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EXPERIMENTAL THERMAL CONDUCTIVITY VALUES FOR MIXTURES OF METHANE AND ETHANE

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Final Report

March 1985

U.S. DEPARTMENT OF COMMERCE, Malcolm Baldrige, Secretary

NATIONAL BUREAU OF STANDARDS, Ernest Ambler, Director

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Experimental Thermal Conductivity Values for Mixtures of Methane and Ethane

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The experimental measurements of thermal conductivity as obtained in a transient hot wire apparatus for mixtures of methane and ethane are recorded. The measurements were made at temperatures between 140 and 330 K with pressures between 0.1 and 70 MPa. The density range is 0 to 24 mol/L, the mole fractions of methane are 0.69, 0.50, and 0.35, and the total nwnber of points recorded is 2476.

Key words: ethane; Rot wire, measurements, methane, mixtures, thermal conductivity; transient.

1. Introduction

New experimental measurements of the thermal conductivity of fluids are always of interest, especially if the measurement is an absolute one, and if the results are as accurate as those that can be obtained from a transient hot wire apparatus. Perhaps the single drawback of a transient hot wire system is the rapid accumulation of large quantities of data. This report is the archival record of results on mixtures of methane and ethane. There is a minimum of text since analysis, explanation and discussion of the results will be given in future papers [1,2][1].

The measurements were made with a transient hot wire thermal conductivity apparatus' [3] which has been tested with nitrogen [3], helium [3] and argon [4,5]. The system has been used previously to measure the thermal conductivity surfaces of oxygen [6], hydrogen [7,8,9,10], methane [10,11], ethane [10,12] and propane [10,13]. The temperature range of the instrument is 77 to 330 K and the pressure range is from near zero to 70 MPa.

The scheme used to measure the thermal conductivity surface of a yiven fluid is to conduct the measurements along isotherms. The spacing in temperature is chosen to be around 20 K resulting in a change of several percent in thermal conductivity between different isotherms. On each isotherm measurements are made at a number of different pressures. The spacing in pressure is arranged to give a spacing in density of about 0.5 mol/L. Finally, replicate measurements at the same cell temperature and pressure are made with three or four different power levels. The replicate measurements serve to verify the absence of convection, and, because the experimental temperatures vary with the applied power level, the measurements are actually independent of each other.

The sections for the individual mixtures give the tables of data, the correlating equations in the form of computer programs which were used to adjust the thennal conductivity values to the nominal temperatures, and the equation of state used to infer densities from the measured pressures and temperatures. Recorded in the tables of data are the run and the point numbers, the pressure, temperature and density of the mixture, the applied power, the experimental thermal conductivity and its associated linear regression statistic STAT. STAT is the uncertainty of the slope,

[1] Numbers in brackets indicate the literature references at the end of the paper.

$d(\Delta T)/d(\ln t)$ at the two sigma level, determined in the the data reduction program [3]. STAT is a direct measure of the precision of the thermal conductivity, i.e., a STAT of 0.001 corresponds to a precision of 0.1 percent in thermal conductivity. In the analysis of the thermal conductivity surface it is desirable to have the thermal conductivities at integral values of temperature. Therefore, each point has been adjusted at constant density to, a nominal temperature by a slight shift in temperature using the correlating equations for the surface in question. Printed in the data tables are the so adjusted thermal conductivities at the nominal isotherm temperature as well as the deviation between the adjusted values and the correlating surface.

2. Results for a 70/30 Mixture of Methane-Ethane.

A total of 899 points are given in table 1. The actual mole fraction of methane in the mixture is 0.68526 with the balance ethane. The computer programs developed for the thermal conductivity surface of this mixture are shown below. The equation of state used for this mixture is given in [14].

```
      FUNCTION TC7030(RHO,T)
C     COEF. FROM TC021, FIRST PASS,  27 PAR 85
      DIMENSION A(3),B(5)
      DATA A/ .1876327E-02, .3060668E-04, .1941864E-06/
      DATA B/ .2091574E-02, .6109347E-06, .5868615E-05,
     1 .3105442E-08, .5910959E-08/
      TCZERO=A(1)+A(2)*T+A(3)*T**2
      EXCESS=(B(1)+B(2)*T)*RHO+(B(3)+B(4)*T)*RHO**3+B(5)*RHO**5
      TC7030=TCZERO+EXCESS+CR7030(RHO,T)
      RETURN
      END


      FUNCTION CR7030(RHO, TEMP)
C     COEF. FROM TC021 AND MINIMS, FIRST PASS, 27 MAR 85
      DIMENSION C(6)
      DATA (TC=239.779),(RHOC=8.75)
      DATA C/ .2766677E+00,-.2240000E+03, .1827450E-01,-.5571235E-04,
     1 -.2212507E+00, .2119179E+00/
      T=TEMP
      IF(T.LT.TC) T=TC
      DEN=RHO
      IF(T.LT.363.590) GO TO 4
    5 CR7030=0.
      RETURN
    4 CONTINUE
      AMPL=C(1)/(T+C(2))+C(3)+C(4)*T
      DELRHO=DEN-RHOC
      X1=C(5)*DELRHO
      IF(DEN.GT.RHOC) X1=C(6)*DELRHO
      CR7030=AMPL*EXP(-X1**2)
      RETURN
      END
```

Table 1. The Thermal Conductivity of a 70/30 Methane-Ethane Mix

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 140.7K W/m.K	Deviation from Corelation percent
92030	1.734	142.085	22.6980	1.26766	.16996	.001	.16977	.57
92029	1.733	141.344	22.7462	1.14954	.16845	.001	.16835	-.83
92028	1.732	140.827	22.7797	1.04161	.16782	.001	.16780	-1.56
92027	1.729	140.328	22.8119	.94014	.16734	.001	.16739	-2.20
92026	14.853	141.791	23.3160	1.26516	.18367	.001	.18351	1.12
92025	14.851	141.080	23.3569	1.14998	.18290	.001	.18284	.29
92024	14.850	140.676	23.3801	1.04257	.18194	.001	.18194	-.48
92023	14.846	140.086	23.4138	.93880	.18046	.001	.18054	-1.66
92022	28.027	141.510	23.8350	1.25950	.19567	.001	.19555	1.42
92021	28.026	140.846	23.8703	1.14458	.19448	.001	.19445	.45
92020	28.023	140.397	23.8941	1.03770	.19395	.001	.19399	-.05
92019	28.013	139.920	23.9192	.93528	.19271	.001	.19282	-.97
92018	41.123	141.183	24.2922	1.24375	.20507	.001	.20499	.92
92017	41.123	140.649	24.3193	1.13149	.20397	.001	.20397	.01
92016	41.116	140.179	24.3430	1.03397	.20353	.001	.20360	-.45
92015	41.111	140.038	24.3499	.93557	.20342	.001	.20351	-.57
92014	54.861	140.874	24.7222	1.23919	.21444	.001	.21441	.32
92013	54.854	140.540	24.7385	1.12993	.21390	.001	.21392	-.10
92012	54.843	140.011	24.7643	1.03462	.21324	.001	.21334	-.67
92004	64.291	141.195	24.9677	1.24366	.21968	.001	.21960	-.13
92010	63.857	140.850	24.9729	1.34717	.21966	.001	.21963	-.18
92009	63.838	140.788	24.9754	1.24753	.22186	.001	.22184	.79
92003	64.302	140.807	24.9870	1.13565	.21946	.001	.21944	-.43
92008	63.821	140.270	25.0003	1.13612	.22033	.001	.22039	-.15
92002	64.312	140.509	25.0018	1.03349	.22002	.001	.22004	-.32
92001	64.311	140.236	25.0151	.93552	.21999	.001	.22005	-.47
92007	63.821	139.821	25.0223	1.03122	.21988	.001	.22001	-.58
92006	63.819	139.699	25.0283	.93210	.21912	.001	.21926	-.99

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Therrel Conductivity at a Nominal Temperature of 161.9K W/m.K	Deviation from Corelstion percent
93023	2.650	162.375	21.3226	1.11586	.14350	.001	.14343	-2.11
93022	2.650	161.810	21.3657	1.00460	.14457	.001	.14458	-1.81
93021	2.650	161.496	21.3895	.90052	.14449	.001	.14454	-2.12
93024	2.550	161.367	21.3994	.80696	.14616	.001	.14623	-1.06
93019	13.938	162.635	22.0174	1.23564	.15815	.001	.15804	-.44
93018	13.940	162.244	22.0423	1.11544	.15769	.001	.15754	-.99
93017	13.932	161.494	22.0893	1.00117	.15759	.001	.15764	-1.54
93020	13.944	161.339	22.0998	.90475	.15958	.001	.15965	-.38
93016	27.328	163.005	22.6517	1.36110	.17263	.001	.17246	.94
93015	27.322	162.420	22.6836	1.23398	.17151	.001	.17143	-.02
93014	27.314	161.730	22.7211	1.11484	.17187	.001	.17189	-.19
93013	27.321	161.265	22.7470	1.00169	.17126	.001	.17134	-.81
93012	39.845	162.557	23.1824	1.35619	.18380	.001	.18370	1.11
93011	39.841	161.982	23.2109	1.23137	.18340	.001	.18338	.61
93010	39.840	161.551	23.2324	1.11320	.18319	.001	.18323	.29
93009	39.837	160.860	23.2668	.99956	.18253	.001	.18268	-.42
93007	53.184	162.295	23.6587	1.35460	.19484	.001	.19477	1.46
93006	53.183	161.882	23.6779	1.23165	.19479	.001	.19479	1.25
93008	53.194	161.468	23.6975	1.01305	.19738	.001	.19744	2.35
93005	53.181	161.171	23.7108	1.10803	.19334	.001	.19344	.18
93004	61.106	162.635	23.8903	1.48434	.20161	.001	.20149	2.17
93003	61.100	162.312	23.9046	1.35294	.20102	.001	.20095	1.74
93002	61.095	161.539	23.9392	1.22483	.19945	.001	.19950	.63
93001	61.083	161.025	23.9619	1.10547	.19859	.001	.19871	-.02

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Therral Conductivity at a Nominal Temperature of 182.6K W/m.K	Deviation from Corelstion percent
94024	3.790	183.514	19.6385	1.15618	.12135	.001	.12122	-1.73
94023	3.794	182.840	19.7022	1.03562	.12194	.002	.12191	-1.89
94022	3.795	182.499	19.7341	.92218	.12262	.001	.12263	-1.66
94021	3.791	182.075	19.7729	.81582	.12287	.001	.12294	-1.85
94020	14.795	183.661	20.6639	1.28608	.13797	.001	.13782	-.54
94019	14.793	182.951	20.7138	1.15615	.13806	.001	.13801	-.97
94018	14.786	182.419	20.7506	1.03503	.13873	.001	.13875	-.85
94017	14.780	181.835	20.7911	.92073	.13847	.001	.13858	-1.45
94016	27.563	183.093	21.5254	1.28210	.15293	.001	.15286	-.01
94015	27.558	182.525	21.5582	1.15384	.15342	.001	.15343	-.02
94014	27.560	181.917	21.5937	1.03282	.15305	.001	.15315	-.61
94013	27.554	181.298	21.6293	.91820	.15330	.001	.15349	-.79
94011	39.433	183.405	22.1064	1.41681	.16553	.001	.16541	1.23

94010	39.426	182.740	22.1404	1.28002	.16488	.001	.16486	.51
94012	39.427	182.378	22.1596	1.04377	.16791	.001	.16794	2.12
94009	39.426	181.974	22.1800	1.14735	.16403	.001	.16412	-.39
94007	55.159	183.545	22.7456	1.55392	.17929	.001	.17914	1.88
94006	55.162	182.613	22.7987	1.40523	.17835	.001	.17835	.96
94008	55.144	182.436	22.7969	1.15328	.18234	.001	.13236	3.05
94005	55.149	182.151	22.8095	1.27118	.17779	.001	.17786	.45
94002	64.806	182.574	23.1211	1.30539	.18712	.031	.18711	1.94
94001	64.804	182.357	23.1348	1.26948	.18858	.001	.18862	2.57

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 194.2K W/m.K	Deviation from Corelation percent
91083	.360	194.862	.2334	.08742	.01654	.003	.01647	1.01
91082	.360	194.064	.2345	.07096	.01644	.003	.01645	.90
91088	.365	195.766	.2354	.10559	.01681	.002	.01664	2.01
91081	.360	193.358	.2355	.05627	.01619	.005	.01628	-.19
91084	.360	192.739	.2364	.04336	.01630	.009	.01646	.87
91087	.365	194.917	.2366	.08733	.01664	.003	.01656	1.51
91086	.365	194.362	.2374	.07098	.01654	.007	.01652	1.26
91085	.365	193.579	.2385	.05634	.01612	.007	.01619	-.82

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 203.7K W/m.K	Deviation from Corelation percent
91079	.372	205.073	.2275	.09265	.01768	.005	.01753	1.23
91078	.372	204.311	.2285	.07523	.01752	.009	.01745	.78
91077	.372	203.461	.2296	.05966	.01747	.006	.01750	1.01
91080	.372	202.840	.2304	.04595	.01751	.008	.01760	1.60
91073	.600	203.230	.3812	.05962	.01801	.007	.01806	1.77
91075	.616	204.547	.3887	.09248	.01824	.003	.01815	2.12
91074	.614	203.882	.3889	.07514	.01808	.003	.01806	1.64
91076	.616	202.619	.3937	.04591	.01782	.009	.01794	.90
95024	5.110	205.034	17.5257	1.05484	.10205	.001	.10187	1.36
95023	5.113	203.715	17.6920	.92468	.10173	.002	.10173	-.50
95022	5.113	203.237	17.7510	.81221	.10181	.001	.10187	-.98
95021	5.114	202.438	17.8481	.70599	.10217	.001	.10234	-1.55
95017	14.662	204.301	19.0988	1.16925	.11707	.001	.11698	-1.71
95018	14.664	203.890	19.1320	1.04422	.11829	.001	.11826	-.98
95019	14.663	203.256	19.1825	.92526	.11762	.001	.11758	-2.04
95020	14.665	202.652	19.2307	.81263	.11907	.001	.11922	-1.26
95013	27.532	204.356	20.2440	1.30126	.13367	.001	.13357	-1.16
95014	27.533	203.994	20.2666	1.16941	.13449	.001	.13445	-.76
95015	27.539	203.387	20.3044	1.04393	.13539	.001	.13544	-.44
95016	27.538	202.917	26.3334	.92541	.13601	.001	.13613	-.26
95010	40.137	204.792	21.0203	1.29763	.15046	.001	.15029	1.92
95009	40.133	204.399	21.0410	1.43987	.14644	.001	.14633	-.97
95011	40.145	203.626	21.0826	1.15544	.14933	.001	.14934	.60
95012	40.145	203.043	21.1135	1.02840	.14918	.001	.14928	.21
95005	53.637	203.874	21.7358	1.43832	.15964	.001	.15961	-.12
95006	53.637	203.843	21.7392	1.30504	.16108	.001	.16106	.76
95007	53.647	203.353	21.7617	1.17174	.16205	.001	.16210	1.14
95008	53.647	202.834	21.7862	1.04548	.16296	.001	.16309	1.47
95002	62.469	204.501	22.0771	1.59021	.16775	.001	.16752	.94
95003	62.462	203.845	22.1059	1.30725	.17008	.001	.17006	2.04
95001	62.471	203.810	22.1078	1.43787	.16737	.001	.16735	.43
95004	62.462	203.246	22.1325	1.17157	.16989	.001	.16996	1.69

Run Pt.	Pressure MPa	Temperature K	Density mot/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	AdJusted Thermal Conductivity st a Nominal Temperature of 214.4K W/m.K	Deviation from Corelation percent
91072	.418	215.958	.2421	.11790	.01925	.003	.01908	2.73
91071	.418	215.080	.2432	.09769	.01915	.003	.01908	2.71
91070	.418	214.352	.2441	.07929	.01904	.008	.01905	2.56
91069	.418	213.791	.2449	.06298	.01908	.010	.01915	3.08
91068	.824	215.431	.4991	.11780	.01983	.003	.01972	2.21
91067	.824	214.739	.5012	.09768	.01977	.004	.01974	2.27
91066	.824	213.993	.5034	.07920	.01931	.006	.01936	.35
91065	.824	213.592	.5047	.06295	.01959	.006	.01969	1.98
91060	1.168	215.221	.7367	.11778	.02052	.003	.02043	2.22
91059	1.168	214.660	.7395	.09762	.02041	.004	.02039	1.96
91058	1.167	214.205	.7416	.07929	.02063	.004	.02066	3.22
91057	1.166	213.341	.7451	.06286	.02058	.006	.02071	3.39
91064	1.190	215.124	.7530	.11781	.02012	.002	.02004	.08
91063	1.190	214.412	.7567	.09748	.02007	.004	.02007	.18
91062	1.190	213.862	.7596	.07919	.01961	.004	.01968	-1.88
91061	1.190	213.388	.7622	.06283	.01956	.005	.01968	-1.90

Qun Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thernal Conductivity at a Nominal Temperature of 223.1K W/m.K	Deviation from Corelation oercent
91055	.387	224.833	.2137	.10278	.01951	.004	.01931	-.90
91054	.387	224.037	.2145	.08352	.01951	.006	.01940	-.43
91053	.387	223.375	.2152	.06627	.01958	.006	.01955	.32
91056	.387	222.896	.2157	.05105	.01953	.011	.01955	.35
91052	.783	225.227	.4464	.12383	.02026	.004	.02001	-.62
91051	.783	224.383	.4484	.10255	.02016	.002	.02001	-.65
91050	.783	223.642	.4502	.08334	.02011	.004	.02004	-.50
91049	.783	223.074	.4517	.06611	.01990	.005	.01990	-1.23
91047	1.080	225.037	.6337	.12383	.02058	.003	.02035	-1.60
91046	1.080	224.339	.6364	.10266	.02070	.004	.02055	-.63
91045	1.080	223.609	.6392	.08346	.02052	.005	.02046	-1.14
91048	1.080	223.042	.6414	.06628	.02047	.007	.02048	-1.08
91044	1.510	225.170	.9258	.14700	.02180	.004	.02155	.02
91043	1.910	224.630	.9292	.12377	.02180	.003	.02162	.23
91042	1.510	323.963	.9336	.10252	.02176	.003	.02156	.35
91041	1.510	223.253	.9382	.08336	.02140	.004	.02138	-1.01
96024	6.484	223.032	15.2335	.89669	.08483	.004	.08484	1.28
96023	6.485	222.640	15.3087	.77999	.08505	.005	.08511	1.03
96022	6.485	221.895	15.4480	.57166	.08510	.008	.08527	.11
96021	6.486	221.134	15.5857	.57164	.08620	.001	.08647	.40
96020	16.137	223.603	17.6815	1.01971	.10423	.001	.10416	-.59
96019	16.134	222.764	17.7536	.A9492	.10430	.001	.10435	-1.25
96018	15.132	222.079	17.8133	.77920	.10500	.001	.10515	-1.10
96017	16.131	221.318	17.8775	.67077	.10489	.001	.10515	-1.78
96016	27.498	223.569	19.0227	1.15028	.11949	.001	.11942	-1.19
96015	27.500	222.742	19.0764	1.01732	.11999	.001	.12005	-1.25
96014	27.497	222.155	19.1135	.89359	.12014	.001	.12028	-1.45
96013	27.490	221.511	19.1551	.77698	.12016	.001	.12040	-1.81
96012	38.872	223.137	19.9522	1.15051	.13303	.001	.13303	-.51
96011	38.870	222.510	19.9865	1.01813	.13344	.001	.13353	-.51
96010	38.869	221.949	20.0226	.89557	.13372	.001	.13391	-.62
96009	38.868	220.952	20.0716	.77655	.13318	.001	.13351	-1.47
96008	50.043	223.401	20.6226	1.29167	.14412	.001	.14407	.08
96007	50.043	222.849	20.6495	1.15161	.14462	.001	.14466	.19
96006	50.035	222.140	20.6837	1.01892	.14474	.001	.14489	-.02
96005	50.033	221.573	20.7112	.89373	.14447	.001	.14471	-.45
96003	60.675	224.001	21.1306	1.43355	.15480	.001	.15466	1.54
96002	60.674	223.441	21.1547	1.28705	.15524	.001	.15518	1.61
95001	60.670	223.249	21.1640	1.14756	.15481	.001	.15479	1.26
96004	60.676	272.237	21.2097	1.01516	.15556	.001	.15570	1.34

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Therrrl Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 234.1K W/m.K	Devistion from Corelation percent
91040	.820	235.317	.4449	.12996	.02173	.005	.02158	.63
91039	.821	234.546	.4469	.10765	.02165	.007	.02159	.67
91038	.821	233.871	.4485	.08747	.02164	.003	.02166	.98
91037	.821	233.178	.4501	.06943	.02127	.007	.02138	-.36
91035	1.125	234.397	.6279	.10774	.02216	.007	.02212	.66
91034	1.125	233.592	.6304	.08752	.02194	.006	.02199	.03
91033	1.125	233.087	.6330	.06943	.02158	.005	.02170	-1.33
91031	1.624	234.789	.9449	.12983	.02316	.004	.02307	.60
91029	1.625	233.500	.9532	.08748	.02298	.006	.02305	.39
91032	1.624	232.990	.9556	.06937	.02281	.014	.02294	-.11
91028	1.975	235.302	1.1834	.15411	.02384	.003	.02369	-.03
91027	1.975	234.635	1.1895	.12992	.02400	.006	.02393	.90
91026	1.975	233.589	1.1983	.10758	.02399	.030	.02405	1.26
91025	1.976	233.245	1.2021	.08741	.02339	.012	.02349	-1.14
91023	2.445	234.844	1.5447	.15395	.02484	.006	.02474	-.72
91022	2.446	234.585	1.5483	.12963	.02496	.004	.02490	-.16
91021	2.447	234.040	1.5568	.10748	.02471	.008	.02471	-1.02
91024	2.444	233.411	1.5627	.08737	.02483	.005	.02491	-.31

Qun Pt.	Pressure MPa	Temperature K	Density mol/L	power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Tbermal Conductivity st a Nominal Temperature of 242.3K W/m.K	Deviation from Corelation percent
91019	.975	245.324	.5085	.13592	.02299	.002	.02269	.64
91018	.975	244.498	.5106	.11261	.02288	.005	.02266	.50
91017	.975	243.922	.5121	.09151	.02265	.005	.02249	-.28
91020	.975	243.138	.5141	.07274	.02259	.009	.02251	-.24
91016	1.868	245.554	1.0378	.16131	.02426	.003	.02396	-.51
91015	1.868	244.471	1.0450	.13574	.02449	.024	.02431	.75
91014	1.869	243.958	1.0487	.11244	.02404	.005	.02390	-.98
91013	1.870	243.573	1.0516	.09140	.02393	.003	.02383	-1.35
91012	2.586	245.003	1.5316	.16103	.02564	.004	.02545	-.93
91011	2.587	244.419	1.5384	.13568	.02563	.007	.02549	-.89
91010	2.587	243.626	1.5475	.11247	.02539	.007	.02531	-1.75

91009	2.587	243.168	1.5534	.09148	.02564	.007	.02559	-.72
91007	3.288	244.470	2.0956	.16080	.02737	.003	.02729	-1.58
91006	3.289	243.949	2.1066	.13554	.02736	.005	.02731	-1.68
91005	3.290	243.348	2.1191	.11227	.02669	.004	.02666	-4.33
91008	3.287	242.877	2.1264	.09131	.02716	.005	.02714	-2.57
91004	3.881	244.006	2.6651	.16053	.02994	.004	.02995	-.29
91003	3.885	243.571	2.6828	.13544	.03000	.007	.03001	-.33
91001	3.888	242.761	2.7127	.09134	.03014	.004	.03015	-.31
97052	7.176	239.847	11.2614	.35496	.07007	.015	.06855	-4.22
97055	7.175	239.644	11.3356	.31721	.07136	.018	.06984	-2.49
97050	7.177	239.280	11.4782	.28073	.07509	.017	.07369	2.50
97054	7.175	239.173	11.5141	.24763	.07563	.026	.07426	3.15
97056	7.174	238.943	11.5982	.18683	.07872	.031	.07742	6.90
97051	7.176	238.909	11.6145	.21578	.07731	.028	.07602	5.15
97053	7.175	238.677	11.6978	.15934	.08056	.040	.07934	8.91
97027	7.643	240.502	11.8895	.44002	.07396	.009	.07310	.62
97026	7.643	239.958	12.0599	.35658	.07528	.012	.07418	1.59
97025	7.644	239.804	12.1091	.28325	.07605	.017	.07488	2.37
97028	7.643	239.714	12.1344	.31862	.07560	.014	.07444	1.72
97049	8.966	243.661	12.6646	.85895	.07377	.004	.07415	-.38
97048	8.967	242.662	12.8875	.73957	.07438	.004	.07448	-.77
97047	8.967	241.936	13.0456	.63037	.07493	.005	.07485	-.92
97046	8.967	241.219	13.1988	.52965	.07523	.007	.07497	-1.41
97045	8.967	240.626	13.3231	.43824	.07566	.008	.07527	-1.58
97044	8.967	240.000	13.4521	.35505	.07627	.010	.07575	-1.55
97043	10.888	243.598	14.0178	.85944	.07903	.004	.07916	-.11
97042	10.888	242.685	14.1597	.74046	.07943	.004	.07947	-.56
97041	10.888	241.954	14.2717	.63088	.08003	.005	.08000	-.56
97040	10.887	241.299	14.3709	.53026	.08008	.007	.08000	-1.21
97039	10.887	240.675	14.4644	.43848	.08059	.009	.08046	-1.24
97038	10.887	240.084	14.5521	.35521	.08094	.012	.08077	-1.44
97037	12.898	243.633	14.8749	.85966	.08342	.005	.08343	-.43
97036	12.898	242.905	14.9654	.74147	.08412	.005	.08412	-.27
97035	12.898	242.166	15.0568	.63178	.08424	.009	.08424	-.81
97034	12.897	241.604	15.1255	.53087	.08465	.007	.08465	-.85
97033	12.895	241.021	15.1960	.43913	.08489	.008	.08489	-1.11
97032	14.755	243.915	15.4286	.85572	.08841	.003	.08835	1.06
97031	14.755	243.371	15.4873	.73868	.08868	.005	.08864	.91
97030	14.754	242.784	15.5506	.63069	.08929	.001	.08927	1.10
97023	14.961	243.117	15.5710	.85965	.08722	.005	.08719	-1.43
97029	14.754	242.370	15.5951	.53166	.09015	.001	.09015	1.70
97022	14.961	242.482	15.6385	.74120	.08784	.005	.08783	-1.25
97021	14.960	241.854	15.7034	.63147	.08817	.006	.08819	-1.39
97024	14.963	241.437	15.7494	.53389	.08910	.009	.08914	-.70
97020	23.365	243.359	17.1706	.97851	.10133	.001	.10120	-1.09
97019	23.365	242.500	17.2347	.85172	.10142	.001	.10139	-1.54
97018	23.364	241.817	17.2855	.73411	.10154	.001	.10159	-1.85
97017	23.361	241.184	17.3321	.62517	.10175	.001	.10189	-2.04
97016	31.724	243.641	18.1638	1.11219	.11181	.001	.11162	-1.33
97015	31.722	243.020	18.2021	.97702	.11217	.001	.11207	-1.33
97014	31.719	242.131	18.2567	.85081	.11225	.001	.11227	-1.72
97013	31.718	241.414	18.3009	.73337	.11241	.001	.11253	-1.95
97012	43.479	243.241	19.2039	1.11356	.12514	.031	.12499	-.95
97011	43.477	242.535	19.2406	.97861	.12512	.001	.12508	-1.27
97010	43.474	241.912	19.2730	.85196	.12597	.001	.12602	-.86
97009	43.471	241.288	19.3053	.73366	.12433	.008	.12448	-2.46
97008	55.419	243.639	19.9628	1.25884	.13681	.001	.13659	-.21
97007	55.417	242.780	20.0026	1.11395	.13663	.001	.13655	-.67
97006	55.417	241.996	20.0389	.97732	.13678	.001	.13682	-.87
97005	55.413	241.379	20.0673	.85109	.13737	.001	.13751	-.67
97002	67.094	243.238	20.5924	1.26078	.14728	.001	.14712	.39
97001	67.093	242.622	20.6184	1.11613	.14738	.001	.14732	.24
97004	67.097	241.893	20.6496	.98156	.14810	.001	.14816	.47
97003	67.097	241.478	20.6673	.85541	.14866	.001	.14879	.70

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 253.8K W/m.K	Deviation from Correlation percent
89174	.912	255.040	.4524	.14174	.02381	.003	.02366	.14
89173	.912	254.444	.4538	.11744	.02365	.003	.02358	-.21
89172	.913	253.593	.4558	.09543	.02358	.002	.02360	-.15
89171	.914	252.864	.4577	.07570	.02345	.004	.02356	-.37
89170	1.902	255.304	1.0016	.16821	.02516	.002	.02499	-.51
89169	1.902	254.553	1.0058	.14168	.02494	.002	.02486	-1.11
89168	1.902	253.797	1.0100	.11724	.02495	.003	.02495	-.77
89167	1.903	253.379	1.0126	.09527	.02469	.007	.02474	-1.68
89166	2.778	255.292	1.5552	.19702	.02681	.015	.02666	-.30
89165	2.778	254.710	1.5613	.16811	.02673	.002	.02664	-.44
89164	2.778	253.913	1.5698	.14160	.02665	.002	.02664	-.53
89163	2.779	253.471	1.5750	.11723	.02645	.003	.02648	-1.19
89161	3.436	255.130	2.0288	.19688	.02842	.003	.02830	.22
89160	3.437	254.405	2.0411	.16800	.02829	.003	.02824	-.15
89159	3.438	253.782	2.0521	.14149	.02837	.002	.02837	.20
89162	3.436	253.302	2.0582	.11747	.02826	.004	.02830	-.10

89158	3.936	255.575	2.4181	.22741	.02951	.002	.02936	-.68
89157	3.936	254.852	2.4345	.19633	.02955	.002	.02947	-.53
89156	3.938	254.129	2.4519	.16747	.02955	.002	.02952	-.54
89155	3.939	253.313	2.4719	.14090	.02853	.003	.02857	-4.16
89154	4.495	255.480	2.9169	.26080	.03029	.011	.03018	-5.07
89153	4.497	254.645	2.9448	.22733	.03035	.013	.03030	-4.03
89152	4.499	254.027	2.9668	.19618	.03050	.017	.03049	-3.66
89151	4.501	253.512	2.1963	.16726	.03060	.021	.03062	-3.47
89150	4.926	254.905	3.3710	.26065	.03257	.011	.03252	-2.21
89149	4.928	254.363	3.3955	.22747	.03215	.014	.03213	-3.78
89148	4.928	253.759	3.4226	.19618	.03357	.019	.03357	.34
89147	4.930	253.174	3.4502	.16724	.03398	.021	.03400	1.26
89146	5.402	255.347	3.8895	.29576	.03598	.011	.03595	1.22
89145	5.403	254.704	3.9272	.26004	.03633	.015	.03631	1.74
89144	5.404	254.214	3.9579	.22659	.03631	.018	.03630	1.32
89143	5.405	253.700	3.9906	.19548	.03595	.022	.03595	-.07
89142	5.785	254.777	4.4190	.29551	.03818	.013	.03819	.44
89141	5.785	254.472	4.4429	.26022	.03849	.015	.03850	.93
89140	5.786	253.875	4.4913	.22700	.03878	.019	.03878	1.04
89139	5.786	253.228	4.5451	.19564	.03874	.024	.03873	.02
89138	6.095	254.633	4.8812	.29646	.04052	.014	.04055	.48
89137	6.095	254.063	4.9365	.26056	.04085	.016	.04086	.53
89136	6.096	253.592	4.9851	.22712	.04113	.021	.04112	.53
89135	6.097	252.946	5.0540	.19585	.04145	.025	.04140	.33
89134	6.362	254.183	5.3554	.29622	.04293	.014	.04296	.21
89133	6.362	254.041	5.3729	.26059	.04355	.018	.04357	1.39
89132	6.363	253.268	5.4684	.22720	.04388	.021	.04383	.81
89131	6.364	252.923	5.5147	.19595	.04423	.027	.04415	.95
89130	6.572	254.239	5.7119	.29671	.04503	.015	.04507	.60
89129	6.573	253.762	5.7786	.26116	.04554	.019	.04554	.81
89128	6.574	253.215	5.8588	.22755	.04580	.020	.04573	.27
89127	6.575	252.704	5.9365	.19621	.04613	.029	.04599	-.09
89126	6.879	254.368	6.2540	.29869	.04827	.017	.04835	1.17
89125	6.879	253.488	6.3996	.26124	.04849	.019	.04844	-.28
89124	6.879	253.039	6.4778	.22761	.04886	.024	.04874	-.54
89123	6.880	252.590	6.5598	.19545	.04925	.030	.04905	-.82
89122	7.077	254.076	6.6836	.29518	.05033	.018	.05037	.50
89118	7.097	254.293	6.6836	.29855	.05058	.016	.05066	1.06
89121	7.077	253.747	6.7437	.25993	.05121	.021	.05120	1.47
89117	7.097	253.954	6.7459	.26397	.05094	.021	.05097	1.00
89120	7.076	253.538	6.7820	.22711	.05158	.026	.05153	1.71
89119	7.076	253.527	6.7841	.19683	.05262	.031	.05257	3.63
89116	7.098	253.214	6.8867	.22856	.05131	.026	.05120	-.02
89115	7.098	253.025	6.9252	.19750	.05206	.030	.05192	.96
89114	7.380	253.564	7.3928	.29667	.05264	.017	.05259	-2.38
89113	7.380	252.956	7.5245	.26038	.05324	.021	.05305	-2.72
89112	7.381	252.637	7.5965	.22697	.05389	.026	.05363	-2.29
89111	7.381	252.168	7.7044	.19582	.05431	.032	.05393	-2.69
89109	7.544	253.615	7.7137	.26236	.05598	.022	.05594	.91
89110	7.543	253.538	7.7300	.29678	.05528	.019	.05522	-.52
89108	7.544	252.596	7.9476	.22699	.05590	.027	.05562	-1.66
89107	7.544	252.218	8.0399	.19592	.05632	.034	.05594	-1.83
89106	7.752	253.376	8.1887	.29635	.05740	.019	.05730	-.58
89105	7.752	252.987	8.2827	.26048	.05746	.020	.05727	-1.13
89104	7.752	252.628	8.3705	.22720	.05778	.028	.05750	-1.62
89103	7.752	252.525	8.3961	.19647	.05874	.035	.05843	-.19
89100	8.129	253.975	8.7754	.26210	.06214	.020	.06219	3.36
89102	8.129	253.950	8.7823	.33326	.06058	.017	.06061	.82
89101	8.129	253.869	8.8019	.29620	.06146	.021	.06148	2.08
89099	8.129	253.295	8.9429	.22737	.06276	.031	.06268	3.04
89098	8.129	252.963	9.0274	.19611	.06244	.040	.06224	1.90
89096	8.402	252.937	9.5300	.29656	.06187	.020	.06167	-1.90
89095	8.402	252.763	9.5744	.26105	.06217	.024	.06193	-1.72
89094	8.402	252.443	9.6567	.22777	.06308	.030	.06277	-.80
89097	8.402	252.138	9.7357	.19576	.06361	.038	.06322	-.48
89093	8.662	253.296	9.8789	.33423	.06277	.017	.06266	-2.12
89092	8.662	252.945	9.9662	.29672	.06343	.002	.06325	-1.62
89091	8.662	252.675	10.0342	.26101	.06390	.002	.06366	-1.29
89089	8.826	253.503	10.0880	.33420	.06437	.002	.06431	-.53
89090	8.662	252.439	10.0938	.22770	.06419	.003	.06390	-1.20
89088	8.826	253.338	10.1283	.29672	.06480	.002	.06471	-.11
89087	8.826	253.264	10.1465	.26085	.06561	.002	.06550	1.02
89086	8.826	252.478	10.3403	.22766	.06522	.002	.06495	-.72
89085	9.312	253.725	10.7265	.33376	.06684	.001	.06683	.39
89082	9.312	253.605	10.7540	.26066	.06837	.002	.06834	2.47
89083	9.312	253.304	10.8229	.29640	.06751	.002	.06743	.66
89084	9.312	252.965	10.9006	.22776	.06834	.002	.06820	1.65
89081	9.789	253.515	11.3433	.37463	.06770	.001	.06766	-1.07
89080	9.789	253.131	11.4247	.33431	.06789	.002	.06780	-1.22
89079	9.789	252.918	11.4695	.29637	.06841	.002	.06830	-.69
89078	9.789	252.460	11.5653	.26036	.06846	.002	.06829	-1.13
89077	10.303	254.236	11.7187	.46180	.06882	.001	.06886	-.97
89076	10.303	253.477	11.8665	.37432	.06934	.001	.06931	-1.00
89075	10.303	252.881	11.9820	.29637	.06991	.002	.06982	-.79
89074	10.303	252.691	12.0188	.26092	.07018	.002	.07008	-.60
89073	10.862	254.422	12.1702	.50881	.07060	.001	.07064	-.51

89072	10.861	253.979	12.2493	.46198	.07066	.001	.07067	-.86
89071	10. Abl	253.236	12.3697	.37470	.07128	.001	.07125	-.64
89070	10.861	252.806	12.4567	.29672	.07168	.002	.07162	-.56
89069	11.628	254.615	12.6934	.55750	.07236	.001	.07239	-.72
89068	11.628	253.997	12.7928	.46155	.07301	.001	.07302	-.38
89067	11.627	253.361	12.8933	.37435	.07342	.001	.07341	-.40
89066	11.627	252.670	13.0030	.29557	.07382	.002	.07379	-.49
89065	12.351	254.637	13.1283	.55807	.07449	.001	.07450	-.26
89064	12.353	253.961	13.2271	.46150	.07509	.001	.07509	-.04
89063	12.350	253.345	13.3172	.37412	.07552	.001	.07552	-.01
89062	12.349	252.679	13.4137	.29656	.07591	.002	.07591	-.08
89061	13.518	254.749	13.6966	.55714	.07783	.001	.07780	.59
89060	13.517	254.041	13.7882	.46094	.07850	.001	.07849	.86
89059	13.517	253.329	13.8807	.37398	.07867	.001	.07869	.49
89058	13.516	252.984	13.9374	.29540	.07938	.002	.07941	1.02
89057	14.624	254.999	14.1216	.55763	.08092	.001	.08086	1.54
89053	14.729	254.664	14.2005	.55731	.08072	.001	.08067	.75
89056	14.674	254.269	14.2083	.46121	.08100	.001	.08098	1.07
89055	14.624	253.530	14.2886	.37428	.08165	.001	.08166	1.33
89052	14.729	253.724	14.3108	.46050	.08094	,001	.08094	.29
89051	14.728	253.489	14.3382	.37400	.08135	.001	.08137	.61
89054	14.624	253.160	14.3391	.29652	.08225	.002	.08229	1.71
89049	16.373	254.323	14.7856	.55740	.08383	.001	.08379	.13
89048	16.372	253.521	14.8693	.46129	.08389	.001	.08391	-.39
89047	16.371	252.994	14.9239	.37450	.08442	.001	.08449	-.14
89046	16.369	252.471	14.9778	.29542	.08429	.002	.08440	-.68
89045	18.317	255.067	15.2419	.66318	.08711	.001	.08699	.16
89044	18.316	254.120	15.3310	.55778	.08728	.001	.08725	-.30
89043	18.313	253.493	15.3891	.46157	.08763	.001	.08766	-.32
89042	18.313	252.912	15.4434	.37447	.08759	.002	.08768	-.77
89041	20.564	255.121	15.7476	.66253	.09196	.001	.09181	1.17
89040	20.564	253.997	15.8433	.55726	.09137	.001	.09135	-.19
89039	20.563	253.367	15.8967	.46086	.09170	.001	.09175	-.23
89038	20.564	252.848	15.9409	.37443	.09210	.001	.09221	-.13
89037	23.433	254.535	16.3331	.66279	.09556	.001	.09547	-.28
89036	23.431	253.854	16.3843	.55728	.09576	.001	.09575	-.47
89034	23.429	253.295	16.4276	.46122	.09605	.002	.09611	-.50
89035	23.431	252.788	16.4669	.37424	.09653	.002	.09666	-.31
89033	26.796	254.592	16.8516	.66212	.10096	.001	.10085	.25
89032	26.796	254.034	16.8905	.55752	.10128	.001	.10125	.26
89030	24.793	253.264	16.9438	.46073	.10045	,001	.10052	-.99
89031	26.795	252.800	16.9764	.41634	.10075	.002	.10089	-.94
89029	30.635	255.136	17.3192	.83834	.10509	.001	.10490	-.43
89028	30.635	254.779	17.3420	.77653	.10513	.001	.10499	-.57
89027	30.635	254.156	17.3817	.66211	.10537	.001	.10532	-.66
89026	30.633	253.237	17.4402	.55360	.10552	.001	.10560	-.98
89025	35.331	255.685	17.8098	.90028	.11117	.001	.11089	.17
89024	35.328	254.671	17.8689	.77600	.11108	.001	.11095	-.38
89023	35.328	253.921	17.9128	.66247	.11127	,001	.11125	-.55
89022	35.325	253.687	17.9261	.55680	.11143	.001	.11145	-.51
89018	37.252	255.239	18.0271	.89914	.11326	.001	.11304	-.13
89019	37.257	254.510	18.0689	.77617	.11416	.001	.11405	.33
89020	37.257	254.059	18.0945	.66211	.11410	.001	.11406	.08
89021	37.251	253.447	18.1287	.55655	.11433	.001	.11438	.01
89015	47.077	255.293	18.8555	1.03193	.12315	.001	.12291	-.37
89014	47.088	254.642	18.8888	.89931	.12365	.001	.12352	-.23
89013	47.077	254.157	18.9122	.77638	.12364	.001	.12358	-.42
89016	47.078	253.636	18.9383	.66163	.12428	.001	.12431	-.11
89017	47.083	253.092	18.9658	.55579	.12447	.001	.12458	-.18
89012	51.054	256.050	19.1031	1.17241	.12735	.001	.12699	.29
89011	51.051	255.298	19.1389	1.02997	.12759	.001	.12735	.19
89010	51.053	254.640	19.1705	.89763	.12795	.001	.12782	.23
89009	51.050	253.800	19.2106	.77080	.12746	.001	.12746	-.48
89008	62.937	256.007	19.8332	1.17647	.13905	.001	.13869	1.33
89007	62.936	255.185	19.8686	1.03317	.13926	.001	.13903	1.21
89006	62.935	254.807	19.8849	.90224	.13975	.001	.13958	1.43
89005	62.933	253.530	19.9403	.77146	.13853	.001	.13857	.12
89004	68.250	256.361	20.0973	1.32584	.14295	.001	.14252	1.24
89003	68.251	255.551	20.1310	1.17298	.14292	.001	.14263	.95
89002	68.252	254.349	20.1812	.89864	.14361	.001	.14352	1.04
89001	68.255	253.250	20.2272	.65978	.14340	.001	.14349	.53

Run Pt.	Pressure MPa	Temperature K	Cenrity mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 274.6K troa W/m.K	Deviation Coreiation percent
88155	.312	274.741	.1384	.12753	.02591	.002	.02589	1.67
88154	.312	274.127	.1387	.10389	.02606	.003	.02612	2.53
88153	.312	272.971	.1393	.08212	.02573	.005	.02594	1.86
88156	.312	272.669	.1395	.06358	.02573	.006	.02598	2.01
88151	.933	275.087	.4243	.15430	.02646	.002	.02639	.87
88150	.933	274.292	.4259	.12761	.02636	.003	.02640	.87
88149	.933	273.594	.4271	.10363	.02598	.004	.02611	-.23
88152	.933	273.085	.4278	.08258	.02612	.003	.02631	.55
88148	2.144	275.967	1.0277	.21237	.02805	.002	.02787	.59

88147	2.144	275.067	1.0322	.18116	.02785	.001	.02778	.25
88146	2.145	274.304	1.0363	.15251	.02774	.002	.02777	.17
88145	2.145	273.531	1.0403	.12624	.02762	.003	.02775	.06
88144	3.075	275.521	1.5479	.21237	.02899	.001	.02887	-.82
88143	3.075	274.652	1.5558	.18126	.02925	.002	.02924	.37
88142	3.075	274.029	1.5614	.15253	.02929	.002	.02936	.72
88141	3.075	273.260	1.5686	.12632	.02912	.003	.02928	.40
88140	3.762	276.232	1.9574	.24614	.03020	.001	.03000	-.93
88139	3.763	275.297	1.9693	.21255	.03023	.001	.03014	-.56
88138	3.763	274.507	1.9798	.18121	.03058	.001	.03059	.81
88137	3.764	273.681	1.9909	.15249	.03017	.003	.03028	-.32
88136	4.618	275.467	2.5385	.24602	.03241	.001	.03231	.82
88135	4.620	274.851	2.5512	.21251	.03181	.002	.03178	-.96
88134	4.621	274.189	2.5651	.18139	.03088	.002	.03092	-3.90
88133	4.622	273.542	2.5785	.15262	.03210	.002	.03221	.14
88132	5.115	276.145	2.8842	.28317	.03268	.012	.03251	-2.03
88131	5.117	275.477	2.9015	.24685	.03123	.005	.03113	-6.72
88130	5.121	274.363	2.9307	.21300	.03266	.015	.03268	-1.96
88129	5.124	273.749	2.9483	.18129	.03310	.003	.03319	-.58
88128	5.753	275.995	3.3841	.28532	.03531	.011	.03517	.78
88127	5.754	275.916	3.3876	.24923	.03457	.015	.03443	-1.36
88126	5.756	275.435	3.4038	.21600	.03429	.019	.03420	-2.22
88125	5.758	275.184	3.4135	.18502	.03499	.025	.03493	-.20
88124	6.344	274.827	3.9308	.28223	.03620	.011	.03618	-2.07
88123	6.345	274.180	3.9594	.24594	.03632	.013	.03635	-1.87
88122	6.348	273.538	3.9892	.21235	.03618	.017	.03627	-2.43
88121	6.350	273.097	4.0107	.18112	.03596	.021	.03608	-3.19
88120	6.851	275.076	4.3903	.32073	.03865	.010	.03861	-.36
88119	6.851	274.846	4.4023	.28210	.03859	.003	.03857	-.59
88118	6.852	273.885	4.4528	.24596	.03864	.014	.03869	-.81
88117	6.852	273.321	4.4833	.21215	.03886	.018	.03895	-.46
88116	7.339	275.709	4.8346	.32224	.04134	.003	.04127	1.60
88115	7.339	274.999	4.8780	.28350	.04126	.002	.04123	1.07
88114	7.340	274.787	4.8918	.24795	.04148	.002	.04147	1.48
88113	7.340	273.574	4.9689	.21244	.04114	.002	.04120	.03
88112	7.731	275.733	5.2352	.36296	.04263	.002	.04257	.51
88111	7.732	275.109	5.2792	.32191	.04305	.002	.04302	1.11
88109	7.733	274.775	5.3041	.24523	.04238	.004	.04237	-.67
88110	7.733	274.385	5.3319	.28292	.04301	.002	.04302	.56
88108	8.179	276.125	5.6821	.36719	.04568	.002	.04562	2.77
88107	8.180	275.805	5.7082	.32588	.04582	.301	.04577	2.84
88106	8.181	275.196	5.7579	.28655	.04574	.002	.04572	2.23
88105	8.181	275.102	5.7656	.25120	.04632	.002	.04630	3.38
88104	8.572	274.949	6.2166	.36284	.04696	.002	.04695	.31
88103	8.572	274.447	6.2640	.32178	.04708	.002	.04708	.12
88101	8.573	273.757	6.3306	.28209	.04677	.002	.04678	-1.17
88102	8.572	273.497	6.3564	.24672	.04694	.003	.04696	-1.05
88100	9.093	274.942	6.8124	.36374	.04974	.002	.04974	.37
88099	9.094	274.207	6.8922	.32198	.04952	.015	.04952	-.80
88098	9.094	273.720	6.9462	.28299	.04999	.001	.04999	-.35
88097	9.094	273.134	7.0131	.24628	.04985	.001	.04985	-1.25
88095	9.457	275.958	7.1146	.41108	.05154	.010	.05154	1.17
88094	9.457	274.607	7.2673	.36306	.05109	.012	.05109	-1.05
88096	9.457	274.190	7.3162	.28565	.05232	.002	.05232	.90
88093	9.458	273.989	7.3405	.32129	.05142	.002	.05142	-1.05
88092	9.880	276.436	7.5281	.49985	.05328	.013	.05329	.94
88091	9.880	276.231	7.5520	.45139	.05388	.001	.05389	1.84
88090	9.879	275.785	7.6043	.40607	.05402	.002	.05403	1.67
88089	9.879	275.141	7.6810	.32186	.05469	.001	.05470	2.25
88088	10.376	275.324	8.2033	.49756	.05463	.008	.05454	-1.95
88087	10.376	274.763	8.2761	.44900	.05489	.010	.05489	-2.04
88086	10.376	274.322	8.3346	.40317	.05517	.011	.05517	-1.98
88085	10.377	273.331	8.4689	.31826	.05524	.002	.05521	-2.89
88083	10.778	275.105	8.6561	.49746	.05653	.009	.05654	-1.82
88084	10.778	274.974	8.6732	.45092	.05699	.010	.05700	-1.12
88082	10.778	274.178	8.7815	.40331	.05689	.012	.05688	-2.08
88081	10.779	273.287	8.9057	.31884	.05707	.003	.05704	-2.66
88080	11.249	275.952	9.0144	.55012	.05835	.008	.05837	-1.05
88079	11.250	275.348	9.0960	.49870	.05860	.009	.05861	-1.17
88078	11.250	274.449	9.2192	.40451	.05900	.002	.05900	-1.32
88077	11.250	273.313	9.3785	.31936	.05899	.002	.05897	-2.40
88076	11.795	275.969	9.5221	.55135	.06066	.001	.06068	-.41
88075	11.795	275.234	9.6216	.49920	.06080	.001	.06081	-.81
88074	11.795	274.427	9.7322	.40480	.06116	.002	.06116	-.90
88073	11.795	273.410	9.8749	.31945	.06108	.002	.06107	-1.92
88072	12.404	275.795	10.0677	.55047	.06253	.001	.06253	-.67
88071	12.404	275.366	10.1252	.49996	.06318	.002	.06318	.03
88070	12.404	274.480	10.2451	.40568	.06315	.002	.06315	-.72
88069	12.404	273.205	10.4207	.31959	.06308	.002	.06308	-1.85
88068	13.030	275.990	10.5275	.60370	.06428	.002	.06427	-.58
88067	13.030	275.015	10.6552	.49890	.06434	.001	.06434	-1.21
88066	13.030	274.196	10.7637	.40457	.06487	.002	.06487	-.99
88065	13.030	273.226	10.8934	.31985	.06507	.003	.06509	-1.40
88064	13.810	275.855	11.0852	.60430	.06673	.001	.06670	-.03
88063	13.811	274.668	11.2355	.49971	.06702	.001	.06702	-.42
88062	13.809	274.014	11.3172	.40523	.06742	.001	.06743	-.26

88061	13.810	273.197	11.4218	.32003	.06722	.002	.06726	-1.13
88060	14.572	275.874	11.5481	.60441	.06874	.001	.06869	.25
88059	14.572	274.905	11.6651	.49965	.06908	.002	.06907	.11
88058	14.572	273.791	11.7997	.40513	.06912	.001	.06915	-.56
88057	14.570	273.163	11.8750	.32025	.06924	.003	.06930	-.79
88056	15.666	275.776	12.1400	.60590	.07159	.001	.07152	.77
88055	15.666	274.834	12.2459	.50114	.07192	.001	.07190	.65
88054	15.665	274.027	12.3371	.40629	.07224	.001	.07227	.59
88053	15.665	273.203	12.4301	.32090	.07216	.002	.07224	-.03
88052	16.760	276.343	12.5778	.60400	.07477	.002	.07465	2.28
88051	16.761	275.550	12.6616	.49919	.07540	.001	.07533	2.64
88050	16.761	275.064	12.7131	.40497	.07623	.002	.07619	3.42
88049	16.763	274.692	12.7533	.32136	.07643	.003	.07642	3.45
88048	18.132	275.673	13.1831	.60491	.07713	.001	.07703	1.41
88047	18.138	274.805	13.2704	.50083	.07720	.002	.07718	.99
88046	18.133	274.458	13.3028	.40726	.07782	.002	.07783	1.59
88045	18.134	272.962	13.4504	.31937	.07703	.003	.07717	-.29
88044	19.704	275.472	13.7233	.60429	.07995	.001	.07986	1.13
88043	19.702	274.686	13.7943	.50022	.08033	.001	.08032	1.18
88042	19.700	273.963	13.8595	.40623	.08087	.002	.08093	1.44
88041	19.698	273.346	13.9151	.32121	.08067	.003	.08080	.86
88039	20.585	275.431	13.9856	.60458	.08176	.001	.08167	1.39
88038	20.583	274.683	14.0504	.49942	.08197	.001	.08196	1.25
88037	20.590	273.771	14.1324	.40593	.08170	.002	.08179	.41
88040	20.582	273.489	14.1549	.32182	.08277	.002	.08289	1.56
88035	23.447	274.504	14.7782	.60286	.08601	.001	.08602	.23
88034	23.450	273.735	14.8392	.49846	.08589	.001	.08599	-.31
88033	23.446	273.052	14.8921	.40400	.08604	.001	.08623	-.48
88032	26.707	275.038	15.3942	.71726	.09051	.001	.09045	-.05
88031	26.708	274.324	15.4452	.60268	.09085	.001	.09088	-.02
88030	26.707	273.563	15.4989	.49841	.09092	.001	.09106	-.31
88029	26.705	272.803	15.5526	.40374	.09089	.002	.09113	-.71
88028	30.617	275.883	15.9844	.84354	.09584	.001	.09565	.20
88027	30.615	274.988	16.0417	.71901	.09619	.001	.09613	.17
88026	30.615	274.313	16.0851	.60481	.09655	.001	.09659	.24
88025	30.614	273.232	16.1545	.49754	.09580	.001	.09599	-1.02
88024	35.153	275.359	16.6358	.83999	.10128	.001	.10116	-.33
88023	35.151	274.688	16.6749	.71599	.10166	.002	.10164	-.23
88022	35.146	273.911	16.7198	.60150	.10176	.002	.10186	-.45
88021	35.145	273.204	16.7613	.49690	.10169	.001	.10190	-.82
88020	40.663	276.066	17.2197	.97644	.10857	.004	.10833	.84
88019	40.663	275.307	17.2603	.84266	.10783	.001	.10771	-.14
88018	40.656	274.384	17.3091	.71765	.10821	.001	.10824	-.13
88017	40.649	273.769	17.3414	.60369	.10844	.001	.10856	-.15
88016	46.995	275.700	17.8364	.97333	.11411	.001	.11393	-.27
88015	46.995	274.794	17.8810	.83947	.11451	.001	.11447	-.24
88014	46.996	274.185	17.9110	.71515	.11453	.001	.11459	-.44
88013	46.995	273.162	17.9614	.60007	.11454	.001	.11477	-.80
88012	54.481	275.551	18.4348	.97564	.12198	.001	.12182	.35
88011	54.489	274.980	18.4613	.84284	.12237	.001	.12230	.48
88010	54.489	274.315	18.4915	.71795	.12237	.001	.12241	.26
88009	54.492	273.665	18.5213	.60321	.12221	.002	.12236	-.09
88008	62.785	275.481	18.9909	.97892	.13009	.006	.12993	1.08
88007	62.788	274.489	19.0332	.84283	.12947	.001	.12948	.29
88006	62.790	273.886	19.0588	.71768	.12801	.005	.12812	-1.03
88005	62.800	273.257	19.0861	.60269	.12915	.009	.12937	-.34
88004	67.302	275.369	19.2620	.97940	.13360	.003	.13346	.94
88003	67.304	274.614	19.2930	.84408	.13165	.013	.13164	-.75
88002	67.309	273.885	19.3231	.71837	.13347	.001	.13358	.40
88001	67.317	273.070	19.3570	.60235	.13304	.013	.13329	-.17

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 296.4% W/m.K	Deviation from Corelation percent
87157	.453	297.424	.1858	.16610	.02933	.003	.02918	2.05
87156	.453	296.594	.1864	.13766	.02901	.005	.02898	1.37
87155	.453	295.744	.1871	.11187	.02914	.005	.02923	2.21
87154	.453	295.042	.1876	.08879	.02875	.006	.02894	1.23
87153	1.075	298.191	.4489	.19798	.02999	.005	.02973	1.73
87152	1.075	297.498	.4501	.16698	.02986	.003	.02970	1.62
87151	1.075	296.298	.4521	.13842	.02961	.005	.02962	1.34
87150	1.075	295.588	.4533	.11263	.02946	.007	.02957	1.16
87149	2.365	298.033	1.0327	.23179	.03111	.003	.03088	.70
87148	2.365	297.147	1.0367	.19813	.03092	.003	.03081	.45
87147	2.365	295.350	1.0404	.16688	.03095	.003	.03096	.88
87146	2.365	295.681	1.0435	.13823	.03066	.003	.03076	.22
87145	3.303	297.564	1.4954	.23209	.03210	.002	.03194	.27
87144	3.303	296.837	1.5008	.19809	.03208	.009	.03202	.47
87143	3.303	296.081	1.5064	.16690	.03194	.002	.03198	.32
87142	3.303	295.574	1.5102	.13848	.03189	.003	.03200	.35
87141	4.251	297.544	1.9957	.23171	.03372	.002	.03356	1.10
87140	4.251	296.545	2.0067	.19814	.03332	.002	.03330	.22
87139	4.251	295.009	2.0127	.16690	.03337	.002	.03342	.54
87138	4.251	295.333	2.0203	.13840	.03343	.003	.03357	.92

87137	5.090	297.179	2.4759	.23201	.03502	.002	.03492	1.05
87136	5.090	296.416	2.4875	.19810	.03494	.003	.03494	1.01
87134	5.089	296.110	2.4917	.15654	.03459	.003	.03463	.09
87135	5.089	295.311	2.5041	.13838	.03481	.003	.03495	.91
87133	5.912	297.780	2.9625	.26781	.03643	.002	.03625	.70
87132	5.912	297.215	2.9737	.23150	.03642	.001	.03632	.77
87131	5.912	295.616	2.9858	.19777	.03640	.002	.03637	.82
87130	5.912	296.252	2.9932	.16703	.03645	.002	.03647	1.02
87129	5.912	295.473	3.0091	.13845	.03618	.005	.03630	.42
87128	6.589	297.670	3.3977	.26851	.03778	.002	.03762	.67
87127	6.589	296.755	3.4204	.23185	.03766	.001	.03762	.46
87126	6.589	296.330	3.4311	.19804	.03746	.002	.03747	-.03
87125	6.589	295.766	3.4455	.16705	.03764	.002	.03771	.50
87124	7.138	297.176	3.7794	.26815	.03900	.003	.03891	.71
87123	7.138	296.634	3.7955	.23147	.03893	.002	.03890	.55
87122	7.138	296.037	3.8133	.19769	.03891	.003	.03895	.52
87121	7.138	295.701	3.8235	.16685	.03904	.003	.03912	.86
87120	7.834	297.512	4.2569	.30752	.04070	.001	.04058	.71
87119	7.834	296.921	4.2781	.26819	.04076	.001	.04070	.82
87118	7.834	296.300	4.3007	.23157	.04064	.002	.04065	.50
87117	7.834	295.624	4.3256	.19759	.04063	.002	.04071	.43
87116	8.470	297.313	4.7295	.30747	.04276	.004	.04267	1.52
87115	8.470	296.666	4.7571	.25816	.04247	.003	.04244	.76
87114	8.470	296.179	4.7781	.23162	.04227	.003	.04229	.21
87113	8.470	295.660	4.8009	.19759	.04244	.004	.04251	.53
87112	9.186	297.222	5.2767	.30748	.04456	.002	.04449	.84
87111	9.186	296.604	5.3080	.26818	.04448	.003	.04446	.50
87110	9.186	296.061	5.3360	.23184	.04509	.003	.04512	1.71
87109	9.186	295.377	5.3718	.19770	.04446	.002	.04455	.14
87108	9.821	298.273	5.7098	.39365	.04653	.002	.04638	1.17
87107	9.821	297.601	5.7479	.34922	.04651	.001	.04641	.91
87106	9.821	296.367	5.8190	.26780	.04643	.002	.04643	.34
87105	9.822	295.503	5.8711	.19758	.04634	.002	.04641	-.17
87104	10.408	298.110	6.1736	.39342	.04822	.001	.04809	.77
87103	10.408	297.240	6.2286	.34903	.04816	.001	.04810	.31
87102	10.408	296.323	6.2879	.26795	.04823	.002	.04823	.09
87101	10.408	295.338	6.3535	.19807	.04826	.002	.04833	-.27
87100	10.980	298.348	6.6008	.44024	.04990	.001	.04977	.57
87099	10.980	296.836	6.7056	.34898	.04995	.001	.04992	-.00
87098	10.980	296.108	6.7576	.26804	.05006	.002	.05008	-.13
87097	10.980	295.159	6.8270	.19755	.04991	.004	.04998	-.89
87096	11.462	298.793	6.9395	.44069	.05206	.001	.05191	1.95
87095	11.462	297.040	7.0679	.34818	.05163	.002	.05159	.31
87094	11.461	296.206	7.1297	.26773	.05175	.002	.05176	.14
87093	11.461	295.797	7.1613	.19795	.05186	.002	.05189	.14
87092	12.197	298.501	7.5132	.43969	.05379	.002	.05368	.74
87091	12.197	297.684	7.5777	.34907	.05462	.002	.05455	1.84
87090	12.197	296.609	7.6646	.26787	.05450	.003	.05449	1.06
87089	12.197	295.013	7.7978	.19767	.05413	.003	.05419	-.49
87087	12.903	297.814	8.0845	.44055	.05576	.002	.05569	.10
87086	12.903	296.967	8.1565	.34879	.05607	.002	.05604	.20
87085	12.903	296.121	8.2297	.26824	.05624	.002	.05625	.04
87088	12.904	295.173	8.3128	.19772	.05633	.003	.05638	-.33
87084	13.563	297.466	8.5776	.48921	.05740	.004	.05735	-.50
87083	13.563	296.782	8.6381	.43900	.05771	.002	.05769	-.32
87082	13.564	295.908	8.7170	.34761	.05800	.002	.05802	-.30
87081	13.563	294.915	8.8079	.26653	.05736	.007	.05742	-1.98
87080	14.216	297.345	9.0244	.48974	.05942	.002	.05938	-.08
87079	14.214	296.829	9.0702	.43923	.05953	.003	.05951	-.16
87078	14.215	295.723	9.1721	.34735	.05916	.003	.05919	-1.39
87077	14.215	294.812	9.2579	.26635	.05965	.002	.05972	-1.06
87076	14.966	297.584	9.4744	.54140	.06103	.002	.06097	-.40
87075	14.964	296.642	9.5595	.43917	.06136	.002	.06135	-.34
87074	14.964	295.773	9.6402	.34773	.06159	.002	.06162	-.42
87073	14.965	294.674	9.7442	.26621	.06127	.002	.06135	-1.53
87072	15.977	297.375	10.0778	.54144	.06393	.002	.06388	.38
87071	15.976	296.383	10.1683	.43890	.06360	.002	.06360	-.62
87070	15.977	295.509	10.2499	.34752	.06377	.002	.06382	-.80
87069	15.977	294.481	10.3465	.26645	.06410	.004	.06421	-.80
87068	16.862	297.193	10.5596	.54134	.06577	.002	.06572	.19
87067	16.862	296.208	10.6486	.43902	.06554	.003	.06555	-.63
87066	16.863	295.397	10.7234	.34753	.06594	.003	.06600	-.41
87065	16.862	294.547	10.8018	.26661	.06587	.004	.06599	-.93
87064	17.828	297.132	11.0273	.54232	.06725	.004	.06720	-.54
87063	17.828	296.000	11.1279	.43953	.06820	.003	.06823	.35
87062	17.826	295.656	11.1577	.34862	.06812	.003	.06817	.08
87061	17.826	294.560	11.2565	.26686	.06818	.002	.06831	-.35
87060	19.150	296.785	11.6217	.54109	.07056	.002	.07053	.49
87059	19.150	295.865	11.7006	.43868	.07049	.001	.07053	-.02
87058	19.150	295.137	11.7634	.34712	.07028	.003	.07039	-.64
87057	19.150	294.329	11.8328	.26640	.07079	.004	.07097	-.28
87055	20.496	296.722	12.1330	.54131	.07314	.002	.07311	.70
87054	20.496	295.868	12.2033	.43886	.07291	.002	.07296	.02
87053	20.494	294.920	12.2811	.34693	.07300	.003	.07314	-.26
87056	20.496	294.591	12.3093	.26739	.07383	.006	.07400	.71
87052	22.082	297.532	12.5945	.65499	.07555	.001	.07543	.65

87051	22.083	295.653	12.6634	.54164	.07584	.001	.07591	.67
87050	22.081	295.834	12.7269	.43943	.07572	.002	.07578	.18
87049	22.081	294.932	12.7980	.34699	.07564	.002	.07560	-.30
87048	23.826	297.297	13.1204	.65354	.07815	.001	.07805	.28
87047	23.825	296.404	13.1864	.54072	.07845	.002	.07845	.31
87046	23.825	295.606	13.2459	.43862	.07860	.003	.07869	.18
87045	23.825	294.810	13.3053	.34685	.07869	.002	.07888	-.03
87044	25.827	297.094	13.6438	.65358	.08118	.001	.08109	.17
87043	25.827	296.239	13.7039	.54079	.08138	.001	.08140	.08
87042	25.828	295.366	13.7658	.43839	.08156	.002	.08169	-.05
87041	25.826	294.716	13.8112	.34696	.08148	.002	.08169	-.40
87040	27.922	297.076	14.1118	.65478	.08440	.001	.08431	.37
87039	27.922	296.236	14.1676	.54169	.08460	.001	.08462	.29
87038	27.920	295.363	14.2256	.43884	.08464	.001	.08478	.00
87037	27.918	294.623	14.2748	.34743	.08482	.002	.08506	-.07
87036	30.898	296.947	14.6945	.65537	.08850	.001	.08842	.32
87035	30.897	296.186	14.7415	.54238	.08885	.001	.08888	.44
87034	30.895	295.498	14.7843	.43995	.08890	.002	.08903	.25
87033	30.897	294.701	14.8344	.34724	.08842	.002	.08866	-.59
87032	33.731	297.800	15.1175	.78032	.09228	.001	.09207	.74
87031	33.732	296.899	15.1706	.65626	.09224	.001	.09216	.38
87030	33.732	296.055	15.2200	.54235	.09222	.001	.09227	.06
87029	33.730	295.407	15.2579	.43997	.09238	.002	.09253	.01
87028	37.896	297.911	15.7136	.84379	.09669	.001	.09645	.10
87026	37.900	296.286	15.8027	.65475	.09664	.010	.09666	-.50
87025	37.901	295.979	15.8196	.54216	.09666	.001	.09672	-.58
87024	42.138	297.696	16.2492	.84373	.10143	.001	.10122	.01
87023	42.137	297.491	16.2595	.77861	.10144	.001	.10126	-.04
87022	42.137	296.370	16.3168	.65442	.10123	.001	.10123	-.60
87021	42.137	295.684	16.3518	.54142	.10138	.001	.10149	-.67
87020	47.208	297.695	16.7886	.84349	.10711	.001	.10689	.39
87019	47.206	297.353	16.8048	.77803	.10742	.001	.10726	.58
87018	47.207	296.198	16.8600	.65459	.10645	.001	.10648	-.68
87017	47.209	295.566	16.8905	.54181	.10675	.001	.10689	-.59
87013	52.775	297.401	17.3128	.91177	.11121	.001	.11104	-.85
87014	52.779	296.986	17.3317	.77794	.11220	.001	.11210	-.08
87015	52.778	296.291	17.3629	.65423	.11239	.001	.11241	-.11
87016	52.780	295.547	17.3965	.54176	.11259	.001	.11273	-.15
87009	59.630	298.032	17.8277	1.05725	.11786	.001	.11758	-.17
87010	59.634	297.282	17.8595	.91234	.11803	.001	.11788	-.23
87011	59.637	296.557	17.8901	.77838	.11841	.001	.11838	-.10
87012	59.640	296.134	17.9082	.65379	.11878	.001	.11882	.09
87005	67.047	297.599	18.3511	1.05504	.12450	.001	.12429	.19
87007	67.055	297.198	18.3676	.91119	.12482	.001	.12468	.33
87006	67.052	295.653	18.3989	.77827	.12521	.001	.12516	.51
87001	67.655	296.993	18.4134	1.04485	.12437	.001	.12426	-.46
87008	67.059	295.934	18.4179	.65466	.12537	.001	.12545	.45
87002	67.654	296.407	18.4365	.90219	.12472	.001	.12472	-.33
87003	67.650	295.827	18.4591	.77050	.12527	.001	.12537	-.03
87004	67.648	295.218	18.4832	.64824	.12527	.001	.12547	-.19

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 324.2K W/m.K	Deviation from Corelation percent
90152	1.426	325.562	.5447	.19728	.03376	.002	.03356	-.05
90151	1.426	324.861	.5460	.16631	.03356	.002	.03346	-.34
90150	1.426	324.308	.5471	.13794	.03342	.003	.03341	-.51
90149	1.426	323.401	.5489	.11197	.03341	.004	.03354	-.13
90148	2.632	325.265	1.0361	.19723	.03461	.002	.03445	-.88
90147	2.632	324.544	1.0390	.16616	.03460	.002	.03455	-.61
90146	2.633	324.094	1.0413	.13794	.03442	.003	.03444	-.95
90145	2.633	323.420	1.0440	.11207	.03445	.005	.03457	-.58
90144	3.697	325.783	1.4914	.23139	.03584	.001	.03561	-.76
90143	3.697	325.191	1.4951	.19758	.03595	.002	.03581	-.23
90142	3.697	324.369	1.5003	.16631	.03564	.002	.03562	-.79
90141	3.697	323.719	1.5044	.13779	.03546	.003	.03554	-1.05
90139	4.848	324.734	2.0226	.19754	.03711	.003	.03704	-.52
90137	4.848	324.423	2.0255	.16629	.03672	.00E	.03669	-1.48
90140	4.848	323.763	2.0318	.13822	.03681	.003	.03688	-1.00
90138	4.848	323.622	2.0331	.13804	.03672	.004	.03681	-1.20
90136	5.876	325.807	2.5034	.26787	.03856	.001	.03833	-.43
90135	5.876	325.197	2.5111	.23138	.03849	.001	.03835	-.43
90134	5.876	324.507	2.5199	.19752	.03824	.002	.03820	-.89
90133	5.876	323.820	2.5287	.16619	.03818	.003	.03824	-.84
90132	6.801	325.659	2.9673	.26792	.03979	.002	.03959	-.46
90131	6.801	325.002	2.9782	.23140	.03999	.003	.03988	.21
90130	6.801	324.481	2.9867	.19751	.03951	.002	.03958	-.62
90129	6.801	323.813	2.9976	.16641	.03962	.003	.03968	-.44
90128	7.759	324.880	3.4811	.23163	.04113	.002	.04104	-.49
90127	7.758	324.183	3.4949	.19766	.04133	.007	.04134	.13
90126	7.757	323.574	3.5071	.16650	.04127	.305	.04136	.10
90125	7.757	323.360	3.5115	.13793	.04091	.004	.04103	-.73
90124	8.669	325.135	3.9678	.23208	.04293	.002	.04281	.25
90123	8.669	324.249	3.9897	.19825	.04293	.003	.04293	.36

90122	8.659	323.992	3.9961	.16737	.04280	.009	.04283	.09
90121	8.669	323.168	4.0168	.13809	.04245	.003	.04259	-.62
90120	9.425	325.609	4.3735	.30752	.04435	.002	.04418	.45
90119	9.425	325.045	4.3894	.26812	.04414	.004	.04404	.02
90118	9.425	324.413	4.4072	.23150	.04416	.003	.04414	.12
90117	9.425	324.384	4.4081	.19760	.04397	.003	.04395	-.31
90116	9.495	324.004	4.4586	.23080	.04433	.002	.04436	.25
90115	9.495	323.544	4.4721	.19598	.04429	.006	.04438	.19
90114	9.495	323.041	4.4873	.16598	.04411	.003	.04426	-.19
90113	9.495	322.606	4.5003	.13760	.04396	.003	.04416	-.50
90112	10.428	324.708	4.9678	.26793	.04621	.005	.04515	.50
90111	10.428	324.355	4.9798	.23148	.04614	.002	.04613	.35
90110	10.429	323.717	5.0022	.19761	.04601	.002	.04607	.07
90109	10.429	322.977	5.0280	.16600	.04577	.004	.04592	-.46
90108	11.241	324.578	5.4387	.26791	.04782	.003	.04778	.51
90107	11.241	323.817	5.4682	.23102	.04752	.005	.04757	-.16
90106	11.241	323.341	5.4871	.19730	.04773	.003	.04783	.25
90105	11.241	322.946	5.5025	.16519	.04748	.004	.04762	-.29
90104	12.081	324.126	5.9415	.26741	.04935	.003	.04936	.08
90103	12.081	323.636	5.9628	.23104	.04941	.002	.04947	.14
90102	12.081	323.352	5.9753	.19721	.04931	.006	.04940	-.09
90101	12.081	323.047	5.9886	.16629	.04926	.003	.04938	-.23
90099	12.981	323.997	6.4625	.26737	.05141	.002	.05143	.39
90098	12.981	323.454	6.4888	.23099	.05105	.003	.05113	-.40
90097	12.981	323.135	6.5045	.19724	.05123	.002	.05134	-.11
90100	12.981	322.760	6.5228	.16644	.05145	.003	.05159	.26
90096	13.890	324.202	6.9634	.26793	.05302	.002	.05302	-.18
90095	13.890	323.614	6.9942	.23130	.05326	.003	.05332	.15
90093	13.890	323.137	7.0195	.19743	.05272	.003	.05282	-.97
90094	13.890	322.805	7.0372	.16644	.05312	.003	.05325	-.28
90092	14.743	324.436	7.4168	.30709	.05539	.003	.05537	.93
90091	14.743	323.910	7.4458	.25803	.05481	.003	.05484	-.24
90090	14.743	323.553	7.4658	.23150	.05508	.004	.05514	.16
90089	14.743	322.958	7.4996	.19742	.05510	.002	.05521	.05
90088	15.683	324.225	7.9242	.30697	.05675	.003	.05675	-.15
90087	15.683	323.794	7.9495	.26767	.05680	.003	.05684	-.18
90086	15.683	323.304	7.9785	.23132	.05655	.002	.05663	-.75
90085	15.682	322.949	7.9993	.19733	.05691	.003	.05701	-.21
90084	16.518	324.686	8.3190	.34921	.05881	.002	.05877	.64
90083	16.518	324.286	8.3432	.30699	.05832	.003	.05832	-.31
90082	16.518	323.698	8.3786	.26780	.05847	.004	.05851	-.21
90081	16.517	323.173	8.4104	.23131	.05827	.003	.05836	-.70
90080	17.708	324.732	8.8848	.34992	.06101	.002	.06097	.48
90076	17.649	324.183	8.8921	.30801	.06073	.002	.06073	.05
90079	17.707	324.388	8.9061	.30805	.06103	.002	.06102	.42
90075	17.649	323.672	8.9243	.25873	.06033	.007	.06038	-.76
90077	17.706	324.059	8.9261	.23271	.06122	.004	.06123	.64
90078	17.707	324.019	8.9291	.26906	.06128	.002	.06130	.72
90074	17.650	323.396	8.9422	.23202	.06073	.005	.06080	-.18
90073	17.650	322.864	8.9761	.19809	.06088	.005	.06099	-.09
90072	18.819	324.495	9.3966	.34989	.06291	.002	.06289	.17
90071	18.820	324.020	9.4274	.30761	.06275	.003	.06277	-.23
90070	18.820	323.539	9.4584	.26847	.06304	.003	.06310	.09
90069	18.820	323.186	9.4812	.23180	.06297	.002	.06306	-.13
90068	19.958	324.638	9.8618	.39472	.06500	.001	.06497	.33
90067	19.959	324.287	9.8846	.34987	.06498	.002	.06498	.19
90066	19.959	323.697	9.9227	.30747	.06473	.003	.06478	-.36
90065	19.960	323.271	9.9508	.26824	.06530	.006	.06538	.38
90064	21.274	324.677	10.3653	.39473	.06692	.004	.06688	-.11
90063	21.274	324.104	10.4022	.35001	.06708	.002	.06709	-.04
90062	21.275	323.718	10.4275	.30787	.06703	.003	.06708	-.23
90061	21.276	323.301	10.4550	.26842	.06693	.002	.06702	-.51
90060	22.733	324.412	10.8946	.39457	.06956	.003	.06954	.24
90059	22.733	323.846	10.9308	.34961	.06936	.001	.06940	-.21
90058	22.734	323.195	10.9730	.30752	.06938	.003	.06948	-.37
90057	22.734	323.019	10.9843	.26808	.05927	.003	.06939	-.58
90056	24.025	324.704	11.2912	.44210	.07110	.003	.07105	-.31
90055	24.024	324.317	11.3154	.39440	.07132	.002	.07131	-.11
90054	24.025	323.992	11.3359	.34992	.07139	.003	.07142	-.11
90053	24.025	323.388	11.3741	.30748	.07137	.003	.07146	-.31
90052	26.059	325.311	11.8443	.49195	.07412	.002	.07400	-.10
90051	26.059	324.634	11.8855	.44166	.07468	.004	.07463	.47
90050	26.058	323.803	11.9360	.34984	.07430	.003	.07435	-.27
90049	26.058	323.517	11.9538	.30783	.07391	.005	.07399	-.88
90048	27.727	324.800	12.3093	.49242	.07681	.003	.07674	.22
90047	27.729	324.519	12.3265	.44207	.07646	.003	.07643	-.32
90046	27.725	323.727	12.3728	.34951	.07651	.003	.07657	-.46
90045	27.723	323.242	12.4013	.30722	.07606	.004	.07618	-1.19
90044	30.250	325.371	12.8623	.54529	.07972	.002	.07957	-.25
90043	30.250	324.829	12.8931	.49202	.08018	.003	.08010	.19
90042	30.249	324.217	12.9279	.44141	.07965	.002	.07965	-.64
90041	30.249	323.704	12.9573	.34989	.07990	.002	.07997	-.46
90040	32.609	325.406	13.3455	.60007	.08292	.002	.08276	-.01
90036	32.809	325.460	13.3812	.60003	.08291	.001	.08274	-.31
90039	32.609	324.508	13.3949	.54328	.08227	.002	.08223	-1.04
90035	32.809	325.198	13.3957	.54459	.08297	.001	.08283	-.31

90038	32.610	323.789	13.4347	.44045	.08287	.004	.08293	-.49
90034	32.808	324.236	13.4481	.44119	.08292	.002	.08292	-.62
90037	32.608	323.473	13.4518	.34912	.08305	.005	.08316	-.36
90033	32.810	323.521	13.4979	.34938	.08293	.004	.08303	-.79
90032	34.668	325.134	13.7424	.54461	.08522	.001	.08509	-.36
90031	34.669	324.187	13.7929	.44126	.08499	.002	.08500	-.87
90030	34.671	323.943	13.8063	.39467	.08536	.002	.08540	-.50
90029	34.668	323.452	13.8321	.34953	.08513	.002	.08525	-.89
90028	38.459	325.670	14.3375	.65871	.08894	.002	.08872	-1.01
90027	38.462	325.117	14.3657	.54528	.08966	.001	.08952	-.34
90026	38.462	323.970	14.4236	.44131	.08932	.002	.08936	-1.01
90025	38.461	323.316	14.4564	.34917	.08918	.003	.08932	-1.33
90024	41.511	325.205	14.7523	.78212	.09215	.001	.09184	-1.03
90023	41.515	325.354	14.7940	.65775	.09247	.001	.09229	-.89
90022	41.514	324.445	14.8375	.54426	.09251	.001	.09248	-1.06
90021	41.514	323.943	14.8619	.44165	.09277	.002	.09282	-.90
90018	45.993	325.004	15.3325	.78173	.09699	.001	.09670	-.87
90017	45.994	325.212	15.3688	.65688	.09682	.001	.09666	-1.23
90019	45.993	324.544	15.3992	.54463	.09726	.002	.09721	-.92
90020	45.993	324.009	15.4236	.44256	.09731	.002	.09735	-1.00
90014	50.626	325.828	15.8539	.73164	.10131	.001	.10104	-1.09
90013	50.625	324.912	15.8934	.65685	.10128	.002	.10117	-1.32
90015	50.626	324.757	15.9002	.54536	.10168	.001	.10159	-.96
90016	50.626	324.228	15.9233	.44349	.10208	.002	.10208	-.68
90010	55.798	325.807	16.3570	.78102	.10578	.001	.10551	-1.32
90009	55.799	324.901	16.3944	.65647	.10582	.001	.10570	-1.48
90011	55.798	324.497	16.4111	.54466	.10617	.001	.10612	-1.23
90012	55.798	324.013	16.4310	.44291	.10666	.001	.10670	-.87
90006	61.783	325.763	16.8676	.78236	.11130	.001	.11103	-.93
90005	61.782	325.233	16.8883	.65858	.11126	.001	.11108	-1.07
90007	61.780	324.854	16.9026	.54534	.11171	.001	.11160	-.74
90008	61.779	324.127	16.9314	.44335	.11196	.002	.11198	-.67
90003	67.350	326.812	17.2469	.92002	.11613	.001	.11567	-.39
90002	67.351	325.959	17.2788	.78334	.11632	.001	.11601	-.39
90001	67.349	325.764	17.2859	.66026	.11664	.001	.11636	-.15
90004	67.352	324.723	17.3252	.54666	.11628	.002	.11619	-.67

3. Results for a 50/50 Mixture of Methane-Ethane.

A total of 932 points are given in table 2. The actual mole fraction of methane in the mixture is 0.50217 with the balance ethane. The computer programs developed for the thermal conductivity surface of this mixture are shown below. The equation of state used for this mixture is given in [14].

```
      FUNCTION TC5050(RHO,T)
C     COEF. FROM TC021 28 MAR 85
      DIMENSION A(3),B(5)
      DATA A/ .9271600E-02,-.3606085E-04, .3047760E-06/
      DATA B/ .2281903E-02, .1157403E-06, .4184580E-05,
     1  .9001806E-08, .1243893E-07/
      TCZERO=A(1)+A(2)*T+A(3)*T**2
      EXCESS=(B(1)+B(2)*T)*RHO+(B(3)+B(4)*T)*RHO**3+B(5)*RHO**5
      TC5050=TCZERO+EXCESS+CR5050(RHO,T)
      RETURN
      END


      FUNCTION CR5050(RHO,TEMP)
C     COEF. FROM TC021 AND MINIMS 28 MAR 85
      DIMENSION C(6)
      DATA (TC=262.919),(RHOC=8.68)
      DATA C/ .2953032E+00,-.2425000E+03, .3256997E-01,-.9394503E-04,
     1 -.2243679E+00, .2357194E+00/
      T=TEMP
      DEN=RHO
      IF(T.LT.TC) T=TC
      IF(T.LT.371.129) 60 TO 4
    5 CR5050=0.
      RETURN
    4 CONTINUE
      AMPL=C(1)/(T+C(2))+C(3)+C(4)*T
      DELRHO=DEN-RHOC
      X1=C(5)*DELRHO
      IF(DEN.GT.RHOC) X1=C(6)*DELRHO
      CR5050=AMPL*EXP(-X1**2)
      RETURN
      END
```

Table 2. The Thermal Conductivity ot a 50150 Methane-Ethane Mix

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 152.9K W/m.K	Deviation tron Corelation percent
103032	3.642	153.894	21.4375	1.37078	.17034	.001	.17019	-.64
103031	3.641	153.444	21.4635	1.24918	.17027	.001	.17018	-1.00
103030	3.639	153.122	21.4819	1.13774	.17094	.001	.17090	-.83
103029	3.635	152.407	21.5229	1.02158	.16922	.001	.16929	-2.35
103028	8.838	153.908	21.6545	1.37175	.17616	.001	.17600	-.21
103027	8.835	153.426	21.6807	1.25164	.17625	.001	.17616	-.47
103026	8.835	152.969	21.7056	1.13537	.17584	.001	.17582	-1.00
103025	8.830	152.335	21.7400	1.02253	.17451	.001	.17459	-2.19
103024	15.056	153.875	21.8912	1.37485	.18258	.001	.18242	.18
103023	15.051	153.340	21.9187	1.25248	.18235	.001	.18227	-.27
103022	15.051	152.778	21.9476	1.13303	.18138	.001	.18139	-1.15
103021	15.044	152.169	21.9787	1.02125	.17999	.001	.18010	-2.31
103020	21.514	153.575	22.1256	1.37094	.18783	.001	.18772	-.12
103019	21.503	153.481	22.1298	1.25302	.18821	.001	.18811	.03
103018	21.492	152.661	22.1696	1.14063	.18742	.001	.18745	-.86
103017	21.491	152.058	22.1991	1.03311	.18595	.001	.18608	-2.01
103016	28.799	153.522	22.3506	1.37167	.19342	.001	.19331	-.22
103015	28.795	152.942	22.3775	1.25266	.19307	.001	.19306	-.72
103014	28.785	152.621	22.3922	1.13968	.19272	.001	.19276	-1.08
103013	28.780	151.927	22.4243	1.03233	.19175	.001	.19190	-1.97
103012	36.590	153.189	22.5796	1.35797	.19855	.001	.19849	-.67
103011	36.592	152.869	22.5939	1.24172	.19894	.001	.19894	-.64
103010	36.587	152.451	22.6124	1.12787	.19885	.001	.19892	-.90
103009	36.591	151.752	22.6436	1.01530	.19736	.001	.19754	-2.03
103008	43.937	153.206	22.7619	1.36204	.20516	.001	.20510	.15
103007	43.937	152.932	22.7736	1.24731	.20603	.001	.20602	.43
103006	43.934	152.635	22.7862	1.13621	.20652	.001	.20656	.52
103005	43.930	151.753	22.8235	1.02977	.20451	.001	.20469	-.89
103004	50.660	153.341	22.9106	1.36514	.21037	.001	.21029	.64
103003	50.673	152.703	22.9373	1.24704	.21058	.001	.21061	.43
103002	50.664	152.509	22.9451	1.13528	.21093	.001	.21099	.59
103001	50.660	151.467	22.9883	1.03095	.20908	.001	.20931	-.88

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Therral Conductivity at a Nominal Temperature of 177.1K W/m.K	Deviation from Corelation percent
104028	3.636	177.772	19.9524	1.23290	.14318	.001	,14308	-.52
104027	3.633	177.336	19.9911	1.11136	.14377	.001	.14374	-.44
104026	3.631	176.842	20.0235	.99599	.14425	.001	.14429	-.49
104025	3.627	176.442	20.0496	.88726	.14469	.001	,14479	-.49
104024	12.547	177.542	20.4946	1.23321	.15410	.001	.15403	-.21
104023	12.521	177.039	20.5223	1.11153	.15447	.001	.15448	-.29
104022	12.504	176.745	20.5384	.99693	.15471	.001	.15476	-.32
104021	12.482	175.842	20.5891	.88682	.15534	.001	.15553	-.50
104020	21.832	177.961	20.9095	1.36099	.16364	.001	.16331	.10
104019	21.833	177.355	20.9409	1.23371	.16400	.001	.16396	.08
104018	21.834	176.749	20.9723	1.11164	.16426	.001	,16432	-.12
104017	21.830	176.392	20.9906	.99494	.16398	.001	.16409	-.50
104015	31.047	178.082	21.2691	1.48929	.17203	0.000	.17187	.41
104016	31.043	177.613	21.2912	1.35836	.17290	0.000	.17282	.67
104014	31.042	176.997	21.3204	1.22807	.17267	.001	.17269	-.20
104013	31.029	176.532	21.3420	1.10342	.17183	.001	.17192	-.53
104012	40.142	177.875	21.5890	1.49279	.18057	.001	.18044	1.00
104010	40.123	177.687	21.5968	1.24014	.18262	.002	.18252	2.03
104011	40.132	177.525	21.6042	1.35796	.18047	.001	.18040	-.77
104009	40.094	176.374	21.6537	1.10414	.17987	.001	,17999	-.11
104008	49.285	177.584	21.8745	1.49146	.18763	.001	.18755	1.04
104007	49.276	177.241	21.8876	1.35668	.18773	0.000	.18770	.95
104006	49.262	176.651	21.9125	1.22823	.18774	.001	.18782	.68
104005	49.249	176.293	21.9270	1.10707	.18794	.001	.18808	.62
104003	58.653	177.687	22.1185	1.48452	.19730	.001	.19720	2.76
104002	58.664	177.379	22.1309	1.35319	.19714	0.000	.19709	2.55
104004	58.629	176.682	22.1573	1.10411	.19901	.001	.19908	3.18
104001	58.660	176.588	22.1618	1.22479	.19468	0.000	.19477	.98

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature ot 202.3K W/m.K	Deviation from Corelation percent
105033	3.705	203.231	18.0939	1.03576	.11664	.001	.11651	.41
105031	3.703	203.075	18.1066	1.03562	.11654	.001	.11643	.19
105032	3.704	202.704	18.1375	.91736	.11727	.001	.11722	.47
105030	3.702	201.926	18.2014	.80511	.11772	.001	.11778	.13
105029	3.700	201.550	18.2319	.70242	.11848	.001	.11859	.43

105028	7.258	202.983	18.4869	1.03600	.12258	.001	.12249	.41
105027	7.257	202.523	18.5206	.91845	.12303	.001	.12300	.40
105026	7.255	201.863	18.5688	.80643	.12366	.001	.12373	.37
105025	7.254	201.501	18.5951	.70321	.12432	.001	.12444	.61
105024	14.176	203.261	19.0448	1.16225	.13126	.001	.13112	.04
105023	14.175	202.761	19.0763	1.03580	.13178	.001	.13172	.09
105022	14.170	202.155	19.1139	.91735	.13220	.001	.13223	-.01
105021	14.167	201.659	19.1447	.80659	.13318	.001	.13328	.38
105020	23.401	202.973	19.6583	1.16131	.14234	.001	.14224	.21
105019	23.396	202.282	19.6956	1.03407	.14263	.001	.14264	.00
105018	23.394	201.783	19.7226	.91578	.14306	.001	.14315	.00
105017	23.392	201.227	19.7527	.80444	.14336	.001	.14354	-.12
105016	32.243	203.209	20.1072	1.29418	.15075	.001	.15061	.05
105015	32.234	202.598	20.1367	1.16013	.15177	.001	.15173	.40
105014	32.228	202.089	20.1613	1.03375	.15158	.001	.15162	.01
105013	32.221	201.599	20.1849	.91581	.15207	.001	.15219	.08
105012	41.242	202.942	20.5144	1.29408	.15961	.001	.15951	.44
105011	41.236	202.418	20.5376	1.16047	.16045	0.000	.16044	.72
105010	41.225	202.044	20.5540	1.03411	.16039	.001	.16044	.51
105009	41.218	201.373	20.5836	.91502	.16029	.001	.16045	.12
105008	50.240	203.153	20.8449	1.42849	.16712	.001	.16698	.67
105007	50.230	202.842	20.8575	1.29041	.16761	.001	.16752	.83
105006	50.223	202.186	20.8845	1.15658	.16779	.001	.16782	.65
105005	50.217	201.911	20.8957	1.03277	.16834	.001	.16841	.85
105004	58.950	203.016	21.1392	1.42961	.17482	.001	.17470	1.30
105003	58.950	202.466	21.1606	1.28772	.17462	.001	.17460	.96
105002	58.949	202.094	21.1750	1.15590	.17457	.001	.17461	.78
105001	58.956	201.731	21.1893	1.03138	.17582	.001	.17593	1.34

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Therrrl Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 231.6K W/m.K	Deviation from Coreiation percent
102104	.254	232.026	.1348	.12842	.01848	.001	.01843	1.58
102103	.254	230.961	.1357	.10632	.01835	.002	.01841	1.47
102102	.254	230.129	.1362	.09638	.01827	.002	.01842	1.50
102101	.254	229.289	.1367	.06854	.01816	.003	.01840	1.37
102105	.254	228.553	.1370	.05286	.01801	.005	.01832	.97
102100	.757	232.315	.4229	.15251	.01918	.001	.01910	.73
102099	.757	231.274	.4256	.12840	.01922	.001	.01925	1.46
102098	.757	230.323	.4278	.10627	.01881	.002	.01894	-.19
102097	.758	229.507	.4300	.08639	.01902	.002	.01924	1.31
102096	.758	228.925	.4316	.06858	.01877	.003	.01905	.30
102095	1.127	231.803	.6600	.15197	.01988	.001	.01985	.95
102094	1.128	230.825	.6643	.12792	.01970	.002	.01978	.50
102093	1.129	230.064	.6683	.10601	.01945	.002	.01961	-.43
102092	1.130	229.455	.6717	.08618	.01951	.003	.01973	.15
106032	5.906	233.130	15.4845	.81903	.09147	.001	.09125	2.39
106031	5.905	232.435	15.5716	.70635	.09191	.001	.09179	2.09
106030	5.904	231.797	15.6504	.60218	.09250	.001	.09247	2.01
106029	5.902	231.229	15.7188	.50657	.09301	.001	.09306	1.93
106028	11.140	232.796	16.6053	.81909	.10155	.001	.10137	.67
106027	11.139	232.085	16.6650	.70628	.10213	.001	.10205	.65
106026	11.136	231.554	16.7091	.60241	.10286	.001	.10286	.93
106025	11.136	231.097	16.7471	.50681	.10341	.001	.10348	1.08
106024	16.611	233.165	17.2892	.94054	.11013	.001	.10988	.66
106023	16.611	232.487	17.3361	.81914	.11031	.001	.11017	.36
106022	16.607	231.909	17.3755	.70664	.11068	.001	.11063	.30
106021	16.608	231.365	17.4131	.60250	.11101	.001	.11104	.21
106020	25.127	232.750	18.1130	.94027	.12111	.001	.12092	.14
106019	25.129	232.177	18.1459	.81923	.12149	.001	.12139	.12
106018	25.126	231.591	18.1790	.70643	.12188	.001	.12188	.11
106017	25.125	231.049	18.2098	.60245	.12218	.001	.12226	.04
106015	34.095	233.080	18.7306	1.06799	.13078	.001	.13053	.05
106016	34.095	232.471	18.7610	.93926	.13098	.001	.13083	-.10
106014	34.084	231.872	18.7902	.81768	.13146	.001	.13141	-.03
106013	34.086	231.308	18.8184	.70529	.13195	.001	.13199	.06
106012	42.991	232.742	19.2563	1.06674	.13980	.001	.13960	.10
106011	42.991	231.996	19.2899	.93725	.14007	.001	.14000	-.05
106009	42.984	231.611	19.3068	.81686	.14060	.001	.14059	.16
106010	42.991	231.354	19.3187	.70465	.14001	.002	.14005	-.38
106008	51.850	233.092	19.6684	1.20363	.14746	.001	.14719	.12
106007	51.840	232.535	19.6910	1.06585	.14803	.001	.14786	.28
106006	51.831	231.930	19.7156	.93685	.14840	.001	.14834	.29
106005	51.825	231.506	19.7328	.81632	.14853	.001	.14854	.21
106003	61.301	232.911	20.0672	1.20412	.15690	.001	.15666	1.22
106002	61.300	232.345	20.0880	1.06611	.15619	.001	.15605	.57
106001	61.298	231.852	20.1076	.93759	.15654	.001	.15649	.60
106004	61.305	231.302	20.1289	.81724	.15694	.001	.15699	.64

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 240.3K W/m.K	Deviation from Correlation percent
102091	.321	242.999	.1630	.15912	.01986	.001	.01956	2.04
102090	.321	241.859	.1640	.13397	.01979	.002	.01962	2.31
102089	.321	240.866	.1647	.11098	.01962	.002	.01956	2.00
102088	.321	239.863	.1655	.09012	.01966	.003	.01971	2.74
102087	.321	239.204	.1660	.07156	.01944	.004	.01956	2.00
102086	.724	242.196	.3829	.15897	.02025	.003	.02004	1.26
102085	.724	241.208	.3848	.13381	.02017	.002	.02007	1.38
102084	.724	240.354	.3865	.11094	.02015	.003	.02015	1.72
102083	.724	239.533	.3881	.09015	.01998	.003	.02007	1.30
102082	.725	238.821	.3898	.07156	.01991	.003	.02008	1.32
102081	.993	241.998	.5391	.15913	.02055	.001	.02036	.57
102080	.995	240.998	.5432	.13393	.02051	.001	.02044	.36
102079	.996	240.201	.5462	.11099	.02042	.002	.02043	.80
102078	.996	239.670	.5483	.09030	.02030	.002	.02037	.47
102077	.997	238.658	.5518	.07161	.02033	.003	.02051	1.11
102074	1.440	241.644	.8216	.15878	.02134	.001	.02119	.41
102073	1.441	241.011	.8256	.13391	.02131	.001	.02123	.54
102072	1.441	240.858	.8269	.13334	.02121	.003	.02115	.13
102071	1.443	239.899	.8331	.11047	.02123	.002	.02128	.63
102076	1.439	239.355	.8334	.09007	.02110	.002	.02121	.30
102075	1.440	238.780	.8370	.07152	.02103	.004	.02120	.22
102070	1.446	239.446	.8377	.09009	.02150	.003	.02160	2.04
102068	1.729	240.787	1.0277	.13401	.02205	.002	.02200	1.09
102065	1.742	240.156	1.0423	.11103	.02202	.002	.02204	1.05
102067	1.731	238.854	1.0442	.07169	.02204	.006	.02220	1.75
102066	1.736	239.211	1.0446	.09008	.02178	.003	.02190	.40

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 250.2K W/m.K	Deviation from Correlation percent
102037	.329	251.829	.1608	.14018	.02049	.002	.02030	.11
102038	.329	250.779	.1615	.11630	.02049	.001	.02042	.70
102039	.329	249.929	.1621	.09456	.02018	.004	.02021	-.35
102040	.329	249.098	.1627	.07508	.02012	.004	.02025	-.18
102036	.980	251.055	.5070	.13990	.02169	.002	.02159	1.46
102035	.980	250.279	.5090	.11597	.02132	.002	.02131	.14
102034	.980	249.488	.5111	.09430	.02117	.002	.02125	-.16
102033	.981	248.790	.5131	.07480	.02135	.005	.02151	1.03
102031	1.469	251.301	.7933	.15641	.02215	.002	.02202	-.54
102030	1.470	250.686	.7966	.14010	.02199	.001	.02193	-.99
102029	1.471	249.890	.8010	.11605	.02194	.002	.02198	-.85
102032	1.469	249.208	.8029	.09448	.02181	.002	.02193	-1.11
102027	1.945	251.064	1.1034	.16604	.02297	.001	.02287	-1.13
102026	1.944	250.397	1.1082	.13984	.02274	.002	.02272	-1.88
102028	1.936	248.895	1.1137	.09424	.02275	.003	.02290	-1.14
102025	1.955	249.684	1.1214	.11602	.02294	.002	.02300	-.81
102024	2.427	251.623	1.4498	.19456	.02446	.002	.02429	-.05
102023	2.427	250.606	1.4618	.16601	.02430	.003	.02425	-.39
102022	2.426	250.142	1.4671	.13987	.02397	.003	.02398	-1.62
102021	2.426	249.239	1.4782	.11589	.02429	.003	.02440	-.02

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 260.3K W/m.K	Deviation from Correlation percent
102064	.295	261.833	.1381	.14591	.02185	.002	.02166	1.11
102063	.295	260.894	.1386	.12098	.02181	.003	.02173	1.44
102062	.295	259.946	.1393	.09830	.02160	.002	.02164	1.01
102061	.295	259.442	.1396	.07813	.02155	.003	.02165	1.06
102059	1.032	260.944	.5105	.14599	.02248	.004	.02240	-.41
102058	1.032	260.059	.5129	.12089	.02259	.002	.02261	.53
102057	1.032	259.252	.5149	.09827	.02250	.002	.02262	.54
102060	1.031	258.692	.5155	.07822	.02252	.003	.02271	.92
102055	1.648	261.413	.8538	.17315	.02358	.001	.02344	-.40
102054	1.649	260.366	.8592	.14596	.02340	.002	.02339	-.69
102053	1.650	259.761	.8625	.12094	.02329	.002	.02335	-.89
102056	1.647	259.097	.8645	.09842	.02342	.002	.02356	-.01
102052	2.243	261.838	1.2213	.20294	.02463	.001	.02444	-1.18
102051	2.246	260.965	1.2301	.17322	.02452	.002	.02443	-1.31
102050	2.249	260.135	1.2386	.14597	.02441	.002	.02443	-1.46
102049	2.254	259.454	1.2476	.12084	.02440	.002	.02450	-1.28
102047	2.918	261.353	1.7074	.20300	.02640	.002	.02627	-.58
102046	2.921	260.383	1.7230	.17333	.02633	.002	.02632	-.71
102045	2.922	259.751	1.7335	.14588	.02605	.002	.02611	-1.64
102048	2.914	259.238	1.7344	.12101	.02614	.002	.02627	-1.06
102043	3.518	261.367	2.2144	.23482	.02861	.002	.02847	.10
102042	3.518	260.687	2.2304	.20265	.02829	.002	.02824	-.97
102041	3.518	259.991	2.2469	.17317	.02826	.003	.02829	-1.02
102044	3.518	259.421	2.2604	.14590	.02785	.004	.02795	-2.45

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 265.1K W/m.K	Deviation from Correlation percent
108030	.322	267.357	.1477	.14932	.02248	.002	.02224	1.02
108029	.322	266.293	.1483	.12372	.02246	.005	.02233	1.45
108028	.322	265.485	.1490	.10057	.02218	.002	.02214	.59
108027	.323	264.601	.1497	.07982	.02214	.003	.02220	.83
108025	.811	266.656	.3849	.14917	.02301	.002	.02285	.76
108024	.811	265.855	.3862	.12375	.02288	.002	.02280	.55
108023	.811	265.087	.3877	.10063	.02279	.002	.02280	.50
108026	.811	264.273	.3888	.07988	.02260	.003	.02269	.02
108022	1.534	267.124	.7538	.17718	.02396	.001	.02376	-.11
108021	1.534	266.261	.7676	.14929	.02390	.002	.02379	-.04
108020	1.535	265.426	.7713	.12378	.02377	.002	.02374	-.29
108019	1.536	264.614	.7750	.10058	.02371	.003	.02375	-.26
108018	2.178	266.597	1.1441	.17693	.02456	.003	.02443	-2.25
108017	2.178	265.798	1.1497	.14903	.02472	.002	.02466	-1.36
108016	2.178	265.216	1.1540	.12376	.02436	.003	.02435	-2.70
108015	2.179	264.461	1.1600	.10074	.02436	.003	.02442	-2.51
108014	2.201	265.142	1.1694	.12359	.02473	.002	.02473	-1.34
108012	2.934	266.471	1.6521	.20719	.02636	.002	.02626	-1.70
108011	2.934	265.957	1.6589	.17582	.02637	.002	.02631	-1.61
108010	2.937	265.469	1.6673	.14911	.02615	.003	.02613	-2.44
108009	2.942	264.520	1.6827	.12362	.02635	.005	.02639	-1.62
108007	3.711	266.600	2.2717	.23994	.02901	.002	.02894	-.50
108006	3.714	265.946	2.2886	.20726	.02865	.003	.02862	-1.89
108005	3.715	265.377	2.3026	.17696	.02878	.002	.02877	-1.54
108008	3.709	264.873	2.3092	.14914	.02867	.003	.02868	-1.96
108002	4.407	266.582	2.9619	.27450	.03232	.002	.03231	.50
108001	4.407	265.907	2.9893	.23956	.03236	.002	.03236	.24
108003	4.406	265.661	2.9977	.20709	.03217	.003	.03217	-.47
108004	4.405	265.024	3.0238	.17689	.03202	.004	.03202	-1.35
107059	7.045	262.399	9.8751	.14866	.07653	.054	.07540	6.37
107057	7.046	262.315	9.9056	.12335	.07845	.064	.07733	8.62
107056	7.045	262.206	9.9440	.10029	.08237	.086	.08128	12.95
107053	7.257	263.496	9.9786	.31206	.07095	.014	.07010	-1.03
107058	7.045	261.999	10.0167	.07962	.08236	.146	.08131	12.79
107052	7.257	263.195	10.0787	.27463	.07239	.021	.07139	.49
107049	7.398	264.065	10.0869	.39410	.06967	.011	.06914	-2.76
107045	7.391	263.720	10.1833	.35161	.07109	.015	.07039	-1.21
107051	7.257	262.817	10.2035	.23940	.07319	.026	.07207	1.09
107050	7.257	262.786	10.2136	.20679	.07505	.032	.07394	3.56
107054	7.257	262.704	10.2397	.17698	.07553	.042	.07444	4.14
107055	7.257	262.621	10.2664	.14890	.08022	.055	.07915	9.78
107044	7.392	263.398	10.2856	.31183	.07168	.017	.07083	-.87
107046	7.391	263.249	10.3306	.27466	.07315	.019	.07223	.97
107047	7.391	263.055	10.3913	.23984	.07412	.025	.07311	2.01
107048	7.391	262.817	10.4659	.20686	.07496	.032	.07391	2.89
107042	7.779	264.668	10.5939	.48508	.07066	.009	.07046	-2.18
107041	7.779	264.374	10.6756	.43823	.07103	.010	.07071	-2.02
107036	7.982	265.346	10.7235	.58660	.07061	.006	.07069	-2.16
107040	7.779	264.050	10.7649	.39368	.07233	.011	.07188	-.57
107038	7.981	265.063	10.7965	.53458	.07057	.008	.07054	-2.55
107039	7.779	263.845	10.8213	.35145	.07308	.015	.07255	.23
107035	7.981	264.725	10.8841	.48521	.07140	.009	.07124	-1.75
107043	7.778	263.387	10.9456	.31178	.07225	.017	.07154	-1.46
107034	7.981	264.156	11.0310	.39388	.07218	.010	.07181	-1.28
107037	7.981	263.797	11.1230	.35153	.07245	.015	.07196	-1.29
107033	8.754	266.055	11.4965	.63966	.07204	.002	.07229	-1.71
107032	8.754	265.634	11.5848	.58783	.07250	.002	.07263	-1.46
107031	8.756	265.162	11.6844	.53458	.07237	.002	.07238	-2.09
107030	8.757	264.569	11.8065	.48609	.07260	.002	.07245	-2.32
107029	8.757	264.556	11.8090	.43822	.07233	.004	.07218	-2.72
107028	10.240	266.433	12.5687	.69714	.07530	.002	.07547	-.82
107027	10.240	266.115	12.6173	.64048	.07520	.001	.07532	-1.22
107026	10.240	265.653	12.6876	.58648	.07532	.001	.07538	-1.44
107025	10.239	265.154	12.7621	.48553	.07606	.001	.07606	-.87
107024	12.761	267.175	13.6121	.81811	.08069	.001	.08071	.43
107023	12.762	266.284	13.7125	.69736	.08069	.001	.08070	-.24
107022	12.760	265.645	13.7830	.58671	.08130	.001	.08130	.03
107021	12.761	264.808	13.8754	.48530	.08143	.001	.08143	-.45
107020	16.768	267.684	14.6637	.94540	.08788	.001	.08770	.76
107019	16.768	266.860	14.7335	.81535	.08825	.001	.08812	.63
107018	16.769	266.125	14.7959	.69490	.08814	.001	.08807	.02
107017	16.771	265.494	14.8492	.58560	.08952	.001	.08949	1.14
107016	22.827	267.293	15.7459	.94637	.09743	.001	.09716	.64
107015	22.825	266.555	15.7946	.81668	.09757	.001	.09739	.38
107014	22.830	265.828	15.8433	.69642	.09801	.001	.09792	.41
107013	22.829	265.155	15.8876	.58596	.09818	.001	.09818	.21
107012	31.587	267.539	16.7467	1.08669	.10845	.001	.10808	.38
107011	31.584	266.918	16.7799	.94564	.10842	.001	.10815	.06
107010	31.586	265.080	16.8253	.81735	.10897	.001	.10882	.17
107009	31.586	265.365	16.8637	.69662	.10941	.001	.10938	.24
107008	44.682	266.853	17.8265	1.08644	.12218	.001	.12188	-.24

107007	44.675	266.103	17.8595	.94672	.12265	.001	.12248	-.15
107006	44.680	265.476	17.8878	.81704	.12312	.001	.12306	-.02
107005	44.679	264.903	17.9133	.69633	.12333	.001	.12337	-.07
107004	61.047	267.083	18.7492	1.23618	.13724	.001	.13688	.13
107003	61.058	266.351	18.7768	1.08609	.13753	.001	.13731	.10
107002	61.077	265.603	18.8062	.94627	.13762	.001	.13753	-.10
107001	61.069	264.977	18.8298	.81626	.13805	.001	.13808	.01

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 269.3K W/m.K	Deviation from Correlation percent
98258	.425	272.605	.1921	.15236	.02308	.001	.02269	.44
98257	.425	271.669	.1926	.12614	.02292	.002	.02264	.22
98256	.424	270.755	.1931	.10260	.02277	.002	.02260	.02
98255	.424	269.946	.1938	.08151	.02274	.003	.02267	.29
98149	.869	271.166	.4061	.15138	.02342	.001	.02321	.10
98150	.869	270.310	.4077	.12553	.02326	.002	.02315	-.19
98151	.869	269.464	.4092	.10202	.02321	.002	.02319	-.01
98152	.869	268.731	.4105	.08107	.02303	.003	.02309	-.45
98254	.942	272.980	.4384	.18030	.02388	.001	.02346	.78
98253	.941	272.033	.4400	.15188	.02374	.002	.02343	.63
98252	.941	271.369	.4411	.12584	.02344	.002	.02321	-.34
98251	.941	270.411	.4430	.10229	.02340	.002	.02328	-.06
98250	2.010	273.090	1.0047	.21138	.02528	.001	.02488	-.23
98145	1.989	270.328	1.0073	.15126	.02459	.001	.02448	-1.88
98146	1.987	269.639	1.0102	.12554	.02454	.002	.02451	-1.83
98249	2.011	272.162	1.0104	.18053	.02516	.001	.02486	-.38
98147	1.985	269.078	1.0125	.10213	.02455	.002	.02457	-1.58
98248	2.013	271.366	1.0155	.15194	.02499	.002	.02478	-.79
98148	1.984	268.431	1.0155	.08107	.02432	.003	.02441	-2.30
98247	2.014	270.614	1.0205	.12598	.02507	.004	.02493	-.20
98246	2.797	272.468	1.4915	.21135	.02663	.002	.02633	-.62
98245	2.798	271.695	1.4999	.18037	.02661	.001	.02639	-.51
98141	2.783	270.035	1.5070	.15132	.02615	.002	.02608	-1.77
98244	2.799	270.725	1.5106	.15198	.02656	.002	.02643	-.48
98142	2.780	269.292	1.5120	.12549	.02594	.002	.02594	-2.39
98243	2.802	270.286	1.5168	.12578	.02629	.002	.02620	-1.44
98143	2.777	268.625	1.5171	.10192	.02574	.002	.02580	-3.01
98144	2.775	269.214	1.5201	.08100	.02570	.004	.02580	-3.07
98242	3.430	271.957	1.9435	.21140	.02816	.002	.02794	-.45
98241	3.432	271.262	1.9554	.18049	.02810	.002	.02794	-.61
98240	3.434	270.588	1.9680	.15192	.02789	.002	.02779	-1.33
98239	3.438	270.075	1.9794	.12615	.02781	.002	.02775	-1.63
98137	3.444	269.675	1.9906	.15143	.02779	.002	.02776	-1.73
98138	3.444	268.996	2.0019	.12553	.02748	.005	.02750	-2.84
98139	3.443	268.369	2.0115	.10213	.02760	.003	.02767	-2.36
98140	3.443	267.981	2.0182	.08107	.02761	.004	.02770	-2.31
98132	3.972	271.268	2.3952	.24285	.03011	.002	.02998	.62
98238	4.037	272.359	2.4258	.24462	.03016	.002	.02996	.13
98133	3.972	269.797	2.4300	.17914	.02994	.002	.02991	-.10
98237	4.038	271.524	2.4465	.21131	.03024	.003	.03010	.32
98134	3.972	268.672	2.4578	.12510	.02964	.002	.02967	-1.27
98236	4.040	270.832	2.4652	.18033	.02992	.003	.02983	-.85
98135	3.972	268.123	2.4718	.10170	.02947	.004	.02953	-1.95
98136	3.972	267.669	2.4836	.08077	.02962	.004	.02970	-1.53
98235	4.041	270.053	2.4859	.15177	.03015	.003	.03011	-.20
98234	4.478	272.358	2.8325	.28182	.03211	.002	.03197	1.03
98233	4.479	271.721	2.8539	.24590	.03201	.002	.03190	.53
98232	4.480	270.942	2.8810	.21206	.03182	.003	.03175	-.31
98231	4.482	270.312	2.9045	.18092	.03162	.004	.03158	-1.19
98128	4.536	270.479	2.9550	.24328	.03341	.003	.03337	3.55
98129	4.535	269.839	2.9785	.21006	.03362	.003	.03360	3.90
98130	4.536	269.320	2.9981	.17940	.03354	.003	.03354	3.46
98131	4.536	268.736	3.0207	.15116	.03369	.003	.03370	3.62
98227	4.964	272.284	3.3509	.31913	.03480	.006	.03474	2.01
98124	4.923	270.732	3.3770	.27872	.03565	.003	.03563	4.09
98125	4.923	270.260	3.4003	.24335	.03573	.003	.03572	4.01
98228	4.963	270.946	3.4144	.24516	.03427	.010	.03425	-.31
98126	4.923	269.581	3.4350	.21019	.03585	.003	.03585	3.87
98229	4.963	270.495	3.4369	.21205	.03471	.003	.03470	.67
98230	4.962	270.046	3.4586	.18105	.03463	.005	.03463	.14
98127	4.923	269.081	3.4614	.17932	.03566	.004	.03566	2.99
98120	5.083	270.494	3.5872	.27682	.03666	.004	.03666	3.91
98121	5.083	269.952	3.6183	.24343	.03649	.004	.03649	3.03
98122	5.083	269.323	3.6559	.21008	.03656	.003	.03656	2.67
98123	5.083	268.979	3.6770	.17948	.03652	.002	.03651	2.25
98223	5.264	271.128	3.7857	.28049	.03737	.004	.03740	3.02
98224	5.263	270.724	3.8097	.24511	.03533	.019	.03535	-2.94
98225	5.262	270.210	3.8423	.21185	.03672	.005	.03674	.47
98226	5.261	269.839	3.8660	.18103	.03661	.009	.03662	-.19
98116	5.549	270.144	4.2749	.27840	.03975	.004	.03980	2.07
98117	5.549	269.492	4.3336	.24301	.04034	.006	.04035	2.58
98219	5.588	270.145	4.3367	.24503	.03971	.004	.03976	1.09
98220	5.587	269.676	4.3790	.21157	.04030	.003	.04033	1.86

98118	5.549	268.983	4.3817	.20991	.03991	.004	.03989	.74
98119	5.549	268.555	4.4239	.17941	.03983	.004	.03977	-.17
98221	5.587	269.178	4.4259	.18072	.04007	.004	.04006	.53
98222	5.586	268.937	4.4492	.15246	.04042	.005	.04039	1.00
98112	5.808	269.744	4.7555	.27816	.04094	.004	.04098	-2.06
98113	5.808	269.032	4.8406	.24283	.04169	.005	.04166	-1.66
98114	5.808	268.498	4.9084	.20980	.04174	.002	.04164	-2.71
98218	5.873	269.482	4.9090	.21159	.04301	.003	.04303	.60
98115	5.808	268.194	4.9487	.17927	.04199	.005	.04185	-2.81
98217	5.873	269.052	4.9652	.18071	.04303	.006	.04300	-.29
98216	5.874	268.579	5.0296	.15219	.04342	.005	.04332	-.48
98215	5.874	268.311	5.0678	.12618	.04402	.004	.04388	.25
98110	5.984	269.742	5.0917	.31612	.04330	.003	.04336	-1.30
98109	5.984	269.255	5.1598	.27805	.04323	.003	.04322	-2.61
98211	6.042	269.124	5.3009	.21124	.04462	.006	.04459	-1.49
98111	5.984	268.136	5.3295	.17925	.04413	.003	.04393	-3.42
98212	6.042	268.795	5.3514	.18065	.04493	.006	.04485	-1.63
98213	6.042	268.530	5.3930	.15221	.04612	.003	.04599	.31
98214	6.041	268.311	5.4282	.12630	.04581	.006	.04564	-.96
98210	6.233	268.681	5.8034	.18067	.04855	.004	.04842	-.20
98209	6.234	268.474	5.8448	.15219	.04934	.003	.04916	.76
98103	6.232	268.222	5.8891	.20979	.04707	.004	.04683	-4.80
98208	6.234	268.062	5.9261	.12622	.05021	.005	.04993	1.21
98104	6.232	267.902	5.9525	.17919	.04752	.004	.04719	-4.87
98207	6.234	267.845	5.9711	.10255	.05053	.005	.05019	1.14
98105	6.232	267.660	6.0027	.15108	.04770	.006	.04731	-5.32
98106	6.232	267.437	6.0500	.12528	.04949	.005	.04903	-2.25
98206	6.435	268.599	6.3099	.18090	.05104	.009	.05086	-1.90
98099	6.396	268.015	6.3425	.20995	.05054	.004	.05019	-3.67
98205	6.435	268.343	6.3670	.15245	.05315	.004	.05289	1.32
98204	6.435	267.994	6.4473	.12612	.05396	.008	.05360	1.64
98100	6.396	267.547	6.4515	.17926	.05117	.003	.05067	-4.09
98101	6.396	267.500	6.4619	.15109	.05176	.004	.05124	-3.06
98203	6.436	267.821	6.4899	.10262	.05359	.011	.05317	.34
98102	6.396	267.248	6.5229	.12534	.05257	.004	.05196	-2.39
98095	6.493	268.284	6.5273	.24224	.05237	.006	.05208	-2.20
98094	6.493	268.182	6.5520	.20943	.05237	.004	.05205	-2.57
98202	6.583	268.745	6.6480	.21114	.05466	.004	.05450	.92
98096	6.493	267.676	6.6750	.17874	.05366	.004	.05317	-1.89
98201	6.583	268.533	6.6987	.18052	.05502	.004	.05479	.86
98097	6.493	267.422	6.7390	.15051	.05416	.004	.05357	-1.87
98200	6.583	268.219	6.7758	.15203	.05516	.009	.05483	.04
98098	6.493	267.233	6.7874	.12484	.05590	.005	.05524	.65
98199	6.583	268.057	6.8172	.12626	.05679	.006	.05640	2.37
98198	6.799	268.805	7.1829	.21150	.05830	.004	.05814	1.44
98197	6.799	268.430	7.2818	.18059	.05869	.004	.05840	.87
98196	6.800	268.171	7.3525	.15221	.05984	.005	.05945	1.93
98194	6.979	268.578	7.6984	.21131	.06118	.003	.06092	1.11
98193	6.979	268.540	7.7090	.18064	.06142	.004	.06115	1.38
98089	6.888	267.591	7.7450	.20994	.06044	.004	.05979	-1.17
98192	6.979	268.278	7.7824	.15217	.06242	.005	.06204	2.17
98191	6.979	268.142	7.8219	.12627	.06389	.005	.06346	4.02
98090	6.888	267.287	7.8338	.17912	.06165	.003	.06087	-.16
98091	6.887	267.114	7.8843	.15109	.06320	.005	.06234	1.78
98187	7.157	269.250	7.9473	.15182	.06483	.008	.06481	5.02
98092	6.887	266.858	7.9613	.12518	.06385	.005	.06287	1.98
98189	7.156	269.117	7.9833	.21013	.06385	.004	.06378	3.70
98093	6.887	266.744	7.9959	.10188	.06611	.007	.06508	5.03
98188	7.157	269.036	8.0067	.17966	.06483	.005	.06473	4.44
98085	7.017	267.673	8.0524	.21028	.06278	.005	.06215	.09
98086	7.017	267.316	8.1587	.17935	.06258	.004	.06179	-1.33
98190	7.156	268.389	8.1895	.12527	.06459	.012	.06424	2.30
98087	7.017	267.060	8.2364	.15116	.06432	.004	.06341	.67
98088	7.017	266.848	8.3014	.12538	.06563	.004	.06463	2.06
98081	7.145	267.509	8.4219	.20976	.06437	.005	.06365	-.30
98082	7.145	267.213	8.5118	.17910	.06504	.005	.06419	-.08
98185	7.352	268.734	8.5494	.24485	.06223	.007	.06201	-3.86
98083	7.145	267.072	8.5540	.15085	.06635	.005	.06544	1.54
98084	7.145	266.921	8.6005	.12519	.06731	.007	.06633	2.57
98183	7.353	268.356	8.6614	.18058	.06362	.008	.06325	-2.58
98076	7.310	267.998	8.6699	.27801	.06509	.005	.06458	-.53
98184	7.352	268.302	8.6763	.21154	.06419	.006	.06380	-1.80
98077	7.310	267.730	8.7498	.24279	.06549	.005	.06487	-.59
98186	7.351	267.990	8.7650	.15240	.06649	.005	.06598	1.01
98078	7.310	267.400	8.8479	.20982	.06591	.004	.06515	-.76
98079	7.310	267.182	8.9140	.17919	.06762	.003	.06675	1.30
98080	7.309	267.106	8.9358	.15101	.06798	.004	.06709	1.66
98182	7.708	268.905	9.2609	.28055	.06597	.004	.06582	-1.98
98181	7.708	268.617	9.3427	.24473	.06658	.003	.06633	-1.61
98180	7.709	268.412	9.4023	.21130	.06608	.005	.06575	-2.79
98070	7.729	268.491	9.4187	.35620	.07096	.014	.07066	4.25
98071	7.729	268.245	9.4880	.31623	.07036	.008	.06997	3.04
98179	7.709	268.087	9.4945	.18020	.06825	.004	.06780	-.10
98178	7.950	269.678	9.5080	.35946	.06895	.009	.06908	1.69
98072	7.728	268.050	9.5429	.27838	.07034	.005	.06988	2.67
98177	7.951	269.445	9.5719	.31899	.06868	.008	.06873	.92

98073	7.728	267.753	9.6269	.24288	.06998	.006	.06941	1.66
98065	7.964	269.208	9.6598	.44412	.07212	.012	.07209	5.19
98074	7.727	267.500	9.6985	.20987	.06961	.004	.06895	.71
98176	7.952	268.972	9.7012	.27997	.06713	.007	.06702	-2.16
98075	7.727	267.235	9.7743	.17906	.07047	.004	.06971	1.50
98175	7.952	268.678	9.7813	.24441	.06933	.006	.06912	.63
98066	7.964	268.667	9.8052	.35530	.07019	.005	.06997	1.75
98067	7.964	268.279	9.9098	.31629	.07064	.007	.07029	1.81
98174	8.330	270.307	9.9802	.44813	.07117	.009	.07148	3.19
98069	7.964	267.974	9.9909	.27833	.06995	.004	.06950	.39
98173	8.331	269.986	10.0605	.40233	.06954	.006	.06975	.51
98069	7.964	267.716	10.0605	.24279	.07020	.004	.06966	.36
98051	8.248	269.165	10.1394	.44433	.06996	.007	.06992	.47
98172	8.332	269.542	10.1718	.35904	.06716	.008	.06723	-3.51
98171	8.332	269.276	10.2370	.31834	.06964	.004	.06963	-.26
98062	8.248	268.772	10.2379	.39925	.06998	.005	.06982	-.00
98064	8.249	268.304	10.3568	.31644	.07018	.003	.06987	-.30
98169	8.719	270.665	10.4437	.49481	.07025	.005	.07062	.48
98268	8.720	270.375	10.5107	.44769	.07056	.005	.07085	.59
98057	8.671	269.685	10.6042	.49206	.07044	.005	.07054	-.12
98267	8.720	269.717	10.6585	.40063	.06907	.004	.06918	-2.26
98170	8.719	269.699	10.6611	.35850	.06901	.007	.06911	-2.37
98058	8.671	269.052	10.7477	.39946	.07012	.004	.07005	-1.26
98167	9.137	271.396	10.7850	.59969	.07042	.007	.07090	-.15
98059	8.671	268.288	10.9198	.31643	.07055	.002	.07029	-1.43
98166	9.137	270.568	10.9561	.49578	.07026	.004	.07054	-1.18
98060	8.671	268.109	10.9598	.27866	.07083	.003	.07053	-1.21
98168	9.135	270.267	11.0156	.44842	.07019	.003	.07040	-1.56
98165	9.139	269.786	11.1174	.40243	.07081	.008	.07091	-1.13
98053	9.142	269.610	11.1561	.49198	.07100	.004	.07107	-1.04
98164	9.762	272.421	11.2094	.70962	.06972	.009	.07028	-2.33
98054	9.144	268.903	11.3009	.39897	.07119	.003	.07111	-1.42
98163	9.762	271.489	11.3792	.59638	.07086	.010	.07124	-1.46
98055	9.144	268.320	11.4175	.31608	.07157	.002	.07137	-1.42
98056	9.144	268.097	11.4613	.27811	.07156	.002	.07132	-1.63
98049	9.723	269.641	11.6788	.49188	.07309	.002	.07314	.19
98161	9.763	269.762	11.6896	.39947	.07065	.008	.07072	-3.26
98160	10.526	272.799	11.7549	.71177	.07444	.005	.07488	2.25
98050	9.721	269.049	11.7824	.39941	.07283	.002	.07279	-.65
98159	10.529	272.049	11.8758	.59960	.07504	.005	.07537	2.47
98051	9.721	268.406	11.8955	.31618	.07250	.002	.07237	-1.65
98052	9.722	268.145	11.9413	.27824	.07333	.005	.07316	-.72
98158	10.527	271.045	12.0333	.49585	.07399	.002	.07418	.33
98045	10.430	270.388	12.0719	.59504	.07399	.002	.07411	.08
98157	10.530	270.099	12.1824	.40182	.07497	.002	.07505	.90
98046	10.430	269.639	12.1895	.49251	.07409	.002	.07413	-.37
98047	10.430	268.922	12.3012	.39964	.07424	.002	.07420	-.74
98156	11.500	272.912	12.3434	.71159	.07631	.008	.07656	2.19
98048	10.430	268.194	12.4126	.31666	.07409	.002	.07399	-1.52
98041	11.208	270.209	12.5611	.59475	.07565	.001	.07571	.11
98154	11.502	271.133	12.5880	.49682	.07477	.002	.07487	-1.13
98042	11.207	269.290	12.6883	.49203	.07598	.001	.07598	-.15
98153	11.505	270.198	12.7158	.40209	.07610	.002	.07615	-.07
98043	11.208	268.455	12.8034	.39940	.07615	.001	.07610	-.57
98044	11.209	267.957	12.8718	.31590	.07624	.001	.07617	-.84
98037	12.719	270.250	13.2438	.59472	.07882	.001	.07882	.45
98038	12.719	269.417	13.3408	.49231	.07945	.001	.07945	.64
98039	12.719	268.809	13.4111	.39948	.07926	.002	.07926	-.04
98040	12.722	268.212	13.4806	.31646	.07936	.002	.07937	-.36
98033	13.782	270.134	13.6374	.59485	.08106	.001	.08104	.66
98034	13.778	269.367	13.7171	.49230	.08101	.001	.08101	.06
98035	13.777	268.798	13.7765	.39975	.08130	.002	.08132	.02
98036	13.777	268.098	13.8495	.31634	.08168	.002	.08172	-.02
98032	16.108	270.735	14.2426	.70747	.08575	.001	.08565	1.61
98029	16.110	270.016	14.3077	.59470	.08550	.001	.08545	.85
98030	16.108	269.229	14.3775	.49227	.08570	.001	.08571	.57
98031	16.108	268.587	14.4347	.39940	.08572	.001	.08577	.17
98025	18.009	270.488	14.6951	.70657	.08817	.001	.08806	.52
98026	18.013	269.823	14.7497	.59503	.08871	.001	.08866	.71
98027	18.014	269.135	14.8054	.49267	.08874	.001	.08876	.31
98028	18.011	268.497	14.8561	.39983	.08927	.001	.08935	.51
98021	21.576	270.428	15.3448	.70736	.09407	.001	.09393	.81
98022	21.578	269.590	15.4037	.59515	.09418	.001	.09414	.45
98023	21.576	268.922	15.4499	.49233	.09479	.001	.09484	.72
98024	21.573	268.442	15.4827	.39968	.09449	.001	.09460	.13
98017	25.603	270.788	15.8952	.82822	.09919	.001	.09898	.38
98018	25.602	270.075	15.9391	.70643	.09955	.001	.09944	.37
98019	25.602	269.456	15.9774	.59464	.09935	.001	.09933	-.15
98020	25.602	268.829	16.0161	.49224	.10007	.002	.10014	.25
98013	31.011	270.500	16.5286	.82814	.10582	.001	.10563	-.04
98014	31.007	269.757	16.5689	.70665	.10594	.001	.10587	-.27
98015	31.007	269.071	16.6064	.59416	.10602	.002	.10606	-.52
98016	31.007	268.541	16.6353	.49234	.10683	.001	.10695	-.01
98012	35.236	270.868	16.9108	.95930	.11076	.001	.11050	.12
98009	35.229	270.304	16.9388	.82746	.11080	.001	.11054	-.08
98010	35.232	269.646	16.9725	.70569	.11113	.002	.11107	-.07

98011	35.233	269.011	17.0048	.59374	.11104	.002	.11109	-.43
98007	41.269	270.160	17.4350	.83004	.11710	.001	.11695	-.31
98006	41.269	269.409	17.4700	.70715	.11718	.001	.11716	-.55
98008	41.273	268.391	17.5176	.49327	.11784	.001	.11800	-.40
98004	46.980	270.657	17.8108	.95910	.12295	.001	.12272	.04
98001	46.975	270.115	17.8341	.82805	.12241	.001	.12227	-.61
98002	46.970	269.591	17.8566	.70545	.12331	.001	.12326	-.07
98003	46.975	268.825	17.8902	.59365	.12416	.002	.12424	.32

Run Pt.	Pressure MPa	Temperature K	Pensity mol/L	Dower W/a	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity st a Nominal Temperature ot 290.5K W/m.K	Deviation troa Coreiation percent
101144	.498	291.209	.2103	.16359	.02584	.002	.02574	1.68
101147	.498	290.315	.2110	.13559	.02553	.002	.02555	.94
101142	.498	289.483	.2120	.11030	.02537	.002	.02550	.75
101141	.499	288.880	.2126	.08764	.02511	.004	.02532	.04
101140	1.212	291.514	.5295	.19394	.02661	.001	.02647	1.24
101139	1.212	290.499	.5319	.16343	.02627	.002	.02626	.45
101138	1.213	289.689	.5340	.13545	.02622	.002	.02632	.64
131137	1.213	288.892	.5359	.11012	.02617	.003	.02638	.83
101136	2.181	290.863	1.0062	.19390	.02749	.001	.02744	.00
101135	2.182	290.020	1.0105	.16336	.02733	.002	.02739	-.23
101134	2.182	289.231	1.0144	.13540	.02734	.002	.02750	.14
101133	2.182	288.562	1.0182	.11013	.02741	.003	.02765	.66
1'1171	3.101	291.248	1.5365	.22708	.02901	.001	.02891	.11
101130	3.102	290.361	1.5150	.19391	.02897	.002	.02898	.27
101129	3.104	289.650	1.5221	.16332	.02863	.002	.02873	-.68
101132	3.100	289.078	1.5246	.13555	.02881	.002	.02898	.16
101128	3.727	291.670	1.8795	.26204	.03019	.002	.03004	.07
101127	3.728	290.789	1.8904	.22638	.03029	.001	.03025	.64
101126	3.729	290.064	1.8998	.19311	.02965	.002	.02970	-1.31
101125	3.729	289.082	1.9125	.16271	.02959	.002	.02975	-1.26
101124	4.403	292.143	2.3164	.30025	.03166	.002	.03147	.06
131123	4.405	291.543	2.3284	.26230	.03188	.002	.03176	.84
101122	4.410	290.539	2.3494	.22655	.03174	.002	.03173	.54
101121	4.416	289.830	2.3661	.19345	.03162	.302	.03169	.23
101120	5.075	291.471	2.8212	.30029	.03315	.003	.03305	-.56
101119	5.076	290.919	2.8353	.26230	.03371	.002	.03366	1.13
191118	5.077	290.165	2.8546	.22662	.03338	.002	.03341	.17
101117	5.078	289.178	2.8607	.19316	.03323	.002	.03336	-.28
101116	5.754	290.951	3.3957	.30011	.03599	.003	.03595	1.38
101115	5.755	290.239	3.4213	.26203	.03576	.002	.03578	.63
101114	5.758	289.714	3.4431	.22650	.03555	.002	.03561	-.08
101113	5.762	289.353	3.4602	.19343	.03554	.003	.03563	-.22
1'11112	6.255	290.719	3.8661	.30060	.03758	.006	.03756	.35
101111	6.256	290.102	3.4953	.26218	.03645	.007	.03648	-2.96
101110	6.258	289.291	3.9359	.22659	.03678	.005	.03686	-2.37
101109	6.261	288.815	3.961 b	.19346	.03777	.002	.03788	.08
101107	6.739	290.843	4.3479	.34178	.04108	.004	.04106	3.54
101106	6.739	290.235	4.3834	.30073	.04063	.004	.04064	2.15
101105	6.740	289.650	4.4192	.26219	.04009	.004	.04013	.48
101118	6.738	289.237	4.4415	.22686	.04041	.002	.04047	1.06
101104	7.114	291.780	4.6927	.43240	.04259	.005	.04253	3.02
101103	7.114	291.340	4.7216	.38608	.04214	.007	.04210	1.70
101101	7.114	290.269	4.7952	.34208	.04178	.006	.04179	.10
161102	7.114	289.910	4.8206	.30130	.04253	.002	.04255	1.60
191099	7.453	292.060	5.0513	.42971	.04504	.003	.04499	4.38
101097	7.453	291.558	5.0891	.34238	.04547	.004	.04544	4.90
101098	7.453	291.442	5.0980	.38379	.04404	.006	.04401	1.72
101100	7.453	290.242	5.1929	.29924	.04448	.003	.04448	1.68
101096	7.841	291.475	5.5550	.47931	.04763	.007	.04762	4.24
101095	7.841	290.833	5.6140	.43075	.04722	.006	.04722	2.77
191994	7.842	290.233	5.6709	.38474	.04691	.003	.04691	1.50
101393	7.842	289.436	5.7491	.34064	.04656	.003	.04656	-.13
101092	8.209	291.571	5.9988	.53078	.04898	.005	.04899	2.16
101091	8.210	290.988	6.0598	.47952	.04823	.005	.04824	-.04
101090	8.210	290.379	6.1246	.43070	.04846	.003	.04846	-.28
101089	8.211	289.789	6.1901	.38427	.04840	.003	.04839	-1.15
101088	8.609	291.248	6.5369	.53164	.05158	.006	.05160	1.61
101087	8.609	290.709	6.6003	.47956	.05062	.005	.05063	-.94
101086	8.610	290.105	6.6741	.43104	.05129	.003	.05129	-.42
101085	8.610	289.620	6.7343	.38403	.05082	.003	.05079	-2.01
101084	9.046	290.918	7.1312	.53212	.05400	.006	.05402	.31
101083	9.046	290.382	7.2014	.47989	.05327	.005	.05327	-1.78
101082	9.047	289.771	7.2847	.43057	.05261	.005	.05257	-3.93
101081	9.047	289.354	7.3420	.38447	.05336	.003	.05329	-3.06
101080	9.383	290.784	7.5696	.53131	.05608	.005	.05610	.09
131374	9.384	290.311	7.6358	.48038	.05628	.004	.05627	-.18
101078	9.383	289.659	7.7272	.43130	.05551	.003	.05546	-2.45
101076	9.736	291.123	7.9471	.58323	.05703	.007	.05708	-1.36
101075	9.736	290.589	8.0224	.52866	.05726	.004	.05727	-1.63
101074	9.736	290.114	8.0905	.47688	.05752	.006	.05750	-1.78
101073	9.736	289.610	8.1641	.42826	.05746	.004	.05740	-2.54
101072	10.162	291.123	8.4310	.58294	.06024	.008	.06029	.41

101071	10.162	290.590	8.5080	.52886	.06053	.005	.06054	.27
101070	10.163	289.979	8.5982	.47716	.05953	.004	.05949	-2.13
101069	10.163	289.502	8.6690	.42849	.05962	.005	.05955	-2.55
101068	10.685	291.601	8.9120	.64001	.06183	.009	.06191	-.25
101067	10.685	290.743	9.0347	.58230	.06159	.005	.06161	-1.53
101066	10.685	290.393	9.0856	.52872	.06123	.005	.06123	-2.50
101065	10.685	289.684	9.1893	.47709	.06165	.002	.06159	-2.54
101064	11.292	291.394	9.5140	.64085	.06461	.006	.06467	.46
101063	11.292	291.206	9.5401	.58466	.06316	.011	.06321	-1.99
101062	11.292	290.479	9.6421	.53010	.06355	.004	.06355	-2.02
101061	11.293	289.827	9.7351	.47832	.06339	.004	.06335	-2.86
101060	11.928	291.177	10.0702	.64110	.06528	.004	.06531	-1.56
101058	11.927	289.940	10.2364	.52889	.06514	.002	.06512	-2.74
101057	11.927	289.680	10.2717	.47722	.06558	.002	.06555	-2.25
101056	12.616	291.416	10.5361	.64124	.06721	.004	.06724	-1.02
101055	12.620	290.813	10.6152	.58461	.06735	.003	.06736	-1.23
101054	12.620	290.247	10.6873	.53002	.06801	.004	.06800	-.63
101051	13.440	290.893	11.1111	.58568	.07050	.004	.07050	.84
101047	14.318	292.271	11.4227	.64143	.07077	.010	.07075	-.42
101045	14.321	291.465	11.5131	.53104	.06994	.011	.06992	-2.09
101048	14.311	290.571	11.6074	.47806	.07000	.004	.07000	-2.50
101044	15.637	292.082	12.0383	.69859	.07563	.003	.07556	2.72
101043	15.639	291.535	12.0940	.64078	.07516	.002	.07511	1.82
101042	15.640	291.321	12.1158	.58529	.07563	.002	.07559	2.32
101041	15.640	291.174	12.1305	.53230	.07549	.002	.07546	2.06
101040	17.138	291.821	12.6170	.76395	.07528	.002	.07519	-1.34
101039	17.138	291.171	12.6762	.70268	.07711	.002	.07706	.74
101038	17.137	290.640	12.7244	.64197	.07707	.001	.07706	.41
101037	17.137	290.253	12.7596	.58550	.07667	.002	.07668	-.31
101036	17.137	289.789	12.8018	.53126	.07646	.002	.07651	-.83
101035	17.138	289.221	12.8538	.47933	.07684	.001	.07693	-.64
101034	17.137	288.875	12.8847	.43051	.07694	.002	.07706	-.69
101033	18.667	291.389	13.1226	.76402	.07976	.002	.07968	.95
101032	18.667	291.073	13.1492	.70171	.07836	.002	.07830	-.99
101031	18.667	290.401	13.2054	.64186	.07969	.001	.07969	.36
101030	18.666	289.959	13.2420	.58421	.08004	.002	.08009	.58
101029	20.959	291.316	13.7068	.76441	.08274	.001	.08264	.07
101028	20.961	290.851	13.7423	.70221	.08288	.001	.08284	.01
101027	20.962	290.212	13.7904	.64162	.08270	.001	.08273	-.52
101026	20.962	289.621	13.8349	.58459	.08320	.001	.08330	-.21
101024	23.498	291.052	14.2500	.76395	.08645	.001	.08637	-.18
101023	23.505	290.102	14.3159	.64196	.08633	.001	.08638	-.77
101022	23.508	289.558	14.3536	.58421	.08511	.002	.08523	-2.48
101021	26.556	291.393	14.7513	.83011	.09114	.001	.09101	.36
101020	26.559	290.838	14.7862	.76413	.09057	.003	.09051	-.49
101019	26.559	289.842	14.8479	.64175	.09097	.003	.09106	-.49
101017	30.192	291.764	15.2492	.89573	.09269	.005	.09249	-2.96
101016	30.192	291.054	15.2894	.82888	.09515	.002	.09506	-.59
101015	30.193	290.524	15.3196	.76328	.09583	.002	.09582	-.10
101012	34.658	291.072	15.8183	.89444	.10093	.003	.10083	-.21
101013	34.661	290.486	15.8489	.82803	.09965	.001	.09964	-1.73
101011	34.663	290.344	15.8565	.76258	.09807	.003	.09809	-3.43
101010	34.664	289.186	15.9164	.64091	.09880	.003	.09901	-3.13
101009	39.728	291.885	16.2844	1.03719	.10186	.005	.10161	-4.60
101008	39.727	290.879	16.3322	.89553	.10458	.002	.10451	-2.24
101007	39.724	289.967	16.3753	.76262	.10294	.002	.10302	-4.20
101006	39.725	289.348	16.4049	.64117	.10119	.003	.10138	-6.24
101005	39.721	288.564	16.4419	.52925	.10246	.005	.10279	-5.22
101004	46.778	291.556	16.8874	1.03659	.11055	.005	.11035	-3.05
101003	46.774	290.635	16.9272	.89719	.11380	.001	.11377	-.41
101002	46.770	289.795	16.9634	.76477	.11456	.001	.11468	-.02
101001	46.767	289.081	16.9942	.64302	.11404	.001	.11429	-.72

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Powar W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 310.9K W/m.K	Deviation from Corelation percent
99137	.478	312.807	.1870	.20392	.02870	.001	.02842	.91
99136	.478	311.860	.1876	.17180	.02856	.002	.02842	.91
99135	.479	310.863	.1886	.14254	.02831	.002	.02832	.55
99134	.479	310.025	.1891	.11587	.02808	.002	.02821	.17
99133	.479	309.233	.1898	.09204	.02811	.003	.02836	.69
99132	1.344	312.023	.5444	.20395	.02956	.001	.02940	1.14
99131	1.344	311.208	.5463	.17198	.02938	.002	.02934	.93
99130	1.344	310.263	.5484	.14248	.02930	.002	.02940	1.11
99129	1.345	309.620	.5499	.11591	.02894	.003	.02913	.20
99128	2.429	312.256	1.0275	.23970	.03068	.001	.03049	.56
99127	2.429	311.560	1.0307	.20388	.03017	.002	.03009	-.82
99126	2.427	310.787	1.0329	.17173	.02994	.003	.02996	-1.23
99125	2.427	310.474	1.0343	.14246	.02972	.002	.02979	-1.84
99124	3.416	311.889	1.5107	.23859	.03169	.002	.03175	.40
99123	3.416	311.132	1.5165	.20377	.03141	.002	.03138	-.84
99122	3.417	310.419	1.5222	.17182	.03149	.001	.03155	-.31
99119	4.327	311.505	2.0001	.23861	.03353	.002	.03345	1.26
99118	4.327	310.714	2.0092	.20383	.03307	.002	.03310	.13

99117	4.327	310.032	2.0173	.17164	.03241	.002	.03253	-1.68
99116	5.101	311.789	2.4444	.27616	.03483	.001	.03472	.98
99115	5.101	311.204	2.4537	.23841	.03426	.003	.03422	-.53
99114	5.101	310.507	2.4650	.20382	.03390	.004	.03395	-1.43
99112	5.891	311.443	2.9458	.27609	.03654	.002	.03648	1.31
99111	5.891	310.706	2.9617	.23847	.03621	.002	.03624	.51
99110	5.891	310.210	2.9725	.20378	.03526	.005	.03535	-2.10
99109	5.890	309.642	2.9843	.17177	.03488	.002	.03504	-3.11
99108	6.444	311.152	3.3249	.27604	.03692	.003	.03689	-1.11
99107	6.444	310.465	3.3431	.23848	.03812	.002	.03817	2.11
99106	6.444	309.958	3.3568	.20378	.03626	.005	.03637	-2.87
99105	6.444	309.533	3.3683	.17169	.03695	.005	.03711	-.93
99104	7.076	311.524	3.7649	.31599	.03916	.006	.03909	.48
99103	7.076	310.984	3.7826	.27639	.03967	.005	.03966	1.74
99102	7.075	310.185	3.8089	.23857	.03939	.003	.03947	1.00
99101	7.075	309.692	3.8250	.20383	.03927	.002	.03940	.68
99100	7.824	310.845	4.3639	.31642	.04177	.002	.04178	1.31
99099	7.824	310.276	4.3848	.27611	.04089	.005	.04095	-.92
99098	7.824	309.787	4.4059	.23862	.04173	.002	.04183	1.00
99097	7.824	309.211	4.4312	.20378	.04100	.006	.04115	-.88
99096	8.429	311.284	4.8291	.35985	.04390	.003	.04387	1.59
99095	8.428	310.696	4.8578	.31673	.04325	.002	.04327	-.07
99094	8.428	310.090	4.8888	.27623	.04374	.003	.04381	.86
99093	8.428	309.477	4.9208	.23845	.04299	.004	.04310	-1.08
99092	8.624	312.001	4.9528	.40610	.04385	.005	.04377	.14
99091	8.624	311.452	4.9813	.36007	.04481	.007	.04477	2.11
99090	8.624	310.730	5.0195	.31673	.04435	.005	.04436	.84
99089	8.624	310.190	5.0490	.27544	.04437	.004	.04442	.69
99088	9.311	312.096	5.5218	.45460	.04751	.002	.04744	2.59
99087	9.311	311.359	5.5672	.40579	.04742	.002	.04739	2.07
99086	9.311	310.840	5.5999	.35977	.04683	.003	.04683	.59
99085	9.311	310.242	5.6382	.31629	.04620	.006	.04624	-1.07
99083	10.047	311.847	6.1667	.45468	.04987	.002	.04980	1.36
99082	10.047	311.241	6.2105	.40595	.04941	.003	.04940	.09
99081	10.047	310.693	6.2514	.35974	.04851	.007	.04852	-2.11
99084	10.047	310.153	6.2912	.31674	.04856	.007	.04859	-2.34
99080	10.624	312.147	6.6368	.50666	.05230	.002	.05226	1.79
99079	10.625	311.643	6.6770	.45497	.05213	.002	.05211	1.14
99078	10.624	311.004	6.7277	.40614	.05229	.001	.05229	1.03
99077	10.624	310.558	6.7633	.36003	.05221	.002	.05222	.58
99076	11.180	312.056	7.1091	.50672	.05346	.003	.05344	-.15
99075	11.180	311.412	7.1636	.45491	.05399	.002	.05398	.40
99074	11.181	310.986	7.2007	.40588	.05391	.002	.05391	-.05
99073	11.181	310.255	7.2646	.36001	.05412	.002	.05413	-.19
99072	11.794	312.113	7.5009	.56076	.05627	.002	.05626	.88
99071	11.795	311.698	7.6386	.50633	.05653	.003	.05652	1.04
99070	11.795	311.175	7.6859	.45470	.05615	.002	.05615	.00
99069	11.795	310.663	7.7325	.40581	.05539	.010	.05539	-1.74
99068	12.434	311.999	8.1027	.56030	.05778	.002	.05777	-.40
99067	12.434	311.402	8.1594	.50610	.05825	.002	.05825	-.01
99066	12.434	310.991	8.1975	.45451	.05784	.005	.05784	-1.00
99065	12.434	310.286	8.2642	.40595	.05727	.015	.05727	-2.51
99064	12.994	311.778	8.5314	.55988	.05963	.002	.05963	-.40
99063	12.994	311.265	8.5797	.50573	.05983	.003	.05983	-.40
99062	12.992	310.693	8.6324	.45447	.05932	.002	.05932	-1.64
99059	13.501	311.762	8.8798	.56071	.06082	.002	.06082	-.86
99058	13.501	311.211	8.9319	.50605	.06005	.004	.06005	-2.51
99057	13.501	310.518	8.9987	.45379	.06081	.002	.06081	-1.69
99060	13.501	310.292	9.0204	.40599	.06050	.004	.06050	-2.35
99056	14.713	311.971	9.6096	.61766	.06423	.001	.06422	-.18
99055	14.713	311.542	9.6495	.56024	.06410	.001	.06409	-.62
99054	14.712	311.080	9.6925	.50629	.06413	.004	.06413	-.84
99053	14.712	310.516	9.7452	.45445	.06411	.003	.06412	-1.18
99052	15.670	311.812	10.1415	.61750	.06656	.003	.06654	.11
99051	15.671	311.153	10.2015	.55997	.06654	.001	.06653	-.26
99050	15.669	310.857	10.2277	.50603	.06625	.002	.06625	-.85
99048	16.408	311.655	10.5141	.61731	.06788	.003	.06785	-.18
99046	16.410	310.855	10.5863	.55929	.06786	.001	.06786	-.60
99045	16.412	310.140	10.6509	.45374	.06772	.002	.06775	-1.17
99044	17.846	311.655	11.1296	.61801	.07123	.002	.07119	.87
99043	17.845	311.152	11.1715	.56122	.07114	.002	.07113	.52
99042	17.845	310.578	11.2196	.50631	.07096	.002	.07098	.02
99041	17.845	310.099	11.2598	.45473	.07106	.002	.07111	-.05
99040	18.996	312.214	11.5115	.67988	.07283	.002	.07274	.62
99039	18.996	311.701	11.5524	.62026	.07357	.002	.07352	1.41
99038	18.995	311.371	11.5783	.56377	.07384	.001	.07381	1.64
99037	18.994	310.872	11.6186	.45829	.07398	.002	.07398	1.61
99036	21.036	311.758	12.1942	.67819	.07698	.001	.07690	1.60
99035	21.034	311.165	12.2375	.61813	.07712	.001	.07710	1.55
99034	21.034	310.821	12.2630	.56081	.07707	.002	.07708	1.35
99033	21.035	309.926	12.3294	.45441	.07669	.001	.07679	.51
99032	22.981	311.446	12.7329	.67740	.08006	.002	.08000	1.63
99031	22.981	311.050	12.7602	.61746	.07912	.002	.07911	.31
99030	22.982	310.587	12.7922	.55061	.07997	.002	.08001	1.19
99029	22.982	309.843	12.8437	.45473	.07962	.002	.07974	.47
99028	24.941	312.300	13.1247	.80480	.08203	.001	.08186	.88

99027	24.939	311.421	13.1811	.67751	.08294	.002	.08288	1.65
99026	24.940	310.636	13.2321	.56079	.08295	.001	.08299	1.37
99025	24.938	309.721	13.2909	.45456	.08256	.002	.08271	.57
99024	27.877	312.133	13.7084	.80533	.08529	.002	.08512	-.09
99023	27.877	311.245	13.7513	.67801	.08700	.001	.08695	1.57
99022	27.877	310.441	13.8093	.56117	.08663	.001	.08670	.87
99021	27.877	309.605	13.8592	.45520	.08686	.001	.08705	.83
99020	30.946	312.217	14.2081	.80786	.08953	.002	.08933	.27
99019	30.948	311.240	14.2625	.67921	.09076	.001	.09071	1.29
99018	30.951	310.703	14.2927	.56278	.09110	.002	.09113	1.47
99017	30.951	310.478	14.3053	.45898	.09168	.001	.09175	2.02
99016	34.782	311.784	14.7642	.80653	.09467	.001	.09453	.64
99015	34.75%	310.946	14.8071	.67843	.09496	.001	.09496	.67
99014	34.783	310.174	14.8471	.56119	.09496	.001	.09508	.41
99013	34.782	309.436	14.8849	.45500	.09457	.002	.09482	-.24
99012	39.861	312.338	15.3265	.94549	.10035	.001	.10010	.73
99011	39.862	311.505	15.3660	.80679	.10015	.002	.10005	.28
99010	39.862	310.672	15.4054	.67852	.09972	.002	.09976	-.42
99009	39.863	310.078	15.4336	.56099	.10063	.002	.10078	.31
99008	46.825	312.033	16.0029	.94637	.10740	.001	.10719	.48
99007	46. 822	310.865	16.0532	.80627	.10679	.002	.10630	-.43
99006	46.826	310.369	16.0750	.67868	.10767	.002	.10777	.24
99005	46.822	309.717	16.1028	.56164	.10834	.OE?	.10856	.67
99004	53.788	311.432	16.5744	.94666	.11409	.002	.11399	.40
99003	53.788	311.172	16.5849	.80861	.11433	.001	.11428	.54
99002	53.790	310.184	16.6248	.67904	.11428	.002	.11442	.22
99001	53.788	309.575	16.6492	.56186	.11494	.002	.11520	.62

Pun Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity st a Nominal Tenoeraturc of 330.3K W/m.K	Deviation from Coreiation oercent
100132	.398	331.692	.1461	.19719	.03149	.002	.03126	.60
100131	.399	330.880	.1466	.16621	.03127	.002	.03118	.32
100130	.399	329.994	.1470	.13782	.03130	.003	.03135	.87
100133	.398	329.272	.1472	.11217	.03103	.003	.03120	.38
100129	1.349	331.810	.5086	.23119	.03233	.001	.03209	.39
100128	1.350	331.205	.5098	.19721	.03204	.002	.03190	-.22
100127	1.350	330.198	.5116	.16656	.03203	.002	.03205	.24
100126	1.350	329.466	.5131	.13787	.03183	.002	.03196	-.03
100125	2.569	332.067	1.0046	.26741	.03354	.001	.03326	.17
100124	2.569	331.309	1.0077	.23104	.03318	.002	.03302	-.58
100123	2.570	330.525	1.0111	.19734	.03333	.002	.03330	.23
100122	2.570	329.735	1.0144	.16627	.03285	.002	.03294	-.87
100121	3.624	331.628	1.4695	.26743	.03465	.001	.03444	.12
100119	3.624	330.070	1.4802	.19745	.03429	.002	.03433	-.30
100118	3.624	329.578	1.4836	.16632	.03403	.002	.03414	-.87
100117	4.754	331.254	2.0076	.26764	.03577	.001	.03563	-.63
100116	4.754	330.817	2.0124	.23125	.03517	.303	.03509	-2.20
100115	4.754	329.846	2.0226	.19740	.03522	.002	.03529	-1.70
100114	4.755	329.098	2.0309	.16632	.03520	.003	.03538	-1.50
100112	5.669	330.768	2.4799	.26770	.03668	.002	.03661	-1.56
100111	5.668	330.324	2.4860	.23115	.03668	.003	.03668	-1.43
100110	5.668	329.565	2.4970	.19734	.03622	.003	.03633	-2.49
100109	6.552	331.357	2.9487	.30688	.03873	.001	.03858	.01
100108	6.552	330.555	2.9635	.26761	.03892	.002	.03889	.67
100107	6.552	330.109	2.9723	.23126	.03788	.004	.03791	-1.96
100106	6.552	329.447	2.9848	.19747	.03757	.003	.03769	-2.65
100105	7.248	331.396	3.3437	.30653	.03924	.004	.03909	-1.84
100104	7.248	330.546	3.3629	.26794	.03980	.004	.03977	-.27
100103	7.249	329.796	3.3808	.23137	.03963	.002	.03970	-.59
100102	7.250	329.198	3.3949	.19749	.03875	.005	.03890	-2.77
100101	8.094	331.471	3.8452	.34868	.04125	.004	.04110	-.87
100100	8.094	331.037	3.8574	.30663	.04148	.005	.04139	-.28
100099	8.094	330.060	3.8852	.26783	.04249	.002	.04252	2.17
100098	8.094	329.515	3.9007	.23131	.04045	.002	.04055	-2.72
100097	8.938	331.256	4.3774	.34896	.04403	.003	.04392	1.37
100096	8.938	330.612	4.3992	.30714	.04411	.004	.04408	1.54
100095	8.937	329.804	4.4272	.26789	.04293	.002	.04299	-1.19
100094	8.935	329.264	4.4452	.23111	.04438	.002	.04450	2.10
100092	9.733	331.694	4.8720	.35042	.04533	.006	.04519	.10
100090	9.733	331.160	4.8933	.27123	.04579	.003	.04570	1.05
100091	9.734	330.972	4.9016	.30924	.04641	.002	.04634	2.35
100093	9.734	329.702	4.9545	.23254	.04446	.004	.04452	-2.09
100088	10.397	331.469	5.3163	.39422	.04737	.005	.04726	.87
100089	10.397	331.429	5.3184	.39434	.04761	.004	.04751	1.37
100087	10.398	330.674	5.3535	.34951	.04865	.003	.04862	3.34
100086	10.397	330.306	5.3701	.30780	.04625	.005	.04625	-1.75
100085	10.397	329.956	5.3866	.26876	.04592	.005	.04595	-2.55
100084	11.165	331.001	5.8483	.39243	.04855	.011	.04849	-.98
100082	11.165	329.844	5.9091	.30626	.04862	.007	.04866	-1.16
100081	11.165	329.184	5.9448	.26688	.04837	.005	.04846	-1.88
100080	11.680	331.109	6.1838	.39337	.05046	.013	.05040	.11
100079	11.680	330.655	6.2091	.34926	.05001	.007	.04999	-.93
100076	12.561	330.612	6.7877	.39276	.05409	.008	.05407	2.22

100075	12.559	329.973	6.8264	.34839	.05300	.003	.05302	-.03
100073	12.563	329.392	6.8652	.26848	.05378	.005	.05383	1.17
100072	12.378	330.274	7.3266	.39318	.05602	.002	.05602	1.54
100070	12.378	329.209	7.3980	.30649	.05500	.005	.05505	-.75
100069	13.379	328.755	7.4292	.26733	.05479	.004	.05486	-1.34
100065	14.092	329.661	7.8025	.34805	.05733	.007	.05736	.29
100067	14.090	328.657	7.8714	.26782	.05701	.007	.05708	-.71
100062	14.854	330.179	8.2056	.43937	.05887	.002	.05888	-.07
100064	14.852	329.283	8.2682	.34846	.05922	.003	.05926	.13
100060	16.006	331.203	8.7481	.54204	.06139	.003	.06135	.19
100059	16.009	330.454	8.8028	.48974	.06082	.005	.06081	-1.09
100057	16.010	329.649	8.8615	.39229	.06051	.014	.06054	-1.97
100056	16.685	331.001	9.0977	.54222	.06305	.002	.06302	.44
100055	16.685	330.656	9.1201	.48989	.06332	.002	.06330	.74
100054	16.684	329.897	9.1764	.43967	.06252	.002	.06254	-.87
100051	18.075	330.805	9.7382	.54187	.06589	.002	.06586	.53
100049	18.077	329.809	9.8099	.43952	.06525	.004	.06528	-.84
100052	18.074	329.591	9.9247	.39333	.06614	.002	.06618	.43
100047	19.254	331.281	10.1793	.59763	.06795	.002	.06789	.63
100046	19.254	330.755	10.2160	.54265	.06828	.002	.06825	.91
100049	19.252	330.370	10.2421	.49065	.06795	.001	.06795	.29
100045	19.256	329.696	10.2910	.43984	.06739	.002	.06743	-.80
100043	20.692	331.518	10.6810	.65501	.06967	.004	.06958	-.27
100044	20.692	331.125	10.7076	.59824	.07089	.001	.07083	1.32
100042	20.693	330.811	10.7293	.54293	.06990	.002	.06986	-.19
100041	20.693	329.714	10.8040	.43968	.07085	.001	.07089	.76
100040	22.334	331.897	11.1783	.71518	.07356	.002	.07342	1.69
100039	22.333	331.180	11.2248	.65425	.07417	.002	.07409	2.26
100038	22.333	330.389	11.2766	.54174	.07411	.003	.07410	1.92
100037	22.335	329.183	11.3565	.43874	.07372	.002	.07382	.99
100036	24.124	331.445	11.7068	.71373	.07458	.002	.07446	-.64
100035	24.125	330.944	11.7384	.65355	.07625	.002	.07618	1.41
100034	24.126	330.087	11.7925	.54077	.07534	.002	.07536	-.06
100033	24.127	328.919	11.8664	.43901	.07564	.002	.07579	-.04
100032	26.205	331.568	12.2064	.77686	.07848	.001	.07833	.71
100031	26.205	330.728	12.2564	.65339	.07839	.002	.07834	.34
100030	26.206	329.870	12.3080	.54127	.07859	.001	.07864	.32
100027	28.829	330.579	12.8139	.65427	.08150	.001	.08146	-.16
100026	28.830	329.722	12.8626	.54163	.08136	.002	.08144	-.59
100025	28.831	328.707	12.9202	.43881	.08170	.001	.08192	-.48
100024	31.639	331.397	13.2749	.77755	.08469	.002	.08453	-.32
100023	31.638	330.256	13.3356	.65284	.08533	.001	.08534	.11
100022	31.639	329.463	13.3782	.54089	.08588	.001	.08601	.52
100021	31.639	328.654	13.4214	.43892	.08483	.002	.08508	-.94
100020	35.063	331.020	13.8243	.77677	.08931	.001	.08920	.21
100019	35.065	330.235	13.8641	.65409	.08875	.001	.08876	-.64
100018	35.067	329.386	13.9069	.54142	.08797	.002	.08812	-1.77
100017	35.070	328.735	13.9401	.43932	.08970	.00E	.08995	.01
100016	38.571	331.745	14.2564	.91242	.09193	.001	.09168	-1.03
100015	38.571	330.833	14.3006	.77771	.09248	.001	.09239	-.67
100014	38.573	330.137	14.3339	.65397	.09289	.001	.09292	-.42
100013	38.574	329.127	14.3821	.54103	.09197	.002	.09217	-1.69
100012	43.140	331.491	14.7949	.91228	.09723	.001	.09702	-.55
100011	43.141	330.718	14.8296	.77857	.09865	.001	.09858	.70
100010	43.144	329.808	14.8706	.65504	.09789	.001	.09798	-.31
100009	43.147	329.075	14.9037	.54121	.09800	.001	.09822	-.39
100008	47.941	331.245	15.2802	.91314	.10287	.001	.10269	.29
100007	47.943	330.518	15.3112	.77835	.10242	.001	.10238	-.33
100006	47.945	329.461	15.3561	.65428	.10245	.001	.10261	-.57
100005	47.946	328.943	15.3782	.54188	.10217	.002	.10243	-.98
100004	55.082	331.815	15.8569	1.05787	.10963	.001	.10933	.59
100003	55.083	330.967	15.8905	.91338	.10863	.001	.10850	-.53
100002	55.086	330.245	15.9194	.77953	.10843	.002	.10844	-.89
100001	55.090	329.382	15.9538	.65535	.10925	.002	.10943	-.34

4. Results for a 35/65 Mixture of Methane-Ethane.

A total of 645 points are given in table 3. The actual mole fraction of methane in the mixture is 0.34588 with the balance ethane. The computer programs developed for the thermal conductivity surface of this mixture are shown below. The equation of state used for this mixture is given in [14].

```
      FUNCTION TC3565(RHO,T)
C     COEF. FROM TC021, FIRST PASS,  28 MAR 83
      DIMENSION A(3),B(5)
      OATA A/ .2849547E-01,-.1971104E-03, .6064916E-06/
      DATA B/ .2294100E-02,-.1757653E-05, .1023516E-04,
     1  .8856678E-08, .6095540E-08/
      TCZERO=A(1)+A(2)*T+A(3)*T**2
      EXCESS=(B(1)+B(2)*T)*RHO+(B(3)+B(4)*T)*RHO**3+B(5)*RHO**5
      TC3565=TCZERO+EXCESS+CR3565(RHO,T)
      RETURN
      END


      FUNCTION CR3565(RHO,TEMP)
C     COEF. FROM TC021 AND MINIMS, FIRST PASS,  28 MAR 85
      DIMENSION C(6)
      DATA (TC=278.910),(RHOC=8.06)
      DATA C/ .6371161E-01,-.2729000E+03, .6649022E-01,-.1753457E-03,
     1 -.2242510E+00, .2417181E+00/
      T=TEMP
      IF(T.LT.TC) T=TC
      DEN=RHO
      IF(T.LT.382.509) GO TO 4
    5 CR3565=0.
      RETURN
    4 CONTINUE
      AMPL=C(1)/(T+C(2))+C(3)+C(4)*T
      DELRHO=DEN-RHOC
      YI-C(5)*DELRHO
      IF(DEN.GT.RHOC) X1=C(6)*DELRHO
      CR3565=AMPL*EXP(-X1**2)
      RETURN
      END
```

Table 3. The Thermal Conductivity of a 35/65 Methane-Ethane Mix

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 152.1K W/m.K	Deviation from Corelation percent
112024	1.702	152.600	20.8237	1.25332	.18162	.001	.18160	-.88
112023	1.700	152.105	20.8484	1.13980	.18244	.001	.18244	-.73
112022	1.698	151.875	20.8598	1.03405	.18422	.001	.18423	.11
112021	1.692	151.489	20.8789	.92881	.18235	.001	.18237	-1.15
112020	9.750	153.014	21.0608	1.37295	.18882	.001	.18879	.05
112019	9.743	152.654	21.0774	1.25416	.18911	.001	.18909	.01
112018	9.740	152.223	21.0975	1.14036	.18941	.001	.18941	-.08
112017	9.733	151.679	21.1227	1.02846	.18647	.003	.18648	-1.96
112016	17.555	152.874	21.2967	1.37145	.19512	.001	.19509	.41
112015	17.542	152.522	21.3120	1.25363	.19401	.003	.19399	-.34
112014	17.539	152.049	21.3328	1.13903	.19565	.001	.19565	.25
112013	17.530	151.518	21.3561	1.02740	.19417	.002	.19419	-.79
112012	25.842	152.807	21.5248	1.37012	.20105	.001	.20102	.59
112011	25.845	152.439	21.5405	1.25208	.20127	.001	.20126	.51
112010	25.837	151.704	21.5713	1.13297	.20065	.001	.20066	-.16
112009	25.844	151.358	21.5861	1.02490	.20023	.001	.20026	-.55
112008	33.388	152.937	21.7100	1.49010	.20477	.003	.20474	.13
112007	33.366	152.615	21.7226	1.36804	.20548	.002	.20546	.33
112006	33.343	152.147	21.7411	1.24779	.20592	.001	.20592	.33
112005	33.322	151.769	21.7559	1.13540	.20636	.001	.20637	.37
112004	34.664	152.020	21.7781	1.47843	.20498	.001	.20498	-.58
112003	34.647	151.695	21.7908	1.35646	.20574	.001	.20576	-.36
112002	34.638	150.940	21.8211	1.12803	.20661	.001	.20666	-.30
112001	34.628	150.822	21.8256	1.13091	.20463	.002	.20468	-1.32

Run Pt.	Pressure MPa	Tenperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Tenoereture of 176.9K W/m.K	Deviation from Corelation percent
112044	2.099	178.109	19.4955	1.23951	.15570	.001	.15564	-.17
112043	2.098	177.600	19.5238	1.11568	.15591	.001	.15588	-.38
112042	2.098	177.028	19.5556	.99997	.15616	.002	.15616	-.60
112041	2.098	176.545	19.5824	.89230	.15671	.001	.15673	-.58
112040	8.506	177.911	19.7985	1.23638	.16149	.002	.16144	-.36
112039	8.503	177.323	19.8284	1.11403	.16246	.001	.16244	-.12
112038	8.500	176.844	19.8528	.99918	.16317	.001	.16318	.03
112037	8.499	176.513	19.8696	.89090	.16287	.002	.16289	-.36
112036	14.971	177.702	20.0711	1.23629	.16771	.001	.16767	-.02
112035	14.967	177.247	20.0927	1.11444	.16820	.002	.16818	.02
112034	14.964	176.808	20.1135	.99938	.16895	.001	.16895	.21
112033	14.958	176.495	20.1282	.89213	.17035	.001	.17037	.86
112032	21.426	177.529	20.3157	1.23587	.17354	.001	.17351	.32
112031	21.417	176.993	20.3395	1.11280	.17349	.001	.17349	.01
112030	21.409	176.492	20.3618	.99651	.17387	.001	.17390	-.04
112029	21.400	176.045	20.3816	.88806	.17447	.001	.17452	.07
112028	27.825	177.355	20.5373	1.23660	.17913	.002	.17911	.71
112027	27.821	176.744	20.5634	1.11125	.17893	.002	.17894	.29
112026	27.818	176.021	20.5943	.88871	.18009	.001	.18014	.57
112025	27.815	175.594	20.6125	.78730	.18135	.001	.18143	1.05

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity V/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temoerature of 202.7K W/m.K	Deviation from Corelation percent
112064	2.732	203.239	18.0208	1.02856	.12854	.003	.12850	-1.52
112063	2.731	202.701	18.0559	.91114	.12988	.003	.12988	-.90
112062	2.730	202.179	18.0890	.80028	.13071	.002	.13074	-.67
112061	2.728	201.412	18.1394	.69730	.13119	.001	.13128	-.90
112060	9.127	203.543	18.4455	1.15261	.13746	.001	.13740	-.28
112059	9.124	202.975	18.4787	1.02758	.13799	.001	.13797	-.28
112058	9.120	202.628	18.4982	.91068	.13995	.024	.13995	.89
112057	9.122	201.946	18.5371	.80010	.13923	.006	.13928	-.08
112054	15.733	203.554	18.8257	1.15596	.14455	.001	.14448	-.12
112055	15.724	202.987	18.8544	1.03051	.14568	.001	.14566	.32
112054	15.725	202.377	18.8857	.91270	.14622	.001	.14624	.33
112053	15.714	202.006	18.9041	.80299	.14634	.002	.14639	.19
112052	22.471	203.282	19.1704	1.15650	.15170	.002	.15165	.32
112051	22.476	202.657	19.2001	1.03055	.15049	.004	.15049	-.83
112049	22.460	202.448	19.2092	.91484	.15249	.001	.15251	.39
112050	22.474	201.585	19.2505	.80183	.15091	.007	.15099	-1.14
112048	28.764	203.755	19.4211	1.28962	.15806	.003	.15797	1.20
112047	28.762	203.176	19.4467	1.15635	.15404	.012	.15400	-1.68
112046	28.760	202.608	19.4717	1.03129	.15918	.004	.15918	1.32
112045	28.734	202.222	19.4877	.91414	.15635	.005	.15639	-.65

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 227.7K W/m.K	Deviation from Corelation percent
113008	.363	230.414	.1981	.10589	.01685	.003	.01663	-.37
113007	.363	229.434	.1991	.08505	.01667	.005	.01653	-.99
113006	.363	228.589	.2001	.06822	.01662	.007	.01655	-.90
113005	.363	227.729	.2010	.05251	.01661	.010	.01661	-.56
113004	.903	229.515	.5363	.10560	.01767	.004	.01753	-1.06
113003	.905	228.706	.5399	.08575	.01750	.005	.01742	-1.74
113002	.906	227.881	.5438	.06806	.01740	.007	.01739	-2.01
112085	3.692	228.957	16.2129	1.04786	.10636	.005	.10625	.81
112083	3.693	228.101	16.2862	.92096	.10711	.002	.10707	.67
112084	3.692	227.398	16.3455	.80271	.10723	.002	.10726	.11
112082	3.691	226.703	16.4034	.69097	.10854	.003	.10863	.65
112081	3.691	226.070	16.4556	.58919	.10794	.001	.10808	-.51
112080	10.747	228.362	17.0702	1.04332	.11808	.001	.11802	.52
112079	10.745	227.901	17.0995	.91889	.11802	.001	.11800	.13
112078	10.744	227.182	17.1453	.79907	.11998	.004	.12003	1.24
112077	10.741	226.697	17.1759	.68923	.11966	.002	.11975	.63
112076	17.630	228.094	17.6427	1.04247	.12673	.002	.12669	.31
112075	17.631	227.415	17.6799	.91596	.12651	.003	.12654	-.29
112074	17.628	226.918	17.7067	.79791	.12747	.001	.12755	.16
112073	17.627	226.272	17.7417	.68774	.12849	.006	.12863	.56
112072	24.631	227.836	18.1055	1.04155	.13415	.002	.13414	.10
112071	24.632	227.294	18.1319	.91531	.13401	.005	.13405	-.30
112070	24.633	226.649	18.1633	.79759	.13502	.001	.13512	.10
112069	24.626	225.164	18.1864	.68774	.13354	.004	.13369	-1.27
112068	31.498	228.171	18.4586	1.17602	.14108	.003	.14103	.60
112067	31.504	227.597	18.4846	1.04196	.14097	.001	.14098	.23
112066	31.505	227.053	18.5089	.91519	.14234	.003	.14241	.93
112065	31.500	226.514	18.5326	.79714	.14072	.012	.14084	-.48

Pun Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at e Nominal Temperature of 238.9K W/m.K	Deviation from Corelation percent
113020	.345	240.134	.1797	.11056	.01781	.004	.01770	.55
113019	.346	239.256	.1804	.08991	.01771	.005	.01768	.44
113018	.345	238.391	.1813	.07128	.01769	.007	.01774	.76
113017	.346	237.537	.1821	.05488	.01771	.010	.01784	1.29
113016	.818	240.420	.4494	.13344	.01871	.003	.01857	.94
113015	.818	239.502	.4517	.11053	.01851	.004	.01846	.29
113014	.818	238.568	.4543	.08972	.01851	.005	.01854	.70
113013	.818	237.837	.4562	.07123	.01829	.007	.01839	-.16
113012	1.236	240.207	.7199	.13348	.01934	.004	.01922	-.16
113011	1.238	239.046	.7271	.11055	.01911	.004	.01910	-.93
113010	1.243	238.500	.7338	.08989	.01907	.006	.01911	-.99
113009	1.248	237.900	.7404	.07142	.01910	.008	.01919	-.66

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 251.4K W/m.K	Oevistion trom Corelation percent
113037	.306	251.131	.1506	.13939	.01895	.003	.01898	1.13
113036	.306	250.247	.1512	.11546	.01885	.004	.01898	1.09
113035	.306	249.215	.1522	.09384	.01874	.005	.01897	1.07
113034	.306	248.360	.1528	.07446	.01861	.007	.01893	.85
113033	.306	247.589	.1533	.05732	.01864	.010	.01904	1.41
113032	.715	250.665	.3677	.13936	.01950	.003	.01958	.95
113031	.715	249.612	.3696	.11531	.01936	.004	.01955	.77
113030	.715	248.644	.3714	.09363	.01924	.006	.01953	.65
113029	.715	248.653	.3714	.09374	.01939	.005	.01968	1.40
113028	1.125	251.182	.6041	.16566	.02027	.003	.02030	.87
113027	1.125	250.244	.6075	.13944	.02023	.003	.02035	1.11
113026	1.126	249.313	.6110	.11557	.02000	.004	.02022	.40
113025	1.126	248.378	.6145	.09380	.01993	.006	.02025	.48
113024	1.683	250.461	.9750	.16557	.02126	.003	.02136	.05
113023	1.683	249.561	.9816	.13940	.02128	.003	.02147	.47
113022	1.684	248.755	.9879	.11544	.02110	.004	.02138	-.08
113021	1.634	248.085	.9931	.09388	.02085	.005	.02120	-1.02
112112	5.522	253.265	14.0887	.77453	.08750	.009	.08730	2.66
112113	5.524	252.490	14.1395	.71560	.08798	.002	.08786	2.34
112111	5.521	252.352	14.2059	.65993	.08914	.004	.08904	3.48
112110	5.518	251.787	14.2760	.55483	.08800	.004	.08796	1.62
112109	7.728	253.982	14.6408	.89018	.09306	.002	.09277	3.16
112108	7.727	253.074	14.7310	.76876	.09308	.002	.09290	2.34
112107	7.696	252.324	14.7975	.65501	.09386	.003	.09376	2.55
112106	7.722	251.930	14.8417	.55159	.09334	.002	.09328	1.57
112105	10.383	253.643	15.2037	.89031	.09710	.002	.09685	1.28
112104	10.380	252.582	15.2898	.76777	.09738	.002	.09725	.71
112103	10.379	252.109	15.3280	.65512	.09770	.002	.09762	.65
112102	10.381	251.629	15.3668	.55185	.09965	.002	.09963	2.21

117101	14.031	253.391	15.7625	.89086	.10243	.005	.10220	.11
112099	14.032	251.981	15.8594	.65499	.10398	.002	.10391	.61
112098	14.032	251.429	15.8971	.55103	.10417	.001	.10417	.40
112097	18.707	253.896	16.2628	1.02254	.10917	.001	.10888	.36
112096	18.709	253.201	16.3343	.89105	.11001	.002	.10980	.69
112095	18.707	252.584	15.3407	.76961	.11086	.003	.11072	1.08
112094	18.709	251.812	16.3865	.65544	.11112	.002	.11107	.83
112093	24.411	253.418	16.8018	1.02069	.11650	.001	.11626	.23
112092	24.413	252.743	16.8372	.88955	.11715	.001	.11699	.41
112991	24.415	252.119	16.8699	.76708	.11580	.008	.11571	-1.10
112090	24.414	251.447	16.9047	.65361	.11717	.002	.11717	-.28
112089	29.693	253.981	17.1637	1.16080	.12312	.007	.12280	1.16
112088	29.694	253.189	17.2015	1.02079	.12079	.013	.12057	-1.15
112086	29.689	251.988	17.2582	.76772	.12201	.003	.12194	-.73

Qun Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thersal Condoctivity at a Nominal Temperature of 259.7K W/m.K	Deviation from Corelation oercent
113057	.356	261.090	.1690	.14547	.02009	.003	.01993	.87
113055	.356	260.052	.1697	.12060	.01997	.004	.01993	.88
1130'5	.357	258.993	.1707	.09794	.01968	.005	.01995	1.04
113054	.357	259.251	.1712	.07766	.01976	.007	.01993	.86
113053	.846	261.432	.4185	.17264	.02093	.003	.02073	1.21
113052	.846	260.437	.4205	.14537	.02073	.003	.02065	.78
113051	.846	259.400	.4226	.12044	.02072	.004	.02076	1.29
113950	.846	258.556	.4243	.09785	.02056	.005	.02069	.97
113049	1.321	260.913	.6865	.17270	.02143	.003	.02129	-.09
113048	1.325	259.937	.6924	.14541	.02140	.003	.02137	.22
113047	1.325	259.118	.6956	.12049	.02123	.004	.02130	-.18
113046	1.326	258.235	.6999	.09792	.02122	.006	.02139	.19
113045	1.825	261.402	.9996	.20256	.02256	.002	.02236	.01
113044	1.829	260.490	1.0082	.17270	.02242	.003	.02233	-.27
113043	1.832	259.597	1.0162	.14542	.02224	.003	.02225	-.74
113042	1.834	258.552	1.0249	.12042	.02213	.004	.02226	-.82
113041	2.301	260.634	1.3464	.20224	.02383	.002	.02372	.36
113040	2.301	259.819	1.3553	.17260	.02371	.003	.02370	.11
113039	2.301	259.076	1.3639	.14539	.02341	.004	.02348	-.95
113038	2.301	258.321	1.3725	.12061	.02332	.005	.02348	-1.11

Run Pt.	Pressure MPa	Terpersture K	Censlty mol/L	Power W/m	Experimental Thermal Conductlvlty W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 269.4K W/m.K	Deviation from Corelation percent
113082	.283	270.556	.1284	.15127	.02089	.003	.02073	-.47
113081	.283	269.686	.1288	.12533	.02094	.003	.02090	.31
113083	.283	268.830	.1293	.10195	.02094	.005	.02101	.63
113070	.283	268.065	.1297	.08097	.02086	.007	.02102	.87
113078	.769	271.240	.3612	.17973	.02199	.002	.02175	1.15
113077	.769	270.180	.3630	.15138	.02187	.003	.02176	1.21
113076	.769	269.278	.3645	.12541	.02167	.004	.02168	.81
113375	.769	268.342	.3660	.10195	.02171	.006	.02184	1.52
113074	1.484	270.684	.7429	.17976	.02272	.002	.02255	-.55
113073	1.485	269.703	.7474	.15145	.02256	.003	.02252	-.76
113072	1.487	268.865	.7520	.12542	.02250	.004	.02256	-.61
113071	1.490	268.018	.7571	.10199	.02244	.005	.02261	-.47
113070	2.058	270.821	1.0886	.21031	.02385	.003	.02366	-.80
113069	2.065	270.007	1.0984	.17957	.02388	.002	.02380	-.37
113068	2.067	269.229	1.1053	.15126	.02374	.004	.02376	-.65
113067	2.072	268.444	1.1140	.12540	.02354	.004	.02366	-1.21
113066	2.076	267.734	1.1223	.10201	.02384	.005	.02405	.31
11306.	2.585	270.373	1.4546	.21048	.02511	.003	.02498	-1.02
113064	2.586	269.677	1.4630	.17986	.02523	.003	.02519	-.31
113063	2.587	268.744	1.4745	.15126	.02490	.004	.02498	-1.34
113062	2.590	268.025	1.4851	.12543	.02480	.005	.02497	-1.55
113040	3.211	270.502	1.9652	.24389	.02778	.003	.02763	.73
113059	3.211	269.509	1.9858	.21059	.02736	.003	.02734	-.68
113058	3.211	269.089	1.9945	.17981	.02764	.004	.02767	.38
113061	3.211	268.348	2.0100	.15150	.02736	.004	.02749	-.56

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductlvity W/m.K	STAT	Adjusted Thermal Conductlvlty at a Nominal Temperature of 277.8K W/m.K	Deviation from Corelation percent
113120	.312	279.782	.1369	.15678	.02222	.003	.02201	.07
113119	.312	278.548	.1375	.13002	.02225	.005	.02215	.69
113118	.312	277.648	.1381	.10561	.02196	.005	.02199	-.05
113117	.312	276.874	.1386	.08386	.02188	.007	.02202	.07
113116	.708	279.101	.3202	.15665	.02275	.003	.02259	.35
113115	.708	278.223	.3216	.12983	.02262	.004	.02257	.22
113114	.708	277.253	.3229	.10561	.02253	.005	.02261	.40
113113	.708	276.548	.3238	.08385	.02240	.007	.02258	.25
113112	1.370	279.503	.6498	.18603	.02360	.002	.02344	-.31

113111	1.370	278.532	.6529	.15652	.02350	.003	.02340	-.48
113110	1.370	277.770	.6553	.12977	.02343	.004	.02344	-.36
113109	1.370	276.876	.6582	.10551	.02327	.005	.02340	-.56
113108	1.888	279.161	.9358	.18613	.02432	.003	.02417	-1.12
113107	1.895	278.324	.9439	.15674	.02430	.003	.02423	-.99
113106	1.898	277.549	.9496	.12993	.02378	.005	.02382	-2.82
113105	1.899	276.888	.9540	.10563	.02398	.005	.02411	-1.64
113104	2.508	279.559	1.3115	.21757	.02534	.003	.02522	-2.30
113103	2.512	278.777	1.3211	.18595	.02545	.003	.02532	-2.03
113102	2.521	277.798	1.3357	.15669	.02535	.004	.02536	-2.11
113101	2.542	277.299	1.3473	.12994	.02510	.005	.02518	-3.03
113100	3.120	279.153	1.7455	.21741	.02679	.003	.02667	-3.35
113099	3.121	278.445	1.7561	.18565	.02685	.003	.02677	-3.15
113098	3.122	277.670	1.7682	.15645	.02683	.004	.02685	-3.01
113097	3.124	277.019	1.7793	.12962	.02679	.004	.02690	-3.00
113094	3.587	278.662	2.1361	.21718	.02868	.007	.02957	-2.76
113093	3.587	277.840	2.1543	.18556	.02877	.003	.02877	-2.34
113096	3.586	277.401	2.1623	.15644	.02866	.004	.02872	-2.66
113091	4.155	279.023	2.6872	.28845	.03179	.003	.03168	-1.80
113092	4.155	277.224	2.7536	.18573	.03180	.005	.03188	-2.33
113087	4.529	279.283	3.1293	.32727	.03481	.004	.03482	-.21
113086	4.529	278.604	3.1651	.28815	.03431	.007	.03421	-2.66
113085	4.529	277.994	3.1993	.25129	.03460	.006	.03458	-2.18
113084	4.529	277.382	3.2347	.21730	.03468	.005	.03474	-2.36
113083	4.529	276.767	3.2715	.18577	.03499	.006	.03513	-1.90
112159	6.958	277.330	10.3687	.50946	.07943	.008	.07950	5.91
112158	6.958	276.935	10.4885	.46046	.08115	.006	.08127	7.86
112157	6.957	276.719	10.5511	.41331	.08016	.004	.08031	6.70
112155	7.303	278.558	10.5695	.67199	.07520	.010	.07511	.22
112156	6.957	276.409	10.6422	.36878	.07902	.004	.07921	5.32
112154	7.300	277.746	10.7794	.61494	.07572	.005	.07573	.84
112153	7.300	277.659	10.8012	.56085	.07520	.006	.07522	.14
112152	7.299	277.111	10.9390	.46019	.07520	.003	.07530	.07
112150	7.937	278.536	11.3132	.61479	.07469	.004	.07460	-1.45
112151	7.937	278.537	11.3137	.67246	.07345	.006	.07336	-3.16
112149	7.935	277.855	11.4479	.56071	.07478	.002	.07478	-1.47
112148	7.935	277.017	11.6104	.45966	.07476	.005	.07487	-1.73
112147	8.778	278.605	11.9485	.67229	.07587	.001	.07577	-1.52
112146	8.779	278.337	11.9913	.61494	.07578	.003	.07571	-1.74
112145	8.778	277.888	12.0611	.56098	.07597	.002	.07595	-1.65
112144	8.776	277.513	12.1175	.50911	.07746	.004	.07750	.16
112142	9.860	278.593	12.5303	.67187	.07813	.003	.07803	-1.00
112141	9.862	278.354	12.5618	.61575	.07794	.008	.07787	-1.36
112140	9.863	277.854	12.6257	.56014	.07883	.010	.07883	-.46
112143	9.863	277.623	12.6548	.50969	.07938	.002	.07941	.12
112139	11.436	279.217	13.0685	.79375	.07993	.008	.07987	-1.81
112138	11.434	278.667	13.1257	.73092	.08032	.004	.08021	-1.77
112137	11.435	278.439	13.1498	.67213	.08134	.002	.08126	-.62
112136	11.434	277.960	13.1996	.61477	.08141	.005	.08139	-.80
112134	13.389	278.980	13.6509	.79282	.08503	.001	.08489	-.03
112133	13.390	278.562	13.6883	.73121	.08521	.002	.08511	-.09
112135	13.389	278.260	13.7146	.67216	.08344	.006	.08338	-2.39
112132	13.392	277.683	13.7662	.61461	.08542	.002	.08544	-.36
112130	15.828	279.404	14.1499	.85720	.08838	.002	.08826	-.56
112131	15.827	278.942	14.1851	.79275	.08987	.003	.08972	.75
112129	15.826	278.536	14.2159	.73087	.08913	.003	.08903	-.31
112128	15.831	277.737	14.2776	.61526	.09042	.002	.09044	.65
112127	19.302	279.465	14.7339	.92270	.09493	.004	.09477	.72
112126	19.302	279.105	14.7575	.85694	.09524	.004	.09509	.81
112125	19.297	278.227	14.8143	.73087	.09477	.003	.09472	-.18
112124	19.294	277.792	14.8423	.61589	.09587	.002	.09588	.74
112122	23.443	279.935	15.2532	.99270	.10102	.031	.10080	1.24
112123	23.450	279.638	15.2711	.92583	.10003	.016	.09983	.08
112120	23.433	278.068	15.3593	.73083	.10063	.002	.10060	-.15
112119	23.425	277.506	15.3906	.61564	.10118	.002	.10123	.12
112117	25.362	279.750	15.4801	.99279	.10288	.030	.10266	.50
112118	25.362	279.232	15.5085	.92389	.10190	.029	.10172	-.75
112116	25.362	278.634	15.5412	.85674	.10241	.001	.10229	-.56
112115	25.361	277.945	15.5787	.73122	.10261	.017	.10260	-.70
112114	25.363	277.293	15.6144	.61460	.10325	.004	.10333	-.40

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 283.2K W/m.K	Deviation from Corcirtion percent
109142	.319	286.362	.1366	.16009	.02305	.002	.02267	.56
109141	.319	285.297	.1371	.13265	.02286	.002	.02261	.31
109140	.320	284.386	.1379	.10795	.02258	.005	.02244	-.45
109139	.320	283.498	.1384	.08567	.02278	.010	.02275	.88
109138	1.016	285.663	.4567	.16006	.02384	.002	.02357	.73
109137	1.016	284.686	.4588	.13282	.02369	.002	.02353	.55
109136	1.017	283.801	.4607	.10805	.02363	.003	.02357	.68
109135	1.017	283.062	.4623	.08575	.02348	.004	.02350	.36
109134	2.025	285.672	.9795	.18994	.02501	.001	.02478	-.64
109133	2.027	284.839	.9851	.16002	.02499	.002	.02484	-.45

109132	2.032	284.079	.9920	.13270	.02491	.002	.02484	-.57
109130	2.865	285.880	1.4862	.22249	.02671	.001	.02652	-.48
109129	2.870	285.026	1.4981	.18990	.02651	.001	.02639	-1.14
109128	2.876	284.229	1.5101	.15998	.02639	.002	.02633	-1.54
109127	2.881	283.579	1.5205	.13269	.02627	.003	.02625	-1.99
109126	3.578	285.300	2.0031	.22245	.02852	.002	.02844	-.75
109125	3.579	284.511	2.0173	.18991	.02853	.002	.02849	-.79
109124	3.579	283.890	2.0288	.15996	.02856	.001	.02854	-.77
109123	3.581	283.197	2.0427	.13259	.02839	.003	.02839	-1.52
109122	4.124	285.585	2.4589	.25743	.03068	.005	.03066	-.04
109121	4.124	284.548	2.4865	.22243	.03071	.003	.03072	-.29
109120	4.124	284.018	2.5012	.18989	.03063	.003	.03064	-.77
109119	4.124	283.440	2.5172	.16004	.03056	.003	.03056	-1.26
109118	4.555	285.225	2.9002	.29496	.03291	.002	.03298	.33
109117	4.555	284.520	2.9271	.25730	.03290	.002	.03296	-.16
109116	4.556	283.877	2.9534	.22216	.03281	.002	.03285	-.93
109115	4.556	283.413	2.9727	.18974	.03256	.003	.03257	-2.09
109114	5.021	284.649	3.4966	.29546	.03645	.003	.03660	1.04
109113	5.021	284.124	3.5291	.25771	.03610	.004	.03621	-.57
109112	5.021	283.558	3.5660	.22267	.03665	.002	.03669	.16
109111	5.021	282.990	3.6042	.19010	.03670	.002	.03666	-.55
109110	5.254	284.198	3.8752	.29495	.03912	.004	.03927	1.82
109109	5.254	283.805	3.9082	.25732	.03857	.004	.03867	-.27
109107	5.254	283.006	3.9776	.19009	.03829	.007	.03825	-2.55
109106	5.381	283.517	4.1545	.25741	.04068	.003	.04074	.88
109105	5.382	283.162	4.1914	.22249	.04085	.003	.04084	.50
109104	5.382	282.661	4.2455	.19011	.04089	.004	.04075	-.60
109103	5.382	282.487	4.2648	.16035	.04131	.004	.04112	-.01
109102	5.708	282.855	4.9247	.25820	.04651	.008	.04638	1.40
109101	5.708	282.309	5.0175	.19054	.04586	.009	.04551	-1.96
109100	5.708	282.084	5.0577	.16059	.04747	.004	.04701	.69
109099	5.708	281.487	5.1708	.13319	.04834	.004	.04756	.11
109098	5.708	281.448	5.1784	.10820	.04828	.006	.04747	-.18
109097	5.919	281.758	5.7196	.19025	.05102	.005	.05025	-2.44
109096	5.919	281.488	5.7874	.16022	.05173	.005	.05077	-2.35
109095	5.919	281.249	5.8494	.13278	.05194	.005	.05080	-3.17
109094	5.919	280.893	5.9459	.10793	.05329	.005	.05184	-2.41
109093	5.919	280.609	6.0264	.08568	.05370	.008	.05198	-3.23
109092	5.995	281.317	6.0760	.16011	.05396	.005	.05280	-2.30
109091	5.996	281.035	6.1583	.13278	.05484	.005	.05343	-2.16
109090	5.996	280.865	6.2085	.10792	.05733	.013	.05576	1.49
109089	5.996	280.649	6.2742	.08572	.05668	.008	.05490	-.89
109088	6.240	281.418	6.8544	.16049	.06074	.006	.05947	.45
109087	6.240	281.066	6.9745	.13294	.06142	.005	.05982	-.21
109086	6.240	281.033	6.9858	.10825	.06265	.007	.06102	1.64
109085	6.240	280.734	7.0902	.08585	.06248	.008	.06053	-.19
109084	6.437	281.717	7.4008	.22244	.06475	.012	.06366	1.96
109083	6.437	281.542	7.4618	.19004	.06432	.009	.06308	.53
109082	6.437	281.216	7.5783	.16005	.06499	.007	.06344	.12
109081	6.437	281.029	7.6461	.13274	.06557	.009	.06383	.19
109080	6.437	280.944	7.6774	.10795	.06688	.009	.06506	1.82
109078	6.611	281.688	7.9542	.22233	.06829	.012	.06715	2.90
109077	6.611	281.427	8.0496	.19004	.06665	.009	.06528	-.54
109075	6.611	281.099	8.1695	.13282	.06911	.006	.06743	1.90
109076	6.611	280.971	8.2159	.16001	.06833	.007	.06652	.27
109079	6.611	280.844	8.2631	.10795	.07007	.007	.06813	2.35
109073	6.762	281.790	8.3634	.25694	.06996	.014	.06891	2.89
109072	6.762	281.569	8.4422	.22207	.06896	.008	.06773	.76
109071	6.762	281.221	8.5671	.18951	.07009	.012	.06855	1.30
109070	6.763	281.080	8.6194	.15969	.07119	.005	.06952	2.43
109074	6.762	280.913	8.6791	.13255	.07038	.004	.06856	.77
109068	6.935	282.101	8.7209	.29467	.07137	.012	.07060	3.45
109067	6.935	281.938	8.8112	.25697	.07092	.009	.06995	2.15
109066	6.935	281.659	8.8727	.22215	.07090	.007	.06979	1.67
109069	6.935	281.466	8.9391	.18981	.07126	.006	.06999	1.69
109065	7.150	282.701	9.0425	.37752	.07256	.014	.07223	4.35
109063	7.149	282.279	9.1743	.33465	.07199	.011	.07139	2.75
109062	7.149	282.059	9.2450	.29461	.07169	.007	.07094	1.89
109060	7.335	283.036	9.3342	.42258	.07247	.012	.07235	3.54
109061	7.150	281.787	9.3344	.25689	.07088	.005	.06994	.20
109064	7.150	281.742	9.3486	.22226	.07191	.004	.07094	1.56
109058	7.335	282.621	9.4580	.37740	.07133	.008	.07098	1.28
109057	7.334	282.309	9.5500	.33467	.07199	.006	.07145	1.66
109056	7.334	282.080	9.6191	.29470	.07115	.005	.07046	.10
109059	7.335	281.824	9.6965	.25721	.07129	.005	.07044	-.15
109053	7.612	283.441	9.7333	.52077	.07220	.011	.07231	2.34
109055	7.612	283.365	9.7479	.47079	.07025	.010	.07033	-.44
109052	7.612	283.984	9.8565	.42259	.07144	.006	.07132	.67
109054	7.611	282.591	9.9608	.37755	.07032	.004	.06999	-1.46
109051	7.612	282.355	10.0254	.33473	.07135	.003	.07089	-.34
109050	8.024	284.617	10.0651	.62965	.07014	.010	.07072	-.69
109049	8.024	283.802	10.2570	.52127	.07059	.006	.07083	-.99
109048	8.025	283.158	10.4079	.42312	.07083	.005	.07080	-1.40
109047	8.025	282.592	10.5369	.33524	.06961	.005	.06934	-3.86
109046	8.422	284.598	10.5590	.63001	.07095	.004	.07143	-.88
109045	8.419	283.840	10.7129	.52112	.07048	.002	.07070	-2.32

109044	8.418	282.838	10.9135	.42283	.07142	.001	.07128	-2.02
109043	8.419	282.290	11.0224	.33487	.07128	.002	.07094	-2.83
109042	8.979	284.499	11.1088	.62982	.07169	.002	.07204	-1.53
109041	8.980	283.993	11.1974	.52119	.07166	.002	.07187	-2.04
109040	8.978	282.972	11.3715	.42286	.07231	.002	.07224	-2.11
109039	8.976	282.721	11.4122	.33488	.07260	.003	.07246	-1.94
109037	9.806	284.794	11.6496	.63055	.07324	.002	.07353	-1.36
109036	9.807	283.931	11.7756	.52181	.07380	.001	.07393	-1.34
109035	9.807	283.624	11.8198	.42361	.07427	.002	.07435	-.98
109038	9.810	282.811	11.9374	.33561	.07362	.004	.07354	-2.63
109034	10.923	285.319	12.1720	.74734	.07547	.001	.07570	-.87
109033	10.921	284.403	12.2 834	.62894	.07605	.001	.07618	-.84
109032	10.920	283.864	12.3478	.52042	.07664	.001	.07671	-.50
109031	10.921	283.178	12.4307	.42234	.07654	.001	.07653	-1.22
109030	12.289	285.544	12.6951	.74904	.07935	.002	.07946	.87
109029	12.288	284.540	12.7994	.63033	.07921	.001	.07927	-.06
109028	12.287	283.917	12.8632	.52143	.07979	.001	.07982	.19
109027	12.290	283.189	12.9383	.42262	.07954	.003	.07954	-.70
109026	13.880	285.344	13.2081	.74857	.08220	.001	.08220	.54
109025	13.880	284.405	13.2748	.62981	.08270	.001	.08270	.62
109024	13.878	283.927	17.3353	.52157	.08205	.001	.08205	-.66
109023	13.878	283.417	13.3907	.42400	.08237	.002	.08237	-.64
109022	16.220	285.347	13.7704	.74675	.08613	.001	.08603	.30
109021	16.221	284.751	13.8167	.62941	.08724	.002	.08717	1.18
109020	16.219	283.908	13.9816	.52008	.08619	.002	.08616	-.58
109018	18.994	285.809	14.2599	.87461	.09066	.001	.09045	.60
109017	18.994	284.903	14.3216	.74619	.09093	.001	.09080	.35
109016	18.992	284.278	14.3639	.62753	.09152	.001	.09144	.62
109015	18.992	283.441	14.4206	.51974	.09159	.001	.09157	.19
109014	18.990	283.158	14.4394	.42301	.09225	.001	.09226	.73
109013	22.401	285.712	14.7805	.87754	.09561	.001	.09535	.41
109012	22.402	284.781	14.8367	.74875	.09604	.001	.09588	.35
109011	22.400	284.019	14.8823	.62990	.09623	.001	.09615	.13
109010	22.400	283.362	14.9218	.52151	.09659	.001	.09658	.14
109009	26.798	285.382	15.3302	.87745	.10147	.001	.10121	.22
109008	26.798	284.685	15.3674	.74858	.10184	.002	.10166	.25
109007	26.799	283.790	15.4154	.62866	.10211	.001	.10204	.07
109006	26.797	283.084	15.4529	.51910	.10133	.002	.10135	-1.06
109003	30.275	285.931	15.6526	1.01643	.10539	.001	.10503	.20
109002	30.271	285.119	15.6925	.87746	.10567	.001	.10542	.10
109001	30.268	284.456	15.7252	.74865	.10621	.001	.10605	.31
109004	30.277	283.602	15.7583	.62948	.10618	.002	.10613	-.12
109005	30.281	283.078	15.7946	.52105	.10627	.002	.10629	-.29

Run Pt.	Pressure MPa	Temperature K	Denrity mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity st a Nominal Temperature of 304.5K W/m.K	Deviation from Correlation percent
110128	.228	306.610	.0903	.17187	.02617	.003	.02582	1.30
110127	.228	305.749	.0907	.14264	.02600	.003	.02579	1.19
110126	.228	304.678	.0911	.11582	.02566	.003	.02563	.55
110125	.228	303.765	.0914	.09206	.02544	.005	.02555	.27
110123	1.158	306.644	.4812	.20391	.02683	.001	.02648	.34
110122	1.158	305.581	.4833	.17178	.02667	.001	.02649	.36
110121	1.158	304.712	.4851	.14233	.02652	.002	.02648	.30
110120	1.158	303.743	.4870	.11568	.02611	.005	.02622	-.70
110124	1.158	303.250	.4876	.09211	.02630	.003	.02649	.31
110119	2.272	305.924	1.0078	.20397	.02802	.001	.02780	.25
110118	2.273	305.015	1.0124	.17186	.02790	.001	.02782	.27
110117	2.273	304.171	1.0166	.14249	.02786	.002	.02790	.54
110116	2.273	303.232	1.0215	.11577	.02757	.002	.02776	-.04
110115	3.213	306.148	1.5094	.23900	.02963	.001	.02939	.81
110114	3.213	305.467	1.5154	.20401	.02951	.001	.02937	.68
110113	3.213	304.614	1.5230	.17208	.02949	.002	.02947	.94
110112	3.213	303.998	1.5285	.14284	.02932	.002	.02939	.61
110111	3.213	303.133	1.5364	.11577	.02904	.002	.02923	-.02
110110	3.971	305.480	1.9761	.23874	.03106	.001	.03093	.96
110109	3.971	304.827	1.9850	.20365	.03095	.001	.03090	.78
110108	3.971	304.081	1.9954	.17157	.03074	.001	.03079	.31
110107	3.971	303.443	2.0043	.14226	.03085	.002	.03098	.83
110106	4.699	305.158	2.4844	.23863	.03306	.002	.03298	1.63
110105	4.700	304.511	2.4983	.20390	.03298	.002	.03293	1.46
110103	4.700	303.935	2.5104	.17184	.03276	.002	.03282	.87
110104	4.700	303.203	2.5260	.14248	.03293	.003	.03308	1.45
110102	5.217	305.485	2.8791	.27487	.03480	.002	.03469	2.00
110101	5.217	304.758	2.8990	.23750	.03460	.002	.03457	1.41
110100	5.217	304.103	2.9174	.20282	.03440	.003	.03444	.81
110099	5.217	303.599	2.9315	.17106	.03466	.002	.03475	1.53
110098	5.753	305.589	3.3393	.31576	.03699	.002	.03689	2.43
110097	5.753	304.863	3.3665	.27544	.03693	.002	.03690	2.11
110096	5.753	304.280	3.3886	.23777	.03697	.002	.03699	2.08
110095	5.753	303.483	3.4193	.20293	.03676	.002	.03684	1.32
110094	6.212	305.471	3.7876	.31660	.03940	.002	.03933	3.09
110093	6.211	304.883	3.8152	.27554	.03953	.003	.03950	3.17
110092	6.211	304.417	3.8382	.23842	.03954	.002	.03954	2.99

110091	6.211	303.453	3.8869	.20279	.03914	.002	.03921	1.53
110090	6.710	305.513	4.3208	.35857	.04235	.003	.04230	3.45
110089	6.709	304.914	4.3585	.31562	.04227	.003	.04225	2.86
110088	6.709	304.173	4.4068	.27534	.04210	.002	.04211	1.93
110087	6.709	303.645	4.4428	.23771	.04227	.032	.04230	1.91
110085	7.103	305.163	4.8130	.35956	.04496	.003	.04494	3.15
110084	7.103	304.474	4.8672	.31610	.04482	.002	.04482	2.21
110083	7.101	304.296	4.8800	.27618	.04515	.003	.04515	2.77
110086	7.104	303.693	4.9338	.23887	.04495	.002	.04496	1.69
110082	7.391	305.047	5.1887	.40536	.04686	.004	.04686	2.58
110081	7.391	304.596	5.2304	.35967	.04639	.002	.04639	1.08
110080	7.390	303.806	5.3055	.31630	.04663	.002	.04663	.67
110079	7.391	303.405	5.3462	.27558	.04665	.002	.04665	.20
110078	7.694	305.298	5.5670	.45407	.04926	.005	.04927	2.93
110077	7.694	304.910	5.6076	.40606	.04941	.003	.04942	2.75
110076	7.693	304.396	5.6609	.36005	.04886	.004	.04886	1.01
110075	7.693	303.980	5.7065	.31710	.04910	.002	.04909	.95
110074	7.938	305.177	5.9125	.45473	.05100	.004	.05102	2.36
110073	7.937	304.719	5.9643	.40539	.05073	.003	.05074	1.24
110072	7.936	304.147	6.0311	.36017	.05057	.002	.05056	.13
110071	7.936	303.633	6.0927	.31679	.05061	.003	.05059	-.52
110070	8.356	304.932	6.5247	.45467	.05397	.004	.05399	1.33
110069	8.357	304.578	6.5720	.40657	.05394	.003	.05395	.75
110068	8.355	303.819	6.6738	.35971	.05396	.002	.05392	-.32
110067	8.356	303.418	6.7305	.31655	.05390	.002	.05384	-1.05
110066	8.681	304.671	7.0111	.45427	.05603	.004	.05604	.25
110065	8.680	304.113	7.0912	.40571	.05609	.002	.05607	-.46
110064	8.680	303.713	7.1501	.35981	.05606	.002	.05601	-1.10
110063	8.681	302.995	7.2596	.31654	.05611	.002	.05600	-2.11
110061	9.054	304.524	7.5369	.45384	.05825	.004	.05825	-.53
110060	9.053	303.859	7.6378	.40522	.05777	.002	.05772	-2.29
110059	9.052	303.339	7.7169	.35911	.05789	.002	.05780	-2.80
110062	9.054	303.247	7.7338	.31711	.05842	.002	.05832	-2.01
110057	9.423	304.787	7.9687	.50578	.05879	.004	.05881	-2.99
110056	9.423	304.412	8.0262	.45478	.06025	.004	.06025	-.97
110055	9.422	303.663	8.1421	.40509	.05986	.003	.05980	-2.58
110058	9.423	303.599	8.1525	.36041	.06031	.001	.06024	-1.90
110054	9.882	305.127	8.4554	.56031	.06204	.003	.06209	-.85
110053	9.882	304.711	8.5187	.50615	.06217	.002	.06219	-1.13
110052	9.881	304.096	8.6119	.45453	.06207	.002	.06204	-1.95
110051	9.881	303.551	8.6964	.40483	.06197	.002	.06190	-2.70
110050	10.445	305.001	9.0599	.56058	.06379	.002	.06382	-1.68
110049	10.444	304.466	9.1371	.50596	.06431	.003	.06431	-1.32
110048	10.446	303.993	9.2086	.45417	.06398	.002	.06395	-2.27
110047	10.445	303.578	9.2691	.40532	.06442	.002	.06437	-1.92
110046	10.962	304.935	9.5353	.55817	.06606	.002	.06608	-.61
110045	10.961	304.416	9.6067	.50388	.06522	.002	.06522	-2.29
110044	10.961	303.980	9.6681	.45255	.06608	.002	.06606	-1.29
110043	10.960	303.546	9.7281	.40411	.06592	.001	.06588	-1.86
110041	11.445	304.968	9.9131	.55948	.06707	.002	.06709	-.91
110040	11.445	304.601	9.9616	.50533	.06710	.003	.06710	-1.11
110039	11.445	304.436	9.9836	.45439	.06784	.002	.06784	-.12
110042	11.445	303.763	10.0721	.40540	.06733	.003	.06731	-1.32
110038	12.580	305.151	10.6290	.67583	.07019	.001	.07019	.21
110037	12.579	304.960	10.6510	.61587	.07021	.002	.07021	.13
110036	12.579	304.685	10.6830	.55992	.06980	.002	.06980	-.61
110035	12.579	303.877	10.7769	.45422	.07003	.001	.07003	-.74
110033	13.764	305.298	11.2149	.67558	.07299	.008	.07296	1.04
110034	13.766	304.711	11.2760	.61631	.07255	.002	.07254	.12
110032	13.762	304.378	11.3088	.55959	.07333	.002	.07333	1.02
110031	13.761	303.556	11.3928	.45402	.07268	.002	.07272	-.31
110030	14.908	305.413	11.6753	.67807	.07490	.001	.07485	.88
110029	14.894	304.374	11.7675	.56096	.07630	.002	.07631	2.20
110025	14.866	303.942	11.7976	.45452	.07317	.009	.07320	-2.14
110024	16.325	305.703	12.1340	.67461	.07365	.013	.07355	-3.99
110023	16.327	305.036	12.1911	.61523	.07465	.008	.07461	-2.94
110021	16.326	303.536	12.3173	.45338	.07477	.006	.07485	-3.55
110020	18.149	306.737	12.5671	.80344	.07715	.009	.07693	-2.69
110019	18.150	305.291	12.6772	.67585	.08087	.002	.08079	1.35
110018	18.149	304.327	12.7502	.55954	.08099	.002	.08100	1.03
110017	18.150	303.685	12.7991	.45365	.07769	.006	.07777	-3.50
110016	20.650	306.117	13.1834	.80478	.08485	.003	.08465	1.70
110015	20.649	305.041	13.2560	.67620	.08504	.001	.08497	1.42
110014	20.647	304.381	13.3000	.55950	.08349	.004	.08350	-.72
110013	20.647	303.592	13.3532	.45417	.08468	.005	.08479	.33
110012	23.409	305.964	13.7008	.80331	.08729	.003	.08709	-.31
110011	23.410	304.716	13.7770	.67617	.08792	.003	.08789	-.15
110010	23.410	303.859	13.8283	.55899	.08640	.004	.08648	-2.30
110009	23.414	303.320	13.8623	.45387	.08971	.001	.08987	1.22
110008	26.007	305.650	14.1187	.80410	.09310	.001	.09293	1.94
110007	26.002	304.822	14.1645	.67683	.09157	.005	.09152	-.04
110006	26.003	304.299	14.1941	.56180	.09320	.001	.09322	1.48
110005	26.006	303.116	14.2607	.45365	.09357	.001	.09377	1.37
110004	28.217	305.583	14.4187	.80491	.09325	.004	.09308	-1.04
110003	28.218	304.663	14.4676	.67661	.09479	.001	.09476	.22
110002	28.222	304.047	14.5007	.55998	.09213	.004	.09219	-2.92
110001	28.220	303.154	14.5477	.45424	.09661	.001	.09701	1.69

Run Pt.	Pressure MPa	Temperature K	Density mol/L	Power W/m	Experimental Thermal Conductivity W/m.K	STAT	Adjusted Thermal Conductivity at a Nominal Temperature of 324.8K W/m.K	Deviation from Corelation percent
111112	.391	326.922	.1458	.19951	.02891	.001	.02851	−2.32
111111	.391	325.852	.1465	.16798	.02878	.002	.02858	−2.06
111110	.391	325.008	.1469	.13922	.02849	.002	.02845	−2.53
111109	.391	324.139	.1473	.11321	.02837	.003	.02849	−2.38
111108	1.348	326.203	.5244	.19967	.02975	.001	.02949	−1.56
111107	1.348	325.296	.5263	.16806	.02955	.002	.02946	−1.79
111106	1.348	324.452	.5280	.13944	.02951	.002	.02957	−1.40
111105	1.348	323.771	.5293	.11331	.02934	.003	.02953	−1.57
111134	2.459	326.548	1.0021	.23364	.03088	.001	.03056	−1.67
111103	2.459	325.639	1.0060	.19963	.03079	.002	.03064	−1.45
111102	2.459	324.857	1.0095	.16801	.03058	.002	.03057	−1.71
111101	2.459	324.044	1.0131	.13933	.03053	.002	.03066	−1.42
111100	3.464	325.983	1.4834	.23368	.03221	.002	.03200	−.85
111099	3.465	325.141	1.4899	.19950	.03216	.002	.03210	−.60
111098	3.465	324.537	1.4945	.16812	.03203	.002	.03207	−.72
111097	3.465	323.768	1.5004	.13930	.03203	.002	.03220	−.36
111096	4.434	326.149	1.9931	.27034	.03398	.002	.03376	.21
111095	4.434	325.310	2.0031	.23348	.03381	.001	.03373	.04
111094	4.434	324.727	2.0101	.19937	.03370	.002	.03371	−.07
111093	4.434	324.006	2.0188	.16792	.03346	.002	.03359	−.51
111092	5.202	325.923	2.4430	.27044	.03552	.002	.03535	.82
111091	5.202	325.259	2.4539	.23371	.03544	.002	.03537	.78
111390	5.202	324.444	2.4676	.19948	.03513	.002	.03518	.13
111089	5.202	323.821	2.4781	.16791	.03519	.002	.03534	.46
111088	5.900	326.314	2.8791	.31009	.03720	.002	.03698	1.25
111087	5.900	325.600	2.8948	.27064	.03732	.002	.03721	1.69
131086	5.901	324.800	2.9127	.23376	.03696	.002	.03696	.86
111085	5.901	324.275	2.9244	.19940	.03682	.001	.03689	.57
111084	6.579	325.579	3.3676	.31009	.03909	.001	.03899	1.72
111083	6.579	325.282	3.3761	.27047	.03919	.002	.03913	1.99
111082	6.579	324.471	3.3996	.23375	.03917	.002	.03921	1.96
111081	6.579	324.034	3.4126	.19961	.03864	.002	.03873	.62
111080	7.164	325.948	3.7946	.35195	.04108	.001	.04095	2.26
111079	7.165	325.278	3.8195	.30972	.04072	.002	.04067	1.32
111378	7.165	324.867	3.8344	.27028	.04082	.002	.04081	1.52
111977	7.166	324.107	3.8629	.23347	.04053	.002	.04060	.72
111076	7.759	325.661	4.2827	.35213	.04322	.004	.04314	2.34
111'1.75	7.759	324.962	4.3137	.30996	.04305	.002	.04303	1.79
111074	7.760	324.548	4.3331	.27041	.04330	.003	.04332	2.24
111073	7.760	324.106	4.3536	.23350	.04315	.002	.04321	1.78
111072	8.310	325.933	4.7359	.39742	.04532	.002	.04523	2.28
111071	8.310	325.326	4.7674	.35243	.04484	.002	.04480	1.01
111070	8.313	324.847	4.7959	.31008	.04497	.002	.04497	1.08
111069	8.312	324.327	4.8236	.27076	.04524	.002	.04527	1.46
111068	8.836	325.712	5.2101	.39804	.04776	.002	.04771	2.60
111067	8.835	325.236	5.2391	.35320	.04756	.002	.04754	1.95
111366	8.836	324.834	5.2645	.31092	.04766	.002	.04766	1.94
111065	8.836	324.589	5.2799	.27102	.04718	.003	.04719	.81
111364	9.330	325.289	5.5846	.44341	.04931	.002	.04929	.99
111063	9.330	324.702	5.7264	.39606	.04930	.002	.04930	.60
111062	9.330	324.157	5.7643	.35122	.04882	.002	.04884	−.73
111061	9.332	323.683	5.8021	.30899	.04938	.002	.04942	.06
111060	9.888	325.670	6.1641	.49412	.05169	.002	.05167	.93
111359	9.888	325.121	6.2070	.44409	.05109	.003	.05108	−.62
111058	9.887	324.394	6.2645	.39605	.05151	.002	.05152	−.33
111'357	9.888	323.863	6.3085	.35109	.05145	.001	.05147	−.86
111056	10.463	325.487	6.6947	.49450	.05389	.002	.05388	.14
111055	10.464	324.846	6.7507	.44414	.05398	.002	.05398	−.19
111054	10.464	324.448	6.7860	.39677	.05410	.002	.05410	−.29
111053	10.464	323.729	6.8499	.35147	.05403	.001	.05403	−.99
111052	10.899	325.004	7.1194	.49425	.05580	.002	.05580	−.11
111051	10.900	324.657	7.1516	.44390	.05577	.002	.05577	−.44
1113'3	10.899	324.262	7.1874	.39645	.05577	.002	.05577	−.75
111−49	10.900	323.526	7.2567	.35098	.05532	.002	.05531	−2.18
111348	11.503	325.593	7.5722	.54774	.05829	.004	.05830	.53
111047	11.504	324.922	7.6355	.49382	.05768	.002	.05768	−1.03
111046	11.504	324.337	7.6914	.44366	.05724	.002	.05724	−2.27
111945	11.504	323.499	7.7734	.35138	.05771	.002	.05769	−2.10
111044	12.168	325.330	8.1167	.54758	.06015	.002	.06016	−.46
111043	12.169	324.910	8.1580	.49443	.05988	.001	.05988	−1.22
111042	12.169	324.299	8.2177	.44391	.05980	.002	.05979	−1.80
111041	12.170	323.530	8.2945	.35151	.05984	.002	.05982	−2.30
111040	12.836	325.701	8.5608	.60233	.06145	.003	.06146	−1.41
111039	12.837	325.140	8.6152	.54700	.06216	.002	.06216	−.62
111038	12.837	324.167	8.7098	.44380	.06203	.001	.06203	−1.47
111037	12.838	323.158	8.8099	.35100	.06172	.001	.06171	−2.65
111036	13.603	325.440	9.0829	.60232	.06369	.002	.06369	−1.17
111035	13.605	324.939	9.1315	.54652	.06412	.002	.06412	−.79
111'334	13.604	324.052	9.2155	.44370	.06399	.001	.06399	−1.51
111033	13.603	323.265	9.2906	.35104	.06410	.002	.06411	−1.79
111032	14.534	325.414	9.6173	.60262	.06656	.002	.06655	.02

111031	14.534	324.905	9.5641	.54677	.06665	.002	.06665	-.11
111030	14.534	324.017	9.7454	.44390	.06616	.002	.06617	-1.31
111029	14.536	323.132	9.8276	.35120	.06623	.001	.06626	-1.66
111028	15.578	325.758	10.1042	.66069	.06909	.002	.06906	.85
111027	15.576	324.759	10.1900	.54674	.06775	.002	.06775	-1.57
111026	15.578	323.861	10.2686	.44372	.06916	.002	.06920	.08
111025	15.578	323.159	10.3299	.35143	.06868	.001	.06874	-.94
111024	16.844	325.683	10.6470	.66062	.07102	.001	.07097	.32
111023	16.845	324.769	10.7216	.54681	.07122	.001	.07122	.21
111021	16.846	323.416	10.8318	.35161	.07141	.002	.07149	-.10
111020	18.338	325.828	11.1698	.66145	.07358	.002	.07350	.47
111019	18.338	324.906	11.2389	.54700	.07419	.001	.07418	.93
111018	18.337	324.156	11.2948	.44405	.07410	.002	.07415	.51
111017	18.337	323.345	11.3557	.35193	.07380	.002	.07392	-.22
111016	20.107	325.552	11.7187	.66146	.07686	.001	.07678	.99
111015	20.109	324.899	11.7643	.54754	.07682	.002	.07681	.69
111014	20.110	324.020	11.8254	.44464	.07693	.002	.07701	.50
111013	20.111	323.109	11.8890	.35153	.07706	.002	.07724	.31
111012	22.149	326.882	12.1442	.78956	.08054	.001	.08029	2.19
111011	22.149	326.192	12.1882	.66584	.08078	.001	.08061	2.23
111010	22.151	324.746	12.2806	.54758	.08015	.001	.08016	.94
111009	22.153	323.659	12.3503	.44337	.07999	.001	.08013	.33
111008	24.473	326.365	12.6691	.78669	.08337	.001	.08316	1.33
111007	24.473	325.427	12.7241	.66207	.08335	.001	.08325	.98
111006	24.472	324.463	12.7806	.54764	.08333	.001	.08338	.62
111005	24.473	323.609	12.8310	.44422	.08389	.001	.08405	.98
111004	26.953	326.052	13.1315	.78653	.08639	.002	.08620	.76
111003	26.954	325.002	13.1890	.66124	.08645	.002	.08642	.47
111002	26.954	324.240	13.2306	.54732	.08563	.004	.08571	-.74
111001	26.951	323.549	13.2679	.44381	.06663	.001	.08582	.19

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NBS-114A (REV. 2-80)

U.S. DEPT. OF COMM. BIBLIOGRAPHIC DATA SHEET (See instructions)	1. PUBLICATION OR REPORT NO. NBSIR 85-3024	2. Performing Organ. Report No.	3. Publication Date March 1985

4. TITLE AND SUBTITLE

Experimental Thermal Conductivity Values for Mixtures of Methane and Ethane

5. AUTHOR(S)

H. M. Roder and D. G. Friend

6. PERFORMING ORGANIZATION (If joint or other than NBS, see instructions)

NATIONAL BUREAU OF STANDARDS
DEPARTMENTOFCOMMERCE
WASHINGTON, D.C. 20234

7. Contract/Grant No.

8. Type of Report & Period Covered

9. SPONSORING ORGANIZATION NAME AND COMPLETE ADDRESS (Street. City. State, ZIP)

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11. ABSTRACT (A 200-word or less factual summary of most sipnificant information. If document includes a significant bibliography or lrterature survey, mention it here)

The experimental measurements of thermal conductivity as obtained in a transient hot wire apparatus for mixtures of methane and ethane are recorded. The measurements were made at temperatures between 140 and 330 K with pressures between 0.1 and 70 MPa. The density range is 0 to 24 mol/L, the mole fractions of methane are 0.69, 0.50, and 0.35, and the total number of points recorded is 2476.

12. KEY WORDS (Six to twelve entries; alphabetical order; capitalize only proper names; and separate key words by semicolons)

ethane; hot wire; measurements; methane; mixtures; thermal conductivity; transient.

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14. NO. OF PRINTED PAGES

44

15. Price

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