1.78968285E-02
30 -1.69478400E-01	-1.79827972E-01	1.03495715E-02
31 -1.55355200E-01	-1.25663614E-01	-2.96915865E-02
32 -1.12985600E-01	-1.25663614E-01	1.26780135E-02
33 -1.27108800E-01	-1.25663614E-01	-1.44518645E-03
34 -5.64928000E-02	-5.79581661E-02	1.46536607E-03
35 -4.23696000E-02	-5.79581661E-02	1.55885661E-02
36 -7.06160000E-02	-5.79581661E-02	-1.26578339E-02
37 .0E+00	9.74728140E-03	-9.74728140E-03
38 5.64928000E-02	7.74527289E-02	-2.09599289E-02
39 7.06160000E-02	7.74527289E-02	-6.83672888E-03
40 8.47392000E-02	7.74527289E-02	7.28647112E-03
41 1.69478400E-01	1.45158176E-01	2.43202236E-02
42 1.41232000E-01	1.45158176E-01	-3.92617635E-03
43 1.55355200E-01	1.45158176E-01	1.01970236E-02
44 1.69478400E-01	1.85781445E-01	-1.63030448E-02
45 1.83601600E-01	1.85781445E-01	-2.17984484E-03
46 1.69478400E-01	1.85781445E-01	-1.63030448E-02
47 2.40094400E-01	2.39945803E-01	1.48597182E-04
48 2.54217600E-01	2.39945803E-01	1.42717972E-02
49 2.40094400E-01	2.39945803E-01	1.48597182E-04
50 3.24833600E-01	3.07651250E-01	1.71823497E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	3.24833600E-01	3.07651250E-01	1.71823497E-02
52	3.38956800E-01	3.07651250E-01	3.13055497E-02
53	4.37819200E-01	4.15979966E-01	2.18392337E-02
54	4.23696000E-01	4.15979966E-01	7.71603375E-03
55	4.37819200E-01	4.15979966E-01	2.18392337E-02
56	5.08435200E-01	4.97226503E-01	1.12086968E-02
57	4.94312000E-01	4.97226503E-01	-2.91450322E-03
58	5.08435200E-01	4.97226503E-01	1.12086968E-02
59	5.64928000E-01	5.64931951E-01	-3.95069696E-06
60	5.64928000E-01	5.64931951E-01	-3.95069696E-06
61	5.64928000E-01	5.64931951E-01	-3.95069696E-06
62	6.35544000E-01	6.32637398E-01	2.90660183E-03
63	6.49667200E-01	6.32637398E-01	1.70298018E-02
64	6.35544000E-01	6.32637398E-01	2.90660183E-03
65	6.92036800E-01	7.00342846E-01	-8.30604565E-03
66	6.92036800E-01	7.00342846E-01	-8.30604565E-03
67	6.92036800E-01	7.00342846E-01	-8.30604565E-03
68	7.20283200E-01	7.27425025E-01	-7.14182464E-03
69	7.34406400E-01	7.27425025E-01	6.98137536E-03
70	7.20283200E-01	7.27425025E-01	-7.14182464E-03
71	8.05022400E-01	8.22212651E-01	-1.71902511E-02
72	8.19145600E-01	8.22212651E-01	-3.06705110E-03
73	8.05022400E-01	8.22212651E-01	-1.71902511E-02

COEFFICIENTS :

1	9.74728140E-03	1.53785668E-03
2	2.58607727E-01	8.05043217E-04

STANDARD DEVIATION = 1.31392448E-02 CHI**2 = 6.49216997E-02

T	TAUNM	OMEGRS
1.27420E+03	-7.90899E-01	-3.14169E+00
1.27420E+03	-7.90899E-01	-3.14169E+00
1.27420E+03	-7.76776E-01	-3.14169E+00
1.27420E+03	-7.20283E-01	-2.77516E+00
1.27420E+03	-7.06160E-01	-2.77516E+00
1.27420E+03	-7.06160E-01	-2.77516E+00
1.27420E+03	-6.63790E-01	-2.61808E+00
1.27420E+03	-6.63790E-01	-2.61808E+00
1.27420E+03	-6.77914E-01	-2.61808E+00
1.27420E+03	-6.21421E-01	-2.46099E+00
1.27420E+03	-6.21421E-01	-2.46099E+00
1.27420E+03	-6.07298E-01	-2.46099E+00
1.27420E+03	-5.64928E-01	-2.19918E+00
1.27420E+03	-5.64928E-01	-2.19918E+00
1.27420E+03	-5.50805E-01	-2.19918E+00
1.27420E+03	-4.66066E-01	-1.83265E+00
1.27420E+03	-4.51942E-01	-1.83265E+00
1.27420E+03	-4.66066E-01	-1.83265E+00
1.27420E+03	-4.37819E-01	-1.67557E+00
1.27420E+03	-4.37819E-01	-1.67557E+00
1.27420E+03	-4.37819E-01	-1.67557E+00
1.27420E+03	-3.24834E-01	-1.25668E+00
1.27420E+03	-3.10710E-01	-1.25668E+00
1.27420E+03	-3.24834E-01	-1.25668E+00

1.27420E+03	-2.25971E-01	-8.90146E-01
1.27420E+03	-2.40094E-01	-8.90146E-01
1.27420E+03	-2.54218E-01	-8.90146E-01
1.27420E+03	-1.83602E-01	-7.33061E-01
1.27420E+03	-1.97725E-01	-7.33061E-01
1.27420E+03	-1.69478E-01	-7.33061E-01
1.27420E+03	-1.55355E-01	-5.23615E-01
1.27420E+03	-1.12986E-01	-5.23615E-01
1.27420E+03	-1.27109E-01	-5.23615E-01
1.27420E+03	-5.64928E-02	-2.61808E-01
1.27420E+03	-4.23696E-02	-2.61808E-01
1.27420E+03	-7.06160E-02	-2.61808E-01
1.27420E+03	.0E+00	.0E+00
1.27420E+03	5.64928E-02	2.61808E-01
1.27420E+03	7.06160E-02	2.61808E-01
1.27420E+03	8.47392E-02	2.61808E-01
1.27420E+03	1.69478E-01	5.23615E-01
1.27420E+03	1.41232E-01	5.23615E-01
1.27420E+03	1.55355E-01	5.23615E-01
1.27420E+03	1.69478E-01	6.80700E-01
1.27420E+03	1.83602E-01	6.80700E-01
1.27420E+03	1.69478E-01	6.80700E-01
1.27420E+03	2.40094E-01	8.90146E-01
1.27420E+03	2.54218E-01	8.90146E-01
1.27420E+03	2.40094E-01	8.90146E-01
1.27420E+03	3.24834E-01	1.15195E+00
1.27420E+03	3.24834E-01	1.15195E+00
1.27420E+03	3.38957E-01	1.15195E+00
1.27420E+03	4.37819E-01	1.57085E+00
1.27420E+03	4.23696E-01	1.57085E+00
1.27420E+03	4.37819E-01	1.57085E+00
1.27420E+03	5.08435E-01	1.88501E+00
1.27420E+03	4.94312E-01	1.88501E+00
1.27420E+03	5.08435E-01	1.88501E+00
1.27420E+03	5.64928E-01	2.14682E+00
1.27420E+03	5.64928E-01	2.14682E+00
1.27420E+03	5.64928E-01	2.14682E+00
1.27420E+03	6.35544E-01	2.40863E+00
1.27420E+03	6.49667E-01	2.40863E+00
1.27420E+03	6.35544E-01	2.40863E+00
1.27420E+03	6.92037E-01	2.67044E+00
1.27420E+03	6.92037E-01	2.67044E+00
1.27420E+03	6.92037E-01	2.67044E+00
1.27420E+03	7.20283E-01	2.77516E+00
1.27420E+03	7.34406E-01	2.77516E+00
1.27420E+03	7.20283E-01	2.77516E+00
1.27420E+03	8.05022E-01	3.14169E+00
1.27420E+03	8.19146E-01	3.14169E+00
1.27420E+03	8.05022E-01	3.14169E+00

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APPENDIX H

Ue20L#2 [UL]

LIST OF SYMBOLS

- TAUNM observed torque, τ (N·m).
- TAUNM (CALC) calculated torque, τ (N·m).
- OMEGRS angular rotation (rad/s).

At each investigated isotherm, torque was recorded both for clockwise angular rotations (positive values) and for counterclockwise angular rotations (negative values). Least-squares analyses of torque (τ) as a function of angular rotation (ω) were then made assuming the following functional relationship:

$$\tau = A_2\omega + A_1$$

The coefficients A_1 and A_2 are tabulated for each isotherm.

All temperatures are uncorrected but can be correlated with corrected values in Table 3 in the text.

Ue20L#2

T = 1546.1°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -2.89525600E-02	-2.86971171E-02	-2.55442891E-04
2 -2.89525600E-02	-2.86971171E-02	-2.55442891E-04
3 -2.89525600E-02	-2.86971171E-02	-2.55442891E-04
4 -2.47156000E-02	-2.45084569E-02	-2.07143089E-04
5 -2.40094400E-02	-2.45084569E-02	4.99016911E-04
6 -2.40094400E-02	-2.45084569E-02	4.99016911E-04
7 -2.33032800E-02	-2.30781827E-02	-2.25097303E-04
8 -2.25971200E-02	-2.30781827E-02	4.81062697E-04
9 -2.33032800E-02	-2.30781827E-02	-2.25097303E-04
10 -2.04786400E-02	-2.07284465E-02	2.49806488E-04
11 -2.11848000E-02	-2.07284465E-02	-4.56353512E-04
12 -2.11848000E-02	-2.07284465E-02	-4.56353512E-04
13 -1.90663200E-02	-1.90938474E-02	2.75273868E-05
14 -1.90663200E-02	-1.90938474E-02	2.75273868E-05
15 -1.97724800E-02	-1.90938474E-02	-6.78632613E-04
16 -1.69478400E-02	-1.63354614E-02	-6.12378597E-04
17 -1.62416800E-02	-1.63354614E-02	9.37814028E-05
18 -1.62416800E-02	-1.63354614E-02	9.37814028E-05
19 -1.55355200E-02	-1.53138370E-02	-2.21683036E-04
20 -1.48293600E-02	-1.53138370E-02	4.84476964E-04
21 -1.55355200E-02	-1.53138370E-02	-2.21683036E-04
22 -1.34170400E-02	-1.32705881E-02	-1.46451913E-04
23 -1.27108800E-02	-1.32705881E-02	5.59708087E-04
24 -1.34170400E-02	-1.32705881E-02	-1.46451913E-04
25 -1.12985600E-02	-1.12273392E-02	-7.12207899E-05
26 -1.05924000E-02	-1.12273392E-02	6.34939210E-04
27 -1.12985600E-02	-1.12273392E-02	-7.12207899E-05
28 -9.18008000E-03	-9.38841522E-03	2.08335221E-04
29 -9.88624000E-03	-9.38841522E-03	-4.97824779E-04
30 -9.18008000E-03	-9.38841522E-03	2.08335221E-04
31 -5.64928000E-03	-4.89326769E-03	-7.56012309E-04
32 -4.94312000E-03	-4.89326769E-03	-4.98523089E-05
33 -4.23696000E-03	-4.89326769E-03	6.56307691E-04
34 -4.94312000E-03	-4.79110525E-03	-1.52014753E-04
35 -4.23696000E-03	-4.79110525E-03	5.54145247E-04
36 -4.94312000E-03	-4.79110525E-03	-1.52014753E-04
37 -2.11848000E-03	-2.13488171E-03	1.64017070E-05
38 -2.11848000E-03	-2.13488171E-03	1.64017070E-05
39 -2.11848000E-03	-2.13488171E-03	1.64017070E-05
40 .0E+00	1.12692058E-04	-1.12692058E-04
41 3.53080000E-03	2.46242827E-03	1.06837173E-03
42 2.82464000E-03	2.46242827E-03	3.62211734E-04
43 2.82464000E-03	2.46242827E-03	3.62211734E-04
44 4.94312000E-03	4.50567714E-03	4.37442857E-04
45 4.23696000E-03	4.50567714E-03	-2.68717143E-04
46 4.94312000E-03	4.50567714E-03	4.37442857E-04
47 5.64928000E-03	6.34460113E-03	-6.95321133E-04
48 6.35544000E-03	6.34460113E-03	1.08388671E-05
49 6.35544000E-03	6.34460113E-03	1.08388671E-05
50 8.47392000E-03	8.59217490E-03	-1.18254898E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	9.18008000E-03	8.59217490E-03	5.87905102E-04
52	8.47392000E-03	8.59217490E-03	-1.18254898E-04
53	1.05924000E-02	1.06354238E-02	-4.30237747E-05
54	9.88624000E-03	1.06354238E-02	-7.49183775E-04
55	1.05924000E-02	1.06354238E-02	-4.30237747E-05
56	1.27108800E-02	1.25765102E-02	1.34369792E-04
57	1.27108800E-02	1.25765102E-02	1.34369792E-04
58	1.27108800E-02	1.25765102E-02	1.34369792E-04
59	1.48293600E-02	1.44154342E-02	4.13925803E-04
60	1.41232000E-02	1.44154342E-02	-2.92234197E-04
61	1.48293600E-02	1.44154342E-02	4.13925803E-04
62	1.69478400E-02	1.64586831E-02	4.89156926E-04
63	1.62416800E-02	1.64586831E-02	-2.17003074E-04
64	1.69478400E-02	1.64586831E-02	4.89156926E-04
65	1.83601600E-02	1.83997695E-02	-3.96095076E-05
66	1.76540000E-02	1.83997695E-02	-7.45769508E-04
67	1.83601600E-02	1.83997695E-02	-3.96095076E-05
68	2.04786400E-02	2.08516682E-02	-3.73028160E-04
69	2.11848000E-02	2.08516682E-02	3.33131840E-04
70	2.11848000E-02	2.08516682E-02	3.33131840E-04
71	2.25971200E-02	2.28949170E-02	-2.97797037E-04
72	2.33032800E-02	2.28949170E-02	4.08362963E-04
73	2.25971200E-02	2.28949170E-02	-2.97797037E-04
74	2.40094400E-02	2.45295161E-02	-5.20076139E-04
75	2.47156000E-02	2.45295161E-02	1.86083861E-04
76	2.40094400E-02	2.45295161E-02	-5.20076139E-04
77	2.75402400E-02	2.76965519E-02	-1.56311898E-04
78	2.68340800E-02	2.76965519E-02	-8.62471898E-04
79	2.82464000E-02	2.76965519E-02	5.49848102E-04

COEFFICIENTS :

1	1.12692058E-04	4.48838554E-05
2	1.95109835E-03	5.27710511E-06

STANDARD DEVIATION = 3.98898482E-04 CHI**2 = 1.66254484E-03

T	TAUNM	OMEGRS
1.54610E+03	-2.89526E-02	-1.47659E+01
1.54610E+03	-2.89526E-02	-1.47659E+01
1.54610E+03	-2.89526E-02	-1.47659E+01
1.54610E+03	-2.47156E-02	-1.26191E+01
1.54610E+03	-2.40094E-02	-1.26191E+01
1.54600E+03	-2.40094E-02	-1.26191E+01
1.54610E+03	-2.33033E-02	-1.18861E+01
1.54610E+03	-2.25971E-02	-1.18861E+01
1.54610E+03	-2.33033E-02	-1.18861E+01
1.54610E+03	-2.04786E-02	-1.06817E+01
1.54610E+03	-2.11848E-02	-1.06817E+01
1.54610E+03	-2.11848E-02	-1.06817E+01
1.54610E+03	-1.90663E-02	-9.84396E+00
1.54610E+03	-1.90663E-02	-9.84396E+00
1.54610E+03	-1.97725E-02	-9.84396E+00
1.54610E+03	-1.69478E-02	-8.43020E+00
1.54610E+03	-1.62417E-02	-8.43020E+00

1.54610E+03	-1.62417E-02	-8.43020E+00
1.54610E+03	-1.55355E-02	-7.90659E+00
1.54610E+03	-1.48294E-02	-7.90659E+00
1.54610E+03	-1.55355E-02	-7.90659E+00
1.54610E+03	-1.34170E-02	-6.85936E+00
1.54610E+03	-1.27109E-02	-6.85936E+00
1.54610E+03	-1.34170E-02	-6.85936E+00
1.54610E+03	-1.12986E-02	-5.81213E+00
1.54610E+03	-1.05924E-02	-5.81213E+00
1.54610E+03	-1.12986E-02	-5.81213E+00
1.54610E+03	-9.18008E-03	-4.86962E+00
1.54610E+03	-9.88624E-03	-4.86962E+00
1.54610E+03	-9.18008E-03	-4.86962E+00
1.54610E+03	-5.64928E-03	-2.56571E+00
1.54610E+03	-4.94312E-03	-2.56571E+00
1.54610E+03	-4.23696E-03	-2.56571E+00
1.54600E+03	-4.94312E-03	-2.51335E+00
1.54610E+03	-4.23696E-03	-2.51335E+00
1.54610E+03	-4.94312E-03	-2.51335E+00
1.54610E+03	-2.11848E-03	-1.15195E+00
1.54610E+03	-2.11848E-03	-1.15195E+00
1.54610E+03	-2.11848E-03	-1.15195E+00
1.54610E+03	.0E+00	.0E+00
1.54610E+03	3.53080E-03	1.20431E+00
1.54610E+03	2.82464E-03	1.20431E+00
1.54610E+03	2.82464E-03	1.20431E+00
1.54610E+03	4.94312E-03	2.25154E+00
1.54610E+03	4.23696E-03	2.25154E+00
1.54610E+03	4.94312E-03	2.25154E+00
1.54610E+03	5.64928E-03	3.19405E+00
1.54610E+03	6.35544E-03	3.19405E+00
1.54610E+03	6.35544E-03	3.19405E+00
1.54610E+03	8.47392E-03	4.34600E+00
1.54610E+03	9.18008E-03	4.34600E+00
1.54610E+03	8.47392E-03	4.34600E+00
1.54610E+03	1.05924E-02	5.39323E+00
1.54610E+03	9.88624E-03	5.39323E+00
1.54610E+03	1.05924E-02	5.39323E+00
1.54610E+03	1.27109E-02	6.38810E+00
1.54610E+03	1.27109E-02	6.38810E+00
1.54610E+03	1.27109E-02	6.38810E+00
1.54610E+03	1.48294E-02	7.33061E+00
1.54610E+03	1.41232E-02	7.33061E+00
1.54610E+03	1.48294E-02	7.33061E+00
1.54610E+03	1.69478E-02	8.37784E+00
1.54610E+03	1.62417E-02	8.37784E+00
1.54610E+03	1.69478E-02	8.37784E+00
1.54610E+03	1.83602E-02	9.37271E+00
1.54610E+03	1.76540E-02	9.37271E+00
1.54610E+03	1.83602E-02	9.37271E+00
1.54610E+03	2.04786E-02	1.06294E+01
1.54610E+03	2.11848E-02	1.06294E+01
1.54610E+03	2.11848E-02	1.06294E+01
1.54610E+03	2.25971E-02	1.16766E+01
1.54610E+03	2.33033E-02	1.16766E+01

1.54610E+03	2.25971E-02	1.16766E+01
1.54610E+03	2.40094E-02	1.25144E+01
1.54610E+03	2.47156E-02	1.25144E+01
1.54610E+03	2.40094E-02	1.25144E+01
1.54610E+03	2.75402E-02	1.41376E+01
1.54610E+03	2.68341E-02	1.41376E+01
1.54610E+03	2.82464E-02	1.41376E+01

1546 C RUN ON UE20LND2 WITH NEMPINSUTIN

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Ue20L#2
T = 1504.5°C

TAUNM	TAUNM (CALC)	RESI DUALS
1 -4.66065600E-02	-4.65600371E-02	-4.65229290E-05
2 -4.59004000E-02	-4.65600371E-02	6.59637071E-04
3 -4.66065600E-02	-4.65600371E-02	-4.65229290E-05
4 -3.88388000E-02	-3.96022693E-02	7.63469343E-04
5 -3.95449600E-02	-3.96022693E-02	5.73093430E-05
6 -3.95449600E-02	-3.96022693E-02	5.73093430E-05
7 -3.67203200E-02	-3.71173523E-02	3.97032297E-04
8 -3.74264800E-02	-3.71173523E-02	-3.09127703E-04
9 -3.81326400E-02	-3.71173523E-02	-1.01528770E-03
10 -3.38956800E-02	-3.34728073E-02	-4.22872703E-04
11 -3.31895200E-02	-3.34728073E-02	2.83287297E-04
12 -3.38956800E-02	-3.34728073E-02	-4.22872703E-04
13 -3.10710400E-02	-3.01595846E-02	-9.11455431E-04
14 -3.03648800E-02	-3.01595846E-02	-2.05295431E-04
15 -3.10710400E-02	-3.01595846E-02	-9.11455431E-04
16 -2.61279200E-02	-2.66807007E-02	5.52780705E-04
17 -2.68340800E-02	-2.66807007E-02	-1.53379295E-04
18 -2.68340800E-02	-2.66807007E-02	-1.53379295E-04
19 -2.33032800E-02	-2.38644614E-02	5.61181387E-04
20 -2.40094400E-02	-2.38644614E-02	-1.44978613E-04
21 -2.33032800E-02	-2.38644614E-02	5.61181387E-04
22 -2.04786400E-02	-2.02199164E-02	-2.58723614E-04
23 -2.11848000E-02	-2.02199164E-02	-9.64883614E-04
24 -1.97724800E-02	-2.02199164E-02	4.47436386E-04
25 -1.90663200E-02	-1.83976439E-02	-6.68676114E-04
26 -1.83601600E-02	-1.83976439E-02	3.74838859E-05
27 -1.90663200E-02	-1.83976439E-02	-6.68676114E-04
28 -1.34170400E-02	-1.39247932E-02	5.07753204E-04
29 -1.41232000E-02	-1.39247932E-02	-1.98406796E-04
30 -1.34170400E-02	-1.39247932E-02	5.07753204E-04
31 -1.12985600E-02	-1.09428927E-02	-3.55667251E-04
32 -1.20047200E-02	-1.09428927E-02	-1.06182725E-03
33 -1.05924000E-02	-1.09428927E-02	3.50492749E-04
34 -7.76776000E-03	-7.29834775E-03	-4.69412252E-04
35 -7.06160000E-03	-7.29834775E-03	2.36747748E-04
36 -7.76776000E-03	-7.29834775E-03	-4.69412252E-04
37 -4.23696000E-03	-4.15078616E-03	-8.61738430E-05
38 -3.53080000E-03	-4.15078616E-03	6.19986157E-04
39 -4.23696000E-03	-4.15078616E-03	-8.61738430E-05
40 .0E+00	1.56403389E-04	-1.56403389E-04
41 4.23696000E-03	3.46962612E-03	7.67333883E-04
42 3.53080000E-03	3.46962612E-03	6.11738834E-05
43 2.82464000E-03	3.46962612E-03	-6.44986117E-04
44 1.05924000E-02	3.46962612E-03	7.12277388E-03
45 6.35544000E-03	6.61718771E-03	-2.61747708E-04
46 7.06160000E-03	6.61718771E-03	4.44412292E-04
47 6.35544000E-03	6.61718771E-03	-2.61747708E-04
48 1.12985600E-02	1.10900384E-02	2.08521610E-04
49 1.05924000E-02	1.10900384E-02	-4.97638390E-04
50 1.48293600E-02	1.45689223E-02	2.60437746E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	1.41232000E-02	1.45689223E-02	-4.45722254E-04
52	1.48293600E-02	1.45689223E-02	2.60437746E-04
53	1.69478400E-02	1.73851616E-02	-4.37321573E-04
54	1.76540000E-02	1.73851616E-02	2.68838427E-04
55	1.69478400E-02	1.73851616E-02	-4.37321573E-04
56	2.04786400E-02	2.05327232E-02	-5.40831641E-05
57	2.04786400E-02	2.05327232E-02	-5.40831641E-05
58	1.97724800E-02	2.05327232E-02	-7.60243164E-04
59	2.40094400E-02	2.38459459E-02	1.63494108E-04
60	2.33032800E-02	2.38459459E-02	-5.42665892E-04
61	2.40094400E-02	2.38459459E-02	1.63494108E-04
62	2.54217600E-02	2.61652018E-02	-7.43441801E-04
63	2.61279200E-02	2.61652018E-02	-3.72818011E-05
64	2.54217600E-02	2.61652018E-02	-7.43441801E-04
65	3.17772000E-02	3.14663582E-02	3.10841835E-04
66	3.10710400E-02	3.14663582E-02	-3.95318165E-04
67	3.17772000E-02	3.14663582E-02	3.10841835E-04
68	3.38956800E-02	3.37856141E-02	1.10065925E-04
69	3.31895200E-02	3.37856141E-02	-5.96094075E-04
70	3.38956800E-02	3.37856141E-02	1.10065925E-04
71	3.81326400E-02	3.82584648E-02	-1.25824757E-04
72	3.88388000E-02	3.82584648E-02	5.80335243E-04
73	3.88388000E-02	3.82584648E-02	5.80335243E-04
74	4.02511200E-02	4.05777207E-02	-3.26600666E-04
75	4.09572800E-02	4.05777207E-02	3.79559334E-04
76	4.09572800E-02	4.05777207E-02	3.79559334E-04
77	4.37819200E-02	4.40566045E-02	-2.74684531E-04
78	4.30757600E-02	4.40566045E-02	-9.80844531E-04
79	4.37819200E-02	4.40566045E-02	-2.74684531E-04

COEFFICIENTS :

1	1.56403389E-04	1.05460338E-04
2	3.16379638E-03	1.23979077E-05

STANDARD DEVIATION = 9.37303901E-04 CHI**2 = 1.59628070E-02

T	TAUNM	OMEGRS
1.50450E+03	-4.66066E-02	-1.47659E+01
1.50450E+03	-4.59004E-02	-1.47659E+01
1.50450E+03	-4.66066E-02	-1.47659E+01
1.50450E+03	-3.88388E-02	-1.25668E+01
1.50450E+03	-3.95450E-02	-1.25668E+01
1.50450E+03	-3.95450E-02	-1.25668E+01
1.50450E+03	-3.67203E-02	-1.17813E+01
1.50450E+03	-3.74265E-02	-1.17813E+01
1.50450E+03	-3.81326E-02	-1.17813E+01
1.50450E+03	-3.38957E-02	-1.06294E+01
1.50450E+03	-3.31895E-02	-1.06294E+01
1.50450E+03	-3.38957E-02	-1.06294E+01
1.50450E+03	-3.10710E-02	-9.58216E+00
1.50450E+03	-3.03649E-02	-9.58216E+00
1.50450E+03	-3.10710E-02	-9.58216E+00
1.50450E+03	-2.61279E-02	-8.48256E+00
1.50450E+03	-2.68341E-02	-8.48256E+00

1.50450E+03	-2.68341E-02	-8.48256E+00
1.50450E+03	-2.33033E-02	-7.59242E+00
1.50450E+03	-2.40094E-02	-7.59242E+00
1.50450E+03	-2.33033E-02	-7.59242E+00
1.50450E+03	-2.04786E-02	-6.44046E+00
1.50450E+03	-2.11848E-02	-6.44046E+00
1.50450E+03	-1.97725E-02	-6.44046E+00
1.50450E+03	-1.90663E-02	-5.86449E+00
1.50450E+03	-1.83602E-02	-5.86449E+00
1.50450E+03	-1.90663E-02	-5.86449E+00
1.50450E+03	-1.34170E-02	-4.45073E+00
1.50450E+03	-1.41232E-02	-4.45073E+00
1.50450E+03	-1.34170E-02	-4.45073E+00
1.50450E+03	-1.12986E-02	-3.50822E+00
1.50450E+03	-1.20047E-02	-3.50822E+00
1.50450E+03	-1.05924E-02	-3.50822E+00
1.50450E+03	-7.76776E-03	-2.35627E+00
1.50450E+03	-7.06160E-03	-2.35627E+00
1.50450E+03	-7.76776E-03	-2.35627E+00
1.50450E+03	-4.23696E-03	-1.36140E+00
1.50450E+03	-3.53080E-03	-1.36140E+00
1.50450E+03	-4.23696E-03	-1.36140E+00
1.50450E+03	.0E+00	.0E+00
1.50450E+03	4.23696E-03	1.04723E+00
1.50450E+03	3.53080E-03	1.04723E+00
1.50450E+03	2.82464E-03	1.04723E+00
1.50450E+03	1.05924E-02	1.04723E+00
1.50450E+03	6.35544E-03	2.04210E+00
1.50450E+03	7.06160E-03	2.04210E+00
1.50450E+03	6.35544E-03	2.04210E+00
1.50450E+03	1.12986E-02	3.45586E+00
1.50450E+03	1.05924E-02	3.45586E+00
1.50450E+03	1.48294E-02	4.55545E+00
1.50450E+03	1.41232E-02	4.55545E+00
1.50450E+03	1.48294E-02	4.55545E+00
1.50450E+03	1.69478E-02	5.44560E+00
1.50450E+03	1.76540E-02	5.44560E+00
1.50450E+03	1.69478E-02	5.44560E+00
1.50450E+03	2.04786E-02	6.44046E+00
1.50450E+03	2.04786E-02	6.44046E+00
1.50450E+03	1.97725E-02	6.44046E+00
1.50450E+03	2.40094E-02	7.48770E+00
1.50450E+03	2.33033E-02	7.48770E+00
1.50450E+03	2.40094E-02	7.48770E+00
1.50450E+03	2.54218E-02	8.22076E+00
1.50450E+03	2.61279E-02	8.22076E+00
1.50450E+03	2.54218E-02	8.22076E+00
1.50450E+03	3.17772E-02	9.89632E+00
1.50450E+03	3.10710E-02	9.89632E+00
1.50450E+03	3.17772E-02	9.89632E+00
1.50450E+03	3.38957E-02	1.06294E+01
1.50450E+03	3.31895E-02	1.06294E+01
1.50450E+03	3.38957E-02	1.06294E+01
1.50450E+03	3.81326E-02	1.20431E+01
1.50450E+03	3.88388E-02	1.20431E+01

1.50450E+03	3.88388E-02	1.20431E+01
1.50450E+03	4.02511E-02	1.27762E+01
1.50450E+03	4.09573E-02	1.27762E+01
1.50450E+03	4.09573E-02	1.27762E+01
1.50450E+03	4.37819E-02	1.38758E+01
1.50450E+03	4.30758E-02	1.38758E+01
1.50450E+03	4.37819E-02	1.38758E+01

1594C RU WITH NEW PINS PUT IN

03 OCT 78
13.18.07

Ue20L#2

T = 1442.5°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -1.03099360E-01	-1.02764879E-01	-3.34481209E-04
2 -1.02393200E-01	-1.02764879E-01	3.71678791E-04
3 -1.00980880E-01	-1.02764879E-01	1.78399879E-03
4 -9.46254400E-02	-9.38216659E-02	-8.03774105E-04
5 -9.39192800E-02	-9.38216659E-02	-9.76141048E-05
6 -9.32131200E-02	-9.38216659E-02	6.08545895E-04
7 -8.19145600E-02	-8.48784530E-02	2.96389300E-03
8 -8.19145600E-02	-8.48784530E-02	2.96389300E-03
9 -8.12084000E-02	-8.48784530E-02	3.67005300E-03
10 -7.90899200E-02	-7.91547967E-02	6.48767459E-05
11 -7.97960800E-02	-7.91547967E-02	-6.41283254E-04
12 -7.83837600E-02	-7.91547967E-02	7.71036746E-04
13 -7.55591200E-02	-7.62929686E-02	7.33848619E-04
14 -7.62652800E-02	-7.62929686E-02	2.76886192E-05
15 -7.48529600E-02	-7.62929686E-02	1.44000862E-03
16 -6.35544000E-02	-6.73497557E-02	3.79535572E-03
17 -5.79051200E-02	-5.98374569E-02	1.93233689E-03
18 -5.93174400E-02	-5.98374569E-02	5.20016891E-04
19 -6.00236000E-02	-5.98374569E-02	-1.86143109E-04
20 -5.08435200E-02	-5.16097010E-02	7.66181026E-04
21 -5.01373600E-02	-5.16097010E-02	1.47234103E-03
22 -5.01373600E-02	-5.16097010E-02	1.47234103E-03
23 -4.51942400E-02	-4.51705877E-02	-2.36522587E-05
24 -4.44880800E-02	-4.51705877E-02	6.82507741E-04
25 -4.37819200E-02	-4.51705877E-02	1.38866774E-03
26 -3.81326400E-02	-3.80160174E-02	-1.16622575E-04
27 -3.95449600E-02	-3.80160174E-02	-1.52894258E-03
28 -3.81326400E-02	-3.80160174E-02	-1.16622575E-04
29 -2.82464000E-02	-2.90728045E-02	8.26404529E-04
30 -2.89525600E-02	-2.90728045E-02	1.20244529E-04
31 -2.89525600E-02	-2.90728045E-02	1.20244529E-04
32 -2.33032800E-02	-2.44223338E-02	1.11905382E-03
33 -2.40094400E-02	-2.44223338E-02	4.12893823E-04
34 -2.25971200E-02	-2.44223338E-02	1.82521382E-03
35 -1.55355200E-02	-1.58368494E-02	3.01329443E-04
36 -1.48293600E-02	-1.58368494E-02	1.00748944E-03
37 -1.69478400E-02	-1.58368494E-02	-1.11099056E-03
38 -6.35544000E-03	-7.25136506E-03	8.95925062E-04
39 -8.47392000E-03	-7.25136506E-03	-1.22255494E-03
40 -6.35544000E-03	-7.25136506E-03	8.95925062E-04
41 -6.49667200E-02	-6.89363655E-03	-5.80730835E-02
42 .0E+00	-4.54523262E-04	4.54523262E-04
43 7.76776000E-03	8.48868963E-03	-7.20929634E-04
44 9.88624000E-03	8.48868963E-03	1.39755037E-03
45 8.47392000E-03	8.48868963E-03	-1.47696344E-05
46 1.34170400E-02	1.45700744E-02	-1.15303440E-03
47 1.48293600E-02	1.45700744E-02	2.59285596E-04
48 1.55355200E-02	1.45700744E-02	9.65445596E-04
49 2.40094400E-02	2.27978303E-02	1.21160973E-03
50 2.33032800E-02	2.27978303E-02	5.05449732E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	2.40094400E-02	2.27978303E-02	1.21160973E-03
52	3.03648800E-02	2.95946721E-02	7.70207931E-04
53	3.10710400E-02	2.95946721E-02	1.47636793E-03
54	2.96587200E-02	2.95946721E-02	6.40479312E-05
55	3.95449600E-02	3.71069709E-02	2.43798910E-03
56	3.81326400E-02	3.71069709E-02	1.02566910E-03
57	3.88388000E-02	3.71069709E-02	1.73182910E-03
58	4.66065600E-02	4.53347268E-02	1.27183323E-03
59	4.73127200E-02	4.53347268E-02	1.97799323E-03
60	4.51942400E-02	4.53347268E-02	-1.40486766E-04
61	5.01373600E-02	5.07006545E-02	-5.63294503E-04
62	5.15496800E-02	5.07006545E-02	8.49025497E-04
63	5.22558400E-02	5.07006545E-02	1.55518550E-03
64	5.36681600E-02	5.46356682E-02	-9.67508177E-04
65	5.57866400E-02	5.46356682E-02	1.15097182E-03
66	5.71989600E-02	5.46356682E-02	2.56329182E-03
67	6.63790400E-02	6.64407092E-02	-6.16692001E-05
68	6.70852000E-02	6.64407092E-02	6.44490800E-04
69	6.77913600E-02	6.64407092E-02	1.35065080E-03
70	7.27344800E-02	7.18066369E-02	9.27843062E-04
71	7.34406400E-02	7.18066369E-02	1.63400306E-03
72	7.20283200E-02	7.18066369E-02	2.21683062E-04
73	7.62652800E-02	7.68148362E-02	-5.49556159E-04
74	7.90899200E-02	7.68148362E-02	2.27508384E-03
75	7.83837600E-02	7.68148362E-02	1.56892384E-03
76	8.26207200E-02	8.28962209E-02	-2.75500929E-04
77	8.33268800E-02	8.28962209E-02	4.30659071E-04
78	8.33268800E-02	8.28962209E-02	4.30659071E-04
79	9.25069600E-02	9.11239768E-02	1.38298321E-03
80	9.10946400E-02	9.11239768E-02	-2.93367929E-05
81	9.03884800E-02	9.11239768E-02	-7.35496793E-04
82	1.05217840E-01	1.05433117E-01	-2.15277426E-04
83	1.07336320E-01	1.05433117E-01	1.90320257E-03
84	1.04511680E-01	1.05433117E-01	-9.21437426E-04

COEFFICIENTS :

1	-4.54523262E-04	7.09770745E-04
2	6.83189920E-03	7.95210996E-05

STANDARD DEVIATION = 6.50359198E-03 CHI**2 = 4.92983536E-01

T	TAUNM	OMEGRS
1.44250E+03	-1.03099E-01	-1.49754E+01
1.44250E+03	-1.02393E-01	-1.49754E+01
1.44250E+03	-1.00981E-01	-1.49754E+01
1.44250E+03	-9.46254E-02	-1.36664E+01
1.44250E+03	-9.39193E-02	-1.36664E+01
1.44250E+03	-9.32131E-02	-1.36664E+01
1.44250E+03	-8.19146E-02	-1.23573E+01
1.44250E+03	-8.19146E-02	-1.23573E+01
1.44250E+03	-8.12084E-02	-1.23573E+01
1.44250E+03	-7.90899E-02	-1.15195E+01
1.44250E+03	-7.97961E-02	-1.15195E+01
1.44250E+03	-7.83838E-02	-1.15195E+01

1.44250E+03	-7.55591E-02	-1.11006E+01
1.44250E+03	-7.62653E-02	-1.11006E+01
1.44250E+03	-7.48530E-02	-1.11006E+01
1.44250E+03	-6.35544E-02	-9.79160E+00
1.44250E+03	-5.79051E-02	-8.69201E+00
1.44250E+03	-5.93174E-02	-8.69201E+00
1.44250E+03	-6.00236E-02	-8.69201E+00
1.44250E+03	-5.08435E-02	-7.48770E+00
1.44250E+03	-5.01374E-02	-7.48770E+00
1.44250E+03	-5.01374E-02	-7.48770E+00
1.44250E+03	-4.51942E-02	-6.54519E+00
1.44250E+03	-4.44881E-02	-6.54519E+00
1.44250E+03	-4.37819E-02	-6.54519E+00
1.44250E+03	-3.81326E-02	-5.49796E+00
1.44250E+03	-3.95450E-02	-5.49796E+00
1.44250E+03	-3.81326E-02	-5.49796E+00
1.44250E+03	-2.82464E-02	-4.18892E+00
1.44250E+03	-2.89526E-02	-4.18892E+00
1.44250E+03	-2.89526E-02	-4.18892E+00
1.44250E+03	-2.33033E-02	-3.50822E+00
1.44250E+03	-2.40094E-02	-3.50822E+00
1.44250E+03	-2.25971E-02	-3.50822E+00
1.44250E+03	-1.55355E-02	-2.25154E+00
1.44250E+03	-1.48294E-02	-2.25154E+00
1.44250E+03	-1.69478E-02	-2.25154E+00
1.44250E+03	-6.35544E-03	-9.94869E-01
1.44250E+03	-8.47392E-03	-9.94869E-01
1.44250E+03	-6.35544E-03	-9.94869E-01
9.35000E+01	-6.49667E-02	-9.42507E-01
1.44250E+03	.0E+00	.0E+00
1.44250E+03	7.76776E-03	1.30904E+00
1.44250E+03	9.88624E-03	1.30904E+00
1.44250E+03	8.47392E-03	1.30904E+00
1.44250E+03	1.34170E-02	2.19918E+00
1.44250E+03	1.48294E-02	2.19918E+00
1.44250E+03	1.55355E-02	2.19918E+00
1.44250E+03	2.40094E-02	3.40350E+00
1.44250E+03	2.33033E-02	3.40350E+00
1.44250E+03	2.40094E-02	3.40350E+00
1.44250E+03	3.03649E-02	4.39837E+00
1.44250E+03	3.10710E-02	4.39837E+00
1.44250E+03	2.96587E-02	4.39837E+00
1.44250E+03	3.95450E-02	5.49796E+00
1.44250E+03	3.81326E-02	5.49796E+00
1.44250E+03	3.88388E-02	5.49796E+00
1.44250E+03	4.66066E-02	6.70227E+00
1.44250E+03	4.73127E-02	6.70227E+00
1.44250E+03	4.51942E-02	6.70227E+00
1.44250E+03	5.01374E-02	7.48770E+00
1.44250E+03	5.15497E-02	7.48770E+00
1.44250E+03	5.22558E-02	7.48770E+00
1.44250E+03	5.36682E-02	8.06367E+00
1.44250E+03	5.57866E-02	8.06367E+00
1.44250E+03	5.71990E-02	8.06367E+00
1.44250E+03	6.63790E-02	9.79160E+00

1.44250E+03	6.70852E-02	9.79160E+00
1.44250E+03	6.77914E-02	9.79160E+00
1.44250E+03	7.27345E-02	1.05770E+01
1.44250E+03	7.34406E-02	1.05770E+01
1.44250E+03	7.20283E-02	1.05770E+01
1.44250E+03	7.62653E-02	1.13101E+01
1.44250E+03	7.90899E-02	1.13101E+01
1.44250E+03	7.83838E-02	1.13101E+01
1.44250E+03	8.26207E-02	1.22002E+01
1.44250E+03	8.33269E-02	1.22002E+01
1.44250E+03	8.33269E-02	1.22002E+01
1.44250E+03	9.25070E-02	1.34045E+01
1.44250E+03	9.10946E-02	1.34045E+01
1.44250E+03	9.03885E-02	1.34045E+01
1.44250E+03	1.05218E-01	1.54990E+01
1.44250E+03	1.07336E-01	1.54990E+01
1.44250E+03	1.04512E-01	1.54990E+01

1442.6 C RUN WITH NEW PINS PUT IN ON UE20L 2

83 OCT 78
13:27:12

Ue20L#2

T = 1400.3°C

TAUNM	TAUNM (CALC)	RESI DUALS
1 -1.70890720E-01	-1.70408247E-01	-4.82472946E-04
2 -1.68066080E-01	-1.70408247E-01	2.34216705E-03
3 -1.63122960E-01	-1.70408247E-01	7.28528705E-03
4 -1.43350480E-01	-1.44737857E-01	1.38737686E-03
5 -1.44056640E-01	-1.44737857E-01	6.81216855E-04
6 -1.44056640E-01	-1.44737857E-01	6.81216855E-04
7 -1.40525840E-01	-1.40459458E-01	-6.63815113E-05
8 -1.39819680E-01	-1.40459458E-01	6.39778489E-04
9 -1.43350480E-01	-1.40459458E-01	-2.89102151E-03
10 -1.22871840E-01	-1.20901066E-01	-1.97077404E-03
11 -1.21459520E-01	-1.20901066E-01	-5.58454044E-04
12 -1.20047200E-01	-1.20901066E-01	8.53865956E-04
13 -1.19341040E-01	-1.14789068E-01	-4.55197171E-03
14 -1.13691760E-01	-1.14789068E-01	1.09730829E-03
15 -1.11573280E-01	-1.14789068E-01	3.21578829E-03
16 -1.08042480E-01	-1.05621072E-01	-2.42140821E-03
17 -1.03805520E-01	-1.05621072E-01	1.81555179E-03
18 -1.09454800E-01	-1.05621072E-01	-3.83372821E-03
19 -9.18008000E-02	-8.97298779E-02	-2.07092214E-03
20 -9.10946400E-02	-8.97298779E-02	-1.36476214E-03
21 -8.89761600E-02	-8.97298779E-02	7.53717858E-04
22 -8.40330400E-02	-8.11730811E-02	-2.85995888E-03
23 -8.33268800E-02	-8.11730811E-02	-2.15379888E-03
24 -7.90899200E-02	-8.11730811E-02	2.08316112E-03
25 -6.42605600E-02	-6.52818872E-02	1.02132719E-03
26 -6.70852000E-02	-6.52818872E-02	-1.80331281E-03
27 -6.92036800E-02	-6.52818872E-02	-3.92179281E-03
28 -5.71989600E-02	-5.48914912E-02	-2.30746884E-03
29 -5.29620000E-02	-5.48914912E-02	1.92949116E-03
30 -5.57866400E-02	-5.48914912E-02	-8.95148841E-04
31 -4.23696000E-02	-4.08338965E-02	-1.53570347E-03
32 -3.88388000E-02	-4.08338965E-02	1.99509653E-03
33 -4.09572800E-02	-4.08338965E-02	-1.23383474E-04
34 -3.38956800E-02	-3.16659000E-02	-2.22977997E-03
35 -3.03648800E-02	-3.16659000E-02	1.30102003E-03
36 -3.24833600E-02	-3.16659000E-02	-8.17459973E-04
37 -1.12985600E-02	-1.27187073E-02	1.42014726E-03
38 -1.34170400E-02	-1.27187073E-02	-6.98332739E-04
39 -1.55355200E-02	-1.27187073E-02	-2.81681274E-03
40 .0E+00	7.27687605E-04	-7.27687605E-04
41 1.34170400E-02	1.23404832E-02	1.07655683E-03
42 1.41232000E-02	1.23404832E-02	1.78271683E-03
43 1.20047200E-02	1.23404832E-02	-3.35763171E-04
44 2.47156000E-02	2.51756783E-02	-4.60078271E-04
45 2.54217600E-02	2.51756783E-02	2.46081729E-04
46 2.68340800E-02	2.51756783E-02	1.65840173E-03
47 3.74264800E-02	3.67884738E-02	6.38006163E-04
48 3.88388000E-02	3.67884738E-02	2.05032616E-03
49 3.67203200E-02	3.67884738E-02	-6.81538367E-05
50 5.29620000E-02	5.02348687E-02	2.72713130E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	5.22558400E-02	5.02348687E-02	2.02097130E-03
52	4.94312000E-02	5.02348687E-02	-8.03668703E-04
53	6.42605600E-02	6.24588640E-02	1.80169596E-03
54	6.28482400E-02	6.24588640E-02	3.89375964E-04
55	6.21420800E-02	6.24588640E-02	-3.16784036E-04
56	7.76776000E-02	7.59052589E-02	1.77234110E-03
57	7.48529600E-02	7.59052589E-02	-1.05229890E-03
58	7.62652800E-02	7.59052589E-02	3.60021098E-04
59	9.60377600E-02	9.36300521E-02	2.40770787E-03
60	9.53316000E-02	9.36300521E-02	1.70154787E-03
61	9.39192800E-02	9.36300521E-02	2.89227866E-04
62	1.00980880E-01	1.00353250E-01	6.27630433E-04
63	1.02393200E-01	1.00353250E-01	2.03995043E-03
64	9.95685600E-02	1.00353250E-01	-7.84689567E-04
65	1.15104080E-01	1.16244443E-01	-1.14036350E-03
66	1.15810240E-01	1.16244443E-01	-4.34203500E-04
67	1.19341040E-01	1.16244443E-01	3.09659650E-03
68	1.22871840E-01	1.26023640E-01	-3.15179977E-03
69	1.25696480E-01	1.26023640E-01	-3.27159766E-04
70	1.26402640E-01	1.26023640E-01	3.79000234E-04
71	1.42644320E-01	1.41303634E-01	1.34068607E-03
72	1.38407360E-01	1.41303634E-01	-2.89627393E-03
73	1.39819680E-01	1.41303634E-01	-1.48395393E-03
74	1.46881280E-01	1.48026831E-01	-1.14555137E-03
75	1.53942880E-01	1.48026831E-01	5.91604863E-03
76	1.46881280E-01	1.48026831E-01	-1.14555137E-03
77	1.67359920E-01	1.69418823E-01	-2.05890320E-03
78	1.69478400E-01	1.69418823E-01	5.95768025E-05
79	1.65241440E-01	1.69418823E-01	-4.17738320E-03

COEFFICIENTS :

1	7.27687605E-04	2.37859134E-04
2	1.16726931E-02	2.75945219E-05

STANDARD DEVIATION = 2.11396182E-03 CHI**2 = 5.43081746E-03

T	TAUNM	OMEGRS
1.40030E+03	-1.70891E-01	-1.46612E+01
1.40030E+03	-1.68066E-01	-1.46612E+01
1.40030E+03	-1.63123E-01	-1.46612E+01
1.40030E+03	-1.43350E-01	-1.24620E+01
1.40030E+03	-1.44057E-01	-1.24620E+01
1.40030E+03	-1.44057E-01	-1.24620E+01
1.40030E+03	-1.40526E-01	-1.20955E+01
1.40030E+03	-1.39820E-01	-1.20955E+01
1.40030E+03	-1.43350E-01	-1.20955E+01
1.40030E+03	-1.22872E-01	-1.04199E+01
1.40030E+03	-1.21460E-01	-1.04199E+01
1.40030E+03	-1.20047E-01	-1.04199E+01
1.40030E+03	-1.19341E-01	-9.89632E+00
1.40030E+03	-1.13692E-01	-9.89632E+00
1.40030E+03	-1.11573E-01	-9.89632E+00
1.40030E+03	-1.08042E-01	-9.11090E+00
1.40030E+03	-1.03806E-01	-9.11090E+00

1.40030E+03	-1.09455E-01	-9.11090E+00
1.40030E+03	-9.18008E-02	-7.74950E+00
1.40030E+03	-9.10946E-02	-7.74950E+00
1.40030E+03	-8.89762E-02	-7.74950E+00
1.40030E+03	-8.40330E-02	-7.01644E+00
1.40030E+03	-8.33269E-02	-7.01644E+00
1.40030E+03	-7.90899E-02	-7.01644E+00
1.40030E+03	-6.42606E-02	-5.65504E+00
1.40030E+03	-6.70852E-02	-5.65504E+00
1.40030E+03	-6.92037E-02	-5.65504E+00
1.40030E+03	-5.71990E-02	-4.76490E+00
1.40030E+03	-5.29620E-02	-4.76490E+00
1.40030E+03	-5.57866E-02	-4.76490E+00
1.40030E+03	-4.23696E-02	-3.56058E+00
1.40030E+03	-3.88388E-02	-3.56058E+00
1.40030E+03	-4.09573E-02	-3.56058E+00
1.40030E+03	-3.38957E-02	-2.77516E+00
1.40030E+03	-3.03649E-02	-2.77516E+00
1.40030E+03	-3.24834E-02	-2.77516E+00
1.40030E+03	-1.12986E-02	-1.15195E+00
1.40030E+03	-1.34170E-02	-1.15195E+00
1.40030E+03	-1.55355E-02	-1.15195E+00
1.40030E+03	.0E+00	.0E+00
1.40030E+03	1.34170E-02	9.94869E-01
1.40030E+03	1.41232E-02	9.94869E-01
1.40030E+03	1.20047E-02	9.94869E-01
1.40030E+03	2.47156E-02	2.09446E+00
1.40030E+03	2.54218E-02	2.09446E+00
1.40030E+03	2.68341E-02	2.09446E+00
1.40030E+03	3.74265E-02	3.08933E+00
1.40030E+03	3.88388E-02	3.08933E+00
1.40030E+03	3.67203E-02	3.08933E+00
1.40030E+03	5.29620E-02	4.24128E+00
1.40030E+03	5.22558E-02	4.24128E+00
1.40030E+03	4.94312E-02	4.24128E+00
1.40030E+03	6.42606E-02	5.28851E+00
1.40030E+03	6.28482E-02	5.28851E+00
1.40030E+03	6.21421E-02	5.28851E+00
1.40030E+03	7.76776E-02	6.44046E+00
1.40030E+03	7.48530E-02	6.44046E+00
1.40030E+03	7.62653E-02	6.44046E+00
1.40030E+03	9.60378E-02	7.95895E+00
1.40030E+03	9.53316E-02	7.95895E+00
1.40030E+03	9.39193E-02	7.95895E+00
1.40030E+03	1.00981E-01	8.53493E+00
1.40030E+03	1.02393E-01	8.53493E+00
1.40030E+03	9.95686E-02	8.53493E+00
1.40030E+03	1.15104E-01	9.89632E+00
1.40030E+03	1.15810E-01	9.89632E+00
1.40030E+03	1.19341E-01	9.89632E+00
1.40030E+03	1.22872E-01	1.07341E+01
1.40030E+03	1.25696E-01	1.07341E+01
1.40030E+03	1.26403E-01	1.07341E+01
1.40030E+03	1.42644E-01	1.20431E+01
1.40030E+03	1.38407E-01	1.20431E+01

1.40030E+03	1.39820E-01	1.20431E+01
1.40030E+03	1.46881E-01	1.26191E+01
1.40030E+03	1.53943E-01	1.26191E+01
1.40030E+03	1.46881E-01	1.26191E+01
1.40030E+03	1.67360E-01	1.44518E+01
1.40030E+03	1.69478E-01	1.44518E+01
1.40030E+03	1.65241E-01	1.44518E+01

1480C RUN WITH NEW PINS IN ON UE20L NO 2

03 OCT 78
14:24:08

Ue20L#2
T = 1362.75°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -2.83170160E-01	-2.86721349E-01	3.55118874E-03
2 -2.78933200E-01	-2.86721349E-01	7.78814874E-03
3 -2.71165440E-01	-2.86721349E-01	1.55559087E-02
4 -2.37975920E-01	-2.43389362E-01	5.41344162E-03
5 -2.38682080E-01	-2.43389362E-01	4.70728162E-03
6 -2.39388240E-01	-2.43389362E-01	4.00112162E-03
7 -2.32326640E-01	-2.32304435E-01	-2.22053178E-05
8 -2.33032800E-01	-2.32304435E-01	-7.28365318E-04
9 -2.37269760E-01	-2.32304435E-01	-4.96532532E-03
10 -2.10435680E-01	-2.08119140E-01	-2.31654046E-03
11 -2.01255600E-01	-2.08119140E-01	6.86353954E-03
12 -2.06198720E-01	-2.08119140E-01	1.92041954E-03
13 -1.92075520E-01	-1.85949286E-01	-6.12623433E-03
14 -1.89957040E-01	-1.85949286E-01	-4.00775433E-03
15 -1.83601600E-01	-1.85949286E-01	2.34768567E-03
16 -1.66653760E-01	-1.61763991E-01	-4.88976947E-03
17 -1.59592160E-01	-1.61763991E-01	2.17183053E-03
18 -1.63829120E-01	-1.61763991E-01	-2.06512947E-03
19 -1.58886000E-01	-1.53702225E-01	-5.18377452E-03
20 -1.60298320E-01	-1.53702225E-01	-6.59609452E-03
21 -1.58179840E-01	-1.53702225E-01	-4.47761452E-03
22 -1.32051920E-01	-1.26493768E-01	-5.55815155E-03
23 -1.30639600E-01	-1.26493768E-01	-4.14583155E-03
24 -1.28521120E-01	-1.26493768E-01	-2.02735155E-03
25 -1.18634880E-01	-1.12385680E-01	-6.24920038E-03
26 -1.20047200E-01	-1.12385680E-01	-7.66152038E-03
27 -1.17928720E-01	-1.12385680E-01	-5.54304038E-03
28 -8.82700000E-02	-8.11463401E-02	-7.12365993E-03
29 -8.54453600E-02	-8.11463401E-02	-4.29901993E-03
30 -8.26207200E-02	-8.11463401E-02	-1.47437993E-03
31 -6.84975200E-02	-6.60305306E-02	-2.46698940E-03
32 -7.13221600E-02	-6.60305306E-02	-5.29162940E-03
33 -6.77913600E-02	-6.60305306E-02	-1.76082940E-03
34 -5.01373600E-02	-4.88992799E-02	-1.23808012E-03
35 -5.29620000E-02	-4.88992799E-02	-4.06272012E-03
36 -5.43743200E-02	-4.88992799E-02	-5.47504012E-03
37 -2.61279200E-02	-2.37062641E-02	-2.42165589E-03
38 -2.40094400E-02	-2.37062641E-02	-3.03175888E-04
39 -2.18909600E-02	-2.37062641E-02	1.81530411E-03
40 .0E+00	4.79031026E-04	-4.79031026E-04
41 1.90663200E-02	1.96257230E-02	-5.59403011E-04
42 1.83601600E-02	1.96257230E-02	-1.26556301E-03
43 2.47156000E-02	1.96257230E-02	5.08987699E-03
44 5.01373600E-02	5.08650626E-02	-7.27702565E-04
45 5.36681600E-02	5.08650626E-02	2.80309743E-03
46 5.57866400E-02	5.08650626E-02	4.92157743E-03
47 6.00236000E-02	6.09422689E-02	-9.18668873E-04
48 6.77913600E-02	6.09422689E-02	6.84909113E-03
49 6.49667200E-02	6.09422689E-02	4.02445113E-03
50 8.82700000E-02	8.41198434E-02	4.15015662E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	8.96823200E-02	8.41198434E-02	5.56247662E-03
52	8.47392000E-02	8.41198434E-02	6.19356619E-04
53	1.15104080E-01	1.08305139E-01	6.79894148E-03
54	1.18634880E-01	1.08305139E-01	1.03297415E-02
55	1.12279440E-01	1.08305139E-01	3.97430148E-03
56	1.31345760E-01	1.26444110E-01	4.90165013E-03
57	1.28521120E-01	1.26444110E-01	2.07701013E-03
58	1.27814960E-01	1.26444110E-01	1.37085013E-03
59	1.55355200E-01	1.48613964E-01	6.74123625E-03
60	1.51824400E-01	1.48613964E-01	3.21043625E-03
61	1.53942880E-01	1.48613964E-01	5.32891625E-03
62	1.68066080E-01	1.62722053E-01	5.34402742E-03
63	1.62416800E-01	1.62722053E-01	-3.05252581E-04
64	1.65947600E-01	1.62722053E-01	3.22554742E-03
65	2.00549440E-01	1.92953672E-01	7.59576850E-03
66	1.97018640E-01	1.92953672E-01	4.06496850E-03
67	1.92075520E-01	1.92953672E-01	-8.78151504E-04
68	2.06198720E-01	2.05046319E-01	1.15240093E-03
69	1.98430960E-01	2.05046319E-01	-6.61535907E-03
70	2.01255600E-01	2.05046319E-01	-3.79071907E-03
71	2.38682080E-01	2.36285659E-01	2.39642137E-03
72	2.40094400E-01	2.36285659E-01	3.80874137E-03
73	2.37269760E-01	2.36285659E-01	9.84101372E-04
74	2.40094400E-01	2.46362865E-01	-6.26846494E-03
75	2.39388240E-01	2.46362865E-01	-6.97462494E-03
76	2.37269760E-01	2.46362865E-01	-9.09310494E-03
77	2.70459280E-01	2.73571322E-01	-3.11204197E-03
78	2.64103840E-01	2.73571322E-01	-9.46748197E-03
79	2.69046960E-01	2.73571322E-01	-4.52436197E-03
COEFFICIENTS :			
1	4.79031026E-04	5.60301458E-04	
2	1.92454486E-02	6.49284663E-05	
STANDARD DEVIATION = 4.97997191E-03 CHI**2 = 1.59017470E-02			

T	TAUNM	OMEGRS
1.36275E+03	-2.83170E-01	-1.49230E+01
1.36275E+03	-2.78933E-01	-1.49230E+01
1.36275E+03	-2.71165E-01	-1.49230E+01
1.36275E+03	-2.37976E-01	-1.26715E+01
1.36275E+03	-2.38682E-01	-1.26715E+01
1.36275E+03	-2.39388E-01	-1.26715E+01
1.36275E+03	-2.32327E-01	-1.20955E+01
1.36275E+03	-2.33033E-01	-1.20955E+01
1.36275E+03	-2.37270E-01	-1.20955E+01
1.36275E+03	-2.10436E-01	-1.08388E+01
1.36275E+03	-2.01256E-01	-1.08388E+01
1.36275E+03	-2.06199E-01	-1.08388E+01
1.36275E+03	-1.92076E-01	-9.68688E+00
1.36275E+03	-1.89957E-01	-9.68688E+00
1.36275E+03	-1.83602E-01	-9.68688E+00
1.36275E+03	-1.66654E-01	-8.43020E+00
1.36275E+03	-1.59592E-01	-8.43020E+00

1.36275E+03	-1.63829E-01	-8.43020E+00
1.36275E+03	-1.58886E-01	-8.01131E+00
1.36275E+03	-1.60298E-01	-8.01131E+00
1.36275E+03	-1.58180E-01	-8.01131E+00
1.36275E+03	-1.32052E-01	-6.59755E+00
1.36275E+03	-1.30640E-01	-6.59755E+00
1.36275E+03	-1.28521E-01	-6.59755E+00
1.36275E+03	-1.18635E-01	-5.86449E+00
1.36275E+03	-1.20047E-01	-5.86449E+00
1.36275E+03	-1.17929E-01	-5.86449E+00
1.36275E+03	-8.82700E-02	-4.24128E+00
1.36275E+03	-8.54454E-02	-4.24128E+00
1.36275E+03	-8.26207E-02	-4.24128E+00
1.36275E+03	-6.84975E-02	-3.45586E+00
1.36275E+03	-7.13222E-02	-3.45586E+00
1.36275E+03	-6.77914E-02	-3.45586E+00
1.36275E+03	-5.01374E-02	-2.56571E+00
1.36275E+03	-5.29620E-02	-2.56571E+00
1.36275E+03	-5.43743E-02	-2.56571E+00
1.36275E+03	-2.61279E-02	-1.25668E+00
1.36275E+03	-2.40094E-02	-1.25668E+00
1.36275E+03	-2.18910E-02	-1.25668E+00
1.36275E+03	.0E+00	.0E+00
1.36275E+03	1.90663E-02	9.94869E-01
1.36275E+03	1.83602E-02	9.94869E-01
1.36275E+03	2.47156E-02	9.94869E-01
1.36275E+03	5.01374E-02	2.61808E+00
1.36275E+03	5.36682E-02	2.61808E+00
1.36275E+03	5.57866E-02	2.61808E+00
1.36275E+03	6.00236E-02	3.14169E+00
1.36275E+03	6.77914E-02	3.14169E+00
1.36275E+03	6.49667E-02	3.14169E+00
1.36275E+03	8.82700E-02	4.34600E+00
1.36275E+03	8.96823E-02	4.34600E+00
1.36275E+03	8.47392E-02	4.34600E+00
1.36275E+03	1.15104E-01	5.60268E+00
1.36275E+03	1.18635E-01	5.60268E+00
1.36275E+03	1.12279E-01	5.60268E+00
1.36275E+03	1.31346E-01	6.54519E+00
1.36275E+03	1.28521E-01	6.54519E+00
1.36275E+03	1.27815E-01	6.54519E+00
1.36275E+03	1.55355E-01	7.69714E+00
1.36275E+03	1.51824E-01	7.69714E+00
1.36275E+03	1.53943E-01	7.69714E+00
1.36275E+03	1.68066E-01	8.43020E+00
1.36275E+03	1.62417E-01	8.43020E+00
1.36275E+03	1.65948E-01	8.43020E+00
1.36275E+03	2.00549E-01	1.00010E+01
1.36275E+03	1.97019E-01	1.00010E+01
1.36275E+03	1.92076E-01	1.00010E+01
1.36275E+03	2.06199E-01	1.06294E+01
1.36275E+03	1.98431E-01	1.06294E+01
1.36275E+03	2.01256E-01	1.06294E+01
1.36275E+03	2.38682E-01	1.22526E+01
1.36275E+03	2.40094E-01	1.22526E+01

1.36275E+03	2.37270E-01	1.22526E+01
1.36275E+03	2.40094E-01	1.27762E+01
1.36275E+03	2.39388E-01	1.27762E+01
1.36275E+03	2.37270E-01	1.27762E+01
1.36275E+03	2.70459E-01	1.41900E+01
1.36275E+03	2.64104E-01	1.41900E+01
1.36275E+03	2.69047E-01	1.41900E+01

1362.75 C RUN ON UL COMPS(SEE NOTE BOOK FOR ROCK COMPN)

83 OCT 78
15:17:00

Ue20L#2
T = 1320.2°C [R]

	TAUNM	TAUNM (CALC)	RESIDUALS
1	-2.83876320E-01	-2.72069474E-01	-1.18068464E-02
2	-2.80345520E-01	-2.72069474E-01	-8.27604641E-03
3	-2.70459280E-01	-2.72069474E-01	1.61019359E-03
4	-1.96312480E-01	-1.89619313E-01	-6.69316655E-03
5	-1.87132400E-01	-1.89619313E-01	2.48691345E-03
6	-1.97724800E-01	-1.89619313E-01	-8.10548655E-03
7	-1.53236720E-01	-1.57022739E-01	3.78601851E-03
8	-1.61710640E-01	-1.57022739E-01	-4.68790149E-03
9	-1.61004480E-01	-1.57022739E-01	-3.98174149E-03
10	-1.22871840E-01	-1.18673827E-01	-4.19801318E-03
11	-1.17928720E-01	-1.18673827E-01	7.45106820E-04
12	-1.21459520E-01	-1.18673827E-01	-2.78569318E-03
13	-5.79051200E-02	-5.73155681E-02	-5.89551890E-04
14	-5.43743200E-02	-5.73155681E-02	2.94124811E-03
15	-4.94312000E-02	-5.73155681E-02	7.88436811E-03
16	.0E+00	-3.62709174E-03	3.62709174E-03
17	.0E+00	-3.62709174E-03	3.62709174E-03
18	3.74264800E-02	3.66392655E-02	7.87214461E-04
19	4.37819200E-02	3.66392655E-02	7.14265446E-03
20	4.73127200E-02	3.66392655E-02	1.06734545E-02
21	1.22871840E-01	1.15254535E-01	7.61730549E-03
22	1.21459520E-01	1.15254535E-01	6.20498549E-03
23	1.17928720E-01	1.15254535E-01	2.67418549E-03
24	1.26402640E-01	1.17171980E-01	9.23065991E-03
25	1.20047200E-01	1.17171980E-01	2.87521991E-03
26	1.21459520E-01	1.17171980E-01	4.28753991E-03
27	2.04080240E-01	1.95787249E-01	8.29299093E-03
28	2.07611040E-01	1.95787249E-01	1.18237909E-02
29	1.99843280E-01	1.95787249E-01	4.05603093E-03
30	2.54923760E-01	2.57145508E-01	-2.22174778E-03
31	2.51392960E-01	2.57145508E-01	-5.75254778E-03
32	2.59160720E-01	2.57145508E-01	2.01521222E-03
33	3.10710400E-01	3.10833984E-01	-1.23584146E-04
34	3.03648800E-01	3.10833984E-01	-7.18518415E-03
35	3.07885760E-01	3.10833984E-01	-2.94822415E-03
36	3.55198480E-01	3.64522461E-01	-9.32398052E-03
37	3.52373840E-01	3.64522461E-01	-1.21486205E-02
38	3.50961520E-01	3.64522461E-01	-1.35609405E-02
COEFFICIENTS :			
1	-3.62709174E-03	1.11254350E-03	
2	3.66193758E-02	2.01299787E-04	
STANDARD DEVIATION = 6.63673703E-03 CHI**2 = 1.94633541E-02			

T	TAUNM	OMEGRS
1.32020E+03	-2.83876E-01	-7.33061E+00
1.32020E+03	-2.80346E-01	-7.33061E+00
1.32020E+03	-2.70459E-01	-7.33061E+00
1.32020E+03	-1.96312E-01	-5.07907E+00
1.32020E+03	-1.87132E-01	-5.07907E+00

1.32020E+03	-1.97725E-01	-5.07907E+00
1.32020E+03	-1.53237E-01	-4.18892E+00
1.32020E+03	-1.61711E-01	-4.18892E+00
1.32020E+03	-1.61004E-01	-4.18892E+00
1.32020E+03	-1.22872E-01	-3.14169E+00
1.32020E+03	-1.17929E-01	-3.14169E+00
1.32020E+03	-1.21460E-01	-3.14169E+00
1.32020E+03	-5.79051E-02	-1.46612E+00
1.32020E+03	-5.43743E-02	-1.46612E+00
1.32020E+03	-4.94312E-02	-1.46612E+00
1.32020E+03	.0E+00	.0E+00
1.32020E+03	.0E+00	.0E+00
1.32020E+03	3.74265E-02	1.09959E+00
1.32020E+03	4.37819E-02	1.09959E+00
1.32020E+03	4.73127E-02	1.09959E+00
1.32020E+03	1.22872E-01	3.24641E+00
1.32020E+03	1.21460E-01	3.24641E+00
1.32020E+03	1.17929E-01	3.24641E+00
1.32020E+03	1.26403E-01	3.29877E+00
1.32020E+03	1.20047E-01	3.29877E+00
1.32020E+03	1.21460E-01	3.29877E+00
1.32020E+03	2.04080E-01	5.44560E+00
1.32020E+03	2.07611E-01	5.44560E+00
1.32020E+03	1.99843E-01	5.44560E+00
1.32020E+03	2.54924E-01	7.12116E+00
1.32020E+03	2.51393E-01	7.12116E+00
1.32020E+03	2.59161E-01	7.12116E+00
1.32020E+03	3.10710E-01	8.58729E+00
1.32020E+03	3.03649E-01	8.58729E+00
1.32020E+03	3.07886E-01	8.58729E+00
1.32020E+03	3.55198E-01	1.00534E+01
1.32020E+03	3.52374E-01	1.00534E+01
1.32020E+03	3.50962E-01	1.00534E+01

Ue20L#2

T = 1320.25°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -3.46018400E-01	-2.99445849E-01	-4.65725515E-02
2 -3.31895200E-01	-2.99445849E-01	-3.24493515E-02
3 -3.40369120E-01	-2.99445849E-01	-4.09232715E-02
4 -2.13260320E-01	-1.79672436E-01	-3.35878835E-02
5 -2.04080240E-01	-1.79672436E-01	-2.44078035E-02
6 -2.09729520E-01	-1.79672436E-01	-3.00570835E-02
7 -2.11141840E-01	-1.73530210E-01	-3.76116298E-02
8 -2.14672640E-01	-1.73530210E-01	-4.11424298E-02
9 -2.13260320E-01	-1.73530210E-01	-3.97301098E-02
10 -1.38407360E-01	-1.12107948E-01	-2.62994124E-02
11 -1.34876560E-01	-1.12107948E-01	-2.27686124E-02
12 -1.41232000E-01	-1.12107948E-01	-2.91240524E-02
13 -7.83837600E-02	-5.68279113E-02	-2.15558487E-02
14 -6.70852000E-02	-5.68279113E-02	-1.02572887E-02
15 -7.34406400E-02	-5.68279113E-02	-1.66127287E-02
16 .0E+00	4.59435128E-03	-4.59435128E-03
17 .0E+00	4.59435128E-03	-4.59435128E-03
18 8.19145600E-02	7.21588401E-02	9.75571988E-03
19 7.90899200E-02	7.21588401E-02	6.93107988E-03
20 7.55591200E-02	7.21588401E-02	3.40027988E-03
21 1.48999760E-01	1.27438876E-01	2.15608836E-02
22 1.36995040E-01	1.27438876E-01	9.55616355E-03
23 1.42644320E-01	1.27438876E-01	1.52054436E-02
24 1.55355200E-01	1.27438876E-01	2.79163236E-02
25 1.41232000E-01	1.27438876E-01	1.37931236E-02
26 1.55355200E-01	1.27438876E-01	2.79163236E-02
27 2.13260320E-01	1.88861139E-01	2.43991810E-02
28 2.05492560E-01	1.88861139E-01	1.66314210E-02
29 2.17497280E-01	1.88861139E-01	2.86361410E-02
30 2.11848000E-01	1.91932252E-01	1.99157478E-02
31 2.11848000E-01	1.91932252E-01	1.99157478E-02
32 2.11848000E-01	1.91932252E-01	1.99157478E-02
33 2.47156000E-01	2.19572270E-01	2.75837297E-02
34 2.41506720E-01	2.19572270E-01	2.19344497E-02
35 2.38682080E-01	2.19572270E-01	1.91098097E-02
36 2.82464000E-01	2.50283402E-01	3.21805984E-02
37 2.82464000E-01	2.50283402E-01	3.21805984E-02
38 2.82464000E-01	2.50283402E-01	3.21805984E-02
39 3.09298080E-01	2.87136759E-01	2.21613208E-02
40 3.24127440E-01	2.87136759E-01	3.69906808E-02
41 3.10710400E-01	2.87136759E-01	2.35736408E-02
42 3.24833600E-01	3.14776777E-01	1.00568227E-02
43 3.38956800E-01	3.14776777E-01	2.41800227E-02
44 3.53080000E-01	3.14776777E-01	3.83032227E-02
45 4.09572800E-01	3.73127927E-01	3.64448732E-02
46 4.23696000E-01	3.73127927E-01	5.05680732E-02
47 4.09572800E-01	3.73127927E-01	3.64448732E-02
48 4.51942400E-01	4.40692416E-01	1.12499844E-02
49 4.66065600E-01	4.40692416E-01	2.53731844E-02
50 4.51942400E-01	4.40692416E-01	1.12499844E-02

UL1326R THE RERUN OF THE ORIGINAL 1326 RUN AFTER NEW PINS INSTALLED.

04 OCT 78
07:30:03

Ue20L#2

T = 1299.7°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -6.35544000E-01	-6.66430480E-01	3.08864797E-02
2 -6.21420800E-01	-6.66430480E-01	4.50096797E-02
3 -6.07297600E-01	-6.66430480E-01	5.91328797E-02
4 -5.50804800E-01	-5.77546330E-01	2.67415298E-02
5 -5.36681600E-01	-5.77546330E-01	4.08647298E-02
6 -5.50804800E-01	-5.77546330E-01	2.67415298E-02
7 -5.36681600E-01	-5.48719038E-01	1.20374380E-02
8 -5.50804800E-01	-5.48719038E-01	-2.08576203E-03
9 -5.50804800E-01	-5.48719038E-01	-2.08576203E-03
10 -4.80188800E-01	-4.86259906E-01	6.07110563E-03
11 -4.66065600E-01	-4.86259906E-01	2.01943056E-02
12 -4.80188800E-01	-4.86259906E-01	6.07110563E-03
13 -4.80188800E-01	-4.50225791E-01	-2.99630092E-02
14 -4.66065600E-01	-4.50225791E-01	-1.58398092E-02
15 -4.80188800E-01	-4.50225791E-01	-2.99630092E-02
16 -4.09572800E-01	-3.90168933E-01	-1.94038672E-02
17 -3.95449600E-01	-3.90168933E-01	-5.28066721E-03
18 -3.95449600E-01	-3.90168933E-01	-5.28066721E-03
19 -3.95449600E-01	-3.54134818E-01	-4.13147820E-02
20 -3.81326400E-01	-3.54134818E-01	-2.71915820E-02
21 -3.95449600E-01	-3.54134818E-01	-4.13147820E-02
22 -3.10710400E-01	-2.91675686E-01	-1.90347144E-02
23 -3.10710400E-01	-2.91675686E-01	-1.90347144E-02
24 -3.24833600E-01	-2.91675686E-01	-3.31579144E-02
25 -2.96587200E-01	-2.60446119E-01	-3.61410805E-02
26 -2.82464000E-01	-2.60446119E-01	-2.20178805E-02
27 -2.96587200E-01	-2.60446119E-01	-3.61410805E-02
28 -2.25971200E-01	-1.97986987E-01	-2.79842129E-02
29 -2.25971200E-01	-1.97986987E-01	-2.79842129E-02
30 -2.11848000E-01	-1.97986987E-01	-1.38610129E-02
31 -1.83601600E-01	-1.61952872E-01	-2.16487277E-02
32 -1.83601600E-01	-1.61952872E-01	-2.16487277E-02
33 -1.83601600E-01	-1.61952872E-01	-2.16487277E-02
34 -1.12985600E-01	-1.01896014E-01	-1.10895857E-02
35 -1.12985600E-01	-1.01896014E-01	-1.10895857E-02
36 -1.12985600E-01	-1.01896014E-01	-1.10895857E-02
37 -7.06160000E-02	-6.58618995E-02	-4.75410053E-03
38 -8.47392000E-02	-6.58618995E-02	-1.88773005E-02
39 -8.47392000E-02	-6.58618995E-02	-1.88773005E-02
40 .0E+00	6.20633015E-03	-6.20633015E-03
41 7.06160000E-02	6.86654625E-02	1.95053750E-03
42 8.47392000E-02	6.86654625E-02	1.60737375E-02
43 7.06160000E-02	6.86654625E-02	1.95053750E-03
44 1.27108800E-01	1.14308675E-01	1.28001254E-02
45 1.27108800E-01	1.14308675E-01	1.28001254E-02
46 1.27108800E-01	1.14308675E-01	1.28001254E-02
47 1.97724800E-01	1.74365533E-01	2.33592674E-02
48 1.97724800E-01	1.74365533E-01	2.33592674E-02
49 1.97724800E-01	1.74365533E-01	2.33592674E-02
50 2.40094400E-01	2.10399647E-01	2.96947526E-02

TAUNM

TAUNM (CALC)

RESIDUALS

51	2.25971200E-01	2.10399647E-01	1.55715526E-02
52	2.40094400E-01	2.10399647E-01	2.96947526E-02
53	2.96587200E-01	2.68054231E-01	2.85329689E-02
54	3.10710400E-01	2.68054231E-01	4.26561689E-02
55	3.10710400E-01	2.68054231E-01	4.26561689E-02
56	3.24833600E-01	2.96881523E-01	2.79520770E-02
57	3.10710400E-01	2.96881523E-01	1.38288770E-02
58	3.24833600E-01	2.96881523E-01	2.79520770E-02
59	3.95449600E-01	3.66547478E-01	2.89021217E-02
60	4.09572800E-01	3.66547478E-01	4.30253217E-02
61	4.09572800E-01	3.66547478E-01	4.30253217E-02
62	4.09572800E-01	3.97777044E-01	1.17957555E-02
63	4.09572800E-01	3.97777044E-01	1.17957555E-02
64	4.09572800E-01	3.97777044E-01	1.17957555E-02
65	4.94312000E-01	4.67443000E-01	2.68690002E-02
66	4.94312000E-01	4.67443000E-01	2.68690002E-02
67	4.80188800E-01	4.67443000E-01	1.27458002E-02
68	4.80188800E-01	4.86661194E-01	-6.47239433E-03
69	4.66065600E-01	4.86661194E-01	-2.05955943E-02
70	4.80188800E-01	4.86661194E-01	-6.47239433E-03
71	5.50804800E-01	5.58729424E-01	-7.92462396E-03
72	5.64928000E-01	5.58729424E-01	6.19857604E-03
73	5.50804800E-01	5.58729424E-01	-7.92462396E-03
74	5.64928000E-01	5.94763539E-01	-2.98355388E-02
75	5.50804800E-01	5.94763539E-01	-4.39587388E-02
76	5.64928000E-01	5.94763539E-01	-2.98355388E-02
77	6.21420800E-01	6.59624945E-01	-3.82041454E-02
78	6.07297600E-01	6.59624945E-01	-5.23273454E-02
79	6.21420800E-01	6.59624945E-01	-3.82041454E-02

COEFFICIENTS :

1 6.20633015E-03 2.94062076E-03

2 4.58786350E-02 3.40679162E-04

STANDARD DEVIATION = 2.61365032E-02 CHI**2 = 1.73075301E-01

T

TAUNM

OMEGRS

1.29970E+03	-6.35544E-01	-1.46612E+01
1.29970E+03	-6.21421E-01	-1.46612E+01
1.29970E+03	-6.07298E-01	-1.46612E+01
1.29970E+03	-5.50805E-01	-1.27238E+01
1.29970E+03	-5.36682E-01	-1.27238E+01
1.29970E+03	-5.50805E-01	-1.27238E+01
1.29970E+03	-5.36682E-01	-1.20955E+01
1.29970E+03	-5.50805E-01	-1.20955E+01
1.29970E+03	-5.50805E-01	-1.20955E+01
1.29970E+03	-4.80189E-01	-1.07341E+01
1.29970E+03	-4.66066E-01	-1.07341E+01
1.29970E+03	-4.80189E-01	-1.07341E+01
1.29970E+03	-4.80189E-01	-9.94869E+00
1.29970E+03	-4.66066E-01	-9.94869E+00
1.29970E+03	-4.80189E-01	-9.94869E+00
1.29970E+03	-4.09573E-01	-8.63965E+00
1.29970E+03	-3.95450E-01	-8.63965E+00

1.29970E+03	-3.95450E-01	-8.63965E+00
1.29970E+03	-3.95450E-01	-7.85423E+00
1.29970E+03	-3.81326E-01	-7.85423E+00
1.29970E+03	-3.95450E-01	-7.85423E+00
1.29970E+03	-3.10710E-01	-6.49283E+00
1.29970E+03	-3.10710E-01	-6.49283E+00
1.29970E+03	-3.24834E-01	-6.49283E+00
1.29970E+03	-2.96587E-01	-5.81213E+00
1.29970E+03	-2.82464E-01	-5.81213E+00
1.29970E+03	-2.96587E-01	-5.81213E+00
1.29970E+03	-2.25971E-01	-4.45073E+00
1.29970E+03	-2.25971E-01	-4.45073E+00
1.29970E+03	-2.11848E-01	-4.45073E+00
1.29970E+03	-1.83602E-01	-3.66531E+00
1.29970E+03	-1.83602E-01	-3.66531E+00
1.29970E+03	-1.83602E-01	-3.66531E+00
1.29970E+03	-1.12986E-01	-2.35627E+00
1.29970E+03	-1.12986E-01	-2.35627E+00
1.29970E+03	-1.12986E-01	-2.35627E+00
1.29970E+03	-7.06160E-02	-1.57085E+00
1.29970E+03	-8.47392E-02	-1.57085E+00
1.29970E+03	-8.47392E-02	-1.57085E+00
1.29970E+03	.0E+00	.0E+00

1.29970E+03	7.06160E-02	1.36140E+00
1.29970E+03	8.47392E-02	1.36140E+00
1.29970E+03	7.06160E-02	1.36140E+00
1.29970E+03	1.27109E-01	2.35627E+00
1.29970E+03	1.27109E-01	2.35627E+00
1.29970E+03	1.27109E-01	2.35627E+00
1.29970E+03	1.97725E-01	3.66531E+00
1.29970E+03	1.97725E-01	3.66531E+00
1.29970E+03	1.97725E-01	3.66531E+00
1.29970E+03	2.40094E-01	4.45073E+00
1.29970E+03	2.25971E-01	4.45073E+00
1.29970E+03	2.40094E-01	4.45073E+00
1.29970E+03	2.96587E-01	5.70740E+00
1.29970E+03	3.10710E-01	5.70740E+00
1.29970E+03	3.10710E-01	5.70740E+00
1.29970E+03	3.24834E-01	6.33574E+00
1.29970E+03	3.10710E-01	6.33574E+00
1.29970E+03	3.24834E-01	6.33574E+00
1.29970E+03	3.95450E-01	7.85423E+00
1.29970E+03	4.09573E-01	7.85423E+00
1.29970E+03	4.09573E-01	7.85423E+00
1.29970E+03	4.09573E-01	8.53493E+00
1.29970E+03	4.09573E-01	8.53493E+00
1.29970E+03	4.09573E-01	8.53493E+00
1.29970E+03	4.94312E-01	1.00534E+01
1.29970E+03	4.94312E-01	1.00534E+01
1.29970E+03	4.80189E-01	1.00534E+01
1.29970E+03	4.80189E-01	1.04723E+01
1.29970E+03	4.66066E-01	1.04723E+01
1.29970E+03	4.80189E-01	1.04723E+01
1.29970E+03	5.50805E-01	1.20431E+01

1.29970E+03	5.64928E-01	1.20431E+01
1.29970E+03	5.50805E-01	1.20431E+01
1.29970E+03	5.64928E-01	1.28286E+01
1.29970E+03	5.50805E-01	1.28286E+01
1.29970E+03	5.64928E-01	1.28286E+01
1.29970E+03	6.21421E-01	1.42423E+01
1.29970E+03	6.07298E-01	1.42423E+01
1.29970E+03	6.21421E-01	1.42423E+01

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Ue20L#2

T = 1242.2°C

TAUNM	TAUNM (CALC)	RESI DUALS
1 -1.11573280E+00	-1.33612976E+00	2.20396961E-01
2 -1.17222560E+00	-1.33612976E+00	1.63904161E-01
3 -1.14397920E+00	-1.33612976E+00	1.92150561E-01
4 -1.04511680E+00	-1.15444867E+00	1.09331867E-01
5 -1.05924000E+00	-1.15444867E+00	9.52086674E-02
6 -1.05924000E+00	-1.15444867E+00	9.52086674E-02
7 -1.05924000E+00	-1.10663785E+00	4.73978533E-02
8 -1.07336320E+00	-1.10663785E+00	3.32746533E-02
9 -1.10160960E+00	-1.10663785E+00	5.02825331E-03
10 -9.46254400E-01	-9.53643248E-01	7.38884822E-03
11 -9.60377600E-01	-9.53643248E-01	-6.73435178E-03
12 -9.32131200E-01	-9.53643248E-01	2.15120482E-02
13 -1.00274720E+00	-9.15394597E-01	-8.73526030E-02
14 -9.60377600E-01	-9.15394597E-01	-4.49830030E-02
15 -9.88624000E-01	-9.15394597E-01	-7.32294030E-02
16 -8.19145600E-01	-7.71962155E-01	-4.71834453E-02
17 -8.33268800E-01	-7.71962155E-01	-6.13066453E-02
18 -8.47392000E-01	-7.71962155E-01	-7.54298453E-02
19 -8.75638400E-01	-7.19370259E-01	-1.56268141E-01
20 -8.61515200E-01	-7.19370259E-01	-1.42144941E-01
21 -8.47392000E-01	-7.19370259E-01	-1.28021741E-01
22 -6.49667200E-01	-5.23345921E-01	-1.26321279E-01
23 -6.77913600E-01	-5.23345921E-01	-1.54567679E-01
24 -6.07297600E-01	-5.23345921E-01	-8.39516786E-02
25 -6.21420800E-01	-5.23345921E-01	-9.80748786E-02
26 -6.35544000E-01	-5.23345921E-01	-1.12198079E-01
27 -6.77913600E-01	-5.22389705E-01	-1.55523895E-01
28 -4.51942400E-01	-3.46445909E-01	-1.05496491E-01
29 -4.37819200E-01	-3.46445909E-01	-9.13732907E-02
30 -4.51942400E-01	-3.46445909E-01	-1.05496491E-01
31 -4.51942400E-01	-3.32102665E-01	-1.19839735E-01
32 -4.37819200E-01	-3.32102665E-01	-1.05716535E-01
33 -4.23696000E-01	-3.32102665E-01	-9.15933349E-02
34 -1.97724800E-01	-1.59983734E-01	-3.77410656E-02
35 -2.11848000E-01	-1.59983734E-01	-5.18642656E-02
36 -2.11848000E-01	-1.59983734E-01	-5.18642656E-02
37 -1.69478400E-01	-1.31297246E-01	-3.81811541E-02
38 -1.83601600E-01	-1.31297246E-01	-5.23043541E-02
39 -1.83601600E-01	-1.31297246E-01	-5.23043541E-02
40 .0E+00	-2.20804787E-03	2.20804787E-03
41 1.41232000E-01	1.07756825E-01	3.34751755E-02
42 1.55355200E-01	1.07756825E-01	4.75983755E-02
43 1.55355200E-01	1.07756825E-01	4.75983755E-02
44 2.11848000E-01	1.41224394E-01	7.06236056E-02
45 2.25971200E-01	1.41224394E-01	8.47468056E-02
46 2.11848000E-01	1.41224394E-01	7.06236056E-02
47 2.96587200E-01	2.32064941E-01	6.45222588E-02
48 3.10710400E-01	2.32064941E-01	7.86454588E-02
49 3.10710400E-01	2.32064941E-01	7.86454588E-02
50 4.80188800E-01	3.27686569E-01	1.52502231E-01

	TAUNM	TAUNM (CALC)	RESIDUALS
51	4.66065600E-01	3.27686569E-01	1.38379031E-01
52	4.80188800E-01	3.27686569E-01	1.52502231E-01
53	4.80188800E-01	4.18527116E-01	6.16616839E-02
54	4.94312000E-01	4.18527116E-01	7.57848839E-02
55	4.80188800E-01	4.18527116E-01	6.16616839E-02
56	6.92036800E-01	5.28491989E-01	1.63544811E-01
57	7.20283200E-01	5.28491989E-01	1.91791211E-01
58	7.06160000E-01	5.28491989E-01	1.77668011E-01
59	8.75638400E-01	7.29297408E-01	1.46340992E-01
60	8.89761600E-01	7.29297408E-01	1.60464192E-01
61	9.03884800E-01	7.29297408E-01	1.74587392E-01
62	7.76776000E-01	7.77108222E-01	-3.32221764E-04
63	7.90899200E-01	7.77108222E-01	1.37909782E-02
64	7.62652800E-01	7.77108222E-01	-1.44554218E-02
65	1.01687040E+00	8.96635257E-01	1.20235143E-01
66	9.88624000E-01	8.96635257E-01	9.19887430E-02
67	1.00274720E+00	8.96635257E-01	1.06111943E-01
68	9.03884800E-01	9.63570397E-01	-5.96855967E-02
69	9.18008000E-01	9.63570397E-01	-4.55623967E-02
70	8.89761600E-01	9.63570397E-01	-7.38087967E-02
71	1.10160960E+00	1.12134608E+00	-1.97364832E-02
72	1.08748640E+00	1.12134608E+00	-3.38596832E-02
73	1.08748640E+00	1.12134608E+00	-3.38596832E-02
74	1.04511680E+00	1.15959473E+00	-1.14477934E-01
75	1.03099360E+00	1.15959473E+00	-1.28601134E-01
76	1.03099360E+00	1.15959473E+00	-1.28601134E-01
77	1.15810240E+00	1.29346501E+00	-1.35362614E-01
78	1.14397920E+00	1.29346501E+00	-1.49485814E-01
79	1.12985600E+00	1.29346501E+00	-1.63609014E-01

COEFFICIENTS :

1	-2.20804787E-03	1.18056195E-02
2	9.13090927E-02	1.39104557E-03

STANDARD

OP INFO R-MACH AVAILABLE FOR TIMESHARING 09:00
 DEVIATION = 1.04924565E-01 CHI**2 = 1.60486031E+00

T	TAUNM	OMEGRS
1.24220E+03	-1.11573E+00	-1.46089E+01
1.24220E+03	-1.17223E+00	-1.46089E+01
1.24220E+03	-1.14398E+00	-1.46089E+01
1.24220E+03	-1.04512E+00	-1.26191E+01
1.24220E+03	-1.05924E+00	-1.26191E+01
1.24220E+03	-1.05924E+00	-1.26191E+01
1.24220E+03	-1.05924E+00	-1.20955E+01
1.24220E+03	-1.07336E+00	-1.20955E+01
1.24220E+03	-1.10161E+00	-1.20955E+01
1.24220E+03	-9.46254E-01	-1.04199E+01
1.24220E+03	-9.60378E-01	-1.04199E+01
1.24220E+03	-9.32131E-01	-1.04199E+01
1.24220E+03	-1.00275E+00	-1.00010E+01
1.24220E+03	-9.60378E-01	-1.00010E+01
1.24220E+03	-9.88624E-01	-1.00010E+01

1.24220E+03	-8.19146E-01	-8.43020E+00
1.24220E+03	-8.33269E-01	-8.43020E+00
1.24220E+03	-8.47392E-01	-8.43020E+00
1.24220E+03	-8.75638E-01	-7.85423E+00
1.24220E+03	-8.61515E-01	-7.85423E+00
1.24220E+03	-8.47392E-01	-7.85423E+00
1.24220E+03	-6.49667E-01	-5.70740E+00
1.24220E+03	-6.77914E-01	-5.70740E+00
1.24220E+03	-6.07298E-01	-5.70740E+00
1.24220E+03	-6.21421E-01	-5.70740E+00
1.24220E+03	-6.35544E-01	-5.70740E+00
1.24220E+03	-6.77914E-01	-5.69693E+00
1.24220E+03	-4.51942E-01	-3.77003E+00
1.24220E+03	-4.37819E-01	-3.77003E+00
1.24220E+03	-4.51942E-01	-3.77003E+00
1.24220E+03	-4.51942E-01	-3.61294E+00
1.24220E+03	-4.37819E-01	-3.61294E+00
1.24220E+03	-4.23696E-01	-3.61294E+00
1.24220E+03	-1.97725E-01	-1.72793E+00
1.24220E+03	-2.11848E-01	-1.72793E+00
1.24220E+03	-2.11848E-01	-1.72793E+00
1.24220E+03	-1.69478E-01	-1.41376E+00
1.24220E+03	-1.83602E-01	-1.41376E+00
1.24220E+03	-1.83602E-01	-1.41376E+00
1.24220E+03	.0E+00	.0E+00
1.24220E+03	1.41232E-01	1.20431E+00
1.24220E+03	1.55355E-01	1.20431E+00
1.24220E+03	1.55355E-01	1.20431E+00
1.24220E+03	2.11848E-01	1.57085E+00
1.24220E+03	2.25971E-01	1.57085E+00
1.24220E+03	2.11848E-01	1.57085E+00
1.24220E+03	2.96587E-01	2.56571E+00
1.24220E+03	3.10710E-01	2.56571E+00
1.24220E+03	3.10710E-01	2.56571E+00
1.24220E+03	4.80189E-01	3.61294E+00
1.24220E+03	4.66066E-01	3.61294E+00
1.24220E+03	4.80189E-01	3.61294E+00
1.24220E+03	4.80189E-01	4.60781E+00
1.24220E+03	4.94312E-01	4.60781E+00
1.24220E+03	4.80189E-01	4.60781E+00
1.24220E+03	6.92037E-01	5.81213E+00
1.24220E+03	7.20283E-01	5.81213E+00
1.24220E+03	7.06160E-01	5.81213E+00
1.24220E+03	8.75638E-01	8.01131E+00
1.24220E+03	8.89762E-01	8.01131E+00
1.24220E+03	9.03885E-01	8.01131E+00
1.24220E+03	7.76776E-01	8.53493E+00
1.24220E+03	7.90899E-01	8.53493E+00
1.24220E+03	7.62653E-01	8.53493E+00
1.24220E+03	1.01687E+00	9.84396E+00
1.24220E+03	9.88624E-01	9.84396E+00
1.24220E+03	1.00275E+00	9.84396E+00
1.24220E+03	9.03885E-01	1.05770E+01
1.24220E+03	9.18008E-01	1.05770E+01
1.24220E+03	8.89762E-01	1.05770E+01

1.24220E+03	1.10161E+00	1.23050E+01
1.24220E+03	1.08749E+00	1.23050E+01
1.24220E+03	1.08749E+00	1.23050E+01
1.24220E+03	1.04512E+00	1.27238E+01
1.24220E+03	1.03099E+00	1.27238E+01
1.24220E+03	1.03099E+00	1.27238E+01
1.24220E+03	1.15810E+00	1.41900E+01
1.24220E+03	1.14398E+00	1.41900E+01
1.24220E+03	1.12986E+00	1.41900E+01

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89.29.41

APPENDIX I

Ue18q#2 [UQ]

LIST OF SYMBOLS

- TAUNM observed torque, τ (N·m).
- TAUNM (CALC) calculated torque, τ (N·m).
- OMEGRS angular rotation (rad/s).

At each investigated isotherm, torque was recorded both for clockwise angular rotations (positive values) and for counterclockwise angular rotations (negative values). Least-squares analyses of torque (τ) as a function of angular rotation (ω) were then made assuming the following functional relationship:

$$\tau = A_2\omega + A_1$$

The coefficients A_1 and A_2 are tabulated for each isotherm.

All temperatures are uncorrected but can be correlated with corrected values in Table 3 in the text.

Ue18q#2

T = 1318.6°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -4.94312000E-03	-4.44392624E-03	-4.99193759E-04
2 -4.94312000E-03	-4.44392624E-03	-4.99193759E-04
3 -4.23696000E-03	-3.87294643E-03	-3.64013567E-04
4 -4.23696000E-03	-3.87294643E-03	-3.64013567E-04
5 -4.23696000E-03	-3.87294643E-03	-3.64013567E-04
6 -3.53080000E-03	-3.69992225E-03	1.69122249E-04
7 -3.53080000E-03	-3.69992225E-03	1.69122249E-04
8 -3.53080000E-03	-3.69992225E-03	1.69122249E-04
9 -3.53080000E-03	-3.33657146E-03	-1.94228537E-04
10 -3.53080000E-03	-3.33657146E-03	-1.94228537E-04
11 -3.53080000E-03	-3.33657146E-03	-1.94228537E-04
12 -2.82464000E-03	-3.02512793E-03	2.00487931E-04
13 -2.82464000E-03	-3.02512793E-03	2.00487931E-04
14 -2.82464000E-03	-3.02512793E-03	2.00487931E-04
15 -2.82464000E-03	-2.67907956E-03	-1.45560437E-04
16 -2.82464000E-03	-2.67907956E-03	-1.45560437E-04
17 -2.82464000E-03	-2.67907956E-03	-1.45560437E-04
18 -2.11848000E-03	-2.28112394E-03	1.62643939E-04
19 -2.11848000E-03	-2.28112394E-03	1.62643939E-04
20 -2.11848000E-03	-2.28112394E-03	1.62643939E-04
21 -2.11848000E-03	-1.98698283E-03	-1.31497174E-04
22 -2.11848000E-03	-1.98698283E-03	-1.31497174E-04
23 -2.11848000E-03	-1.98698283E-03	-1.31497174E-04
24 -1.41232000E-03	-1.69284171E-03	2.80521713E-04
25 -1.41232000E-03	-1.69284171E-03	2.80521713E-04
26 -1.41232000E-03	-1.69284171E-03	2.80521713E-04
27 -1.41232000E-03	-1.24297883E-03	-1.69341165E-04
28 -7.06160000E-04	-1.24297883E-03	5.36818835E-04
29 -1.41232000E-03	-1.24297883E-03	-1.69341165E-04
30 -7.06160000E-04	-1.06995465E-03	3.63794651E-04
31 -7.06160000E-04	-1.06995465E-03	3.63794651E-04
32 -7.06160000E-04	-1.06995465E-03	3.63794651E-04
33 -7.06160000E-04	-5.50882098E-04	-1.55277902E-04
34 -7.06160000E-04	-5.50882098E-04	-1.55277902E-04
35 -7.06160000E-04	-5.50882098E-04	-1.55277902E-04
36 -7.06160000E-04	-3.25950659E-04	-3.80209341E-04
37 -7.06160000E-04	-3.25950659E-04	-3.80209341E-04
38 -7.06160000E-04	-3.25950659E-04	-3.80209341E-04
39 .0E+00	2.79633985E-04	-2.79633985E-04
40 7.06160000E-04	7.64101701E-04	-5.79417009E-05
41 7.06160000E-04	7.64101701E-04	-5.79417009E-05
42 7.06160000E-04	7.64101701E-04	-5.79417009E-05
43 1.41232000E-03	1.14475491E-03	2.67565094E-04
44 1.41232000E-03	1.14475491E-03	2.67565094E-04
45 1.41232000E-03	1.14475491E-03	2.67565094E-04
46 1.41232000E-03	1.52540811E-03	-1.13088111E-04
47 1.41232000E-03	1.52540811E-03	-1.13088111E-04
48 1.41232000E-03	1.52540811E-03	-1.13088111E-04
49 2.11848000E-03	1.73303713E-03	3.85442868E-04
50 2.11848000E-03	1.73303713E-03	3.85442868E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	2.11848000E-03	1.73303713E-03	3.85442868E-04
52	2.11848000E-03	2.16559759E-03	-4.71175922E-05
53	2.11848000E-03	2.16559759E-03	-4.71175922E-05
54	2.11848000E-03	2.16559759E-03	-4.71175922E-05
55	2.82464000E-03	2.54625080E-03	2.78389203E-04
56	2.82464000E-03	2.54625080E-03	2.78389203E-04
57	2.82464000E-03	2.54625080E-03	2.78389203E-04
58	2.82464000E-03	2.82308949E-03	1.55050820E-06
59	2.82464000E-03	2.82308949E-03	1.55050820E-06
60	2.82464000E-03	2.82308949E-03	1.55050820E-06
61	3.53080000E-03	3.18644028E-03	3.44359722E-04
62	3.53080000E-03	3.18644028E-03	3.44359722E-04
63	3.53080000E-03	3.18644028E-03	3.44359722E-04
64	4.23696000E-03	3.65360558E-03	5.83354424E-04
65	4.23696000E-03	3.65360558E-03	5.83354424E-04
66	4.23696000E-03	3.65360558E-03	5.83354424E-04
67	4.23696000E-03	3.89583943E-03	3.41120567E-04
68	4.23696000E-03	3.89583943E-03	3.41120567E-04
69	4.23696000E-03	3.89583943E-03	3.41120567E-04
70	4.94312000E-03	4.31109748E-03	6.32022525E-04
71	4.94312000E-03	4.31109748E-03	6.32022525E-04
72	4.94312000E-03	4.31109748E-03	6.32022525E-04
73	4.94312000E-03	4.58793617E-03	3.55183830E-04
74	4.94312000E-03	4.58793617E-03	3.55183830E-04
75	4.94312000E-03	4.58793617E-03	3.55183830E-04
76	5.64928000E-03	4.98589179E-03	6.63388207E-04
77	5.64928000E-03	4.98589179E-03	6.63388207E-04
78	5.64928000E-03	4.98589179E-03	6.63388207E-04
79	-4.23696000E-03	5.00319421E-03	-9.24015421E-03

COEFFICIENTS :

1	2.79633985E-04	1.23556835E-04
2	3.30441587E-04	1.41702674E-05

STANDARD DEVIATION = 1.09734221E-03 CHI**2 = 2.16749831E-02

T	TAUNM	OMEGRS
1.31860E+03	-4.94312E-03	-1.42947E+01
1.31860E+03	-4.94312E-03	-1.42947E+01
1.31860E+03	-4.23696E-03	-1.25668E+01
1.31860E+03	-4.23696E-03	-1.25668E+01
1.31860E+03	-4.23696E-03	-1.25668E+01
1.31860E+03	-3.53080E-03	-1.20431E+01
1.31860E+03	-3.53080E-03	-1.20431E+01
1.31860E+03	-3.53080E-03	-1.20431E+01
1.31860E+03	-3.53080E-03	-1.09436E+01
1.31860E+03	-3.53080E-03	-1.09436E+01
1.31860E+03	-3.53080E-03	-1.09436E+01
1.31860E+03	-2.82464E-03	-1.00010E+01
1.31860E+03	-2.82464E-03	-1.00010E+01
1.31860E+03	-2.82464E-03	-1.00010E+01
1.31860E+03	-2.82464E-03	-8.95382E+00
1.31860E+03	-2.82464E-03	-8.95382E+00
1.31860E+03	-2.82464E-03	-8.95382E+00
1.31860E+03	-2.11848E-03	-7.74950E+00

1.31860E+03	-2.11848E-03	-7.74950E+00
1.31860E+03	-2.11848E-03	-7.74950E+00
1.31860E+03	-2.11848E-03	-6.85936E+00
1.31860E+03	-2.11848E-03	-6.85936E+00
1.31860E+03	-2.11848E-03	-6.85936E+00
1.31860E+03	-1.41232E-03	-5.96921E+00
1.31860E+03	-1.41232E-03	-5.96921E+00
1.31860E+03	-1.41232E-03	-5.96921E+00
1.31860E+03	-1.41232E-03	-4.60781E+00
1.31860E+03	-7.06160E-04	-4.60781E+00
1.31860E+03	-1.41232E-03	-4.60781E+00
1.31860E+03	-7.06160E-04	-4.08420E+00
1.31860E+03	-7.06160E-04	-4.08420E+00
1.31860E+03	-7.06160E-04	-4.08420E+00
1.31860E+03	-7.06160E-04	-2.51335E+00
1.31860E+03	-7.06160E-04	-2.51335E+00
1.31860E+03	-7.06160E-04	-2.51335E+00
1.31860E+03	-7.06160E-04	-1.83265E+00
1.31860E+03	-7.06160E-04	-1.83265E+00
1.31860E+03	-7.06160E-04	-1.83265E+00
1.31860E+03	.0E+00	.0E+00
1.31860E+03	7.06160E-04	1.46612E+00
1.31860E+03	7.06160E-04	1.46612E+00
1.31860E+03	7.06160E-04	1.46612E+00
1.31860E+03	1.41232E-03	2.61808E+00
1.31860E+03	1.41232E-03	2.61808E+00
1.31860E+03	1.41232E-03	2.61808E+00
1.31860E+03	1.41232E-03	3.77003E+00
1.31860E+03	1.41232E-03	3.77003E+00
1.31860E+03	1.41232E-03	3.77003E+00
1.31860E+03	2.11848E-03	4.39837E+00
1.31860E+03	2.11848E-03	4.39837E+00
1.31860E+03	2.11848E-03	4.39837E+00
1.31860E+03	2.11848E-03	5.70740E+00
1.31860E+03	2.11848E-03	5.70740E+00
1.31860E+03	2.11848E-03	5.70740E+00
1.31860E+03	2.82464E-03	6.85936E+00
1.31860E+03	2.82464E-03	6.85936E+00
1.31860E+03	2.82464E-03	6.85936E+00
1.31860E+03	2.82464E-03	7.69714E+00
1.31860E+03	2.82464E-03	7.69714E+00
1.31860E+03	2.82464E-03	7.69714E+00
1.31860E+03	3.53080E-03	8.79673E+00
1.31860E+03	3.53080E-03	8.79673E+00
1.31860E+03	3.53080E-03	8.79673E+00
1.31860E+03	4.23696E-03	1.02105E+01
1.31860E+03	4.23696E-03	1.02105E+01
1.31860E+03	4.23696E-03	1.02105E+01
1.31860E+03	4.23696E-03	1.09436E+01
1.31860E+03	4.23696E-03	1.09436E+01
1.31860E+03	4.23696E-03	1.09436E+01
1.31860E+03	4.94312E-03	1.22002E+01
1.31860E+03	4.94312E-03	1.22002E+01
1.31860E+03	4.94312E-03	1.22002E+01
1.31860E+03	4.94312E-03	1.30380E+01
1.31860E+03	4.94312E-03	1.30380E+01

1.31860E+03	4.94312E-03	1.30380E+01
1.31860E+03	5.64928E-03	1.42423E+01
1.31860E+03	5.64928E-03	1.42423E+01
1.31860E+03	5.64928E-03	1.42423E+01
1.31860E+03	-4.23696E-03	1.42947E+01

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Ue18q#2

T = 1277.2°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -8.47392000E-03	-8.51439674E-03	4.04767433E-05
2 -8.47392000E-03	-8.51439674E-03	4.04767433E-05
3 -8.47392000E-03	-8.51439674E-03	4.04767433E-05
4 -7.76776000E-03	-7.66694086E-03	-1.00819142E-04
5 -7.76776000E-03	-7.66694086E-03	-1.00819142E-04
6 -7.76776000E-03	-7.66694086E-03	-1.00819142E-04
7 -7.06160000E-03	-7.25890654E-03	1.97306542E-04
8 -7.06160000E-03	-7.25890654E-03	1.97306542E-04
9 -7.06160000E-03	-7.25890654E-03	1.97306542E-04
10 -6.35544000E-03	-6.41145066E-03	5.60106565E-05
11 -6.35544000E-03	-6.41145066E-03	5.60106565E-05
12 -6.35544000E-03	-6.41145066E-03	5.60106565E-05
13 -5.64928000E-03	-5.68954379E-03	4.02637908E-05
14 -5.64928000E-03	-5.68954379E-03	4.02637908E-05
15 -5.64928000E-03	-5.68954379E-03	4.02637908E-05
16 -5.64928000E-03	-5.28150948E-03	-3.67770525E-04
17 -4.94312000E-03	-5.28150948E-03	3.38389475E-04
18 -5.64928000E-03	-5.28150948E-03	-3.67770525E-04
19 -4.23696000E-03	-4.37127908E-03	1.34319080E-04
20 -4.23696000E-03	-4.37127908E-03	1.34319080E-04
21 -4.23696000E-03	-4.37127908E-03	1.34319080E-04
22 -3.53080000E-03	-3.90047025E-03	3.69670254E-04
23 -3.53080000E-03	-3.90047025E-03	3.69670254E-04
24 -3.53080000E-03	-3.90047025E-03	3.69670254E-04
25 -3.53080000E-03	-3.33549966E-03	-1.95300336E-04
26 -3.53080000E-03	-3.33549966E-03	-1.95300336E-04
27 -3.53080000E-03	-3.33549966E-03	-1.95300336E-04
28 -2.82464000E-03	-2.70775456E-03	-1.16885437E-04
29 -2.82464000E-03	-2.70775456E-03	-1.16885437E-04
30 -2.82464000E-03	-2.70775456E-03	-1.16885437E-04
31 -1.41232000E-03	-1.89168593E-03	4.79365932E-04
32 -2.11848000E-03	-1.89168593E-03	-2.26794068E-04
33 -1.41232000E-03	-1.89168593E-03	4.79365932E-04
34 -1.41232000E-03	-1.42087711E-03	8.55710701E-06
35 -1.41232000E-03	-1.42087711E-03	8.55710701E-06
36 -1.41232000E-03	-1.42087711E-03	8.55710701E-06
37 -7.06160000E-04	-9.50068282E-04	2.43908282E-04
38 -7.06160000E-04	-9.50068282E-04	2.43908282E-04
39 -7.06160000E-04	-9.50068282E-04	2.43908282E-04
40 .0E+00	2.11260154E-04	-2.11260154E-04
41 7.06160000E-04	1.21565232E-03	-5.09492315E-04
42 1.41232000E-03	1.21565232E-03	1.96667685E-04
43 7.06160000E-04	1.21565232E-03	-5.09492315E-04
44 1.41232000E-03	1.65507389E-03	-2.42753886E-04
45 1.41232000E-03	1.65507389E-03	-2.42753886E-04
46 1.41232000E-03	1.65507389E-03	-2.42753886E-04
47 2.11848000E-03	2.50252977E-03	-3.84049771E-04
48 2.11848000E-03	2.50252977E-03	-3.84049771E-04
49 2.11848000E-03	2.50252977E-03	-3.84049771E-04
50 2.82464000E-03	3.00472585E-03	-1.80085852E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	2.82464000E-03	3.00472585E-03	-1.80085852E-04
52	2.82464000E-03	3.00472585E-03	-1.80085852E-04
53	3.53080000E-03	3.75801997E-03	-2.27219973E-04
54	3.53080000E-03	3.75801997E-03	-2.27219973E-04
55	3.53080000E-03	3.75801997E-03	-2.27219973E-04
56	4.23696000E-03	4.38576507E-03	-1.48805073E-04
57	4.23696000E-03	4.38576507E-03	-1.48805073E-04
58	4.23696000E-03	4.38576507E-03	-1.48805073E-04
59	4.94312000E-03	4.95073566E-03	-7.61566366E-06
60	4.94312000E-03	4.95073566E-03	-7.61566366E-06
61	4.94312000E-03	4.95073566E-03	-7.61566366E-06
62	5.64928000E-03	5.51570625E-03	1.33573746E-04
63	4.94312000E-03	5.51570625E-03	-5.72586254E-04
64	5.64928000E-03	5.51570625E-03	1.33573746E-04
65	6.35544000E-03	6.20622586E-03	1.49214135E-04
66	6.35544000E-03	6.20622586E-03	1.49214135E-04
67	6.35544000E-03	6.20622586E-03	1.49214135E-04
68	7.06160000E-03	6.89674548E-03	1.64854525E-04
69	7.06160000E-03	6.89674548E-03	1.64854525E-04
70	7.06160000E-03	6.89674548E-03	1.64854525E-04
71	7.76776000E-03	7.58726509E-03	1.80494914E-04
72	7.76776000E-03	7.58726509E-03	1.80494914E-04
73	7.76776000E-03	7.58726509E-03	1.80494914E-04
74	8.47392000E-03	8.02668666E-03	4.47233344E-04
75	7.76776000E-03	8.02668666E-03	-2.58926656E-04
76	8.47392000E-03	8.02668666E-03	4.47233344E-04
77	9.18008000E-03	8.96830431E-03	2.11775693E-04
78	9.18008000E-03	8.96830431E-03	2.11775693E-04
79	9.18008000E-03	8.96830431E-03	2.11775693E-04
80	.0E+00	2.11260154E-04	-2.11260154E-04

COEFFICIENTS :

1 2.11260154E-04 2.71455998E-05

2 5.99433797E-04 3.08923439E-06

STANDARD DEVIATION = 2.42797329E-04 CHI**2 = 2.14932427E-03

1.27720E+03	-3.53080E-03	-6.85936E+00
1.27720E+03	-3.53080E-03	-6.85936E+00
1.27720E+03	-3.53080E-03	-6.85936E+00
1.27720E+03	-3.53080E-03	-5.91685E+00
1.27720E+03	-3.53080E-03	-5.91685E+00
1.27720E+03	-3.53080E-03	-5.91685E+00
1.27720E+03	-2.82464E-03	-4.86962E+00
1.27720E+03	-2.82464E-03	-4.86962E+00
1.27720E+03	-2.82464E-03	-4.86962E+00
1.27720E+03	-1.41232E-03	-3.50822E+00
1.27720E+03	-2.11848E-03	-3.50822E+00
1.27720E+03	-1.41232E-03	-3.50822E+00
1.27720E+03	-1.41232E-03	-2.72280E+00
1.27720E+03	-1.41232E-03	-2.72280E+00
1.27720E+03	-1.41232E-03	-2.72280E+00
1.27720E+03	-7.06160E-04	-1.93738E+00
1.27720E+03	-7.06160E-04	-1.93738E+00
1.27720E+03	-7.06160E-04	-1.93738E+00
1.27720E+03	.0E+00	.0E+00

1.27720E+03	7.06160E-04	1.67557E+00
1.27720E+03	1.41232E-03	1.67557E+00
1.27720E+03	7.06160E-04	1.67557E+00
1.27720E+03	1.41232E-03	2.40863E+00
1.27720E+03	1.41232E-03	2.40863E+00
1.27720E+03	1.41232E-03	2.40863E+00
1.27720E+03	2.11848E-03	3.82239E+00
1.27720E+03	2.11848E-03	3.82239E+00
1.27720E+03	2.11848E-03	3.82239E+00
1.27720E+03	2.82464E-03	4.66017E+00
1.27720E+03	2.82464E-03	4.66017E+00
1.27720E+03	2.82464E-03	4.66017E+00
1.27720E+03	3.53080E-03	5.91685E+00
1.27720E+03	3.53080E-03	5.91685E+00
1.27720E+03	3.53080E-03	5.91685E+00
1.27720E+03	4.23696E-03	6.96408E+00
1.27720E+03	4.23696E-03	6.96408E+00
1.27720E+03	4.23696E-03	6.96408E+00
1.27720E+03	4.94312E-03	7.90659E+00
1.27720E+03	4.94312E-03	7.90659E+00
1.27720E+03	4.94312E-03	7.90659E+00
1.27720E+03	5.64928E-03	8.84909E+00
1.27720E+03	4.94312E-03	8.84909E+00
1.27720E+03	5.64928E-03	8.84909E+00
1.27720E+03	6.35544E-03	1.00010E+01
1.27720E+03	6.35544E-03	1.00010E+01
1.27720E+03	6.35544E-03	1.00010E+01
1.27720E+03	7.06160E-03	1.11530E+01
1.27720E+03	7.06160E-03	1.11530E+01
1.27720E+03	7.06160E-03	1.11530E+01
1.27720E+03	7.76776E-03	1.23050E+01
1.27720E+03	7.76776E-03	1.23050E+01
1.27720E+03	7.76776E-03	1.23050E+01
1.27720E+03	8.47392E-03	1.30380E+01
1.27720E+03	7.76776E-03	1.30380E+01
1.27720E+03	8.47392E-03	1.30380E+01
1.27720E+03	9.18008E-03	1.46089E+01
1.27720E+03	9.18008E-03	1.46089E+01
1.27720E+03	9.18008E-03	1.46089E+01

84 OCT 78
11.12.68

Ue18q#2

T = 1195.6°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -4.16634400E-02	-4.19594848E-02	2.96044830E-04
2 -4.16634400E-02	-4.19594848E-02	2.96044830E-04
3 -4.16634400E-02	-4.19594848E-02	2.96044830E-04
4 -3.74264800E-02	-3.77192617E-02	2.92781732E-04
5 -3.74264800E-02	-3.77192617E-02	2.92781732E-04
6 -3.74264800E-02	-3.77192617E-02	2.92781732E-04
7 -3.53080000E-02	-3.49934040E-02	-3.14595974E-04
8 -3.53080000E-02	-3.49934040E-02	-3.14595974E-04
9 -3.53080000E-02	-3.49934040E-02	-3.14595974E-04
10 -3.17772000E-02	-3.16618002E-02	-1.15399837E-04
11 -3.10710400E-02	-3.16618002E-02	5.90760163E-04
12 -3.17772000E-02	-3.16618002E-02	-1.15399837E-04
13 -2.96587200E-02	-2.92388155E-02	-4.19904464E-04
14 -2.89525600E-02	-2.92388155E-02	2.86255536E-04
15 -2.96587200E-02	-2.92388155E-02	-4.19904464E-04
16 -2.68340800E-02	-2.65129578E-02	-3.21122170E-04
17 -2.61279200E-02	-2.65129578E-02	3.85037830E-04
18 -2.68340800E-02	-2.65129578E-02	-3.21122170E-04
19 -2.40094400E-02	-2.31813540E-02	-8.28086033E-04
20 -2.33032800E-02	-2.31813540E-02	-1.21926033E-04
21 -2.40094400E-02	-2.31813540E-02	-8.28086033E-04
22 -2.04786400E-02	-2.01526232E-02	-3.26016817E-04
23 -2.04786400E-02	-2.01526232E-02	-3.26016817E-04
24 -1.97724800E-02	-2.01526232E-02	3.80143183E-04
25 -1.69478400E-02	-1.69724559E-02	2.46158592E-05
26 -1.69478400E-02	-1.69724559E-02	2.46158592E-05
27 -1.69478400E-02	-1.69724559E-02	2.46158592E-05
28 -1.41232000E-02	-1.37922885E-02	-3.30911464E-04
29 -1.34170400E-02	-1.37922885E-02	3.75248536E-04
30 -1.41232000E-02	-1.37922885E-02	-3.30911464E-04
31 -9.88624000E-03	-9.85493852E-03	-3.13014840E-05
32 -9.88624000E-03	-9.85493852E-03	-3.13014840E-05
33 -9.88624000E-03	-9.85493852E-03	-3.13014840E-05
34 -7.06160000E-03	-6.82620773E-03	-2.35392268E-04
35 -7.06160000E-03	-6.82620773E-03	-2.35392268E-04
36 -7.06160000E-03	-6.82620773E-03	-2.35392268E-04
37 -4.23696000E-03	-4.40322310E-03	1.66263104E-04
38 -4.23696000E-03	-4.40322310E-03	1.66263104E-04
39 -4.23696000E-03	-4.40322310E-03	1.66263104E-04
40 .0E+00	-1.15634669E-05	1.15634669E-05
41 4.94312000E-03	4.83440579E-03	1.08714212E-04
42 4.94312000E-03	4.83440579E-03	1.08714212E-04
43 4.94312000E-03	4.83440579E-03	1.08714212E-04
44 8.47392000E-03	7.71170003E-03	7.62219967E-04
45 7.76776000E-03	7.71170003E-03	5.60599668E-05
46 7.76776000E-03	7.71170003E-03	5.60599668E-05
47 1.20047200E-02	1.16490501E-02	3.55669947E-04
48 1.12985600E-02	1.16490501E-02	-3.50490053E-04
49 1.20047200E-02	1.16490501E-02	3.55669947E-04
50 1.48293600E-02	1.45263443E-02	3.03015702E-04

TAUNM

TAUNM (CALC)

RESI DUALS

51	1.41232000E-02	1.45263443E-02	-4.03144298E-04
52	1.48293600E-02	1.45263443E-02	3.03015702E-04
53	1.69478400E-02	1.67978924E-02	1.49947614E-04
54	1.69478400E-02	1.67978924E-02	1.49947614E-04
55	1.69478400E-02	1.67978924E-02	1.49947614E-04
56	1.97724800E-02	1.95237501E-02	2.48729908E-04
57	1.90663200E-02	1.95237501E-02	-4.57430092E-04
58	1.97724800E-02	1.95237501E-02	2.48729908E-04
59	2.33032800E-02	2.25524809E-02	7.50799124E-04
60	2.25971200E-02	2.25524809E-02	4.46391235E-05
61	2.33032800E-02	2.25524809E-02	7.50799124E-04
62	2.68340800E-02	2.64898309E-02	3.44249104E-04
63	2.68340800E-02	2.64898309E-02	3.44249104E-04
64	2.68340800E-02	2.64898309E-02	3.44249104E-04
65	2.96587200E-02	2.96699982E-02	-1.12782197E-05
66	3.03648800E-02	2.96699982E-02	6.94881780E-04
67	2.89525600E-02	2.96699982E-02	-7.17438220E-04
68	3.17772000E-02	3.13358002E-02	4.41399849E-04
69	3.10710400E-02	3.13358002E-02	-2.64760151E-04
70	3.17772000E-02	3.13358002E-02	4.41399849E-04
71	3.46018400E-02	3.43645309E-02	2.37309065E-04
72	3.46018400E-02	3.43645309E-02	2.37309065E-04
73	3.46018400E-02	3.43645309E-02	2.37309065E-04
74	3.74264800E-02	3.79990079E-02	-5.72527877E-04
75	3.67203200E-02	3.79990079E-02	-1.27868788E-03
76	3.74264800E-02	3.79990079E-02	-5.72527877E-04
77	4.16634400E-02	4.19363579E-02	-2.72917896E-04
78	4.09572800E-02	4.19363579E-02	-9.79077896E-04
79	4.16634400E-02	4.19363579E-02	-2.72917896E-04

COEFFICIENTS :

1	-1.15634669E-05	4.52082543E-05
2	2.89213503E-03	5.13055377E-06

?

STANDARD DEVIATION = 4.01817135E-04 CHI**2 = 5.84488493E-04

T

TAUNM

OMEGRS

1.19560E+03	-4.16634E-02	-1.45041E+01
1.19560E+03	-4.16634E-02	-1.45041E+01
1.19560E+03	-4.16634E-02	-1.45041E+01
1.19560E+03	-3.74265E-02	-1.30380E+01
1.19560E+03	-3.74265E-02	-1.30380E+01
1.19560E+03	-3.74265E-02	-1.30380E+01
1.19560E+03	-3.53080E-02	-1.20955E+01
1.19560E+03	-3.53080E-02	-1.20955E+01
1.19560E+03	-3.53080E-02	-1.20955E+01
1.19560E+03	-3.17772E-02	-1.09436E+01
1.19560E+03	-3.10710E-02	-1.09436E+01
1.19560E+03	-3.17772E-02	-1.09436E+01
1.19560E+03	-2.96587E-02	-1.01058E+01
1.19560E+03	-2.89526E-02	-1.01058E+01
1.19560E+03	-2.96587E-02	-1.01058E+01
1.19560E+03	-2.68341E-02	-9.16326E+00
1.19560E+03	-2.61279E-02	-9.16326E+00

1.19560E+03	-2.68341E-02	-9.16326E+00
1.19560E+03	-2.40094E-02	-8.01131E+00
1.19560E+03	-2.33033E-02	-8.01131E+00
1.19560E+03	-2.40094E-02	-8.01131E+00
1.19560E+03	-2.04786E-02	-6.96408E+00
1.19560E+03	-2.04786E-02	-6.96408E+00
1.19560E+03	-1.97725E-02	-6.96408E+00
1.19560E+03	-1.69478E-02	-5.86449E+00
1.19560E+03	-1.69478E-02	-5.86449E+00
1.19560E+03	-1.69478E-02	-5.86449E+00
1.19560E+03	-1.41232E-02	-4.76490E+00
1.19560E+03	-1.34170E-02	-4.76490E+00
1.19560E+03	-1.41232E-02	-4.76490E+00
1.19560E+03	-9.88624E-03	-3.40350E+00
1.19560E+03	-9.88624E-03	-3.40350E+00
1.19560E+03	-9.88624E-03	-3.40350E+00
1.19560E+03	-7.06160E-03	-2.35627E+00
1.19560E+03	-7.06160E-03	-2.35627E+00
1.19560E+03	-7.06160E-03	-2.35627E+00
1.19560E+03	-4.23696E-03	-1.51848E+00
1.19560E+03	-4.23696E-03	-1.51848E+00
1.19560E+03	-4.23696E-03	-1.51848E+00
1.19560E+03	.0E+00	.0E+00
1.19560E+03	4.94312E-03	1.67557E+00
1.19560E+03	4.94312E-03	1.67557E+00
1.19560E+03	4.94312E-03	1.67557E+00
1.19560E+03	8.47392E-03	2.67044E+00
1.19560E+03	7.76776E-03	2.67044E+00
1.19560E+03	7.76776E-03	2.67044E+00
1.19560E+03	1.20047E-02	4.03184E+00
1.19560E+03	1.12986E-02	4.03184E+00
1.19560E+03	1.20047E-02	4.03184E+00
1.19560E+03	1.48294E-02	5.02670E+00
1.19560E+03	1.41232E-02	5.02670E+00
1.19560E+03	1.48294E-02	5.02670E+00
1.19560E+03	1.69478E-02	5.81213E+00
1.19560E+03	1.69478E-02	5.81213E+00
1.19560E+03	1.69478E-02	5.81213E+00
1.19560E+03	1.97725E-02	6.75463E+00
1.19560E+03	1.90663E-02	6.75463E+00
1.19560E+03	1.97725E-02	6.75463E+00
1.19560E+03	2.33033E-02	7.80186E+00
1.19560E+03	2.25971E-02	7.80186E+00
1.19560E+03	2.33033E-02	7.80186E+00
1.19560E+03	2.68341E-02	9.16326E+00
1.19560E+03	2.68341E-02	9.16326E+00
1.19560E+03	2.68341E-02	9.16326E+00
1.19560E+03	2.96587E-02	1.02629E+01
1.19560E+03	3.03649E-02	1.02629E+01
1.19560E+03	2.89526E-02	1.02629E+01
1.19560E+03	3.17772E-02	1.08388E+01
1.19560E+03	3.10710E-02	1.08388E+01
1.19560E+03	3.17772E-02	1.08388E+01
1.19560E+03	3.46018E-02	1.18861E+01
1.19560E+03	3.46018E-02	1.18861E+01

1.19560E+03	3.46018E-02	1.18861E+01
1.19560E+03	3.74265E-02	1.31427E+01
1.19560E+03	3.67203E-02	1.31427E+01
1.19560E+03	3.74265E-02	1.31427E+01
1.19560E+03	4.16634E-02	1.45041E+01
1.19560E+03	4.09573E-02	1.45041E+01
1.19560E+03	4.16634E-02	1.45041E+01

UR COMPN - 1195.60 RUN — SEE NOTEBOOK K PAGE 199

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13:25:42

Ue18q#2
T = 1160.6°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -1.11573280E-01	-1.39371641E-01	2.77983612E-02
2 -1.46175120E-01	-1.39371641E-01	-6.80347883E-03
3 -1.34170400E-01	-1.39371641E-01	5.20124117E-03
4 -1.08748640E-01	-1.29725171E-01	2.09765307E-02
5 -1.39113520E-01	-1.29725171E-01	-9.38834930E-03
6 -1.27108800E-01	-1.29725171E-01	2.61637070E-03
7 -1.15810240E-01	-1.19596377E-01	3.78613670E-03
8 -1.39819680E-01	-1.19596377E-01	-2.02233033E-02
9 -1.21459520E-01	-1.19596377E-01	-1.86314330E-03
10 -1.13691760E-01	-1.14290818E-01	5.99057943E-04
11 -1.08748640E-01	-1.14290818E-01	5.54217794E-03
12 -9.60377600E-02	-1.14290818E-01	1.82530579E-02
13 -1.14397920E-01	-9.98211122E-02	-1.45768078E-02
14 -1.08748640E-01	-9.98211122E-02	-8.92752776E-03
15 -1.11573280E-01	-9.98211122E-02	-1.17521678E-02
16 -9.53316000E-02	-9.30685829E-02	-2.26301709E-03
17 -8.82700000E-02	-9.30685829E-02	4.79858291E-03
18 -1.00274720E-01	-9.30685829E-02	-7.20613709E-03
19 -9.53316000E-02	-7.85988772E-02	-1.67327228E-02
20 -7.83837600E-02	-7.85988772E-02	2.15117203E-04
21 -9.88624000E-02	-7.85988772E-02	-2.02635228E-02
22 -8.05022400E-02	-7.37756420E-02	-6.72659803E-03
23 -7.62652800E-02	-7.37756420E-02	-2.48963803E-03
24 -7.76776000E-02	-7.37756420E-02	-3.90195803E-03
25 -7.41468000E-02	-6.12352304E-02	-1.29115696E-02
26 -8.12084000E-02	-6.12352304E-02	-1.99731696E-02
27 -7.83837600E-02	-6.12352304E-02	-1.71485296E-02
28 -5.50804800E-02	-5.44827010E-02	-5.97778973E-04
29 -5.64928000E-02	-5.44827010E-02	-2.01009897E-03
30 -5.93174400E-02	-5.44827010E-02	-4.83473897E-03
31 -4.66065600E-02	-4.19422894E-02	-4.66427058E-03
32 -4.73127200E-02	-4.19422894E-02	-5.37043058E-03
33 -4.87250400E-02	-4.19422894E-02	-6.78275058E-03
34 -3.03648800E-02	-3.51897601E-02	4.82488009E-03
35 -3.67203200E-02	-3.51897601E-02	-1.53055991E-03
36 -3.53080000E-02	-3.51897601E-02	-1.18239913E-04
37 -2.40094400E-02	-2.36139955E-02	-3.95444478E-04
38 -2.25971200E-02	-2.36139955E-02	1.01687552E-03
39 -2.33032800E-02	-2.36139955E-02	3.10715522E-04
40 .0E+00	-8.66196629E-03	8.66196629E-03
41 1.05924000E-02	3.39612179E-03	7.19627821E-03
42 1.12985600E-02	3.39612179E-03	7.90243821E-03
43 1.20047200E-02	3.39612179E-03	8.60859821E-03
44 3.38956800E-02	1.69011805E-02	1.69944995E-02
45 3.60141600E-02	1.69011805E-02	1.91129795E-02
46 3.46018400E-02	1.69011805E-02	1.77006595E-02
47 2.82464000E-02	2.36537098E-02	4.59269022E-03
48 2.96587200E-02	2.36537098E-02	6.00501022E-03
49 2.89525600E-02	2.36537098E-02	5.29885022E-03
50 5.29620000E-02	3.52294743E-02	1.77325257E-02

	TAUNM	TAUNM (CALC)	RESIDUALS
51	6.00236000E-02	3.52294743E-02	2.47941257E-02
52	5.50804800E-02	3.52294743E-02	1.98510057E-02
53	4.51942400E-02	4.39112978E-02	1.28294223E-03
54	4.59004000E-02	4.39112978E-02	1.98910223E-03
55	4.73127200E-02	4.39112978E-02	3.40142223E-03
56	6.70852000E-02	5.25931212E-02	1.44920788E-02
57	6.77913600E-02	5.25931212E-02	1.51982388E-02
58	6.84975200E-02	5.25931212E-02	1.59043988E-02
59	6.14359200E-02	6.17572681E-02	-3.21348139E-04
60	6.21420800E-02	6.17572681E-02	3.84811861E-04
61	6.28482400E-02	6.17572681E-02	1.09097186E-03
62	8.61515200E-02	7.47800033E-02	1.13715167E-02
63	7.48529600E-02	7.47800033E-02	7.29567257E-05
64	8.12084000E-02	7.47800033E-02	6.42839673E-03
65	8.19145600E-02	8.20148561E-02	-1.00296127E-04
66	8.12084000E-02	8.20148561E-02	-8.06456127E-04
67	8.26207200E-02	8.20148561E-02	6.05863873E-04
68	8.75638400E-02	9.40729442E-02	-6.50910421E-03
69	8.68576800E-02	9.40729442E-02	-7.21526421E-03
70	8.75638400E-02	9.40729442E-02	-6.50910421E-03
71	9.74500800E-02	1.02754768E-01	-5.30468764E-03
72	9.81562400E-02	1.02754768E-01	-4.59852764E-03
73	9.74500800E-02	1.02754768E-01	-5.30468764E-03
74	9.39192800E-02	1.09989620E-01	-1.60703405E-02
75	9.32131200E-02	1.09989620E-01	-1.67765005E-02
76	9.39192800E-02	1.09989620E-01	-1.60703405E-02
77	1.06630160E-01	1.19153767E-01	-1.25236074E-02
78	1.05924000E-01	1.19153767E-01	-1.32297674E-02
79	1.07336320E-01	1.19153767E-01	-1.18174474E-02

COEFFICIENTS :

1 -8.66196629E-03 1.23896204E-03

2 9.21141465E-03 1.41839886E-04

STANDARD DEVIATION = 1.10116790E-02 CHI**2 = 2.41295983E-01

T	TAUNM	OMEGRS
1.16060E+03	-1.11573E-01	-1.41900E+01
1.16060E+03	-1.46175E-01	-1.41900E+01
1.16060E+03	-1.34170E-01	-1.41900E+01
1.16060E+03	-1.08749E-01	-1.31427E+01
1.16060E+03	-1.39114E-01	-1.31427E+01
1.16060E+03	-1.27109E-01	-1.31427E+01
1.16060E+03	-1.15810E-01	-1.20431E+01
1.16060E+03	-1.39820E-01	-1.20431E+01
1.16060E+03	-1.21460E-01	-1.20431E+01
1.16060E+03	-1.13692E-01	-1.14672E+01
1.16060E+03	-1.08749E-01	-1.14672E+01
1.16060E+03	-9.60378E-02	-1.14672E+01
1.16060E+03	-1.14398E-01	-9.89632E+00
1.16060E+03	-1.08749E-01	-9.89632E+00
1.16060E+03	-1.11573E-01	-9.89632E+00
1.16060E+03	-9.53316E-02	-9.16326E+00
1.16060E+03	-8.82700E-02	-9.16326E+00
1.16060E+03	-1.00275E-01	-9.16326E+00

1.16060E+03	-9.53316E-02	-7.59242E+00
1.16060E+03	-7.83838E-02	-7.59242E+00
1.16060E+03	-9.88624E-02	-7.59242E+00
1.16060E+03	-8.05022E-02	-7.06880E+00
1.16060E+03	-7.62653E-02	-7.06880E+00
1.16060E+03	-7.76776E-02	-7.06880E+00
1.16060E+03	-7.41468E-02	-5.70740E+00
1.16060E+03	-8.12084E-02	-5.70740E+00
1.16060E+03	-7.83838E-02	-5.70740E+00
1.16060E+03	-5.50805E-02	-4.97434E+00
1.16060E+03	-5.64928E-02	-4.97434E+00
1.16060E+03	-5.93174E-02	-4.97434E+00
1.16060E+03	-4.66066E-02	-3.61294E+00
1.16060E+03	-4.73127E-02	-3.61294E+00
1.16060E+03	-4.87250E-02	-3.61294E+00
1.16060E+03	-3.03649E-02	-2.87988E+00
1.16060E+03	-3.67203E-02	-2.87988E+00
1.16060E+03	-3.53080E-02	-2.87988E+00
1.16060E+03	-2.40094E-02	-1.62321E+00
1.16060E+03	-2.25971E-02	-1.62321E+00
1.16060E+03	-2.33033E-02	-1.62321E+00
1.16060E+03	.0E+00	.0E+00
1.16060E+03	1.05924E-02	1.30904E+00
1.16060E+03	1.12986E-02	1.30904E+00
1.16060E+03	1.20047E-02	1.30904E+00
1.16060E+03	3.38957E-02	2.77516E+00
1.16060E+03	3.60142E-02	2.77516E+00
1.16060E+03	3.46018E-02	2.77516E+00
1.16060E+03	2.82464E-02	3.50822E+00
1.16060E+03	2.96587E-02	3.50822E+00
1.16060E+03	2.89526E-02	3.50822E+00
1.16060E+03	5.29620E-02	4.76490E+00
1.16060E+03	6.00236E-02	4.76490E+00
1.16060E+03	5.50805E-02	4.76490E+00
1.16060E+03	4.51942E-02	5.70740E+00
1.16060E+03	4.59004E-02	5.70740E+00
1.16060E+03	4.73127E-02	5.70740E+00
1.16060E+03	6.70852E-02	6.64991E+00
1.16060E+03	6.77914E-02	6.64991E+00
1.16060E+03	6.84975E-02	6.64991E+00
1.16060E+03	6.14359E-02	7.64478E+00
1.16060E+03	6.21421E-02	7.64478E+00
1.16060E+03	6.28482E-02	7.64478E+00
1.16060E+03	8.61515E-02	9.05854E+00
1.16060E+03	7.48530E-02	9.05854E+00
1.16060E+03	8.12084E-02	9.05854E+00
1.16060E+03	8.19146E-02	9.84396E+00
1.16060E+03	8.12084E-02	9.84396E+00
1.16060E+03	8.26207E-02	9.84396E+00
1.16060E+03	8.75638E-02	1.11530E+01
1.16060E+03	8.68577E-02	1.11530E+01
1.16060E+03	8.75638E-02	1.11530E+01
1.16060E+03	9.74501E-02	1.20955E+01
1.16060E+03	9.81562E-02	1.20955E+01
1.16060E+03	9.74501E-02	1.20955E+01

1.16060E+03	9.39193E-02	1.28809E+01
1.16060E+03	9.32131E-02	1.28809E+01
1.16060E+03	9.39193E-02	1.28809E+01
1.16060E+03	1.06630E-01	1.38758E+01
1.16060E+03	1.05924E-01	1.38758E+01
1.16060E+03	1.07336E-01	1.38758E+01

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14:03:07

Ue18q#2
T = 1118.9°

TAUNM	TAUNM (CALC)	RESIDUALS
1 .0E+00	1.26857789E-01	-1.26857789E-01
2 2.11848000E-01	1.37678010E-01	7.41699898E-02
3 1.97724800E-01	1.37678010E-01	6.00467898E-02
4 1.97724800E-01	1.37678010E-01	6.00467898E-02
5 1.97724800E-01	1.50162880E-01	4.75619197E-02
6 2.11848000E-01	1.50162880E-01	6.16851197E-02
7 2.25971200E-01	1.50162880E-01	7.58083197E-02
8 4.23696000E-02	1.70138672E-01	-1.27769072E-01
9 7.06160000E-02	1.70138672E-01	-9.95226725E-02
10 8.47392000E-02	1.70138672E-01	-8.53994725E-02
11 2.68340800E-01	1.87617491E-01	8.07233094E-02
12 2.96587200E-01	1.87617491E-01	1.08969709E-01
13 2.68340800E-01	1.87617491E-01	8.07233094E-02
14 4.23696000E-02	2.08425607E-01	-1.66056007E-01
15 7.06160000E-02	2.08425607E-01	-1.37809607E-01
16 5.64928000E-02	2.08425607E-01	-1.51932807E-01
17 3.10710400E-01	2.25072101E-01	8.56382991E-02
18 3.38956800E-01	2.25072101E-01	1.13884699E-01
19 3.67203200E-01	2.25072101E-01	1.42131099E-01
20 7.06160000E-02	2.37556971E-01	-1.66940971E-01
21 9.88624000E-02	2.37556971E-01	-1.38694571E-01
22 1.27108800E-01	2.37556971E-01	-1.10448171E-01
23 4.51942400E-01	2.59197412E-01	1.92744988E-01
24 3.67203200E-01	2.59197412E-01	1.08005788E-01
25 4.09572800E-01	2.59197412E-01	1.50375388E-01
26 1.27108800E-01	2.60029737E-01	-1.32920937E-01
27 1.41232000E-01	2.60029737E-01	-1.18797737E-01
28 1.55355200E-01	2.60029737E-01	-1.04674537E-01
29 4.66065600E-01	2.86664127E-01	1.79401473E-01
30 4.37819200E-01	2.86664127E-01	1.51155073E-01
31 4.51942400E-01	2.86664127E-01	1.65278273E-01
32 2.40094400E-01	2.94987373E-01	-5.48929734E-02
33 2.82464000E-01	2.94987373E-01	-1.25233734E-02
34 2.96587200E-01	2.94987373E-01	1.59982659E-03
35 2.40094400E-01	3.22454088E-01	-8.23596876E-02
36 2.54217600E-01	3.22454088E-01	-6.82364876E-02
37 2.68340800E-01	3.22454088E-01	-5.41132876E-02
COEFFICIENTS :		
1 1.26857789E-01	3.74518124E-02	
2 1.58957366E-02	5.19295284E-03	
STANDARD DEVIATION =	1.15778051E-01	CHI**2 = 2.17394366E+00

Ue18q#2
T = 1118.9°C

T	TAUNM	OMEGRS
1.11890E+03	.0E+00	.0E+00
1.11890E+03	2.11848E-01	6.80700E-01
1.11890E+03	1.97725E-01	6.80700E-01
1.11890E+03	1.97725E-01	6.80700E-01
1.11890E+03	1.97725E-01	1.46612E+00
1.11890E+03	2.11848E-01	1.46612E+00
1.11890E+03	2.25971E-01	1.46612E+00
1.11890E+03	4.23696E-02	2.72280E+00
1.11890E+03	7.06160E-02	2.72280E+00
1.11890E+03	8.47392E-02	2.72280E+00
1.11890E+03	2.68341E-01	3.82239E+00
1.11890E+03	2.96587E-01	3.82239E+00
1.11890E+03	2.68341E-01	3.82239E+00
1.11890E+03	4.23696E-02	5.13143E+00
1.11890E+03	7.06160E-02	5.13143E+00
1.11890E+03	5.64928E-02	5.13143E+00
1.11890E+03	3.10710E-01	6.17866E+00
1.11890E+03	3.38957E-01	6.17866E+00
1.11890E+03	3.67203E-01	6.17866E+00
1.11890E+03	7.06160E-02	6.96408E+00
1.11890E+03	9.88624E-02	6.96408E+00
1.11890E+03	1.27109E-01	6.96408E+00
1.11890E+03	4.51942E-01	8.32548E+00
1.11890E+03	3.67203E-01	8.32548E+00
1.11890E+03	4.09573E-01	8.32548E+00
1.11890E+03	1.27109E-01	8.37784E+00
1.11890E+03	1.41232E-01	8.37784E+00
1.11890E+03	1.55355E-01	8.37784E+00
1.11890E+03	4.66066E-01	1.00534E+01
1.11890E+03	4.37819E-01	1.00534E+01
1.11890E+03	4.51942E-01	1.00534E+01
1.11890E+03	2.40094E-01	1.05770E+01
1.11890E+03	2.82464E-01	1.05770E+01
1.11890E+03	2.96587E-01	1.05770E+01
1.11890E+03	2.40094E-01	1.23050E+01
1.11890E+03	2.54218E-01	1.23050E+01
1.11890E+03	2.68341E-01	1.23050E+01

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14.37.49

APPENDIX J

RESULTS FOR Ue30a#4

LIST OF SYMBOLS

- TAUNM observed torque, τ (N·m).
- TAUNM (CALC) calculated torque, τ (N·m).
- OMEGRS angular rotation (rad/s).

At each investigated isotherm, torque was recorded both for clockwise angular rotations (positive values) and for counterclockwise angular rotations (negative values). Least-squares analyses of torque (τ) as a function of angular rotation (ω) were then made assuming the following functional relationship:

$$\tau = A_2\omega + A_1$$

The coefficients A_1 and A_2 are tabulated for each isotherm.

All temperatures are uncorrected but can be correlated with corrected values in Table 3 in the text.

Ue30a#4

T = 1356.85°C

	TAUNM	TAUNM (CALC)	RESIDUALS
1	-2.47156000E-02	-2.63770448E-02	1.66144481E-03
2	-2.54217600E-02	-2.63770448E-02	9.55284809E-04
3	-2.61279200E-02	-2.63770448E-02	2.49124809E-04
4	-2.25971200E-02	-2.32460758E-02	6.48955789E-04
5	-2.33032800E-02	-2.32460758E-02	-5.72042108E-05
6	-2.40094400E-02	-2.32460758E-02	-7.63364211E-04
7	-2.11848000E-02	-2.12892202E-02	1.04420152E-04
8	-2.04786400E-02	-2.12892202E-02	8.10580152E-04
9	-1.97724800E-02	-2.12892202E-02	1.51674015E-03
10	-1.69478400E-02	-1.85496223E-02	1.60178226E-03
11	-1.83601600E-02	-1.85496223E-02	1.89462260E-04
12	-1.90663200E-02	-1.85496223E-02	-5.16697740E-04
13	-1.48293600E-02	-1.67884522E-02	1.95909219E-03
14	-1.55355200E-02	-1.67884522E-02	1.25293219E-03
15	-1.69478400E-02	-1.67884522E-02	-1.59387814E-04
16	-1.48293600E-02	-1.44402254E-02	-3.89134578E-04
17	-1.55355200E-02	-1.44402254E-02	-1.09529458E-03
18	-1.34170400E-02	-1.44402254E-02	1.02318542E-03
19	-1.27108800E-02	-1.26790553E-02	-3.18246520E-05
20	-1.34170400E-02	-1.26790553E-02	-7.37984652E-04
21	-1.48293600E-02	-1.26790553E-02	-2.15030465E-03
22	-1.12985600E-02	-9.35240076E-03	-1.94615924E-03
23	-1.20047200E-02	-9.35240076E-03	-2.65231924E-03
24	-1.05924000E-02	-9.35240076E-03	-1.23999924E-03
25	-9.18008000E-03	-8.96102964E-03	-2.19050363E-04
26	-9.88624000E-03	-8.96102964E-03	-9.25210363E-04
27	-8.47392000E-03	-8.96102964E-03	4.87109637E-04
28	-4.94312000E-03	-4.85163280E-03	-9.14872010E-05
29	-5.64928000E-03	-4.85163280E-03	-7.97647201E-04
30	-7.06160000E-03	-4.85163280E-03	-2.20996720E-03
31	-4.94312000E-03	-4.65594724E-03	-2.87172765E-04
32	-5.64928000E-03	-4.65594724E-03	-9.93332765E-04
33	-4.23696000E-03	-4.65594724E-03	4.18987235E-04
34	-2.11848000E-03	-2.11203491E-03	-6.44509314E-06
35	-2.82464000E-03	-2.11203491E-03	-7.12605093E-04
36	-2.82464000E-03	-2.11203491E-03	-7.12605093E-04
37	-3.53080000E-03	-1.13360709E-03	-2.39719291E-03
38	-4.23696000E-03	-1.13360709E-03	-3.10335291E-03
39	-2.82464000E-03	-1.13360709E-03	-1.69103291E-03
40	.0E+00	1.21461968E-03	-1.21461968E-03
41	7.06160000E-04	1.21461968E-03	-5.08459676E-04
42	2.82464000E-03	3.26931810E-03	-4.44678096E-04
43	3.53080000E-03	3.26931810E-03	2.61481904E-04
44	4.23696000E-03	3.26931810E-03	9.67641904E-04
45	2.82464000E-03	3.56284644E-03	-7.38206441E-04
46	4.23696000E-03	3.56284644E-03	6.74113559E-04
47	5.64928000E-03	3.56284644E-03	2.08643356E-03
48	7.06160000E-03	6.88950102E-03	1.72098976E-04
49	9.88624000E-03	6.88950102E-03	2.99673898E-03
50	6.35544000E-03	6.88950102E-03	-5.34061024E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	9.18008000E-03	7.28087215E-03	1.89920785E-03
52	8.47392000E-03	7.28087215E-03	1.19304785E-03
53	9.18008000E-03	7.28087215E-03	1.89920785E-03
54	1.12985600E-02	1.08032123E-02	4.95347701E-04
55	1.05924000E-02	1.08032123E-02	-2.10812299E-04
56	1.20047200E-02	1.08032123E-02	1.20150770E-03
57	1.55355200E-02	1.14881118E-02	4.04740823E-03
58	1.34170400E-02	1.14881118E-02	1.92892823E-03
59	1.20047200E-02	1.14881118E-02	5.16608228E-04
60	1.41232000E-02	1.48147664E-02	-6.91566355E-04
61	1.48293600E-02	1.48147664E-02	1.45936446E-05
62	1.55355200E-02	1.48147664E-02	7.20753645E-04
63	1.62416800E-02	1.60867225E-02	1.54957480E-04
64	1.55355200E-02	1.60867225E-02	-5.51202520E-04
65	1.69478400E-02	1.60867225E-02	8.61117480E-04
66	1.90663200E-02	1.90220060E-02	4.43140245E-05
67	1.83601600E-02	1.90220060E-02	-6.61845975E-04
68	1.97724800E-02	1.90220060E-02	7.50474025E-04
69	2.04786400E-02	2.09788616E-02	-5.00221613E-04
70	1.97724800E-02	2.09788616E-02	-1.20638161E-03
71	2.04786400E-02	2.09788616E-02	-5.00221613E-04
72	2.18909600E-02	2.31314028E-02	-1.24044281E-03
73	2.25971200E-02	2.31314028E-02	-5.34282814E-04
74	2.33032800E-02	2.31314028E-02	1.71877186E-04
75	2.47156000E-02	2.41098306E-02	6.05769368E-04
76	2.40094400E-02	2.41098306E-02	-1.00390632E-04
77	2.40094400E-02	2.41098306E-02	-1.00390632E-04
78	2.82464000E-02	2.83170703E-02	-7.06702524E-05
79	2.89525600E-02	2.83170703E-02	6.35489748E-04
80	2.68340800E-02	2.83170703E-02	-1.48299025E-03

COEFFICIENTS :

1	1.21461968E-03	1.38558351E-04
2	1.86860145E-03	1.66462439E-05

STANDARD DEVIATION = 1.23916231E-03 CHI² = 2.90353519E-02

1.35685E+03	2.82464E-03	1.09959E+00
1.35685E+03	3.53080E-03	1.09959E+00
1.35685E+03	4.23696E-03	1.09959E+00
1.35685E+03	-3.53080E-03	-1.25668E+00
1.35685E+03	-4.23696E-03	-1.25668E+00
1.35685E+03	-2.82464E-03	-1.25668E+00
1.35685E+03	9.18008E-03	3.24641E+00
1.35685E+03	8.47392E-03	3.24641E+00
1.35685E+03	9.18008E-03	3.24641E+00
1.35685E+03	-4.94312E-03	-3.24641E+00
1.35685E+03	-5.64928E-03	-3.24641E+00
1.35685E+03	-7.06160E-03	-3.24641E+00
1.35685E+03	1.12986E-02	5.13143E+00
1.35685E+03	1.05924E-02	5.13143E+00
1.35685E+03	1.20047E-02	5.13143E+00
1.35685E+03	-1.12986E-02	-5.65504E+00
1.35685E+03	-1.20047E-02	-5.65504E+00
1.35685E+03	-1.05924E-02	-5.65504E+00

1.35685E+03	1.41232E-02	7.27825E+00
1.35685E+03	1.48294E-02	7.27825E+00
1.35685E+03	1.55355E-02	7.27825E+00
1.35685E+03	-1.27109E-02	-7.43533E+00
1.35685E+03	-1.34170E-02	-7.43533E+00
1.35685E+03	-1.48294E-02	-7.43533E+00
1.35685E+03	1.90663E-02	9.52979E+00
1.35685E+03	1.83602E-02	9.52979E+00
1.35685E+03	1.97725E-02	9.52979E+00
1.35685E+03	-1.48294E-02	-9.63452E+00
1.35685E+03	-1.55355E-02	-9.63452E+00
1.35685E+03	-1.69478E-02	-9.63452E+00
1.35685E+03	2.18910E-02	1.17290E+01
1.35685E+03	2.25971E-02	1.17290E+01
1.35685E+03	2.33033E-02	1.17290E+01
1.35685E+03	-2.11848E-02	-1.20431E+01
1.35685E+03	-2.04786E-02	-1.20431E+01
1.35685E+03	-1.97725E-02	-1.20431E+01
1.35685E+03	2.82464E-02	1.45041E+01
1.35685E+03	2.89526E-02	1.45041E+01
1.35685E+03	2.68341E-02	1.45041E+01
1.35685E+03	-2.47156E-02	-1.47659E+01
1.35685E+03	-2.54218E-02	-1.47659E+01
1.35685E+03	-2.61279E-02	-1.47659E+01
1.35685E+03	2.47156E-02	1.22526E+01
1.35685E+03	2.40094E-02	1.22526E+01
1.35685E+03	2.40094E-02	1.22526E+01
1.35685E+03	-2.25971E-02	-1.30904E+01
1.35685E+03	-2.33033E-02	-1.30904E+01
1.35685E+03	-2.40094E-02	-1.30904E+01
1.35685E+03	2.04786E-02	1.05770E+01
1.35685E+03	1.97725E-02	1.05770E+01
1.35685E+03	2.04786E-02	1.05770E+01
1.35685E+03	-1.69478E-02	-1.05770E+01
1.35685E+03	-1.83602E-02	-1.05770E+01
1.35685E+03	-1.90663E-02	-1.05770E+01
1.35685E+03	1.62417E-02	7.95895E+00
1.35685E+03	1.55355E-02	7.95895E+00
1.35685E+03	1.69478E-02	7.95895E+00
1.35685E+03	-1.48294E-02	-8.37784E+00
1.35685E+03	-1.55355E-02	-8.37784E+00
1.35685E+03	-1.34170E-02	-8.37784E+00
1.35685E+03	1.55355E-02	5.49796E+00
1.35685E+03	1.34170E-02	5.49796E+00
1.35685E+03	1.20047E-02	5.49796E+00
1.35685E+03	-9.18008E-03	-5.44560E+00
1.35685E+03	-9.88624E-03	-5.44560E+00
1.35685E+03	-8.47392E-03	-5.44560E+00
1.35685E+03	7.06160E-03	3.03697E+00
1.35685E+03	9.88624E-03	3.03697E+00
1.35685E+03	6.35544E-03	3.03697E+00
1.35685E+03	-4.94312E-03	-3.14169E+00
1.35685E+03	-5.64928E-03	-3.14169E+00
1.35685E+03	-4.23696E-03	-3.14169E+00
1.35685E+03	2.82464E-03	1.25668E+00
1.35685E+03	4.23696E-03	1.25668E+00
1.35685E+03	5.64928E-03	1.25668E+00

1.3568 5E+03	-2.11848 E-03	-1.78029 E+00
1.3568 5E+03	-2.82464 E-03	-1.78029 E+00
1.3568 5E+03	-2.82464 E-03	-1.78029 E+00
1.3568 5E+03	.0 E+00	.0 E+00
1.3568 5E+03	7.06160 E-04	.0 E+00

UE30A4, SERIES 1
1356.85 C

18 JUN 78
21:45:28

Ue30a#4

T = 1317.85°C

	TAUNM	TAUNM (CALC)	RESIDUALS
1	2.82464000E-03	2.80898816E-03	1.56518438E-05
2	2.11848000E-03	2.80898816E-03	-6.90508156E-04
3	3.53080000E-03	2.80898816E-03	7.21811844E-04
4	-2.82464000E-03	-3.76364598E-03	9.39005977E-04
5	-3.53080000E-03	-3.76364598E-03	2.32845977E-04
6	-4.23696000E-03	-3.76364598E-03	-4.73314023E-04
7	7.06160000E-03	7.66021811E-03	-5.98618112E-04
8	7.76776000E-03	7.66021811E-03	1.07541888E-04
9	8.47392000E-03	7.66021811E-03	8.13701888E-04
10	-9.18008000E-03	-1.00232975E-02	8.43217533E-04
11	-9.88624000E-03	-1.00232975E-02	1.37057533E-04
12	-1.05924000E-02	-1.00232975E-02	-5.69102467E-04
13	1.20047200E-02	1.23549568E-02	-3.50236779E-04
14	1.27108800E-02	1.23549568E-02	3.55923221E-04
15	1.20047200E-02	1.23549568E-02	-3.50236779E-04
16	-1.55355200E-02	-1.62829491E-02	7.47429089E-04
17	-1.62416800E-02	-1.62829491E-02	4.12690889E-05
18	-1.62416800E-02	-1.62829491E-02	4.12690889E-05
19	2.11848000E-02	2.03360125E-02	8.48787488E-04
20	2.04786400E-02	2.03360125E-02	1.42627488E-04
21	2.04786400E-02	2.03360125E-02	1.42627488E-04
22	-2.25971200E-02	-2.22296181E-02	-3.67501933E-04
23	-2.18909600E-02	-2.22296181E-02	3.38658067E-04
24	-2.25971200E-02	-2.22296181E-02	-3.67501933E-04
25	2.54217600E-02	2.50307512E-02	3.91008821E-04
26	2.61279200E-02	2.50307512E-02	1.09716882E-03
27	2.40094400E-02	2.50307512E-02	-1.02131118E-03
28	-2.89525600E-02	-2.84892696E-02	-4.63290377E-04
29	-2.96587200E-02	-2.84892696E-02	-1.16945038E-03
30	-2.89525600E-02	-2.84892696E-02	-4.63290377E-04
31	3.10710400E-02	3.09774202E-02	9.36198428E-05
32	3.17772000E-02	3.09774202E-02	7.99779843E-04
33	3.03648800E-02	3.09774202E-02	-6.12540157E-04
34	-3.60141600E-02	-3.50619038E-02	-9.52256244E-04
35	-3.67203200E-02	-3.50619038E-02	-1.65841624E-03
36	-3.60141600E-02	-3.50619038E-02	-9.52256244E-04
37	3.67203200E-02	3.78630369E-02	-1.14271687E-03
38	3.74264800E-02	3.78630369E-02	-4.36556869E-04
39	3.81326400E-02	3.78630369E-02	2.69603131E-04
40	-4.02511200E-02	-4.10085727E-02	7.57452734E-04
41	-4.09572800E-02	-4.10085727E-02	5.12927342E-05
42	-4.16634400E-02	-4.10085727E-02	-6.54867266E-04
43	4.16634400E-02	4.34967233E-02	-1.83328327E-03
44	4.23696000E-02	4.34967233E-02	-1.12712327E-03
45	4.37819200E-02	4.34967233E-02	2.85196731E-04
46	-4.59004000E-02	-4.57033114E-02	-1.97088599E-04
47	-4.51942400E-02	-4.57033114E-02	5.09071401E-04
48	-4.51942400E-02	-4.57033114E-02	5.09071401E-04
49	3.53080000E-02	3.56721588E-02	-3.64158824E-04
50	3.46018400E-02	3.56721588E-02	-1.07031882E-03

	TAUNM	TAUNM (CALC)	RESIDUALS
51	3.53080000E-02	3.56721588E-02	-3.64158824E-04
52	-3.88388000E-02	-3.78787470E-02	-9.60053044E-04
53	-3.74264800E-02	-3.78787470E-02	4.52266956E-04
54	-3.81326400E-02	-3.78787470E-02	-2.53893044E-04
55	2.82464000E-02	2.75346118E-02	7.11788198E-04
56	2.68340800E-02	2.75346118E-02	-7.00531802E-04
57	2.75402400E-02	2.75346118E-02	5.62819849E-06
58	-3.10710400E-02	-3.16190954E-02	5.48055401E-04
59	-3.17772000E-02	-3.16190954E-02	-1.58104599E-04
60	-3.24833600E-02	-3.16190954E-02	-8.64264599E-04
61	2.25971200E-02	2.17444341E-02	8.52685888E-04
62	2.18909600E-02	2.17444341E-02	1.46525888E-04
63	2.11848000E-02	2.17444341E-02	-5.59634112E-04
64	-2.47156000E-02	-2.53594438E-02	6.43843845E-04
65	-2.54217600E-02	-2.53594438E-02	-6.23161553E-05
66	-2.61279200E-02	-2.53594438E-02	-7.68476155E-04
67	1.62416800E-02	1.53282913E-02	9.13388732E-04
68	1.55355200E-02	1.53282913E-02	2.07228732E-04
69	1.62416800E-02	1.53282913E-02	9.13388732E-04
70	-1.83601600E-02	-1.90997923E-02	7.39632289E-04
71	-1.90663200E-02	-1.90997923E-02	3.34722890E-05
72	-1.97724800E-02	-1.90997923E-02	-6.72687711E-04
73	9.18008000E-03	9.06863971E-03	1.11440288E-04
74	9.88624000E-03	9.06863971E-03	8.17600288E-04
75	8.47392000E-03	9.06863971E-03	-5.94719712E-04
76	-1.27108800E-02	-1.31531233E-02	4.42243311E-04
77	-1.20047200E-02	-1.31531233E-02	1.14840331E-03
78	-1.27108800E-02	-1.31531233E-02	4.42243311E-04
79	2.82464000E-03	2.80898816E-03	1.56518438E-05
80	3.53080000E-03	2.80898816E-03	7.21811844E-04
81	3.53080000E-03	2.80898816E-03	7.21811844E-04
82	-5.64928000E-03	-6.58048918E-03	9.31209177E-04
83	-6.35544000E-03	-6.58048918E-03	2.25049177E-04
84	-6.35544000E-03	-6.58048918E-03	2.25049177E-04
85	.0E+00	-3.20837622E-04	3.20837622E-04
86	.0E+00	-3.20837622E-04	3.20837622E-04

COEFFICIENTS :

1	-3.20837622E-04	7.25282673E-05
2	2.98867064E-03	8.48876300E-06

STANDARD DEVIATION = 6.71848381E-04 CHI-SQ = 3.32914070E-03

T	TAUNM	OMEGRS
1.31785E+03	2.82464E-03	1.04723E+00
1.31785E+03	2.11848E-03	1.04723E+00
1.31785E+03	3.53080E-03	1.04723E+00
1.31785E+03	-2.82464E-03	-1.15195E+00
1.31785E+03	-3.53080E-03	-1.15195E+00
1.31785E+03	-4.23696E-03	-1.15195E+00
1.31785E+03	7.06160E-03	2.67044E+00
1.31785E+03	7.76776E-03	2.67044E+00
1.31785E+03	8.47392E-03	2.67044E+00
1.31785E+03	-9.18008E-03	-3.24641E+00
1.31785E+03	-9.88624E-03	-3.24641E+00

1.31785E+03	-1.05924E-02	-3.24641E+00
1.31785E+03	1.20047E-02	4.24128E+00
1.31785E+03	1.27109E-02	4.24128E+00
1.31785E+03	1.20047E-02	4.24128E+00
1.31785E+03	-1.55355E-02	-5.34087E+00
1.31785E+03	-1.62417E-02	-5.34087E+00
1.31785E+03	-1.62417E-02	-5.34087E+00
1.31785E+03	2.11848E-02	6.91172E+00
1.31785E+03	2.04786E-02	6.91172E+00
1.31785E+03	2.04786E-02	6.91172E+00
1.31785E+03	-2.25971E-02	-7.33061E+00
1.31785E+03	-2.18910E-02	-7.33061E+00
1.31785E+03	-2.25971E-02	-7.33061E+00
1.31785E+03	2.54218E-02	8.48256E+00
1.31785E+03	2.61279E-02	8.48256E+00
1.31785E+03	2.40094E-02	8.48256E+00
1.31785E+03	-2.89526E-02	-9.42507E+00
1.31785E+03	-2.96587E-02	-9.42507E+00
1.31785E+03	-2.89526E-02	-9.42507E+00
1.31785E+03	3.10710E-02	1.04723E+01
1.31785E+03	3.17772E-02	1.04723E+01
1.31785E+03	3.03649E-02	1.04723E+01
1.31785E+03	-3.60142E-02	-1.16243E+01
1.31785E+03	-3.67203E-02	-1.16243E+01
1.31785E+03	-3.60142E-02	-1.16243E+01
1.31785E+03	3.67203E-02	1.27762E+01
1.31785E+03	3.74265E-02	1.27762E+01
1.31785E+03	3.81326E-02	1.27762E+01
1.31785E+03	-4.02511E-02	-1.36140E+01
1.31785E+03	-4.09573E-02	-1.36140E+01
1.31785E+03	-4.16634E-02	-1.36140E+01
1.31785E+03	4.16634E-02	1.46612E+01
1.31785E+03	4.23696E-02	1.46612E+01
1.31785E+03	4.37819E-02	1.46612E+01
1.31785E+03	-4.59004E-02	-1.51848E+01
1.31785E+03	-4.51942E-02	-1.51848E+01
1.31785E+03	-4.51942E-02	-1.51848E+01
1.31785E+03	3.53080E-02	1.20431E+01
1.31785E+03	3.46018E-02	1.20431E+01
1.31785E+03	3.53080E-02	1.20431E+01
1.31785E+03	-3.88388E-02	-1.25668E+01
1.31785E+03	-3.74265E-02	-1.25668E+01
1.31785E+03	-3.81326E-02	-1.25668E+01
1.31785E+03	2.82464E-02	9.32035E+00
1.31785E+03	2.68341E-02	9.32035E+00
1.31785E+03	2.75402E-02	9.32035E+00
1.31785E+03	-3.10710E-02	-1.04723E+01
1.31785E+03	-3.17772E-02	-1.04723E+01
1.31785E+03	-3.24834E-02	-1.04723E+01
1.31785E+03	2.25971E-02	7.38297E+00
1.31785E+03	2.18910E-02	7.38297E+00
1.31785E+03	2.11848E-02	7.38297E+00
1.31785E+03	-2.47156E-02	-8.37784E+00
1.31785E+03	-2.54218E-02	-8.37784E+00
1.31785E+03	-2.61279E-02	-8.37784E+00

1.31785E+03	1.62417E-02	5.23615E+00
1.31785E+03	1.55355E-02	5.23615E+00
1.31785E+03	1.62417E-02	5.23615E+00
1.31785E+03	-1.83602E-02	-6.28338E+00
1.31785E+03	-1.90663E-02	-6.28338E+00
1.31785E+03	-1.97725E-02	-6.28338E+00
1.31785E+03	9.18008E-03	3.14169E+00
1.31785E+03	9.88624E-03	3.14169E+00
1.31785E+03	8.47392E-03	3.14169E+00
1.31785E+03	-1.27109E-02	-4.29364E+00
1.31785E+03	-1.20047E-02	-4.29364E+00
1.31785E+03	-1.27109E-02	-4.29364E+00
1.31785E+03	2.82464E-03	1.04723E+00
1.31785E+03	3.53080E-03	1.04723E+00
1.31785E+03	3.53080E-03	1.04723E+00
1.31785E+03	-5.64928E-03	-2.09446E+00
1.31785E+03	-6.35544E-03	-2.09446E+00
1.31785E+03	-6.35544E-03	-2.09446E+00
1.31785E+03	.0E+00	.0E+00
1.31785E+03	.0E+00	.0E+00

UE3004, SERIES 1
1317.85 C

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16:15:05

Ue30a#4

T = 1255.1°C

	TAUNM	TAUNM (CALC)	RESIDUALS
1	6.35544000E-03	7.05867824E-03	-7.03238244E-04
2	7.06160000E-03	7.05867824E-03	2.92175594E-06
3	8.47392000E-03	7.05867824E-03	1.41524176E-03
4	-5.64928000E-03	-5.71754886E-03	6.82688601E-05
5	-6.35544000E-03	-5.71754886E-03	-6.37891140E-04
6	-5.64928000E-03	-5.71754886E-03	6.82688601E-05
7	2.40094400E-02	2.35926192E-02	4.16820798E-04
8	2.33032800E-02	2.35926192E-02	-2.89339202E-04
9	2.33032800E-02	2.35926192E-02	-2.89339202E-04
10	-2.11848000E-02	-2.22514898E-02	1.06668982E-03
11	-2.18909600E-02	-2.22514898E-02	3.60529818E-04
12	-2.25971200E-02	-2.22514898E-02	-3.45630182E-04
13	3.67203200E-02	3.78719318E-02	-1.15161185E-03
14	3.88388000E-02	3.78719318E-02	9.66868152E-04
15	3.81326400E-02	3.78719318E-02	2.60708152E-04
16	-3.67203200E-02	-3.65308025E-02	-1.89517536E-04
17	-3.74264800E-02	-3.65308025E-02	-8.95677536E-04
18	-3.67203200E-02	-3.65308025E-02	-1.89517536E-04
19	5.43743200E-02	5.44058728E-02	-3.15528064E-05
20	5.50804800E-02	5.44058728E-02	6.74607194E-04
21	5.64928000E-02	5.44058728E-02	2.08692719E-03
22	-5.29620000E-02	-5.15616579E-02	-1.40034212E-03
23	-5.15496800E-02	-5.15616579E-02	1.19778807E-05
24	-5.22558400E-02	-5.15616579E-02	-6.94182119E-04
25	6.92036800E-02	6.94367282E-02	-2.33048223E-04
26	7.06160000E-02	6.94367282E-02	1.17927178E-03
27	6.99098400E-02	6.94367282E-02	4.73111777E-04
28	-6.77913600E-02	-6.73440561E-02	-4.47303932E-04
29	-6.84975200E-02	-6.73440561E-02	-1.15346393E-03
30	-6.70852000E-02	-6.73440561E-02	2.58856068E-04
31	8.54453600E-02	8.52191264E-02	2.26233590E-04
32	8.40330400E-02	8.52191264E-02	-1.18608641E-03
33	8.40330400E-02	8.52191264E-02	-1.18608641E-03
34	-8.61515200E-02	-8.53810826E-02	-7.70437432E-04
35	-8.68576800E-02	-8.53810826E-02	-1.47659743E-03
36	-8.54453600E-02	-8.53810826E-02	-6.42774319E-05
37	1.02393200E-01	1.04007696E-01	-1.61449568E-03
38	1.05217840E-01	1.04007696E-01	1.21014432E-03
39	1.03805520E-01	1.04007696E-01	-2.02175681E-04
40	-1.07336320E-01	-1.07927366E-01	5.91045693E-04
41	-1.06630160E-01	-1.07927366E-01	1.29720569E-03
42	-1.08042480E-01	-1.07927366E-01	-1.15114307E-04
43	8.82700000E-02	8.74737547E-02	7.96245277E-04
44	8.75638400E-02	8.74737547E-02	9.00852770E-05
45	8.68576800E-02	8.74737547E-02	-6.16074723E-04
46	-8.89761600E-02	-8.95145678E-02	5.38407808E-04
47	-8.89761600E-02	-8.95145678E-02	5.38407808E-04
48	-8.96823200E-02	-8.95145678E-02	-1.67752192E-04
49	6.49667200E-02	6.64305571E-02	-1.46383714E-03
50	6.56728800E-02	6.64305571E-02	-7.57677140E-04

	TAUNM	TAUNM (CALC)	RESIDUALS
51	6.70852000E-02	6.64305571E-02	6.54642860E-04
52	-6.92036800E-02	-6.95986844E-02	3.95004381E-04
53	-7.06160000E-02	-6.95986844E-02	-1.01731562E-03
54	-6.84975200E-02	-6.95986844E-02	1.10116438E-03
55	4.51942400E-02	4.57631309E-02	-5.68890942E-04
56	4.59004000E-02	4.57631309E-02	1.37269058E-04
57	4.80188800E-02	4.57631309E-02	2.25574906E-03
58	-4.94312000E-02	-5.00585723E-02	6.27372339E-04
59	-4.87250400E-02	-5.00585723E-02	1.33353234E-03
60	-5.01373600E-02	-5.00585723E-02	-7.87876609E-05
61	3.17772000E-02	3.11080469E-02	6.69153089E-04
62	3.10710400E-02	3.11080469E-02	-3.70069107E-05
63	2.96587200E-02	3.11080469E-02	-1.44932691E-03
64	-3.03648800E-02	-2.97669175E-02	-5.97962473E-04
65	-2.96587200E-02	-2.97669175E-02	1.08197527E-04
66	-2.89525600E-02	-2.97669175E-02	8.14357527E-04
67	1.27108800E-02	1.38225632E-02	-1.11168318E-03
68	1.41232000E-02	1.38225632E-02	3.00636818E-04
69	1.48293600E-02	1.38225632E-02	1.00679682E-03
70	-1.48293600E-02	-1.47360621E-02	-9.32978900E-05
71	-1.55355200E-02	-1.47360621E-02	-7.99457890E-04
72	-1.41232000E-02	-1.47360621E-02	6.12862110E-04
73	.0E+00	2.94793307E-04	-2.94793307E-04
74	.0E+00	2.94793307E-04	-2.94793307E-04

COEFFICIENTS :

1	2.94793307E-04	9.81840613E-05
2	7.17648192E-03	1.18180550E-05

STANDARD DEVIATION = 8.44586418E-04 CHI+2 = 2.10455481E-03

1.25510E+03	6.35544E-03	9.42507E-01
1.25510E+03	7.06160E-03	9.42507E-01
1.25510E+03	8.47392E-03	9.42507E-01
1.25510E+03	-5.64928E-03	-8.37784E-01
1.25510E+03	-6.35544E-03	-8.37784E-01
1.25510E+03	-5.64928E-03	-8.37784E-01
1.25510E+03	2.40094E-02	3.24641E+00
1.25510E+03	2.33033E-02	3.24641E+00
1.25510E+03	2.33033E-02	3.24641E+00
1.25510E+03	-2.11848E-02	-3.14169E+00
1.25510E+03	-2.18910E-02	-3.14169E+00
1.25510E+03	-2.25971E-02	-3.14169E+00
1.25510E+03	3.67203E-02	5.23615E+00
1.25510E+03	3.88388E-02	5.23615E+00
1.25510E+03	3.81326E-02	5.23615E+00
1.25510E+03	-3.67203E-02	-5.13143E+00
1.25510E+03	-3.74265E-02	-5.13143E+00
1.25510E+03	-3.67203E-02	-5.13143E+00
1.25510E+03	5.43743E-02	7.54006E+00
1.25510E+03	5.50805E-02	7.54006E+00
1.25510E+03	5.64928E-02	7.54006E+00
1.25510E+03	-5.29620E-02	-7.22589E+00
1.25510E+03	-5.15497E-02	-7.22589E+00
1.25510E+03	-5.22558E-02	-7.22589E+00
1.25510E+03	6.92037E-02	9.63452E+00

1.25510E+03	7.06160E-02	9.63452E+00
1.25510E+03	6.99098E-02	9.63452E+00
1.25510E+03	-6.77914E-02	-9.42507E+00
1.25510E+03	-6.84975E-02	-9.42507E+00
1.25510E+03	-6.70852E-02	-9.42507E+00
1.25510E+03	8.54454E-02	1.18337E+01
1.25510E+03	8.40330E-02	1.18337E+01
1.25510E+03	8.40330E-02	1.18337E+01
1.25510E+03	-8.61515E-02	-1.19384E+01
1.25510E+03	-8.68577E-02	-1.19384E+01
1.25510E+03	-8.54454E-02	-1.19384E+01
1.25510E+03	1.02393E-01	1.44518E+01
1.25510E+03	1.05218E-01	1.44518E+01
1.25510E+03	1.03806E-01	1.44518E+01
1.25510E+03	-1.07336E-01	-1.50801E+01
1.25510E+03	-1.06630E-01	-1.50801E+01
1.25510E+03	-1.08042E-01	-1.50801E+01
1.25510E+03	8.82700E-02	1.21479E+01
1.25510E+03	8.75638E-02	1.21479E+01
1.25510E+03	8.68577E-02	1.21479E+01
1.25510E+03	-8.89762E-02	-1.25144E+01
1.25510E+03	-8.89762E-02	-1.25144E+01
1.25510E+03	-8.96823E-02	-1.25144E+01
1.25510E+03	6.49667E-02	9.21562E+00
1.25510E+03	6.56729E-02	9.21562E+00
1.25510E+03	6.70852E-02	9.21562E+00
1.25510E+03	-6.92037E-02	-9.73924E+00
1.25510E+03	-7.06160E-02	-9.73924E+00
1.25510E+03	-6.84975E-02	-9.73924E+00
1.25510E+03	4.51942E-02	6.33574E+00
1.25510E+03	4.59004E-02	6.33574E+00
1.25510E+03	4.80189E-02	6.33574E+00
1.25510E+03	-4.94312E-02	-7.01644E+00
1.25510E+03	-4.87250E-02	-7.01644E+00
1.25510E+03	-5.01374E-02	-7.01644E+00
1.25510E+03	3.17772E-02	4.29364E+00
1.25510E+03	3.10710E-02	4.29364E+00
1.25510E+03	2.96587E-02	4.29364E+00
1.25510E+03	-3.03649E-02	-4.18892E+00
1.25510E+03	-2.96587E-02	-4.18892E+00
1.25510E+03	-2.89526E-02	-4.18892E+00
1.25510E+03	1.27109E-02	1.88501E+00
1.25510E+03	1.41232E-02	1.88501E+00
1.25510E+03	1.48294E-02	1.88501E+00
1.25510E+03	-1.48294E-02	-2.09446E+00
1.25510E+03	-1.55355E-02	-2.09446E+00
1.25510E+03	-1.41232E-02	-2.09446E+00
1.25510E+03	.0E+00	.0E+00
1.25510E+03	.0E+00	.0E+00

UE30R4, SERIES 1
1255.1 C

18 JUN 78
17:25:45

Ue30a#4

T = 1215.3°C

TAUNM	TAUNM (CALC)	RESIDUALS
1 -5.64928000E-02	-5.67175758E-02	2.24775833E-04
2 -5.71989600E-02	-5.67175758E-02	-4.81384167E-04
3 -5.79051200E-02	-5.67175758E-02	-1.18754417E-03
4 -3.95449600E-02	-3.89174648E-02	-6.27495161E-04
5 -4.02511200E-02	-3.89174648E-02	-1.33365516E-03
6 -3.88388000E-02	-3.89174648E-02	7.86648392E-05
7 -3.46018400E-02	-3.61789862E-02	1.57714622E-03
8 -3.38956800E-02	-3.61789862E-02	2.28330622E-03
9 -3.53080000E-02	-3.61789862E-02	8.70986225E-04
10 -1.69478400E-02	-1.56403966E-02	-1.30744338E-03
11 -1.55355200E-02	-1.56403966E-02	1.04876616E-04
12 -1.48293600E-02	-1.56403966E-02	8.11036616E-04
13 -1.69478400E-02	-1.56403966E-02	-1.30744338E-03
14 -1.76540000E-02	-1.56403966E-02	-2.01360338E-03
15 -1.55355200E-02	-1.56403966E-02	1.04876616E-04
16 .0E+00	-5.78764237E-04	5.78764237E-04
17 .0E+00	-5.78764237E-04	5.78764237E-04
18 1.41232000E-02	1.44828681E-02	-3.59668142E-04
19 1.62416800E-02	1.44828681E-02	1.75881186E-03
20 1.41232000E-02	1.44828681E-02	-3.59668142E-04
21 1.41232000E-02	1.58521074E-02	-1.72890745E-03
22 1.55355200E-02	1.58521074E-02	-3.16587450E-04
23 1.90663200E-02	1.58521074E-02	3.21421255E-03
24 2.82464000E-02	2.95445005E-02	-1.29810052E-03
25 3.10710400E-02	2.95445005E-02	1.52653948E-03
26 2.96587200E-02	2.95445005E-02	1.14219478E-04
27 3.17772000E-02	3.36522184E-02	-1.87501844E-03
28 3.38956800E-02	3.36522184E-02	2.43461557E-04
29 3.53080000E-02	3.36522184E-02	1.65578156E-03
30 5.57866400E-02	5.41908081E-02	1.59583195E-03
31 5.36681600E-02	5.41908081E-02	-5.22648052E-04
32 5.22558400E-02	5.41908081E-02	-1.93496805E-03
33 5.50804800E-02	5.62446670E-02	-1.16418701E-03
34 5.57866400E-02	5.62446670E-02	-4.58027013E-04
35 5.71989600E-02	5.62446670E-02	9.54292987E-04
COEFFICIENTS :		
1 -5.78764237E-04	2.20854100E-04	
2 1.30748661E-02	8.01403493E-05	
STANDARD DEVIATION = 1.29831473E-03 CHI-SQ = 3.56572403E-03		
1.21530E+03	1.41232E-02	1.25668E+00
1.21530E+03	1.55355E-02	1.25668E+00
1.21530E+03	1.90663E-02	1.25668E+00
1.21530E+03	-1.69478E-02	-1.15195E+00
1.21530E+03	-1.55355E-02	-1.15195E+00
1.21530E+03	-1.48294E-02	-1.15195E+00
1.21530E+03	3.17772E-02	2.61808E+00
1.21530E+03	3.38957E-02	2.61808E+00
1.21530E+03	3.53080E-02	2.61808E+00
1.21530E+03	-3.46018E-02	-2.72280E+00

1.21530E+03	-3.38957E-02	-2.72280E+00
1.21530E+03	-3.53080E-02	-2.72280E+00
1.21530E+03	5.57866E-02	4.18892E+00
1.21530E+03	5.36682E-02	4.18892E+00
1.21530E+03	5.22558E-02	4.18892E+00
1.21530E+03	-5.64928E-02	-4.29364E+00
1.21530E+03	-5.71990E-02	-4.29364E+00
1.21530E+03	-5.79051E-02	-4.29364E+00
1.21530E+03	8.82700E-02	6.91172E+00
1.21530E+03	8.61515E-02	6.91172E+00
1.21530E+03	9.10946E-02	6.91172E+00
1.21530E+03	-8.89762E-02	-6.70227E+00
1.21530E+03	-8.96823E-02	-6.70227E+00
1.21530E+03	-8.75638E-02	-6.70227E+00
1.21530E+03	1.06630E-01	8.48256E+00
1.21530E+03	1.10867E-01	8.48256E+00
1.21530E+03	1.08042E-01	8.48256E+00
1.21530E+03	-1.06630E-01	-8.37784E+00
1.21530E+03	-1.08749E-01	-8.37784E+00
1.21530E+03	-1.06630E-01	-8.37784E+00
1.21530E+03	1.31346E-01	1.05770E+01
1.21530E+03	1.32052E-01	1.05770E+01
1.21530E+03	1.32758E-01	1.05770E+01
1.21530E+03	-1.34170E-01	-1.04723E+01
1.21530E+03	-1.35583E-01	-1.04723E+01
1.21530E+03	-1.36995E-01	-1.04723E+01
1.21530E+03	1.59592E-01	1.26715E+01
1.21530E+03	1.61004E-01	1.26715E+01
1.21530E+03	1.61711E-01	1.26715E+01
1.21530E+03	-1.57474E-01	-1.27762E+01
1.21530E+03	-1.58180E-01	-1.27762E+01
1.21530E+03	-1.58886E-01	-1.27762E+01
1.21530E+03	1.82189E-01	1.46612E+01
1.21530E+03	1.81483E-01	1.46612E+01
1.21530E+03	1.78658E-01	1.46612E+01
1.21530E+03	-1.83602E-01	-1.51848E+01
1.21530E+03	-1.82895E-01	-1.51848E+01
1.21530E+03	-1.85720E-01	-1.51848E+01
1.21530E+03	1.53237E-01	1.22526E+01
1.21530E+03	1.52531E-01	1.22526E+01
1.21530E+03	1.53943E-01	1.22526E+01
1.21530E+03	-1.62417E-01	-1.30904E+01
1.21530E+03	-1.63123E-01	-1.30904E+01
1.21530E+03	-1.63829E-01	-1.30904E+01
1.21530E+03	1.32052E-01	1.06817E+01
1.21530E+03	1.34170E-01	1.06817E+01
1.21530E+03	1.35583E-01	1.06817E+01
1.21530E+03	-1.44057E-01	-1.13624E+01
1.21530E+03	-1.43350E-01	-1.13624E+01
1.21530E+03	-1.41938E-01	-1.13624E+01
1.21530E+03	1.10867E-01	8.69201E+00
1.21530E+03	1.08042E-01	8.69201E+00
1.21530E+03	1.10867E-01	8.69201E+00
1.21530E+03	-1.15810E-01	-9.26799E+00
1.21530E+03	-1.17929E-01	-9.26799E+00
1.21530E+03	-1.19341E-01	-9.26799E+00

1.21530E+03	8.19146E-02	6.28338E+00
1.21530E+03	8.12084E-02	6.28338E+00
1.21530E+03	7.90899E-02	6.28338E+00
1.21530E+03	-8.96823E-02	-7.12116E+00
1.21530E+03	-9.32131E-02	-7.12116E+00
1.21530E+03	-9.18008E-02	-7.12116E+00
1.21530E+03	5.50805E-02	4.34600E+00
1.21530E+03	5.57866E-02	4.34600E+00
1.21530E+03	5.71990E-02	4.34600E+00
1.21530E+03	-6.42606E-02	-4.92198E+00
1.21530E+03	-6.28482E-02	-4.92198E+00
1.21530E+03	-6.49667E-02	-4.92198E+00
1.21530E+03	2.82464E-02	2.30391E+00
1.21530E+03	3.10710E-02	2.30391E+00
1.21530E+03	2.96587E-02	2.30391E+00
1.21530E+03	-3.95450E-02	-2.93224E+00
1.21530E+03	-4.02511E-02	-2.93224E+00
1.21530E+03	-3.88388E-02	-2.93224E+00
1.21530E+03	1.41232E-02	1.15195E+00
1.21530E+03	1.62417E-02	1.15195E+00
1.21530E+03	1.41232E-02	1.15195E+00
1.21530E+03	-1.69478E-02	-1.15195E+00
1.21530E+03	-1.76540E-02	-1.15195E+00
1.21530E+03	-1.55355E-02	-1.15195E+00
1.21530E+03	.0E+00	.0E+00
1.21530E+03	.0E+00	.0E+00

UE30R4, SERIES 1
1215.3 C

18 JUN 78
21.06.19

Ue30a#4
T = 1151.8°C

	TAUNM	TAUNM (CALC)	RESIDUALS
1	4.59004000E-02	4.44305653E-02	1.46983468E-03
2	3.88388000E-02	4.44305653E-02	-5.59176532E-03
3	4.37819200E-02	4.44305653E-02	-6.48645324E-04
4	1.35582720E-01	1.35343098E-01	2.39621714E-04
5	1.37701200E-01	1.35343098E-01	2.35810171E-03
6	1.42644320E-01	1.35343098E-01	7.30122171E-03
7	2.23146560E-01	2.19912896E-01	3.23366361E-03
8	2.18203440E-01	2.19912896E-01	-1.70945639E-03
9	2.13260320E-01	2.19912896E-01	-6.65257639E-03

COEFFICIENTS :

1	4.25991122E-03	2.97594857E-03
2	4.03778501E-02	8.14448623E-04

STANDARD DEVIATION = 4.33604787E-03 CHI² = 1.45930566E-03

1.15180E+03	4.59004E-02	9.94869E-01
1.15180E+03	3.88388E-02	9.94869E-01
1.15180E+03	4.37819E-02	9.94869E-01
1.15180E+03	1.35583E-01	3.24641E+00
1.15180E+03	1.37701E-01	3.24641E+00
1.15180E+03	1.42644E-01	3.24641E+00
1.15180E+03	2.23147E-01	5.34087E+00
1.15180E+03	2.18203E-01	5.34087E+00
1.15180E+03	2.13260E-01	5.34087E+00

UE30R4, SERIES 1
1151.8 C

18 JUN 78
18.12.17