

# PhazeComp-Generated L<sup>A</sup>T<sub>E</sub>X Report Template

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# 1. Executive Summary

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## 2. Introduction

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## 4. Conclusions

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# Acknowledgements

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# Nomenclature

# References

# Tables

Table 1: Essential Properties for Characterization “PR79 Library”

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
HE	4.003	9.3420	32.924	-0.39000	-0.26365	0.30142	19.20
HELIUM	4.003	9.3420	32.924	-0.39000	-0.26365	0.30142	19.20
NE	20.180	79.9200	400.304	-0.01600	-0.32239	0.31177	41.30
NEON	20.180	79.9200	400.304	-0.01600	-0.32239	0.31177	41.30
AR	39.948	271.5480	710.395	-0.00200	-0.18769	0.29119	74.70
ARGON	39.948	271.5480	710.395	-0.00200	-0.18769	0.29119	74.70
KR	83.800	376.9200	797.708	0.00227	-0.15572	0.28810	148.80
KRYPTON	83.800	376.9200	797.708	0.00227	-0.15572	0.28810	148.80
XE	131.290	521.5320	847.020	0.00710	-0.09103	0.28606	229.00
XENON	131.290	521.5320	847.020	0.00710	-0.09103	0.28606	229.00
RN	222.018	678.6000	913.738	-0.02254	-0.05750	0.28138	382.30
RADON	222.018	678.6000	913.738	-0.02254	-0.05750	0.28138	382.30
H2	2.016	59.3640	187.534	-0.21700	-0.35561	0.30273	35.00
HYDROGEN	2.016	59.3640	187.534	-0.21700	-0.35561	0.30273	35.00
N2	28.014	227.1600	492.838	0.03700	-0.16758	0.29178	59.10
NITROGEN	28.014	227.1600	492.838	0.03700	-0.16758	0.29178	59.10
CO	28.010	239.1300	506.762	0.04500	-0.14588	0.29449	61.70
O2	31.999	278.2440	731.425	0.02481	-0.15218	0.28789	53.10
OXYGEN	31.999	278.2440	731.425	0.02481	-0.15218	0.28789	53.10
NO	30.006	324.0000	939.845	0.58200	-0.07398	0.25113	56.60
N2O	44.013	557.2800	1052.249	0.16672	-0.07057	0.27338	41.30
CO2	44.010	547.4160	1069.508	0.22500	0.00191	0.27433	80.00
H2S	34.082	672.1200	1299.973	0.09000	-0.04470	0.28292	80.10
NH3	17.031	729.7200	1646.613	0.25700	0.12897	0.24409	58.00
AMMONIA	17.031	729.7200	1646.613	0.25700	0.12897	0.24409	58.00
SO2	64.065	775.4400	1143.478	0.25723	-0.01919	0.26853	127.30
NO2	46.006	775.8000	1464.881	0.83400	0.05817	0.22055	72.80
N2O4	92.011	775.8180	1464.881	1.00700	-1.11270	0.43990	145.60
H2O	18.015	1164.8520	3200.113	0.34400	0.16658	0.22763	52.80
WATER	18.015	1164.8520	3200.113	0.34400	0.16658	0.22763	52.80
C1	16.043	343.0080	667.029	0.01100	-0.14996	0.28620	71.00
CH4	16.043	343.0080	667.029	0.01100	-0.14996	0.28620	71.00
METHANE	16.043	343.0080	667.029	0.01100	-0.14996	0.28620	71.00
C2	30.070	549.5760	706.624	0.09900	-0.06280	0.27924	111.00
C2H6	30.070	549.5760	706.624	0.09900	-0.06280	0.27924	111.00
ETHANE	30.070	549.5760	706.624	0.09900	-0.06280	0.27924	111.00
C3	44.097	665.6940	616.120	0.15200	-0.06381	0.27630	151.00
C3H8	44.097	665.6940	616.120	0.15200	-0.06381	0.27630	151.00



Table 1: Essential Properties for Characterization “PR79 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
PROPANE	44.097	665.6940	616.120	0.15200	−0.06381	0.27630	151.00
C-C3	42.081	716.8500	808.585	0.13000	−0.32275	0.27410	132.00
CYCLO-C3	42.081	716.8500	808.585	0.13000	−0.32275	0.27410	132.00
C-PROPANE	42.081	716.8500	808.585	0.13000	−0.32275	0.27410	132.00
CYCLOPROP	42.081	716.8500	808.585	0.13000	−0.32275	0.27410	132.00
I-C4	58.123	734.1300	527.937	0.18600	−0.06197	0.28199	188.80
ISO-C4	58.123	734.1300	527.937	0.18600	−0.06197	0.28199	188.80
I-BUTANE	58.123	734.1300	527.937	0.18600	−0.06197	0.28199	188.80
ISOBUTANE	58.123	734.1300	527.937	0.18600	−0.06197	0.28199	188.80
N-C4	58.123	765.2160	550.563	0.20000	−0.05393	0.27385	191.00
N-BUTANE	58.123	765.2160	550.563	0.20000	−0.05393	0.27385	191.00
BUTANE	58.123	765.2160	550.563	0.20000	−0.05393	0.27385	191.00
NEO-C5	72.150	780.7500	463.976	0.19700	−0.07632	0.26895	225.90
NEOPENTAN	72.150	780.7500	463.976	0.19700	−0.07632	0.26895	225.90
C-C4	56.108	828.0000	723.738	0.18500	−0.08978	0.28442	166.00
CYCLO-C4	56.108	828.0000	723.738	0.18500	−0.08978	0.28442	166.00
C-BUTANE	56.108	828.0000	723.738	0.18500	−0.08978	0.28442	166.00
CYCLOBUTA	56.108	828.0000	723.738	0.18500	−0.08978	0.28442	166.00
I-C5	72.150	828.7020	490.373	0.22900	−0.05646	0.27708	227.40
ISO-C5	72.150	828.7020	490.373	0.22900	−0.05646	0.27708	227.40
I-PENTANE	72.150	828.7020	490.373	0.22900	−0.05646	0.27708	227.40
ISOPENTAN	72.150	828.7020	490.373	0.22900	−0.05646	0.27708	227.40
N-C5	72.150	845.4600	488.777	0.25200	−0.02928	0.26834	231.00
N-PENTANE	72.150	845.4600	488.777	0.25200	−0.02928	0.26834	231.00
PENTANE	72.150	845.4600	488.777	0.25200	−0.02928	0.26834	231.00
C-C5	70.134	920.8800	653.830	0.19669	−0.07568	0.28986	203.00
CYCLO-C5	70.134	920.8800	653.830	0.19669	−0.07568	0.28986	203.00
C-PENTANE	70.134	920.8800	653.830	0.19669	−0.07568	0.28986	203.00
CYCLOPENT	70.134	920.8800	653.830	0.19669	−0.07568	0.28986	203.00
22DM-C4	86.177	879.6600	446.716	0.23300	−0.07263	0.27760	263.00
22DM-BUTA	86.177	879.6600	446.716	0.23300	−0.07263	0.27760	263.00
23DM-C4	86.177	899.8200	453.968	0.24800	−0.05339	0.27419	263.40
23DM-BUTA	86.177	899.8200	453.968	0.24800	−0.05339	0.27419	263.40
2M-C5	86.177	895.5000	436.564	0.27800	−0.02956	0.26916	268.80
2M-PENTAN	86.177	895.5000	436.564	0.27800	−0.02956	0.26916	268.80
3M-C5	86.177	907.9200	452.518	0.27300	−0.04127	0.27183	267.40
3M-PENTAN	86.177	907.9200	452.518	0.27300	−0.04127	0.27183	267.40
N-C6	86.177	913.6800	438.739	0.30000	−0.01176	0.26594	271.00

Table 1: Essential Properties for Characterization “PR79 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-HEXANE	86.177	913.6800	438.739	0.30000	−0.01176	0.26594	271.00
HEXANE	86.177	913.6800	438.739	0.30000	−0.01176	0.26594	271.00
MC-C5	84.161	959.0220	548.823	0.22700	−0.05007	0.28473	243.00
MC-PENTAN	84.161	959.0220	548.823	0.22700	−0.05007	0.28473	243.00
22DM-C5	100.204	936.7200	401.755	0.28700	−0.03965	0.27298	305.90
22DM-PENT	100.204	936.7200	401.755	0.28700	−0.03965	0.27298	305.90
BENZENE	78.114	1011.6900	709.960	0.21000	−0.02879	0.28034	205.10
24DM-C5	100.204	935.4600	397.403	0.30400	−0.03227	0.27137	306.60
24DM-PENT	100.204	935.4600	397.403	0.30400	−0.03227	0.27137	306.60
C-C6	84.161	996.3000	590.739	0.21100	−0.05688	0.30244	240.80
CYCLO-C6	84.161	996.3000	590.739	0.21100	−0.05688	0.30244	240.80
C-HEXANE	84.161	996.3000	590.739	0.21100	−0.05688	0.30244	240.80
CYCLOHEXA	84.161	996.3000	590.739	0.21100	−0.05688	0.30244	240.80
223TM-C4	100.204	955.9800	427.861	0.25000	−0.06542	0.27908	299.00
223TM-BUT	100.204	955.9800	427.861	0.25000	−0.06542	0.27908	299.00
33DM-C5	100.204	965.3400	427.861	0.26900	−0.05362	0.27697	303.00
33DM-PENT	100.204	965.3400	427.861	0.26900	−0.05362	0.27697	303.00
23DM-C5	100.204	967.1400	422.060	0.29700	−0.03652	0.27360	303.40
23DM-PENT	100.204	967.1400	422.060	0.29700	−0.03652	0.27360	303.40
2M-C6	100.204	954.1800	395.953	0.33100	−0.00490	0.26630	308.80
2M-HEXANE	100.204	954.1800	395.953	0.33100	−0.00490	0.26630	308.80
3M-C6	100.204	963.3600	407.556	0.32300	−0.01535	0.26894	307.40
3M-HEXANE	100.204	963.3600	407.556	0.32300	−0.01535	0.26894	307.40
3E-C5	100.204	972.9000	419.159	0.31100	−0.01984	0.27042	305.00
3E-PENTAN	100.204	972.9000	419.159	0.31100	−0.01984	0.27042	305.00
N-C7	100.204	972.3600	397.403	0.35000	0.01233	0.26320	311.00
N-HEPTANE	100.204	972.3600	397.403	0.35000	0.01233	0.26320	311.00
HEPTANE	100.204	972.3600	397.403	0.35000	0.01233	0.26320	311.00
MC-C6	98.188	1029.9420	503.426	0.23500	−0.03843	0.28729	280.80
MC-HEXANE	98.188	1029.9420	503.426	0.23500	−0.03843	0.28729	280.80
EC-C5	98.188	1025.1000	492.693	0.27000	−0.02627	0.27317	283.00
EC-PENTAN	98.188	1025.1000	492.693	0.27000	−0.02627	0.27317	283.00
TOLUENE	92.141	1065.1500	595.815	0.26400	0.00394	0.26667	245.10
C-C7	98.188	1087.7400	556.945	0.24200	−0.04795	0.27896	280.00
CYCLO-C7	98.188	1087.7400	556.945	0.24200	−0.04795	0.27896	280.00
C-HEPTANE	98.188	1087.7400	556.945	0.24200	−0.04795	0.27896	280.00
CYCLOHEPT	98.188	1087.7400	556.945	0.24200	−0.04795	0.27896	280.00
N-C8	114.231	1023.6600	361.144	0.39900	0.03916	0.26013	351.00

Table 1: Essential Properties for Characterization “PR79 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-OCTANE	114.231	1023.6600	361.144	0.39900	0.03916	0.26013	351.00
OCTANE	114.231	1023.6600	361.144	0.39900	0.03916	0.26013	351.00
E-BENZENE	106.167	1110.8700	523.441	0.30400	0.02183	0.26254	285.10
P-XYLENE	106.167	1109.1600	509.227	0.32200	0.04121	0.25525	285.10
M-XYLENE	106.167	1110.6000	513.579	0.32700	0.03650	0.25621	285.10
O-XYLENE	106.167	1134.5400	541.281	0.31200	0.01858	0.26623	285.10
N-C9	128.258	1070.2800	332.136	0.44500	0.05908	0.25830	391.00
N-NONANE	128.258	1070.2800	332.136	0.44500	0.05908	0.25830	391.00
NONANE	128.258	1070.2800	332.136	0.44500	0.05908	0.25830	391.00
C-C8	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
CYCLO-C8	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
C-OCTANE	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
CYCLOOCTA	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
CUMENE	120.194	1135.8000	465.426	0.32600	0.02462	0.26435	322.90
I-C3-BENZ	120.194	1135.8000	465.426	0.32600	0.02462	0.26435	322.90
1ME-BENZE	120.194	1135.8000	465.426	0.32600	0.02462	0.26435	322.90
P-BENZENE	120.194	1149.0300	464.121	0.34500	0.03545	0.26584	325.10
1E4M-BENZ	120.194	1152.3600	468.472	0.36400	0.02687	0.26791	325.10
135TM-BEN	120.194	1147.1400	453.533	0.39900	0.03235	0.26674	325.10
124TM-BEN	120.194	1168.3800	468.762	0.37700	0.05504	0.26206	325.10
N-C10	142.285	1111.8600	306.030	0.49000	0.08100	0.25577	431.00
N-DECANE	142.285	1111.8600	306.030	0.49000	0.08100	0.25577	431.00
DECANE	142.285	1111.8600	306.030	0.49000	0.08100	0.25577	431.00
123TM-BEN	120.194	1196.1000	500.960	0.36700	0.02813	0.26888	325.10
N-C11	156.312	1150.2000	287.175	0.53700	0.08770	0.25644	471.00
N-UNDECAN	156.312	1150.2000	287.175	0.53700	0.08770	0.25644	471.00
UNDECANE	156.312	1150.2000	287.175	0.53700	0.08770	0.25644	471.00
N-C12	170.338	1184.4000	263.969	0.57600	0.11842	0.25135	511.00
N-DODECAN	170.338	1184.4000	263.969	0.57600	0.11842	0.25135	511.00
DODECANE	170.338	1184.4000	263.969	0.57600	0.11842	0.25135	511.00
NAPHTHALE	128.174	1347.1200	587.403	0.30400	0.03554	0.27752	311.10
N-C13	184.365	1215.0000	243.663	0.61800	0.14614	0.24664	551.00
N-TRIDECA	184.365	1215.0000	243.663	0.61800	0.14614	0.24664	551.00
TRIDECANE	184.365	1215.0000	243.663	0.61800	0.14614	0.24664	551.00
2M-NAPHTH	142.200	1369.8000	513.434	0.37400	0.05748	0.27072	351.10
1M-NAPHTH	142.200	1389.6000	522.136	0.34800	0.08002	0.26566	351.10
N-C14	198.392	1247.4000	227.709	0.64400	0.16753	0.24332	591.00
N-TETRADE	198.392	1247.4000	227.709	0.64400	0.16753	0.24332	591.00

Table 1: Essential Properties for Characterization “PR79 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
<b>TETRADECA</b>	198.392	1247.4000	227.709	0.64400	0.16753	0.24332	591.00
<b>DPH-C1</b>	168.238	1368.0000	393.052	0.48100	0.15575	0.25002	419.20
<b>DPH-METHA</b>	168.238	1368.0000	393.052	0.48100	0.15575	0.25002	419.20
<b>N-C15</b>	212.419	1274.4000	214.656	0.68500	0.17978	0.24201	631.00
<b>N-PENTADE</b>	212.419	1274.4000	214.656	0.68500	0.17978	0.24201	631.00
<b>PENTADECA</b>	212.419	1274.4000	214.656	0.68500	0.17978	0.24201	631.00
<b>N-C16</b>	226.446	1301.4000	203.053	0.71800	0.19217	0.24056	671.00
<b>N-HEXADEC</b>	226.446	1301.4000	203.053	0.71800	0.19217	0.24056	671.00
<b>HEXADECAN</b>	226.446	1301.4000	203.053	0.71800	0.19217	0.24056	671.00
<b>N-C17</b>	240.473	1324.8000	194.351	0.75300	0.19477	0.24147	711.00
<b>N-HEPTADE</b>	240.473	1324.8000	194.351	0.75300	0.19477	0.24147	711.00
<b>HEPTADECA</b>	240.473	1324.8000	194.351	0.75300	0.19477	0.24147	711.00
<b>N-C18</b>	254.500	1344.6000	187.099	0.80000	0.19254	0.24353	751.00
<b>N-OCTADEC</b>	254.500	1344.6000	187.099	0.80000	0.19254	0.24353	751.00
<b>OCTADECAN</b>	254.500	1344.6000	187.099	0.80000	0.19254	0.24353	751.00
<b>N-C19</b>	268.527	1359.0000	168.244	0.84500	0.24620	0.23070	791.00
<b>N-NONADEC</b>	268.527	1359.0000	168.244	0.84500	0.24620	0.23070	791.00
<b>NONADECAN</b>	268.527	1359.0000	168.244	0.84500	0.24620	0.23070	791.00
<b>12DPH-BEN</b>	230.309	1542.6000	433.663	0.51579	−0.30612	0.38311	553.30
<b>PHENANTHR</b>	178.233	1564.2000	416.258	0.47900	0.12838	0.26603	417.10
<b>ANTHRACEN</b>	178.233	1564.7400	416.258	0.50100	0.35356	0.20016	417.10
<b>N-C20</b>	282.554	1382.4000	155.190	0.86500	0.28091	0.22267	831.00
<b>N-EICOSAN</b>	282.554	1382.4000	155.190	0.86500	0.28091	0.22267	831.00
<b>EICOSANE</b>	282.554	1382.4000	155.190	0.86500	0.28091	0.22267	831.00
<b>N-C21</b>	296.580	1400.4000	149.389	0.89895	0.28147	0.22372	871.00
<b>N-HENEICO</b>	296.580	1400.4000	149.389	0.89895	0.28147	0.22372	871.00
<b>HENEICOSA</b>	296.580	1400.4000	149.389	0.89895	0.28147	0.22372	871.00
<b>13DPH-BEN</b>	230.309	1589.4000	359.694	0.54069	0.04334	0.29493	553.30
<b>N-C22</b>	310.607	1414.8000	142.137	0.95693	0.29056	0.22219	911.00
<b>N-DOCOSAN</b>	310.607	1414.8000	142.137	0.95693	0.29056	0.22219	911.00
<b>DOCOSANE</b>	310.607	1414.8000	142.137	0.95693	0.29056	0.22219	911.00
<b>14DPH-BEN</b>	230.309	1634.4000	433.663	0.58576	−0.09594	0.33530	553.30
<b>N-C23</b>	324.634	1422.0000	133.435	1.06175	0.31066	0.21752	951.00
<b>N-TRICOSA</b>	324.634	1422.0000	133.435	1.06175	0.31066	0.21752	951.00
<b>TRICOSANE</b>	324.634	1422.0000	133.435	1.06175	0.31066	0.21752	951.00
<b>N-C24</b>	338.661	1440.0000	126.183	1.06221	0.32510	0.21438	991.00
<b>N-TETRACO</b>	338.661	1440.0000	126.183	1.06221	0.32510	0.21438	991.00
<b>TETRACOSA</b>	338.661	1440.0000	126.183	1.06221	0.32510	0.21438	991.00

Table 2: Additional Properties for Characterization “PR79 Library”

<b>Component</b>	<b>Full Name</b>	<b>Tb (F)</b>	<b>SG</b>
<b>HE</b>	“Helium”	−452.183	0.06428
<b>HELIUM</b>	“Helium”	−452.183	0.06428
<b>NE</b>	“Neon”	−410.688	0.45422
<b>NEON</b>	“Neon”	−410.688	0.45422
<b>AR</b>	“Argon”	−302.755	0.48492
<b>ARGON</b>	“Argon”	−302.755	0.48492
<b>KR</b>	“Krypton”	−244.138	0.82933
<b>KRYPTON</b>	“Krypton”	−244.138	0.82933
<b>XE</b>	“Xenon”	−162.652	1.19315
<b>XENON</b>	“Xenon”	−162.652	1.19315
<b>RN</b>	“Radon”	−82.030	3.66123
<b>RADON</b>	“Radon”	−82.030	3.66123
<b>H2</b>	“Hydrogen”	−423.203	0.02840
<b>HYDROGEN</b>	“Hydrogen”	−423.203	0.02840
<b>N2</b>	“Nitrogen”	−320.625	0.28339
<b>NITROGEN</b>	“Nitrogen”	−320.625	0.28339
<b>CO</b>	“Carbon Monoxide”	−313.268	0.27824
<b>O2</b>	“Oxygen”	−297.364	0.39368
<b>OXYGEN</b>	“Oxygen”	−297.364	0.39368
<b>NO</b>	“Nitric Oxide”	−241.585	0.41528
<b>N2O</b>	“Nitrous Oxide”	−127.264	0.75419
<b>CO2</b>	“Carbon Dioxide”	−126.879	0.76193
<b>H2S</b>	“Hydrogen Sulfide”	−78.613	0.83007
<b>NH3</b>	“Ammonia”	−27.494	0.61280
<b>AMMONIA</b>	“Ammonia”	−27.494	0.61280
<b>SO2</b>	“Sulfur Dioxide”	13.964	1.39305
<b>NO2</b>	“Nitrogen Dioxide”	70.300	1.46273
<b>N2O4</b>	“Nitrogen Tetroxide”	84.030	1.45368
<b>H2O</b>	“Water”	214.472	1.00508
<b>WATER</b>	“Water”	214.472	1.00508
<b>C1</b>	“Methane”	−258.868	0.14609
<b>CH4</b>	“Methane”	−258.868	0.14609
<b>METHANE</b>	“Methane”	−258.868	0.14609
<b>C2</b>	“Ethane”	−127.690	0.32976
<b>C2H6</b>	“Ethane”	−127.690	0.32976
<b>ETHANE</b>	“Ethane”	−127.690	0.32976
<b>C3</b>	“Propane”	−43.989	0.50977
<b>C3H8</b>	“Propane”	−43.989	0.50977

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>PROPANE</b>	“Propane”	−43.989	0.50977
<b>C-C3</b>	“Cyclopropane”	−27.271	0.53380
<b>CYCLO-C3</b>	“Cyclopropane”	−27.271	0.53380
<b>C-PROPANE</b>	“Cyclopropane”	−27.271	0.53380
<b>CYCLOPROP</b>	“Cyclopropane”	−27.271	0.53380
<b>I-C4</b>	“Isobutane”	11.015	0.57043
<b>ISO-C4</b>	“Isobutane”	11.015	0.57043
<b>I-BUTANE</b>	“Isobutane”	11.015	0.57043
<b>ISOBUTANE</b>	“Isobutane”	11.015	0.57043
<b>N-C4</b>	“Butane”	31.071	0.59055
<b>N-BUTANE</b>	“Butane”	31.071	0.59055
<b>BUTANE</b>	“Butane”	31.071	0.59055
<b>NEO-C5</b>	“Neopentane”	49.046	0.60199
<b>NEOPENTAN</b>	“Neopentane”	49.046	0.60199
<b>C-C4</b>	“Cyclobutane”	55.094	0.70002
<b>CYCLO-C4</b>	“Cyclobutane”	55.094	0.70002
<b>C-BUTANE</b>	“Cyclobutane”	55.094	0.70002
<b>CYCLOBUTA</b>	“Cyclobutane”	55.094	0.70002
<b>I-C5</b>	“Isopentane”	82.423	0.62952
<b>ISO-C5</b>	“Isopentane”	82.423	0.62952
<b>I-PENTANE</b>	“Isopentane”	82.423	0.62952
<b>ISOPENTAN</b>	“Isopentane”	82.423	0.62952
<b>N-C5</b>	“Pentane”	97.136	0.63585
<b>N-PENTANE</b>	“Pentane”	97.136	0.63585
<b>PENTANE</b>	“Pentane”	97.136	0.63585
<b>C-C5</b>	“Cyclopentane”	120.614	0.74932
<b>CYCLO-C5</b>	“Cyclopentane”	120.614	0.74932
<b>C-PENTANE</b>	“Cyclopentane”	120.614	0.74932
<b>CYCLOPENT</b>	“Cyclopentane”	120.614	0.74932
<b>22DM-C4</b>	“2,2-Dimethylbutane”	121.637	0.65312
<b>22DM-BUTA</b>	“2,2-Dimethylbutane”	121.637	0.65312
<b>23DM-C4</b>	“2,3-Dimethylbutane”	136.489	0.66541
<b>23DM-BUTA</b>	“2,3-Dimethylbutane”	136.489	0.66541
<b>2M-C5</b>	“2-Methylpentane”	140.585	0.65696
<b>2M-PENTAN</b>	“2-Methylpentane”	140.585	0.65696
<b>3M-C5</b>	“3-Methylpentane”	146.058	0.66801
<b>3M-PENTAN</b>	“3-Methylpentane”	146.058	0.66801
<b>N-C6</b>	“Hexane”	155.884	0.66304

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Full Name	Tb (F)	SG
N-HEXANE	“Hexane”	155.884	0.66304
HEXANE	“Hexane”	155.884	0.66304
MC-C5	“Methylcyclopentane”	160.571	0.75215
MC-PENTAN	“Methylcyclopentane”	160.571	0.75215
22DM-C5	“2,2-Dimethylpentane”	174.633	0.67721
22DM-PENT	“2,2-Dimethylpentane”	174.633	0.67721
BENZENE	“Benzene”	175.600	0.88238
24DM-C5	“2,4-Dimethylpentane”	177.069	0.67596
24DM-PENT	“2,4-Dimethylpentane”	177.069	0.67596
C-C6	“Cyclohexane”	177.102	0.78173
CYCLO-C6	“Cyclohexane”	177.102	0.78173
C-HEXANE	“Cyclohexane”	177.102	0.78173
CYCLOHEXA	“Cyclohexane”	177.102	0.78173
223TM-C4	“2,2,3-Trimethylbutane”	177.672	0.69312
223TM-BUT	“2,2,3-Trimethylbutane”	177.672	0.69312
33DM-C5	“3,3-Dimethylpentane”	187.140	0.69652
33DM-PENT	“3,3-Dimethylpentane”	187.140	0.69652
23DM-C5	“2,3-Dimethylpentane”	193.792	0.69816
23DM-PENT	“2,3-Dimethylpentane”	193.792	0.69816
2M-C6	“2-Methylhexane”	194.166	0.68180
2M-HEXANE	“2-Methylhexane”	194.166	0.68180
3M-C6	“3-Methylhexane”	197.464	0.69023
3M-HEXANE	“3-Methylhexane”	197.464	0.69023
3E-C5	“3-Ethylpentane”	200.354	0.70125
3E-PENTAN	“3-Ethylpentane”	200.354	0.70125
N-C7	“Heptane”	209.267	0.68672
N-HEPTANE	“Heptane”	209.267	0.68672
HEPTANE	“Heptane”	209.267	0.68672
MC-C6	“Methylcyclohexane”	213.515	0.77222
MC-HEXANE	“Methylcyclohexane”	213.515	0.77222
EC-C5	“Ethylcyclopentane”	218.230	0.76936
EC-PENTAN	“Ethylcyclopentane”	218.230	0.76936
TOLUENE	“Toluene”	231.222	0.86987
C-C7	“Cycloheptane”	245.908	0.81331
CYCLO-C7	“Cycloheptane”	245.908	0.81331
C-HEPTANE	“Cycloheptane”	245.908	0.81331
CYCLOHEPT	“Cycloheptane”	245.908	0.81331
N-C8	“Octane”	258.150	0.70513

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Full Name	Tb (F)	SG
N-OCTANE	“Octane”	258.150	0.70513
OCTANE	“Octane”	258.150	0.70513
E-BENZENE	“Ethylbenzene”	277.351	0.86960
P-XYLENE	“p-Xylene”	281.404	0.86371
M-XYLENE	“m-Xylene”	282.706	0.86686
O-XYLENE	“o-Xylene”	292.292	0.88238
N-C9	“Nonane”	303.239	0.71982
N-NONANE	“Nonane”	303.239	0.71982
NONANE	“Nonane”	303.239	0.71982
C-C8	“Cyclooctane”	303.794	0.83814
CYCLO-C8	“Cyclooctane”	303.794	0.83814
C-OCTANE	“Cyclooctane”	303.794	0.83814
CYCLOOCTA	“Cyclooctane”	303.794	0.83814
CUMENE	“Cumene”	306.195	0.86411
I-C3-BENZ	“Cumene”	306.195	0.86411
1ME-BENZE	“Cumene”	306.195	0.86411
P-BENZENE	“Propylbenzene”	318.804	0.86377
1E4M-BENZ	“1-Ethyl-4-methylbenzene”	323.813	0.86442
135TM-BEN	“1,3,5-Trimethylbenzene”	328.539	0.84675
124TM-BEN	“1,2,4-Trimethylbenzene”	336.977	0.87913
N-C10	“Decane”	344.999	0.73183
N-DECANE	“Decane”	344.999	0.73183
DECANE	“Decane”	344.999	0.73183
123TM-BEN	“1,2,3-Trimethylbenzene”	349.261	0.89786
N-C11	“Undecane”	384.513	0.74179
N-UNDECAN	“Undecane”	384.513	0.74179
UNDECANE	“Undecane”	384.513	0.74179
N-C12	“Dodecane”	421.306	0.75028
N-DODECAN	“Dodecane”	421.306	0.75028
DODECANE	“Dodecane”	421.306	0.75028
NAPHTHALE	“Naphthalene”	424.785	1.01736
N-C13	“Tridecane”	455.833	0.75764
N-TRIDECA	“Tridecane”	455.833	0.75764
TRIDECA	“Tridecane”	455.833	0.75764
2M-NAPHTH	“2-Methylnaphthalene”	466.201	0.99853
1M-NAPHTH	“1-Methylnaphthalene”	472.537	1.02350
N-C14	“Tetradecane”	489.011	0.76397
N-TETRADE	“Tetradecane”	489.011	0.76397



Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>TETRADECA</b>	“Tetradecane”	489.011	0.76397
<b>DPH-C1</b>	“Diphenylmethane”	507.540	1.00924
<b>DPH-METHA</b>	“Diphenylmethane”	507.540	1.00924
<b>N-C15</b>	“Pentadecane”	519.523	0.76949
<b>N-PENTADE</b>	“Pentadecane”	519.523	0.76949
<b>PENTADECA</b>	“Pentadecane”	519.523	0.76949
<b>N-C16</b>	“Hexadecane”	548.926	0.77438
<b>N-HEXADEC</b>	“Hexadecane”	548.926	0.77438
<b>HEXADECAN</b>	“Hexadecane”	548.926	0.77438
<b>N-C17</b>	“Heptadecane”	574.925	0.77887
<b>N-HEPTADE</b>	“Heptadecane”	574.925	0.77887
<b>HEPTADECA</b>	“Heptadecane”	574.925	0.77887
<b>N-C18</b>	“Octadecane”	599.021	0.78319
<b>N-OCTADEC</b>	“Octadecane”	599.021	0.78319
<b>OCTADECAN</b>	“Octadecane”	599.021	0.78319
<b>N-C19</b>	“Nonadecane”	624.428	0.78648
<b>N-NONADEC</b>	“Nonadecane”	624.428	0.78648
<b>NONADECAN</b>	“Nonadecane”	624.428	0.78648
<b>12DPH-BEN</b>	“1,2-Diphenylbenzene”	629.600	0.91020
<b>PHENANTHR</b>	“Phenanthrene”	640.437	0.97699
<b>ANTHRACEN</b>	“Anthracene”	645.987	1.29007
<b>N-C20</b>	“Eicosane”	652.343	0.78647
<b>N-EICOSAN</b>	“Eicosane”	652.343	0.78647
<b>EICOSANE</b>	“Eicosane”	652.343	0.78647
<b>N-C21</b>	“Heneicosane”	673.700	0.78752
<b>N-HENEICO</b>	“Heneicosane”	673.700	0.78752
<b>HENEICOSA</b>	“Heneicosane”	673.700	0.78752
<b>13DPH-BEN</b>	“1,3-Diphenylbenzene”	685.400	0.98848
<b>N-C22</b>	“Docosane”	695.480	0.78896
<b>N-DOCOSAN</b>	“Docosane”	695.480	0.78896
<b>DOCOSANE</b>	“Docosane”	695.480	0.78896
<b>14DPH-BEN</b>	“1,4-Diphenylbenzene”	708.800	1.02275
<b>N-C23</b>	“Tricosane”	716.360	0.79498
<b>N-TRICOSA</b>	“Tricosane”	716.360	0.79498
<b>TRICOSANE</b>	“Tricosane”	716.360	0.79498
<b>N-C24</b>	“Tetracosane”	736.340	0.79111
<b>N-TETRACO</b>	“Tetracosane”	736.340	0.79111
<b>TETRACOSA</b>	“Tetracosane”	736.340	0.79111

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
HE	0.30142	0.91786	0.30142	0.91786	
HELIUM	0.30142	0.91786	0.30142	0.91786	
NE	0.31177	0.66797	0.31177	0.66797	
NEON	0.31177	0.66797	0.31177	0.66797	
AR	0.29119	1.19450	0.29119	1.19450	
ARGON	0.29119	1.19450	0.29119	1.19450	
KR	0.28810	1.46088	0.28810	1.46088	
KRYPTON	0.28810	1.46088	0.28810	1.46088	
XE	0.28606	1.89018	0.28606	1.89018	
XENON	0.28606	1.89018	0.28606	1.89018	
RN	0.28138	2.24258	0.28138	2.24258	
RADON	0.28138	2.24258	0.28138	2.24258	
H2	0.30273	1.02839	0.30273	1.02839	
HYDROGEN	0.30273	1.02839	0.30273	1.02839	
N2	0.29178	1.44326	0.29178	1.44326	
NITROGEN	0.29178	1.44326	0.29178	1.44326	
CO	0.29449	1.49132	0.29449	1.49132	
O2	0.28789	1.17527	0.28789	1.17527	
OXYGEN	0.28789	1.17527	0.28789	1.17527	
NO	0.25113	0.92907	0.25113	0.92907	
N2O	0.27338	1.55379	0.27338	1.55379	
CO2	0.27433	1.50686	0.27433	1.50686	
H2S	0.28292	1.56981	0.28292	1.56981	
NH3	0.24409	1.16086	0.24409	1.16086	
AMMONIA	0.24409	1.16086	0.24409	1.16086	
SO2	0.26853	1.95425	0.26853	1.95425	
NO2	0.47294	2.68790	0.22055	1.25350	0.22212
N2O4	0.47067	2.67508	0.43990	2.50019	0.30053
H2O	0.22943	0.89623	0.22763	0.88921	1.12658
WATER	0.22943	0.89623	0.22763	0.88921	1.12658
C1	0.28620	1.57942	0.28620	1.57942	
CH4	0.28620	1.57942	0.28620	1.57942	
METHANE	0.28620	1.57942	0.28620	1.57942	
C2	0.27924	2.33069	0.27924	2.33069	
C2H6	0.27924	2.33069	0.27924	2.33069	
ETHANE	0.27924	2.33069	0.27924	2.33069	
C3	0.27630	3.20369	0.27630	3.20369	
C3H8	0.27630	3.20369	0.27630	3.20369	

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Zc	Vc (ft3/lbmol)	ZcVis	VcVis (ft3/lbmol)	Visc (cp)
PROPANE	0.27630	3.20369	0.27630	3.20369	
C-C3	0.27410	2.60781	0.27410	2.60781	
CYCLO-C3	0.27410	2.60781	0.27410	2.60781	
C-PROPANE	0.27410	2.60781	0.27410	2.60781	
CYCLOPROP	0.27410	2.60781	0.27410	2.60781	
I-C4	0.28199	4.20805	0.28199	4.20805	
ISO-C4	0.28199	4.20805	0.28199	4.20805	
I-BUTANE	0.28199	4.20805	0.28199	4.20805	
ISOBUTANE	0.28199	4.20805	0.28199	4.20805	
N-C4	0.27385	4.08471	0.27385	4.08471	
N-BUTANE	0.27385	4.08471	0.27385	4.08471	
BUTANE	0.27385	4.08471	0.27385	4.08471	
NEO-C5	0.26895	4.85680	0.26895	4.85680	
NEOPENTAN	0.26895	4.85680	0.26895	4.85680	
C-C4	0.28442	3.49203	0.28442	3.49203	
CYCLO-C4	0.28442	3.49203	0.28442	3.49203	
C-BUTANE	0.28442	3.49203	0.28442	3.49203	
CYCLOBUTA	0.28442	3.49203	0.28442	3.49203	
I-C5	0.27231	4.93849	0.27708	5.02513	0.23498
ISO-C5	0.27231	4.93849	0.27708	5.02513	0.23498
I-PENTANE	0.27231	4.93849	0.27708	5.02513	0.23498
ISOPENTAN	0.27231	4.93849	0.27708	5.02513	0.23498
N-C5	0.26837	4.98174	0.26834	4.98112	0.23558
N-PENTANE	0.26837	4.98174	0.26834	4.98112	0.23558
PENTANE	0.26837	4.98174	0.26834	4.98112	0.23558
C-C5	0.27554	4.16480	0.28986	4.38110	0.46154
CYCLO-C5	0.27554	4.16480	0.28986	4.38110	0.46154
C-PENTANE	0.27554	4.16480	0.28986	4.38110	0.46154
CYCLOPENT	0.27554	4.16480	0.28986	4.38110	0.46154
22DM-C4	0.27220	5.75223	0.27760	5.86625	0.26394
22DM-BUTA	0.27220	5.75223	0.27760	5.86625	0.26394
23DM-C4	0.26929	5.72820	0.27419	5.83236	0.29290
23DM-BUTA	0.26929	5.72820	0.27419	5.83236	0.29290
2M-C5	0.26684	5.87397	0.26916	5.92513	0.29235
2M-PENTAN	0.26684	5.87397	0.26916	5.92513	0.29235
3M-C5	0.27281	5.87397	0.27183	5.85300	0.30930
3M-PENTAN	0.27281	5.87397	0.27183	5.85300	0.30930
N-C6	0.26377	5.89479	0.26594	5.94347	0.32245

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-HEXANE	0.26377	5.89479	0.26594	5.94347	0.32245
HEXANE	0.26377	5.89479	0.26594	5.94347	0.32245
MC-C5	0.27249	5.10989	0.28473	5.33948	0.53135
MC-PENTAN	0.27249	5.10989	0.28473	5.33948	0.53135
22DM-C5	0.26619	6.66048	0.27298	6.83025	0.35278
22DM-PENT	0.26619	6.66048	0.27298	6.83025	0.35278
BENZENE	0.26815	4.10073	0.28034	4.28713	0.69219
24DM-C5	0.26474	6.68771	0.27137	6.85522	0.35566
24DM-PENT	0.26474	6.68771	0.27137	6.85522	0.35566
C-C6	0.27259	4.93369	0.30244	5.47386	1.05399
CYCLO-C6	0.27259	4.93369	0.30244	5.47386	1.05399
C-HEXANE	0.27259	4.93369	0.30244	5.47386	1.05399
CYCLOHEXA	0.27259	4.93369	0.30244	5.47386	1.05399
223TM-C4	0.26562	6.36894	0.27908	6.69174	0.37505
223TM-BUT	0.26562	6.36894	0.27908	6.69174	0.37505
33DM-C5	0.27396	6.63325	0.27697	6.70607	0.39761
33DM-PENT	0.27396	6.63325	0.27697	6.70607	0.39761
23DM-C5	0.25600	6.29526	0.27360	6.72825	0.41384
23DM-PENT	0.25600	6.29526	0.27360	6.72825	0.41384
2M-C6	0.26077	6.74377	0.26630	6.88687	0.39610
2M-HEXANE	0.26077	6.74377	0.26630	6.88687	0.39610
3M-C6	0.25512	6.47146	0.26894	6.82207	0.41332
3M-HEXANE	0.25512	6.47146	0.26894	6.82207	0.41332
3E-C5	0.26739	6.66048	0.27042	6.73596	0.43230
3E-PENTAN	0.26739	6.66048	0.27042	6.73596	0.43230
N-C7	0.26110	6.85590	0.26320	6.91102	0.43539
N-HEPTANE	0.26110	6.85590	0.26320	6.91102	0.43539
HEPTANE	0.26110	6.85590	0.26320	6.91102	0.43539
MC-C6	0.26849	5.89479	0.28729	6.30746	0.78245
MC-HEXANE	0.26849	5.89479	0.28729	6.30746	0.78245
EC-C5	0.26903	6.00692	0.27317	6.09939	0.53539
EC-PENTAN	0.26903	6.00692	0.27317	6.09939	0.53539
TOLUENE	0.26384	5.06183	0.26667	5.11615	0.64614
C-C7	0.27437	5.75063	0.27896	5.84690	0.65213
CYCLO-C7	0.27437	5.75063	0.27896	5.84690	0.65213
C-HEPTANE	0.27437	5.75063	0.27896	5.84690	0.65213
CYCLOHEPT	0.27437	5.75063	0.27896	5.84690	0.65213
N-C8	0.25909	7.88108	0.26013	7.91281	0.57892

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-OCTANE	0.25909	7.88108	0.26013	7.91281	0.57892
OCTANE	0.25909	7.88108	0.26013	7.91281	0.57892
E-BENZENE	0.26305	5.99091	0.26254	5.97927	0.72363
P-XYLENE	0.25904	6.05498	0.25525	5.96647	0.65065
M-XYLENE	0.25884	6.00692	0.25621	5.94581	0.65532
O-XYLENE	0.26349	5.92683	0.26623	5.98852	0.86923
N-C9	0.25708	8.89025	0.25830	8.93253	0.75172
N-NONANE	0.25708	8.89025	0.25830	8.93253	0.75172
NONANE	0.25708	8.89025	0.25830	8.93253	0.75172
C-C8	0.27201	6.56757	0.27773	6.70579	0.92258
CYCLO-C8	0.27201	6.56757	0.27773	6.70579	0.92258
C-OCTANE	0.27201	6.56757	0.27773	6.70579	0.92258
CYCLOOCTA	0.27201	6.56757	0.27773	6.70579	0.92258
CUMENE	0.26589	6.96323	0.26435	6.92291	0.83587
I-C3-BENZ	0.26589	6.96323	0.26435	6.92291	0.83587
1ME-BENZE	0.26589	6.96323	0.26435	6.92291	0.83587
P-BENZENE	0.26528	7.04812	0.26584	7.06298	1.02704
1E4M-BENZ	0.26700	7.04812	0.26791	7.07222	1.05666
135TM-BEN	0.25376	6.88794	0.26674	7.24046	1.06804
124TM-BEN	0.26050	6.96803	0.26206	7.00966	1.15251
N-C10	0.25636	9.99552	0.25577	9.97248	0.95637
N-DECANE	0.25636	9.99552	0.25577	9.97248	0.95637
DECANE	0.25636	9.99552	0.25577	9.97248	0.95637
123TM-BEN	0.27195	6.96803	0.26888	6.88956	1.25226
N-C11	0.25677	11.03672	0.25644	11.02225	1.19629
N-UNDECAN	0.25677	11.03672	0.25644	11.02225	1.19629
UNDECANE	0.25677	11.03672	0.25644	11.02225	1.19629
N-C12	0.25083	12.07792	0.25135	12.10293	1.47520
N-DODECAN	0.25083	12.07792	0.25135	12.10293	1.47520
DODECANE	0.25083	12.07792	0.25135	12.10293	1.47520
NAPHTHALE	0.26490	6.51951	0.27752	6.83010	2.63165
N-C13	0.24636	13.18320	0.24664	13.19804	1.79642
N-TRIDECA	0.24636	13.18320	0.24664	13.19804	1.79642
TRIDECA	0.24636	13.18320	0.24664	13.19804	1.79642
2M-NAPHTH	0.25848	7.40053	0.27072	7.75086	2.65690
1M-NAPHTH	0.25912	7.40053	0.26566	7.58751	2.79963
N-C14	0.24360	14.32051	0.24332	14.30407	2.16472
N-TETRADE	0.24360	14.32051	0.24332	14.30407	2.16472

Table 2: Additional Properties for Characterization “PR79 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
<b>TETRADECA</b>	0.24360	14.32051	0.24332	14.30407	2.16472
<b>DPH-C1</b>	0.24145	9.01839	0.25002	9.33839	3.53425
<b>DPH-METHA</b>	0.24145	9.01839	0.25002	9.33839	3.53425
<b>N-C15</b>	0.24287	15.47384	0.24201	15.41886	2.58068
<b>N-PENTADE</b>	0.24287	15.47384	0.24201	15.41886	2.58068
<b>PENTADECA</b>	0.24287	15.47384	0.24201	15.41886	2.58068
<b>N-C16</b>	0.24081	16.56309	0.24056	16.54557	3.04856
<b>N-HEXADEC</b>	0.24081	16.56309	0.24056	16.54557	3.04856
<b>HEXADECAN</b>	0.24081	16.56309	0.24056	16.54557	3.04856
<b>N-C17</b>	0.24153	17.66837	0.24147	17.66401	3.54721
<b>N-HEPTADE</b>	0.24153	17.66837	0.24147	17.66401	3.54721
<b>HEPTADECA</b>	0.24153	17.66837	0.24147	17.66401	3.54721
<b>N-C18</b>	0.24695	19.04595	0.24353	18.78180	4.09789
<b>N-OCTADEC</b>	0.24695	19.04595	0.24353	18.78180	4.09789
<b>OCTADECAN</b>	0.24695	19.04595	0.24353	18.78180	4.09789
<b>N-C19</b>	0.21374	18.52768	0.23070	19.99783	4.73667
<b>N-NONADEC</b>	0.21374	18.52768	0.23070	19.99783	4.73667
<b>NONADECAN</b>	0.21374	18.52768	0.23070	19.99783	4.73667
<b>12DPH-BEN</b>	0.23288	8.89001	0.38311	14.62482	6.67159
<b>PHENANTHR</b>	0.22006	8.87423	0.26603	10.72814	7.30912
<b>ANTHRACEN</b>	0.21998	8.87423	0.20016	8.07450	6.68134
<b>N-C20</b>	0.20915	19.99370	0.22267	21.28563	5.43030
<b>N-EICOSAN</b>	0.20915	19.99370	0.22267	21.28563	5.43030
<b>EICOSANE</b>	0.20915	19.99370	0.22267	21.28563	5.43030
<b>N-C21</b>	0.20523	20.64563	0.22372	22.50586	6.15049
<b>N-HENEICO</b>	0.20523	20.64563	0.22372	22.50586	6.15049
<b>HENEICOSA</b>	0.20523	20.64563	0.22372	22.50586	6.15049
<b>13DPH-BEN</b>	0.24457	11.59737	0.29493	13.98551	10.18562
<b>N-C22</b>	0.20155	21.52916	0.22219	23.73433	6.93370
<b>N-DOCOSAN</b>	0.20155	21.52916	0.22219	23.73433	6.93370
<b>DOCOSANE</b>	0.20155	21.52916	0.22219	23.73433	6.93370
<b>14DPH-BEN</b>	0.28872	11.67746	0.33530	13.56146	12.06661
<b>N-C23</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>N-TRICOSA</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>TRICOSANE</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>N-C24</b>	0.19430	23.79614	0.21438	26.25435	8.66387
<b>N-TETRACO</b>	0.19430	23.79614	0.21438	26.25435	8.66387
<b>TETRACOSA</b>	0.19430	23.79614	0.21438	26.25435	8.66387

Table 3: Essential Properties for Characterization “PR77 Library”

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
HE	4.003	9.3420	32.924	-0.39000	-0.26365	0.30142	19.20
HELIUM	4.003	9.3420	32.924	-0.39000	-0.26365	0.30142	19.20
NE	20.180	79.9200	400.304	-0.01600	-0.32239	0.31177	41.30
NEON	20.180	79.9200	400.304	-0.01600	-0.32239	0.31177	41.30
AR	39.948	271.5480	710.395	-0.00200	-0.18769	0.29119	74.70
ARGON	39.948	271.5480	710.395	-0.00200	-0.18769	0.29119	74.70
KR	83.800	376.9200	797.708	0.00227	-0.15572	0.28810	148.80
KRYPTON	83.800	376.9200	797.708	0.00227	-0.15572	0.28810	148.80
XE	131.290	521.5320	847.020	0.00710	-0.09103	0.28606	229.00
XENON	131.290	521.5320	847.020	0.00710	-0.09103	0.28606	229.00
RN	222.018	678.6000	913.738	-0.02254	-0.05750	0.28138	382.30
RADON	222.018	678.6000	913.738	-0.02254	-0.05750	0.28138	382.30
H2	2.016	59.3640	187.534	-0.21700	-0.35561	0.30273	35.00
HYDROGEN	2.016	59.3640	187.534	-0.21700	-0.35561	0.30273	35.00
N2	28.014	227.1600	492.838	0.03700	-0.16758	0.29178	59.10
NITROGEN	28.014	227.1600	492.838	0.03700	-0.16758	0.29178	59.10
CO	28.010	239.1300	506.762	0.04500	-0.14588	0.29449	61.70
O2	31.999	278.2440	731.425	0.02481	-0.15218	0.28789	53.10
OXYGEN	31.999	278.2440	731.425	0.02481	-0.15218	0.28789	53.10
NO	30.006	324.0000	939.845	0.58200	-0.07286	0.25113	56.60
N2O	44.013	557.2800	1052.249	0.16672	-0.07057	0.27338	41.30
CO2	44.010	547.4160	1069.508	0.22500	0.00191	0.27433	80.00
H2S	34.082	672.1200	1299.973	0.09000	-0.04470	0.28292	80.10
NH3	17.031	729.7200	1646.613	0.25700	0.12897	0.24409	58.00
AMMONIA	17.031	729.7200	1646.613	0.25700	0.12897	0.24409	58.00
SO2	64.065	775.4400	1143.478	0.25723	-0.01919	0.26853	127.30
NO2	46.006	775.8000	1464.881	0.83400	0.06161	0.22053	72.80
N2O4	92.011	775.8180	1464.881	1.00700	-1.10735	0.43987	145.60
H2O	18.015	1164.8520	3200.113	0.34400	0.16658	0.22763	52.80
WATER	18.015	1164.8520	3200.113	0.34400	0.16658	0.22763	52.80
C1	16.043	343.0080	667.029	0.01100	-0.14996	0.28620	71.00
CH4	16.043	343.0080	667.029	0.01100	-0.14996	0.28620	71.00
METHANE	16.043	343.0080	667.029	0.01100	-0.14996	0.28620	71.00
C2	30.070	549.5760	706.624	0.09900	-0.06280	0.27924	111.00
C2H6	30.070	549.5760	706.624	0.09900	-0.06280	0.27924	111.00
ETHANE	30.070	549.5760	706.624	0.09900	-0.06280	0.27924	111.00
C3	44.097	665.6940	616.120	0.15200	-0.06381	0.27630	151.00
C3H8	44.097	665.6940	616.120	0.15200	-0.06381	0.27630	151.00

Table 3: Essential Properties for Characterization “PR77 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
PROPANE	44.097	665.6940	616.120	0.15200	-0.06381	0.27630	151.00
C-C3	42.081	716.8500	808.585	0.13000	-0.32275	0.27410	132.00
CYCLO-C3	42.081	716.8500	808.585	0.13000	-0.32275	0.27410	132.00
C-PROPANE	42.081	716.8500	808.585	0.13000	-0.32275	0.27410	132.00
CYCLOPROP	42.081	716.8500	808.585	0.13000	-0.32275	0.27410	132.00
I-C4	58.123	734.1300	527.937	0.18600	-0.06197	0.28199	188.80
ISO-C4	58.123	734.1300	527.937	0.18600	-0.06197	0.28199	188.80
I-BUTANE	58.123	734.1300	527.937	0.18600	-0.06197	0.28199	188.80
ISOBUTANE	58.123	734.1300	527.937	0.18600	-0.06197	0.28199	188.80
N-C4	58.123	765.2160	550.563	0.20000	-0.05393	0.27385	191.00
N-BUTANE	58.123	765.2160	550.563	0.20000	-0.05393	0.27385	191.00
BUTANE	58.123	765.2160	550.563	0.20000	-0.05393	0.27385	191.00
NEO-C5	72.150	780.7500	463.976	0.19700	-0.07632	0.26895	225.90
NEOPENTAN	72.150	780.7500	463.976	0.19700	-0.07632	0.26895	225.90
C-C4	56.108	828.0000	723.738	0.18500	-0.08978	0.28442	166.00
CYCLO-C4	56.108	828.0000	723.738	0.18500	-0.08978	0.28442	166.00
C-BUTANE	56.108	828.0000	723.738	0.18500	-0.08978	0.28442	166.00
CYCLOBUTA	56.108	828.0000	723.738	0.18500	-0.08978	0.28442	166.00
I-C5	72.150	828.7020	490.373	0.22900	-0.05646	0.27708	227.40
ISO-C5	72.150	828.7020	490.373	0.22900	-0.05646	0.27708	227.40
I-PENTANE	72.150	828.7020	490.373	0.22900	-0.05646	0.27708	227.40
ISOPENTAN	72.150	828.7020	490.373	0.22900	-0.05646	0.27708	227.40
N-C5	72.150	845.4600	488.777	0.25200	-0.02928	0.26834	231.00
N-PENTANE	72.150	845.4600	488.777	0.25200	-0.02928	0.26834	231.00
PENTANE	72.150	845.4600	488.777	0.25200	-0.02928	0.26834	231.00
C-C5	70.134	920.8800	653.830	0.19669	-0.07568	0.28986	203.00
CYCLO-C5	70.134	920.8800	653.830	0.19669	-0.07568	0.28986	203.00
C-PENTANE	70.134	920.8800	653.830	0.19669	-0.07568	0.28986	203.00
CYCLOPENT	70.134	920.8800	653.830	0.19669	-0.07568	0.28986	203.00
22DM-C4	86.177	879.6600	446.716	0.23300	-0.07263	0.27760	263.00
22DM-BUTA	86.177	879.6600	446.716	0.23300	-0.07263	0.27760	263.00
23DM-C4	86.177	899.8200	453.968	0.24800	-0.05339	0.27419	263.40
23DM-BUTA	86.177	899.8200	453.968	0.24800	-0.05339	0.27419	263.40
2M-C5	86.177	895.5000	436.564	0.27800	-0.02956	0.26916	268.80
2M-PENTAN	86.177	895.5000	436.564	0.27800	-0.02956	0.26916	268.80
3M-C5	86.177	907.9200	452.518	0.27300	-0.04127	0.27183	267.40
3M-PENTAN	86.177	907.9200	452.518	0.27300	-0.04127	0.27183	267.40
N-C6	86.177	913.6800	438.739	0.30000	-0.01176	0.26594	271.00



Table 3: Essential Properties for Characterization “PR77 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-HEXANE	86.177	913.6800	438.739	0.30000	-0.01176	0.26594	271.00
HEXANE	86.177	913.6800	438.739	0.30000	-0.01176	0.26594	271.00
MC-C5	84.161	959.0220	548.823	0.22700	-0.05007	0.28473	243.00
MC-PENTAN	84.161	959.0220	548.823	0.22700	-0.05007	0.28473	243.00
22DM-C5	100.204	936.7200	401.755	0.28700	-0.03965	0.27298	305.90
22DM-PENT	100.204	936.7200	401.755	0.28700	-0.03965	0.27298	305.90
BENZENE	78.114	1011.6900	709.960	0.21000	-0.02879	0.28034	205.10
24DM-C5	100.204	935.4600	397.403	0.30400	-0.03227	0.27137	306.60
24DM-PENT	100.204	935.4600	397.403	0.30400	-0.03227	0.27137	306.60
C-C6	84.161	996.3000	590.739	0.21100	-0.05688	0.30244	240.80
CYCLO-C6	84.161	996.3000	590.739	0.21100	-0.05688	0.30244	240.80
C-HEXANE	84.161	996.3000	590.739	0.21100	-0.05688	0.30244	240.80
CYCLOHEXA	84.161	996.3000	590.739	0.21100	-0.05688	0.30244	240.80
223TM-C4	100.204	955.9800	427.861	0.25000	-0.06542	0.27908	299.00
223TM-BUT	100.204	955.9800	427.861	0.25000	-0.06542	0.27908	299.00
33DM-C5	100.204	965.3400	427.861	0.26900	-0.05362	0.27697	303.00
33DM-PENT	100.204	965.3400	427.861	0.26900	-0.05362	0.27697	303.00
23DM-C5	100.204	967.1400	422.060	0.29700	-0.03652	0.27360	303.40
23DM-PENT	100.204	967.1400	422.060	0.29700	-0.03652	0.27360	303.40
2M-C6	100.204	954.1800	395.953	0.33100	-0.00490	0.26630	308.80
2M-HEXANE	100.204	954.1800	395.953	0.33100	-0.00490	0.26630	308.80
3M-C6	100.204	963.3600	407.556	0.32300	-0.01535	0.26894	307.40
3M-HEXANE	100.204	963.3600	407.556	0.32300	-0.01535	0.26894	307.40
3E-C5	100.204	972.9000	419.159	0.31100	-0.01984	0.27042	305.00
3E-PENTAN	100.204	972.9000	419.159	0.31100	-0.01984	0.27042	305.00
N-C7	100.204	972.3600	397.403	0.35000	0.01233	0.26320	311.00
N-HEPTANE	100.204	972.3600	397.403	0.35000	0.01233	0.26320	311.00
HEPTANE	100.204	972.3600	397.403	0.35000	0.01233	0.26320	311.00
MC-C6	98.188	1029.9420	503.426	0.23500	-0.03843	0.28729	280.80
MC-HEXANE	98.188	1029.9420	503.426	0.23500	-0.03843	0.28729	280.80
EC-C5	98.188	1025.1000	492.693	0.27000	-0.02627	0.27317	283.00
EC-PENTAN	98.188	1025.1000	492.693	0.27000	-0.02627	0.27317	283.00
TOLUENE	92.141	1065.1500	595.815	0.26400	0.00394	0.26667	245.10
C-C7	98.188	1087.7400	556.945	0.24200	-0.04795	0.27896	280.00
CYCLO-C7	98.188	1087.7400	556.945	0.24200	-0.04795	0.27896	280.00
C-HEPTANE	98.188	1087.7400	556.945	0.24200	-0.04795	0.27896	280.00
CYCLOHEPT	98.188	1087.7400	556.945	0.24200	-0.04795	0.27896	280.00
N-C8	114.231	1023.6600	361.144	0.39900	0.03916	0.26013	351.00

Table 3: Essential Properties for Characterization “PR77 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-OCTANE	114.231	1023.6600	361.144	0.39900	0.03916	0.26013	351.00
OCTANE	114.231	1023.6600	361.144	0.39900	0.03916	0.26013	351.00
E-BENZENE	106.167	1110.8700	523.441	0.30400	0.02183	0.26254	285.10
P-XYLENE	106.167	1109.1600	509.227	0.32200	0.04121	0.25525	285.10
M-XYLENE	106.167	1110.6000	513.579	0.32700	0.03650	0.25621	285.10
O-XYLENE	106.167	1134.5400	541.281	0.31200	0.01858	0.26623	285.10
N-C9	128.258	1070.2800	332.136	0.44500	0.05908	0.25830	391.00
N-NONANE	128.258	1070.2800	332.136	0.44500	0.05908	0.25830	391.00
NONANE	128.258	1070.2800	332.136	0.44500	0.05908	0.25830	391.00
C-C8	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
CYCLO-C8	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
C-OCTANE	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
CYCLOOCTA	112.215	1164.9600	517.785	0.25400	-0.02118	0.27773	320.00
CUMENE	120.194	1135.8000	465.426	0.32600	0.02462	0.26435	322.90
I-C3-BENZ	120.194	1135.8000	465.426	0.32600	0.02462	0.26435	322.90
1ME-BENZE	120.194	1135.8000	465.426	0.32600	0.02462	0.26435	322.90
P-BENZENE	120.194	1149.0300	464.121	0.34500	0.03545	0.26584	325.10
1E4M-BENZ	120.194	1152.3600	468.472	0.36400	0.02687	0.26791	325.10
135TM-BEN	120.194	1147.1400	453.533	0.39900	0.03235	0.26674	325.10
124TM-BEN	120.194	1168.3800	468.762	0.37700	0.05504	0.26206	325.10
N-C10	142.285	1111.8600	306.030	0.49000	0.08100	0.25577	431.00
N-DECANE	142.285	1111.8600	306.030	0.49000	0.08100	0.25577	431.00
DECANE	142.285	1111.8600	306.030	0.49000	0.08100	0.25577	431.00
123TM-BEN	120.194	1196.1000	500.960	0.36700	0.02813	0.26888	325.10
N-C11	156.312	1150.2000	287.175	0.53700	0.08813	0.25643	471.00
N-UNDECAN	156.312	1150.2000	287.175	0.53700	0.08813	0.25643	471.00
UNDECANE	156.312	1150.2000	287.175	0.53700	0.08813	0.25643	471.00
N-C12	170.338	1184.4000	263.969	0.57600	0.11898	0.25135	511.00
N-DODECAN	170.338	1184.4000	263.969	0.57600	0.11898	0.25135	511.00
DODECANE	170.338	1184.4000	263.969	0.57600	0.11898	0.25135	511.00
NAPHTHALE	128.174	1347.1200	587.403	0.30400	0.03554	0.27752	311.10
N-C13	184.365	1215.0000	243.663	0.61800	0.14683	0.24663	551.00
N-TRIDECA	184.365	1215.0000	243.663	0.61800	0.14683	0.24663	551.00
TRIDECA	184.365	1215.0000	243.663	0.61800	0.14683	0.24663	551.00
2M-NAPHTH	142.200	1369.8000	513.434	0.37400	0.05748	0.27072	351.10
1M-NAPHTH	142.200	1389.6000	522.136	0.34800	0.08002	0.26566	351.10
N-C14	198.392	1247.4000	227.709	0.64400	0.16829	0.24331	591.00
N-TETRADE	198.392	1247.4000	227.709	0.64400	0.16829	0.24331	591.00

Table 3: Essential Properties for Characterization “PR77 Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
<b>TETRADECA</b>	198.392	1247.4000	227.709	0.64400	0.16829	0.24331	591.00
<b>DPH-C1</b>	168.238	1368.0000	393.052	0.48100	0.15575	0.25002	419.20
<b>DPH-METHA</b>	168.238	1368.0000	393.052	0.48100	0.15575	0.25002	419.20
<b>N-C15</b>	212.419	1274.4000	214.656	0.68500	0.18067	0.24200	631.00
<b>N-PENTADE</b>	212.419	1274.4000	214.656	0.68500	0.18067	0.24200	631.00
<b>PENTADECA</b>	212.419	1274.4000	214.656	0.68500	0.18067	0.24200	631.00
<b>N-C16</b>	226.446	1301.4000	203.053	0.71800	0.19316	0.24055	671.00
<b>N-HEXADEC</b>	226.446	1301.4000	203.053	0.71800	0.19316	0.24055	671.00
<b>HEXADECAN</b>	226.446	1301.4000	203.053	0.71800	0.19316	0.24055	671.00
<b>N-C17</b>	240.473	1324.8000	194.351	0.75300	0.19587	0.24146	711.00
<b>N-HEPTADE</b>	240.473	1324.8000	194.351	0.75300	0.19587	0.24146	711.00
<b>HEPTADECA</b>	240.473	1324.8000	194.351	0.75300	0.19587	0.24146	711.00
<b>N-C18</b>	254.500	1344.6000	187.099	0.80000	0.19379	0.24352	751.00
<b>N-OCTADEC</b>	254.500	1344.6000	187.099	0.80000	0.19379	0.24352	751.00
<b>OCTADECAN</b>	254.500	1344.6000	187.099	0.80000	0.19379	0.24352	751.00
<b>N-C19</b>	268.527	1359.0000	168.244	0.84500	0.24761	0.23068	791.00
<b>N-NONADEC</b>	268.527	1359.0000	168.244	0.84500	0.24761	0.23068	791.00
<b>NONADECAN</b>	268.527	1359.0000	168.244	0.84500	0.24761	0.23068	791.00
<b>12DPH-BEN</b>	230.309	1542.6000	433.663	0.52042	−0.30612	0.38311	553.30
<b>PHENANTHR</b>	178.233	1564.2000	416.258	0.47900	0.12838	0.26603	417.10
<b>ANTHRACEN</b>	178.233	1564.7400	416.258	0.50100	0.35376	0.20016	417.10
<b>N-C20</b>	282.554	1382.4000	155.190	0.86500	0.28236	0.22265	831.00
<b>N-EICOSAN</b>	282.554	1382.4000	155.190	0.86500	0.28236	0.22265	831.00
<b>EICOSANE</b>	282.554	1382.4000	155.190	0.86500	0.28236	0.22265	831.00
<b>N-C21</b>	296.580	1400.4000	149.389	0.94773	0.28147	0.22372	871.00
<b>N-HENEICO</b>	296.580	1400.4000	149.389	0.94773	0.28147	0.22372	871.00
<b>HENEICOSA</b>	296.580	1400.4000	149.389	0.94773	0.28147	0.22372	871.00
<b>13DPH-BEN</b>	230.309	1589.4000	359.694	0.54673	0.04334	0.29493	553.30
<b>N-C22</b>	310.607	1414.8000	142.137	1.01781	0.29056	0.22219	911.00
<b>N-DOCOSAN</b>	310.607	1414.8000	142.137	1.01781	0.29056	0.22219	911.00
<b>DOCOSANE</b>	310.607	1414.8000	142.137	1.01781	0.29056	0.22219	911.00
<b>14DPH-BEN</b>	230.309	1634.4000	433.663	0.59477	−0.09594	0.33530	553.30
<b>N-C23</b>	324.634	1422.0000	133.435	1.14967	0.31066	0.21752	951.00
<b>N-TRICOSA</b>	324.634	1422.0000	133.435	1.14967	0.31066	0.21752	951.00
<b>TRICOSANE</b>	324.634	1422.0000	133.435	1.14967	0.31066	0.21752	951.00
<b>N-C24</b>	338.661	1440.0000	126.183	1.15026	0.32510	0.21438	991.00
<b>N-TETRACO</b>	338.661	1440.0000	126.183	1.15026	0.32510	0.21438	991.00
<b>TETRACOSA</b>	338.661	1440.0000	126.183	1.15026	0.32510	0.21438	991.00

Table 4: Additional Properties for Characterization “PR77 Library”

Component	Full Name	Tb (F)	SG
HE	“Helium”	−452.183	0.06428
HELIUM	“Helium”	−452.183	0.06428
NE	“Neon”	−410.688	0.45422
NEON	“Neon”	−410.688	0.45422
AR	“Argon”	−302.755	0.48492
ARGON	“Argon”	−302.755	0.48492
KR	“Krypton”	−244.138	0.82933
KRYPTON	“Krypton”	−244.138	0.82933
XE	“Xenon”	−162.652	1.19315
XENON	“Xenon”	−162.652	1.19315
RN	“Radon”	−82.030	3.66123
RADON	“Radon”	−82.030	3.66123
H2	“Hydrogen”	−423.203	0.02840
HYDROGEN	“Hydrogen”	−423.203	0.02840
N2	“Nitrogen”	−320.625	0.28339
NITROGEN	“Nitrogen”	−320.625	0.28339
CO	“Carbon Monoxide”	−313.268	0.27824
O2	“Oxygen”	−297.364	0.39368
OXYGEN	“Oxygen”	−297.364	0.39368
NO	“Nitric Oxide”	−241.940	0.41539
N2O	“Nitrous Oxide”	−127.264	0.75419
CO2	“Carbon Dioxide”	−126.879	0.76193
H2S	“Hydrogen Sulfide”	−78.613	0.83007
NH3	“Ammonia”	−27.494	0.61280
AMMONIA	“Ammonia”	−27.494	0.61280
SO2	“Sulfur Dioxide”	13.964	1.39305
NO2	“Nitrogen Dioxide”	67.506	1.46286
N2O4	“Nitrogen Tetroxide”	79.583	1.45379
H2O	“Water”	214.472	1.00508
WATER	“Water”	214.472	1.00508
C1	“Methane”	−258.868	0.14609
CH4	“Methane”	−258.868	0.14609
METHANE	“Methane”	−258.868	0.14609
C2	“Ethane”	−127.690	0.32976
C2H6	“Ethane”	−127.690	0.32976
ETHANE	“Ethane”	−127.690	0.32976
C3	“Propane”	−43.989	0.50977
C3H8	“Propane”	−43.989	0.50977

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>PROPANE</b>	“Propane”	−43.989	0.50977
<b>C-C3</b>	“Cyclopropane”	−27.271	0.53380
<b>CYCLO-C3</b>	“Cyclopropane”	−27.271	0.53380
<b>C-PROPANE</b>	“Cyclopropane”	−27.271	0.53380
<b>CYCLOPROP</b>	“Cyclopropane”	−27.271	0.53380
<b>I-C4</b>	“Isobutane”	11.015	0.57043
<b>ISO-C4</b>	“Isobutane”	11.015	0.57043
<b>I-BUTANE</b>	“Isobutane”	11.015	0.57043
<b>ISOBUTANE</b>	“Isobutane”	11.015	0.57043
<b>N-C4</b>	“Butane”	31.071	0.59055
<b>N-BUTANE</b>	“Butane”	31.071	0.59055
<b>BUTANE</b>	“Butane”	31.071	0.59055
<b>NEO-C5</b>	“Neopentane”	49.046	0.60199
<b>NEOPENTAN</b>	“Neopentane”	49.046	0.60199
<b>C-C4</b>	“Cyclobutane”	55.094	0.70002
<b>CYCLO-C4</b>	“Cyclobutane”	55.094	0.70002
<b>C-BUTANE</b>	“Cyclobutane”	55.094	0.70002
<b>CYCLOBUTA</b>	“Cyclobutane”	55.094	0.70002
<b>I-C5</b>	“Isopentane”	82.423	0.62952
<b>ISO-C5</b>	“Isopentane”	82.423	0.62952
<b>I-PENTANE</b>	“Isopentane”	82.423	0.62952
<b>ISOPENTAN</b>	“Isopentane”	82.423	0.62952
<b>N-C5</b>	“Pentane”	97.136	0.63585
<b>N-PENTANE</b>	“Pentane”	97.136	0.63585
<b>PENTANE</b>	“Pentane”	97.136	0.63585
<b>C-C5</b>	“Cyclopentane”	120.614	0.74932
<b>CYCLO-C5</b>	“Cyclopentane”	120.614	0.74932
<b>C-PENTANE</b>	“Cyclopentane”	120.614	0.74932
<b>CYCLOPENT</b>	“Cyclopentane”	120.614	0.74932
<b>22DM-C4</b>	“2,2-Dimethylbutane”	121.637	0.65312
<b>22DM-BUTA</b>	“2,2-Dimethylbutane”	121.637	0.65312
<b>23DM-C4</b>	“2,3-Dimethylbutane”	136.489	0.66541
<b>23DM-BUTA</b>	“2,3-Dimethylbutane”	136.489	0.66541
<b>2M-C5</b>	“2-Methylpentane”	140.585	0.65696
<b>2M-PENTAN</b>	“2-Methylpentane”	140.585	0.65696
<b>3M-C5</b>	“3-Methylpentane”	146.058	0.66801
<b>3M-PENTAN</b>	“3-Methylpentane”	146.058	0.66801
<b>N-C6</b>	“Hexane”	155.884	0.66304

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Full Name	Tb (F)	SG
N-HEXANE	“Hexane”	155.884	0.66304
HEXANE	“Hexane”	155.884	0.66304
MC-C5	“Methylcyclopentane”	160.571	0.75215
MC-PENTAN	“Methylcyclopentane”	160.571	0.75215
22DM-C5	“2,2-Dimethylpentane”	174.633	0.67721
22DM-PENT	“2,2-Dimethylpentane”	174.633	0.67721
BENZENE	“Benzene”	175.600	0.88238
24DM-C5	“2,4-Dimethylpentane”	177.069	0.67596
24DM-PENT	“2,4-Dimethylpentane”	177.069	0.67596
C-C6	“Cyclohexane”	177.102	0.78173
CYCLO-C6	“Cyclohexane”	177.102	0.78173
C-HEXANE	“Cyclohexane”	177.102	0.78173
CYCLOHEXA	“Cyclohexane”	177.102	0.78173
223TM-C4	“2,2,3-Trimethylbutane”	177.672	0.69312
223TM-BUT	“2,2,3-Trimethylbutane”	177.672	0.69312
33DM-C5	“3,3-Dimethylpentane”	187.140	0.69652
33DM-PENT	“3,3-Dimethylpentane”	187.140	0.69652
23DM-C5	“2,3-Dimethylpentane”	193.792	0.69816
23DM-PENT	“2,3-Dimethylpentane”	193.792	0.69816
2M-C6	“2-Methylhexane”	194.166	0.68180
2M-HEXANE	“2-Methylhexane”	194.166	0.68180
3M-C6	“3-Methylhexane”	197.464	0.69023
3M-HEXANE	“3-Methylhexane”	197.464	0.69023
3E-C5	“3-Ethylpentane”	200.354	0.70125
3E-PENTAN	“3-Ethylpentane”	200.354	0.70125
N-C7	“Heptane”	209.267	0.68672
N-HEPTANE	“Heptane”	209.267	0.68672
HEPTANE	“Heptane”	209.267	0.68672
MC-C6	“Methylcyclohexane”	213.515	0.77222
MC-HEXANE	“Methylcyclohexane”	213.515	0.77222
EC-C5	“Ethylcyclopentane”	218.230	0.76936
EC-PENTAN	“Ethylcyclopentane”	218.230	0.76936
TOLUENE	“Toluene”	231.222	0.86987
C-C7	“Cycloheptane”	245.908	0.81331
CYCLO-C7	“Cycloheptane”	245.908	0.81331
C-HEPTANE	“Cycloheptane”	245.908	0.81331
CYCLOHEPT	“Cycloheptane”	245.908	0.81331
N-C8	“Octane”	258.150	0.70513

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

<b>Component</b>	<b>Full Name</b>	<b>Tb (F)</b>	<b>SG</b>
<b>N-OCTANE</b>	“Octane”	258.150	0.70513
<b>OCTANE</b>	“Octane”	258.150	0.70513
<b>E-BENZENE</b>	“Ethylbenzene”	277.351	0.86960
<b>P-XYLENE</b>	“p-Xylene”	281.404	0.86371
<b>M-XYLENE</b>	“m-Xylene”	282.706	0.86686
<b>O-XYLENE</b>	“o-Xylene”	292.292	0.88238
<b>N-C9</b>	“Nonane”	303.239	0.71982
<b>N-NONANE</b>	“Nonane”	303.239	0.71982
<b>NONANE</b>	“Nonane”	303.239	0.71982
<b>C-C8</b>	“Cyclooctane”	303.794	0.83814
<b>CYCLO-C8</b>	“Cyclooctane”	303.794	0.83814
<b>C-OCTANE</b>	“Cyclooctane”	303.794	0.83814
<b>CYCLOOCTA</b>	“Cyclooctane”	303.794	0.83814
<b>CUMENE</b>	“Cumene”	306.195	0.86411
<b>I-C3-BENZ</b>	“Cumene”	306.195	0.86411
<b>1ME-BENZE</b>	“Cumene”	306.195	0.86411
<b>P-BENZENE</b>	“Propylbenzene”	318.804	0.86377
<b>1E4M-BENZ</b>	“1-Ethyl-4-methylbenzene”	323.813	0.86442
<b>135TM-BEN</b>	“1,3,5-Trimethylbenzene”	328.539	0.84675
<b>124TM-BEN</b>	“1,2,4-Trimethylbenzene”	336.977	0.87913
<b>N-C10</b>	“Decane”	344.999	0.73183
<b>N-DECANE</b>	“Decane”	344.999	0.73183
<b>DECANE</b>	“Decane”	344.999	0.73183
<b>123TM-BEN</b>	“1,2,3-Trimethylbenzene”	349.261	0.89786
<b>N-C11</b>	“Undecane”	383.758	0.74181
<b>N-UNDECAN</b>	“Undecane”	383.758	0.74181
<b>UNDECANE</b>	“Undecane”	383.758	0.74181
<b>N-C12</b>	“Dodecane”	420.265	0.75030
<b>N-DODECAN</b>	“Dodecane”	420.265	0.75030
<b>DODECANE</b>	“Dodecane”	420.265	0.75030
<b>NAPHTHALE</b>	“Naphthalene”	424.785	1.01736
<b>N-C13</b>	“Tridecane”	454.458	0.75766
<b>N-TRIDECA</b>	“Tridecane”	454.458	0.75766
<b>TRIDECA</b>	“Tridecane”	454.458	0.75766
<b>2M-NAPHTH</b>	“2-Methylnaphthalene”	466.201	0.99853
<b>1M-NAPHTH</b>	“1-Methylnaphthalene”	472.537	1.02350
<b>N-C14</b>	“Tetradecane”	487.403	0.76400
<b>N-TETRADE</b>	“Tetradecane”	487.403	0.76400

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>TETRADECA</b>	“Tetradecane”	487.403	0.76400
<b>DPH-C1</b>	“Diphenylmethane”	507.540	1.00924
<b>DPH-METHA</b>	“Diphenylmethane”	507.540	1.00924
<b>N-C15</b>	“Pentadecane”	517.541	0.76953
<b>N-PENTADE</b>	“Pentadecane”	517.541	0.76953
<b>PENTADECA</b>	“Pentadecane”	517.541	0.76953
<b>N-C16</b>	“Hexadecane”	546.620	0.77442
<b>N-HEXADEC</b>	“Hexadecane”	546.620	0.77442
<b>HEXADECAN</b>	“Hexadecane”	546.620	0.77442
<b>N-C17</b>	“Heptadecane”	572.259	0.77891
<b>N-HEPTADE</b>	“Heptadecane”	572.259	0.77891
<b>HEPTADECA</b>	“Heptadecane”	572.259	0.77891
<b>N-C18</b>	“Octadecane”	595.855	0.78325
<b>N-OCTADEC</b>	“Octadecane”	595.855	0.78325
<b>OCTADECAN</b>	“Octadecane”	595.855	0.78325
<b>N-C19</b>	“Nonadecane”	620.837	0.78655
<b>N-NONADEC</b>	“Nonadecane”	620.837	0.78655
<b>NONADECAN</b>	“Nonadecane”	620.837	0.78655
<b>12DPH-BEN</b>	“1,2-Diphenylbenzene”	629.600	0.91020
<b>PHENANTHR</b>	“Phenanthrene”	640.437	0.97699
<b>ANTHRACEN</b>	“Anthracene”	645.226	1.29009
<b>N-C20</b>	“Eicosane”	648.552	0.78655
<b>N-EICOSAN</b>	“Eicosane”	648.552	0.78655
<b>EICOSANE</b>	“Eicosane”	648.552	0.78655
<b>N-C21</b>	“Heneicosane”	673.700	0.78752
<b>N-HENEICO</b>	“Heneicosane”	673.700	0.78752
<b>HENEICOSA</b>	“Heneicosane”	673.700	0.78752
<b>13DPH-BEN</b>	“1,3-Diphenylbenzene”	685.400	0.98848
<b>N-C22</b>	“Docosane”	695.480	0.78896
<b>N-DOCOSAN</b>	“Docosane”	695.480	0.78896
<b>DOCOSANE</b>	“Docosane”	695.480	0.78896
<b>14DPH-BEN</b>	“1,4-Diphenylbenzene”	708.800	1.02275
<b>N-C23</b>	“Tricosane”	716.360	0.79498
<b>N-TRICOSA</b>	“Tricosane”	716.360	0.79498
<b>TRICOSANE</b>	“Tricosane”	716.360	0.79498
<b>N-C24</b>	“Tetracosane”	736.340	0.79111
<b>N-TETRACO</b>	“Tetracosane”	736.340	0.79111
<b>TETRACOSA</b>	“Tetracosane”	736.340	0.79111



Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
HE	0.30142	0.91786	0.30142	0.91786	
HELIUM	0.30142	0.91786	0.30142	0.91786	
NE	0.31177	0.66797	0.31177	0.66797	
NEON	0.31177	0.66797	0.31177	0.66797	
AR	0.29119	1.19450	0.29119	1.19450	
ARGON	0.29119	1.19450	0.29119	1.19450	
KR	0.28810	1.46088	0.28810	1.46088	
KRYPTON	0.28810	1.46088	0.28810	1.46088	
XE	0.28606	1.89018	0.28606	1.89018	
XENON	0.28606	1.89018	0.28606	1.89018	
RN	0.28138	2.24258	0.28138	2.24258	
RADON	0.28138	2.24258	0.28138	2.24258	
H2	0.30273	1.02839	0.30273	1.02839	
HYDROGEN	0.30273	1.02839	0.30273	1.02839	
N2	0.29178	1.44326	0.29178	1.44326	
NITROGEN	0.29178	1.44326	0.29178	1.44326	
CO	0.29449	1.49132	0.29449	1.49132	
O2	0.28789	1.17527	0.28789	1.17527	
OXYGEN	0.28789	1.17527	0.28789	1.17527	
NO	0.25113	0.92907	0.25113	0.92907	
N2O	0.27338	1.55379	0.27338	1.55379	
CO2	0.27433	1.50686	0.27433	1.50686	
H2S	0.28292	1.56981	0.28292	1.56981	
NH3	0.24409	1.16086	0.24409	1.16086	
AMMONIA	0.24409	1.16086	0.24409	1.16086	
SO2	0.26853	1.95425	0.26853	1.95425	
NO2	0.47294	2.68790	0.22053	1.25338	0.22211
N2O4	0.47067	2.67508	0.43987	2.50000	0.30053
H2O	0.22943	0.89623	0.22763	0.88921	1.12658
WATER	0.22943	0.89623	0.22763	0.88921	1.12658
C1	0.28620	1.57942	0.28620	1.57942	
CH4	0.28620	1.57942	0.28620	1.57942	
METHANE	0.28620	1.57942	0.28620	1.57942	
C2	0.27924	2.33069	0.27924	2.33069	
C2H6	0.27924	2.33069	0.27924	2.33069	
ETHANE	0.27924	2.33069	0.27924	2.33069	
C3	0.27630	3.20369	0.27630	3.20369	
C3H8	0.27630	3.20369	0.27630	3.20369	

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Zc	Vc (ft3/lbmol)	ZcVis	VcVis (ft3/lbmol)	Visc (cp)
PROPANE	0.27630	3.20369	0.27630	3.20369	
C-C3	0.27410	2.60781	0.27410	2.60781	
CYCLO-C3	0.27410	2.60781	0.27410	2.60781	
C-PROPANE	0.27410	2.60781	0.27410	2.60781	
CYCLOPROP	0.27410	2.60781	0.27410	2.60781	
I-C4	0.28199	4.20805	0.28199	4.20805	
ISO-C4	0.28199	4.20805	0.28199	4.20805	
I-BUTANE	0.28199	4.20805	0.28199	4.20805	
ISOBUTANE	0.28199	4.20805	0.28199	4.20805	
N-C4	0.27385	4.08471	0.27385	4.08471	
N-BUTANE	0.27385	4.08471	0.27385	4.08471	
BUTANE	0.27385	4.08471	0.27385	4.08471	
NEO-C5	0.26895	4.85680	0.26895	4.85680	
NEOPENTAN	0.26895	4.85680	0.26895	4.85680	
C-C4	0.28442	3.49203	0.28442	3.49203	
CYCLO-C4	0.28442	3.49203	0.28442	3.49203	
C-BUTANE	0.28442	3.49203	0.28442	3.49203	
CYCLOBUTA	0.28442	3.49203	0.28442	3.49203	
I-C5	0.27231	4.93849	0.27708	5.02513	0.23498
ISO-C5	0.27231	4.93849	0.27708	5.02513	0.23498
I-PENTANE	0.27231	4.93849	0.27708	5.02513	0.23498
ISOPENTAN	0.27231	4.93849	0.27708	5.02513	0.23498
N-C5	0.26837	4.98174	0.26834	4.98112	0.23558
N-PENTANE	0.26837	4.98174	0.26834	4.98112	0.23558
PENTANE	0.26837	4.98174	0.26834	4.98112	0.23558
C-C5	0.27554	4.16480	0.28986	4.38110	0.46154
CYCLO-C5	0.27554	4.16480	0.28986	4.38110	0.46154
C-PENTANE	0.27554	4.16480	0.28986	4.38110	0.46154
CYCLOPENT	0.27554	4.16480	0.28986	4.38110	0.46154
22DM-C4	0.27220	5.75223	0.27760	5.86625	0.26394
22DM-BUTA	0.27220	5.75223	0.27760	5.86625	0.26394
23DM-C4	0.26929	5.72820	0.27419	5.83236	0.29290
23DM-BUTA	0.26929	5.72820	0.27419	5.83236	0.29290
2M-C5	0.26684	5.87397	0.26916	5.92513	0.29235
2M-PENTAN	0.26684	5.87397	0.26916	5.92513	0.29235
3M-C5	0.27281	5.87397	0.27183	5.85300	0.30930
3M-PENTAN	0.27281	5.87397	0.27183	5.85300	0.30930
N-C6	0.26377	5.89479	0.26594	5.94347	0.32245

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-HEXANE	0.26377	5.89479	0.26594	5.94347	0.32245
HEXANE	0.26377	5.89479	0.26594	5.94347	0.32245
MC-C5	0.27249	5.10989	0.28473	5.33948	0.53135
MC-PENTAN	0.27249	5.10989	0.28473	5.33948	0.53135
22DM-C5	0.26619	6.66048	0.27298	6.83025	0.35278
22DM-PENT	0.26619	6.66048	0.27298	6.83025	0.35278
BENZENE	0.26815	4.10073	0.28034	4.28713	0.69219
24DM-C5	0.26474	6.68771	0.27137	6.85522	0.35566
24DM-PENT	0.26474	6.68771	0.27137	6.85522	0.35566
C-C6	0.27259	4.93369	0.30244	5.47386	1.05399
CYCLO-C6	0.27259	4.93369	0.30244	5.47386	1.05399
C-HEXANE	0.27259	4.93369	0.30244	5.47386	1.05399
CYCLOHEXA	0.27259	4.93369	0.30244	5.47386	1.05399
223TM-C4	0.26562	6.36894	0.27908	6.69174	0.37505
223TM-BUT	0.26562	6.36894	0.27908	6.69174	0.37505
33DM-C5	0.27396	6.63325	0.27697	6.70607	0.39761
33DM-PENT	0.27396	6.63325	0.27697	6.70607	0.39761
23DM-C5	0.25600	6.29526	0.27360	6.72825	0.41384
23DM-PENT	0.25600	6.29526	0.27360	6.72825	0.41384
2M-C6	0.26077	6.74377	0.26630	6.88687	0.39610
2M-HEXANE	0.26077	6.74377	0.26630	6.88687	0.39610
3M-C6	0.25512	6.47146	0.26894	6.82207	0.41332
3M-HEXANE	0.25512	6.47146	0.26894	6.82207	0.41332
3E-C5	0.26739	6.66048	0.27042	6.73596	0.43230
3E-PENTAN	0.26739	6.66048	0.27042	6.73596	0.43230
N-C7	0.26110	6.85590	0.26320	6.91102	0.43539
N-HEPTANE	0.26110	6.85590	0.26320	6.91102	0.43539
HEPTANE	0.26110	6.85590	0.26320	6.91102	0.43539
MC-C6	0.26849	5.89479	0.28729	6.30746	0.78245
MC-HEXANE	0.26849	5.89479	0.28729	6.30746	0.78245
EC-C5	0.26903	6.00692	0.27317	6.09939	0.53539
EC-PENTAN	0.26903	6.00692	0.27317	6.09939	0.53539
TOLUENE	0.26384	5.06183	0.26667	5.11615	0.64614
C-C7	0.27437	5.75063	0.27896	5.84690	0.65213
CYCLO-C7	0.27437	5.75063	0.27896	5.84690	0.65213
C-HEPTANE	0.27437	5.75063	0.27896	5.84690	0.65213
CYCLOHEPT	0.27437	5.75063	0.27896	5.84690	0.65213
N-C8	0.25909	7.88108	0.26013	7.91281	0.57892

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-OCTANE	0.25909	7.88108	0.26013	7.91281	0.57892
OCTANE	0.25909	7.88108	0.26013	7.91281	0.57892
E-BENZENE	0.26305	5.99091	0.26254	5.97927	0.72363
P-XYLENE	0.25904	6.05498	0.25525	5.96647	0.65065
M-XYLENE	0.25884	6.00692	0.25621	5.94581	0.65532
O-XYLENE	0.26349	5.92683	0.26623	5.98852	0.86923
N-C9	0.25708	8.89025	0.25830	8.93253	0.75172
N-NONANE	0.25708	8.89025	0.25830	8.93253	0.75172
NONANE	0.25708	8.89025	0.25830	8.93253	0.75172
C-C8	0.27201	6.56757	0.27773	6.70579	0.92258
CYCLO-C8	0.27201	6.56757	0.27773	6.70579	0.92258
C-OCTANE	0.27201	6.56757	0.27773	6.70579	0.92258
CYCLOOCTA	0.27201	6.56757	0.27773	6.70579	0.92258
CUMENE	0.26589	6.96323	0.26435	6.92291	0.83587
I-C3-BENZ	0.26589	6.96323	0.26435	6.92291	0.83587
1ME-BENZE	0.26589	6.96323	0.26435	6.92291	0.83587
P-BENZENE	0.26528	7.04812	0.26584	7.06298	1.02704
1E4M-BENZ	0.26700	7.04812	0.26791	7.07222	1.05666
135TM-BEN	0.25376	6.88794	0.26674	7.24046	1.06804
124TM-BEN	0.26050	6.96803	0.26206	7.00966	1.15251
N-C10	0.25636	9.99552	0.25577	9.97248	0.95637
N-DECANE	0.25636	9.99552	0.25577	9.97248	0.95637
DECANE	0.25636	9.99552	0.25577	9.97248	0.95637
123TM-BEN	0.27195	6.96803	0.26888	6.88956	1.25226
N-C11	0.25677	11.03672	0.25643	11.02206	1.19634
N-UNDECAN	0.25677	11.03672	0.25643	11.02206	1.19634
UNDECANE	0.25677	11.03672	0.25643	11.02206	1.19634
N-C12	0.25083	12.07792	0.25135	12.10265	1.47530
N-DODECAN	0.25083	12.07792	0.25135	12.10265	1.47530
DODECANE	0.25083	12.07792	0.25135	12.10265	1.47530
NAPHTHALE	0.26490	6.51951	0.27752	6.83010	2.63165
N-C13	0.24636	13.18320	0.24663	13.19765	1.79657
N-TRIDECA	0.24636	13.18320	0.24663	13.19765	1.79657
TRIDECA	0.24636	13.18320	0.24663	13.19765	1.79657
2M-NAPHTH	0.25848	7.40053	0.27072	7.75086	2.65690
1M-NAPHTH	0.25912	7.40053	0.26566	7.58751	2.79963
N-C14	0.24360	14.32051	0.24331	14.30360	2.16495
N-TETRADE	0.24360	14.32051	0.24331	14.30360	2.16495

Table 4: Additional Properties for Characterization “PR77 Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
<b>TETRADECA</b>	0.24360	14.32051	0.24331	14.30360	2.16495
<b>DPH-C1</b>	0.24145	9.01839	0.25002	9.33839	3.53425
<b>DPH-METHA</b>	0.24145	9.01839	0.25002	9.33839	3.53425
<b>N-C15</b>	0.24287	15.47384	0.24200	15.41826	2.58102
<b>N-PENTADE</b>	0.24287	15.47384	0.24200	15.41826	2.58102
<b>PENTADECA</b>	0.24287	15.47384	0.24200	15.41826	2.58102
<b>N-C16</b>	0.24081	16.56309	0.24055	16.54484	3.04902
<b>N-HEXADEC</b>	0.24081	16.56309	0.24055	16.54484	3.04902
<b>HEXADECAN</b>	0.24081	16.56309	0.24055	16.54484	3.04902
<b>N-C17</b>	0.24153	17.66837	0.24146	17.66316	3.54785
<b>N-HEPTADE</b>	0.24153	17.66837	0.24146	17.66316	3.54785
<b>HEPTADECA</b>	0.24153	17.66837	0.24146	17.66316	3.54785
<b>N-C18</b>	0.24695	19.04595	0.24352	18.78076	4.09877
<b>N-OCTADEC</b>	0.24695	19.04595	0.24352	18.78076	4.09877
<b>OCTADECAN</b>	0.24695	19.04595	0.24352	18.78076	4.09877
<b>N-C19</b>	0.21375	18.52896	0.23068	19.99651	4.73795
<b>N-NONADEC</b>	0.21375	18.52896	0.23068	19.99651	4.73795
<b>NONADECAN</b>	0.21375	18.52896	0.23068	19.99651	4.73795
<b>12DPH-BEN</b>	0.23288	8.89001	0.38311	14.62482	6.67159
<b>PHENANTHR</b>	0.22006	8.87423	0.26603	10.72814	7.30912
<b>ANTHRACEN</b>	0.21998	8.87423	0.20016	8.07440	6.68134
<b>N-C20</b>	0.20917	19.99531	0.22265	21.28414	5.43200
<b>N-EICOSAN</b>	0.20917	19.99531	0.22265	21.28414	5.43200
<b>EICOSANE</b>	0.20917	19.99531	0.22265	21.28414	5.43200
<b>N-C21</b>	0.20523	20.64563	0.22372	22.50586	6.15049
<b>N-HENEICO</b>	0.20523	20.64563	0.22372	22.50586	6.15049
<b>HENEICOSA</b>	0.20523	20.64563	0.22372	22.50586	6.15049
<b>13DPH-BEN</b>	0.24457	11.59737	0.29493	13.98551	10.18562
<b>N-C22</b>	0.20155	21.52916	0.22219	23.73433	6.93370
<b>N-DOCOSAN</b>	0.20155	21.52916	0.22219	23.73433	6.93370
<b>DOCOSANE</b>	0.20155	21.52916	0.22219	23.73433	6.93370
<b>14DPH-BEN</b>	0.28872	11.67746	0.33530	13.56146	12.06661
<b>N-C23</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>N-TRICOSA</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>TRICOSANE</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>N-C24</b>	0.19430	23.79614	0.21438	26.25435	8.66387
<b>N-TETRACO</b>	0.19430	23.79614	0.21438	26.25435	8.66387
<b>TETRACOSA</b>	0.19430	23.79614	0.21438	26.25435	8.66387

Table 5: Essential Properties for Characterization “SRK Library”

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
HE	4.003	9.3420	32.924	−0.39000	−0.04307	0.30142	19.20
HELIUM	4.003	9.3420	32.924	−0.39000	−0.04307	0.30142	19.20
NE	20.180	79.9200	400.304	−0.01600	−0.13988	0.31177	41.30
NEON	20.180	79.9200	400.304	−0.01600	−0.13988	0.31177	41.30
AR	39.948	271.5480	710.395	−0.00200	−0.02102	0.29119	74.70
ARGON	39.948	271.5480	710.395	−0.00200	−0.02102	0.29119	74.70
KR	83.800	376.9200	797.708	−0.00723	0.00686	0.28810	148.80
KRYPTON	83.800	376.9200	797.708	−0.00723	0.00686	0.28810	148.80
XE	131.290	521.5320	847.020	−0.00238	0.06428	0.28606	229.00
XENON	131.290	521.5320	847.020	−0.00238	0.06428	0.28606	229.00
RN	222.018	678.6000	913.738	−0.03344	0.09444	0.28138	382.30
RADON	222.018	678.6000	913.738	−0.03344	0.09444	0.28138	382.30
H2	2.016	59.3640	187.534	−0.21700	−0.16512	0.30273	35.00
HYDROGEN	2.016	59.3640	187.534	−0.21700	−0.16512	0.30273	35.00
N2	28.014	227.1600	492.838	0.03700	−0.00090	0.29178	59.10
NITROGEN	28.014	227.1600	492.838	0.03700	−0.00090	0.29178	59.10
CO	28.010	239.1300	506.762	0.04500	0.01709	0.29449	61.70
O2	31.999	278.2440	731.425	0.01644	0.01030	0.28789	53.10
OXYGEN	31.999	278.2440	731.425	0.01644	0.01030	0.28789	53.10
NO	30.006	324.0000	939.845	0.58200	0.07687	0.25113	56.60
N2O	44.013	557.2800	1052.249	0.16115	0.08019	0.27338	41.30
CO2	44.010	547.4160	1069.508	0.22500	0.21749	0.27433	80.00
H2S	34.082	672.1200	1299.973	0.09000	0.10153	0.28292	80.10
NH3	17.031	729.7200	1646.613	0.25700	0.25512	0.24409	58.00
AMMONIA	17.031	729.7200	1646.613	0.25700	0.25512	0.24409	58.00
SO2	64.065	775.4400	1143.478	0.25239	0.12583	0.26853	127.30
NO2	46.006	775.8000	1464.881	0.83400	0.19248	0.22019	72.80
N2O4	92.011	775.8180	1464.881	1.00700	−0.86109	0.43957	145.60
H2O	18.015	1164.8520	3200.113	0.34400	0.27319	0.22731	52.80
WATER	18.015	1164.8520	3200.113	0.34400	0.27319	0.22731	52.80
C1	16.043	343.0080	667.029	0.01100	−0.00247	0.28620	71.00
CH4	16.043	343.0080	667.029	0.01100	−0.00247	0.28620	71.00
METHANE	16.043	343.0080	667.029	0.01100	−0.00247	0.28620	71.00
C2	30.070	549.5760	706.624	0.09900	0.05894	0.27924	111.00
C2H6	30.070	549.5760	706.624	0.09900	0.05894	0.27924	111.00
ETHANE	30.070	549.5760	706.624	0.09900	0.05894	0.27924	111.00
C3	44.097	665.6940	616.120	0.15200	0.09075	0.27630	151.00
C3H8	44.097	665.6940	616.120	0.15200	0.09075	0.27630	151.00

Table 5: Essential Properties for Characterization “SRK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
PROPANE	44.097	665.6940	616.120	0.15200	0.09075	0.27630	151.00
C-C3	42.081	716.8500	808.585	0.13000	-0.14761	0.27410	132.00
CYCLO-C3	42.081	716.8500	808.585	0.13000	-0.14761	0.27410	132.00
C-PROPANE	42.081	716.8500	808.585	0.13000	-0.14761	0.27410	132.00
CYCLOPROP	42.081	716.8500	808.585	0.13000	-0.14761	0.27410	132.00
I-C4	58.123	734.1300	527.937	0.18600	0.10952	0.28199	188.80
ISO-C4	58.123	734.1300	527.937	0.18600	0.10952	0.28199	188.80
I-BUTANE	58.123	734.1300	527.937	0.18600	0.10952	0.28199	188.80
ISOBUTANE	58.123	734.1300	527.937	0.18600	0.10952	0.28199	188.80
N-C4	58.123	765.2160	550.563	0.20000	0.11028	0.27385	191.00
N-BUTANE	58.123	765.2160	550.563	0.20000	0.11028	0.27385	191.00
BUTANE	58.123	765.2160	550.563	0.20000	0.11028	0.27385	191.00
NEO-C5	72.150	780.7500	463.976	0.19700	0.08765	0.26895	225.90
NEOPENTAN	72.150	780.7500	463.976	0.19700	0.08765	0.26895	225.90
C-C4	56.108	828.0000	723.738	0.18500	0.06922	0.28442	166.00
CYCLO-C4	56.108	828.0000	723.738	0.18500	0.06922	0.28442	166.00
C-BUTANE	56.108	828.0000	723.738	0.18500	0.06922	0.28442	166.00
CYCLOBUTA	56.108	828.0000	723.738	0.18500	0.06922	0.28442	166.00
I-C5	72.150	828.7020	490.373	0.22900	0.09772	0.27633	227.40
ISO-C5	72.150	828.7020	490.373	0.22900	0.09772	0.27633	227.40
I-PENTANE	72.150	828.7020	490.373	0.22900	0.09772	0.27633	227.40
ISOPENTAN	72.150	828.7020	490.373	0.22900	0.09772	0.27633	227.40
N-C5	72.150	845.4600	488.777	0.25200	0.11947	0.26763	231.00
N-PENTANE	72.150	845.4600	488.777	0.25200	0.11947	0.26763	231.00
PENTANE	72.150	845.4600	488.777	0.25200	0.11947	0.26763	231.00
C-C5	70.134	920.8800	653.830	0.19328	0.07272	0.28924	203.00
CYCLO-C5	70.134	920.8800	653.830	0.19328	0.07272	0.28924	203.00
C-PENTANE	70.134	920.8800	653.830	0.19328	0.07272	0.28924	203.00
CYCLOPENT	70.134	920.8800	653.830	0.19328	0.07272	0.28924	203.00
22DM-C4	86.177	879.6600	446.716	0.23300	0.07749	0.27709	263.00
22DM-BUTA	86.177	879.6600	446.716	0.23300	0.07749	0.27709	263.00
23DM-C4	86.177	899.8200	453.968	0.24800	0.09248	0.27371	263.40
23DM-BUTA	86.177	899.8200	453.968	0.24800	0.09248	0.27371	263.40
2M-C5	86.177	895.5000	436.564	0.27800	0.11345	0.26869	268.80
2M-PENTAN	86.177	895.5000	436.564	0.27800	0.11345	0.26869	268.80
3M-C5	86.177	907.9200	452.518	0.27300	0.10199	0.27137	267.40
3M-PENTAN	86.177	907.9200	452.518	0.27300	0.10199	0.27137	267.40
N-C6	86.177	913.6800	438.739	0.30000	0.12729	0.26536	271.00

Table 5: Essential Properties for Characterization “SRK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-HEXANE	86.177	913.6800	438.739	0.30000	0.12729	0.26536	271.00
HEXANE	86.177	913.6800	438.739	0.30000	0.12729	0.26536	271.00
MC-C5	84.161	959.0220	548.823	0.22700	0.09134	0.28418	243.00
MC-PENTAN	84.161	959.0220	548.823	0.22700	0.09134	0.28418	243.00
22DM-C5	100.204	936.7200	401.755	0.28700	0.10079	0.27256	305.90
22DM-PENT	100.204	936.7200	401.755	0.28700	0.10079	0.27256	305.90
BENZENE	78.114	1011.6900	709.960	0.21000	0.10749	0.27985	205.10
24DM-C5	100.204	935.4600	397.403	0.30400	0.10707	0.27096	306.60
24DM-PENT	100.204	935.4600	397.403	0.30400	0.10707	0.27096	306.60
C-C6	84.161	996.3000	590.739	0.21100	0.08316	0.30190	240.80
CYCLO-C6	84.161	996.3000	590.739	0.21100	0.08316	0.30190	240.80
C-HEXANE	84.161	996.3000	590.739	0.21100	0.08316	0.30190	240.80
CYCLOHEXA	84.161	996.3000	590.739	0.21100	0.08316	0.30190	240.80
223TM-C4	100.204	955.9800	427.861	0.25000	0.07718	0.27866	299.00
223TM-BUT	100.204	955.9800	427.861	0.25000	0.07718	0.27866	299.00
33DM-C5	100.204	965.3400	427.861	0.26900	0.08665	0.27655	303.00
33DM-PENT	100.204	965.3400	427.861	0.26900	0.08665	0.27655	303.00
23DM-C5	100.204	967.1400	422.060	0.29700	0.10120	0.27319	303.40
23DM-PENT	100.204	967.1400	422.060	0.29700	0.10120	0.27319	303.40
2M-C6	100.204	954.1800	395.953	0.33100	0.12964	0.26590	308.80
2M-HEXANE	100.204	954.1800	395.953	0.33100	0.12964	0.26590	308.80
3M-C6	100.204	963.3600	407.556	0.32300	0.11984	0.26853	307.40
3M-HEXANE	100.204	963.3600	407.556	0.32300	0.11984	0.26853	307.40
3E-C5	100.204	972.9000	419.159	0.31100	0.11547	0.27001	305.00
3E-PENTAN	100.204	972.9000	419.159	0.31100	0.11547	0.27001	305.00
N-C7	100.204	972.3600	397.403	0.35000	0.14347	0.26281	311.00
N-HEPTANE	100.204	972.3600	397.403	0.35000	0.14347	0.26281	311.00
HEPTANE	100.204	972.3600	397.403	0.35000	0.14347	0.26281	311.00
MC-C6	98.188	1029.9420	503.426	0.23500	0.09720	0.28681	280.80
MC-HEXANE	98.188	1029.9420	503.426	0.23500	0.09720	0.28681	280.80
EC-C5	98.188	1025.1000	492.693	0.27000	0.10757	0.27276	283.00
EC-PENTAN	98.188	1025.1000	492.693	0.27000	0.10757	0.27276	283.00
TOLUENE	92.141	1065.1500	595.815	0.26400	0.13279	0.26625	245.10
C-C7	98.188	1087.7400	556.945	0.24200	0.08563	0.27859	280.00
CYCLO-C7	98.188	1087.7400	556.945	0.24200	0.08563	0.27859	280.00
C-HEPTANE	98.188	1087.7400	556.945	0.24200	0.08563	0.27859	280.00
CYCLOHEPT	98.188	1087.7400	556.945	0.24200	0.08563	0.27859	280.00
N-C8	114.231	1023.6600	361.144	0.39900	0.16355	0.25978	351.00



Table 5: Essential Properties for Characterization “SRK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-OCTANE	114.231	1023.6600	361.144	0.39900	0.16355	0.25978	351.00
OCTANE	114.231	1023.6600	361.144	0.39900	0.16355	0.25978	351.00
E-BENZENE	106.167	1110.8700	523.441	0.30400	0.14599	0.26216	285.10
P-XYLENE	106.167	1109.1600	509.227	0.32200	0.16309	0.25488	285.10
M-XYLENE	106.167	1110.6000	513.579	0.32700	0.15871	0.25584	285.10
O-XYLENE	106.167	1134.5400	541.281	0.31200	0.14199	0.26587	285.10
N-C9	128.258	1070.2800	332.136	0.44500	0.17833	0.25799	391.00
N-NONANE	128.258	1070.2800	332.136	0.44500	0.17833	0.25799	391.00
NONANE	128.258	1070.2800	332.136	0.44500	0.17833	0.25799	391.00
C-C8	112.215	1164.9600	517.785	0.25400	0.10633	0.27740	320.00
CYCLO-C8	112.215	1164.9600	517.785	0.25400	0.10633	0.27740	320.00
C-OCTANE	112.215	1164.9600	517.785	0.25400	0.10633	0.27740	320.00
CYCLOOCTA	112.215	1164.9600	517.785	0.25400	0.10633	0.27740	320.00
CUMENE	120.194	1135.8000	465.426	0.32600	0.14709	0.26399	322.90
I-C3-BENZ	120.194	1135.8000	465.426	0.32600	0.14709	0.26399	322.90
1ME-BENZE	120.194	1135.8000	465.426	0.32600	0.14709	0.26399	322.90
P-BENZENE	120.194	1149.0300	464.121	0.34500	0.15597	0.26551	325.10
1E4M-BENZ	120.194	1152.3600	468.472	0.36400	0.14713	0.26775	325.10
135TM-BEN	120.194	1147.1400	453.533	0.39900	0.15225	0.26643	325.10
124TM-BEN	120.194	1168.3800	468.762	0.37700	0.16992	0.26236	325.10
N-C10	142.285	1111.8600	306.030	0.49000	0.19556	0.25548	431.00
N-DECANE	142.285	1111.8600	306.030	0.49000	0.19556	0.25548	431.00
DECANE	142.285	1111.8600	306.030	0.49000	0.19556	0.25548	431.00
123TM-BEN	120.194	1196.1000	500.960	0.36700	0.14517	0.26918	325.10
N-C11	156.312	1150.2000	287.175	0.53700	0.19988	0.25617	471.00
N-UNDECAN	156.312	1150.2000	287.175	0.53700	0.19988	0.25617	471.00
UNDECANE	156.312	1150.2000	287.175	0.53700	0.19988	0.25617	471.00
N-C12	170.338	1184.4000	263.969	0.57600	0.22596	0.25110	511.00
N-DODECAN	170.338	1184.4000	263.969	0.57600	0.22596	0.25110	511.00
DODECANE	170.338	1184.4000	263.969	0.57600	0.22596	0.25110	511.00
NAPHTHALE	128.174	1347.1200	587.403	0.30400	0.15495	0.27617	311.10
N-C13	184.365	1215.0000	243.663	0.61800	0.24957	0.24640	551.00
N-TRIDECA	184.365	1215.0000	243.663	0.61800	0.24957	0.24640	551.00
TRIDECANE	184.365	1215.0000	243.663	0.61800	0.24957	0.24640	551.00
2M-NAPHTH	142.200	1369.8000	513.434	0.37400	0.17281	0.26953	351.10
1M-NAPHTH	142.200	1389.6000	522.136	0.34800	0.18922	0.26555	351.10
N-C14	198.392	1247.4000	227.709	0.64400	0.26773	0.24310	591.00
N-TETRADE	198.392	1247.4000	227.709	0.64400	0.26773	0.24310	591.00

Table 5: Essential Properties for Characterization “SRK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
<b>TETRADECA</b>	198.392	1247.4000	227.709	0.64400	0.26773	0.24310	591.00
<b>DPH-C1</b>	168.238	1368.0000	393.052	0.48100	0.25578	0.24991	419.20
<b>DPH-METHA</b>	168.238	1368.0000	393.052	0.48100	0.25578	0.24991	419.20
<b>N-C15</b>	212.419	1274.4000	214.656	0.68500	0.27775	0.24180	631.00
<b>N-PENTADE</b>	212.419	1274.4000	214.656	0.68500	0.27775	0.24180	631.00
<b>PENTADECA</b>	212.419	1274.4000	214.656	0.68500	0.27775	0.24180	631.00
<b>N-C16</b>	226.446	1301.4000	203.053	0.71800	0.28806	0.24036	671.00
<b>N-HEXADEC</b>	226.446	1301.4000	203.053	0.71800	0.28806	0.24036	671.00
<b>HEXADECAN</b>	226.446	1301.4000	203.053	0.71800	0.28806	0.24036	671.00
<b>N-C17</b>	240.473	1324.8000	194.351	0.75300	0.28969	0.24128	711.00
<b>N-HEPTADE</b>	240.473	1324.8000	194.351	0.75300	0.28969	0.24128	711.00
<b>HEPTADECA</b>	240.473	1324.8000	194.351	0.75300	0.28969	0.24128	711.00
<b>N-C18</b>	254.500	1344.6000	187.099	0.80000	0.28700	0.24335	751.00
<b>N-OCTADEC</b>	254.500	1344.6000	187.099	0.80000	0.28700	0.24335	751.00
<b>OCTADECAN</b>	254.500	1344.6000	187.099	0.80000	0.28700	0.24335	751.00
<b>N-C19</b>	268.527	1359.0000	168.244	0.84500	0.33466	0.23053	791.00
<b>N-NONADEC</b>	268.527	1359.0000	168.244	0.84500	0.33466	0.23053	791.00
<b>NONADECAN</b>	268.527	1359.0000	168.244	0.84500	0.33466	0.23053	791.00
<b>12DPH-BEN</b>	230.309	1542.6000	433.663	0.51621	−0.16199	0.38311	553.30
<b>PHENANTHR</b>	178.233	1564.2000	416.258	0.47900	0.22743	0.26623	417.10
<b>ANTHRACEN</b>	178.233	1564.7400	416.258	0.50100	0.43085	0.19997	417.10
<b>N-C20</b>	282.554	1382.4000	155.190	0.86500	0.36534	0.22250	831.00
<b>N-EICOSAN</b>	282.554	1382.4000	155.190	0.86500	0.36534	0.22250	831.00
<b>EICOSANE</b>	282.554	1382.4000	155.190	0.86500	0.36534	0.22250	831.00
<b>N-C21</b>	296.580	1400.4000	149.389	0.92147	0.36549	0.22334	871.00
<b>N-HENEICO</b>	296.580	1400.4000	149.389	0.92147	0.36549	0.22334	871.00
<b>HENEICOSA</b>	296.580	1400.4000	149.389	0.92147	0.36549	0.22334	871.00
<b>13DPH-BEN</b>	230.309	1589.4000	359.694	0.54274	0.15099	0.29493	553.30
<b>N-C22</b>	310.607	1414.8000	142.137	0.98341	0.37333	0.22176	911.00
<b>N-DOCOSAN</b>	310.607	1414.8000	142.137	0.98341	0.37333	0.22176	911.00
<b>DOCOSANE</b>	310.607	1414.8000	142.137	0.98341	0.37333	0.22176	911.00
<b>14DPH-BEN</b>	230.309	1634.4000	433.663	0.58751	0.02517	0.33530	553.30
<b>N-C23</b>	324.634	1422.0000	133.435	1.09624	0.38896	0.21752	951.00
<b>N-TRICOSA</b>	324.634	1422.0000	133.435	1.09624	0.38896	0.21752	951.00
<b>TRICOSANE</b>	324.634	1422.0000	133.435	1.09624	0.38896	0.21752	951.00
<b>N-C24</b>	338.661	1440.0000	126.183	1.09757	0.40367	0.21390	991.00
<b>N-TETRACO</b>	338.661	1440.0000	126.183	1.09757	0.40367	0.21390	991.00
<b>TETRACOSA</b>	338.661	1440.0000	126.183	1.09757	0.40367	0.21390	991.00

Table 6: Additional Properties for Characterization “SRK Library”

Component	Full Name	Tb (F)	SG
HE	“Helium”	−452.122	0.06253
HELIUM	“Helium”	−452.122	0.06253
NE	“Neon”	−410.523	0.43717
NEON	“Neon”	−410.523	0.43717
AR	“Argon”	−302.083	0.46589
ARGON	“Argon”	−302.083	0.46589
KR	“Krypton”	−244.138	0.79637
KRYPTON	“Krypton”	−244.138	0.79637
XE	“Xenon”	−162.652	1.13954
XENON	“Xenon”	−162.652	1.13954
RN	“Radon”	−82.030	3.56414
RADON	“Radon”	−82.030	3.56414
H2	“Hydrogen”	−422.865	0.02737
HYDROGEN	“Hydrogen”	−422.865	0.02737
N2	“Nitrogen”	−320.262	0.27236
NITROGEN	“Nitrogen”	−320.262	0.27236
CO	“Carbon Monoxide”	−312.900	0.26725
O2	“Oxygen”	−297.364	0.37805
OXYGEN	“Oxygen”	−297.364	0.37805
NO	“Nitric Oxide”	−241.474	0.39809
N2O	“Nitrous Oxide”	−127.264	0.71876
CO2	“Carbon Dioxide”	−126.348	0.75104
H2S	“Hydrogen Sulfide”	−77.321	0.80854
NH3	“Ammonia”	−26.620	0.60187
AMMONIA	“Ammonia”	−26.620	0.60187
SO2	“Sulfur Dioxide”	13.964	1.38209
NO2	“Nitrogen Dioxide”	70.184	1.46495
N2O4	“Nitrogen Tetroxide”	83.416	1.45474
H2O	“Water”	216.288	1.00653
WATER	“Water”	216.288	1.00653
C1	“Methane”	−258.104	0.13975
CH4	“Methane”	−258.104	0.13975
METHANE	“Methane”	−258.104	0.13975
C2	“Ethane”	−126.959	0.31005
C2H6	“Ethane”	−126.959	0.31005
ETHANE	“Ethane”	−126.959	0.31005
C3	“Propane”	−43.429	0.49895
C3H8	“Propane”	−43.429	0.49895

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>PROPANE</b>	“Propane”	−43.429	0.49895
<b>C-C3</b>	“Cyclopropane”	−26.402	0.52573
<b>CYCLO-C3</b>	“Cyclopropane”	−26.402	0.52573
<b>C-PROPANE</b>	“Cyclopropane”	−26.402	0.52573
<b>CYCLOPROP</b>	“Cyclopropane”	−26.402	0.52573
<b>I-C4</b>	“Isobutane”	11.412	0.57258
<b>ISO-C4</b>	“Isobutane”	11.412	0.57258
<b>I-BUTANE</b>	“Isobutane”	11.412	0.57258
<b>ISOBUTANE</b>	“Isobutane”	11.412	0.57258
<b>N-C4</b>	“Butane”	31.469	0.59254
<b>N-BUTANE</b>	“Butane”	31.469	0.59254
<b>BUTANE</b>	“Butane”	31.469	0.59254
<b>NEO-C5</b>	“Neopentane”	49.346	0.60388
<b>NEOPENTAN</b>	“Neopentane”	49.346	0.60388
<b>C-C4</b>	“Cyclobutane”	55.766	0.70188
<b>CYCLO-C4</b>	“Cyclobutane”	55.766	0.70188
<b>C-BUTANE</b>	“Cyclobutane”	55.766	0.70188
<b>CYCLOBUTA</b>	“Cyclobutane”	55.766	0.70188
<b>I-C5</b>	“Isopentane”	82.698	0.63124
<b>ISO-C5</b>	“Isopentane”	82.698	0.63124
<b>I-PENTANE</b>	“Isopentane”	82.698	0.63124
<b>ISOPENTAN</b>	“Isopentane”	82.698	0.63124
<b>N-C5</b>	“Pentane”	97.371	0.63753
<b>N-PENTANE</b>	“Pentane”	97.371	0.63753
<b>PENTANE</b>	“Pentane”	97.371	0.63753
<b>C-C5</b>	“Cyclopentane”	120.614	0.75091
<b>CYCLO-C5</b>	“Cyclopentane”	120.614	0.75091
<b>C-PENTANE</b>	“Cyclopentane”	120.614	0.75091
<b>CYCLOPENT</b>	“Cyclopentane”	120.614	0.75091
<b>22DM-C4</b>	“2,2-Dimethylbutane”	121.850	0.65465
<b>22DM-BUTA</b>	“2,2-Dimethylbutane”	121.850	0.65465
<b>23DM-C4</b>	“2,3-Dimethylbutane”	136.690	0.66691
<b>23DM-BUTA</b>	“2,3-Dimethylbutane”	136.690	0.66691
<b>2M-C5</b>	“2-Methylpentane”	140.714	0.65847
<b>2M-PENTAN</b>	“2-Methylpentane”	140.714	0.65847
<b>3M-C5</b>	“3-Methylpentane”	146.222	0.66948
<b>3M-PENTAN</b>	“3-Methylpentane”	146.222	0.66948
<b>N-C6</b>	“Hexane”	156.005	0.66451

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Full Name	Tb (F)	SG
N-HEXANE	“Hexane”	156.005	0.66451
HEXANE	“Hexane”	156.005	0.66451
MC-C5	“Methylcyclopentane”	160.985	0.75361
MC-PENTAN	“Methylcyclopentane”	160.985	0.75361
22DM-C5	“2,2-Dimethylpentane”	174.696	0.67860
22DM-PENT	“2,2-Dimethylpentane”	174.696	0.67860
BENZENE	“Benzene”	176.305	0.88392
24DM-C5	“2,4-Dimethylpentane”	177.114	0.67735
24DM-PENT	“2,4-Dimethylpentane”	177.114	0.67735
C-C6	“Cyclohexane”	177.642	0.78312
CYCLO-C6	“Cyclohexane”	177.642	0.78312
C-HEXANE	“Cyclohexane”	177.642	0.78312
CYCLOHEXA	“Cyclohexane”	177.642	0.78312
223TM-C4	“2,2,3-Trimethylbutane”	177.833	0.69445
223TM-BUT	“2,2,3-Trimethylbutane”	177.833	0.69445
33DM-C5	“3,3-Dimethylpentane”	187.273	0.69783
33DM-PENT	“3,3-Dimethylpentane”	187.273	0.69783
23DM-C5	“2,3-Dimethylpentane”	193.890	0.69948
23DM-PENT	“2,3-Dimethylpentane”	193.890	0.69948
2M-C6	“2-Methylhexane”	194.209	0.68315
2M-HEXANE	“2-Methylhexane”	194.209	0.68315
3M-C6	“3-Methylhexane”	197.529	0.69156
3M-HEXANE	“3-Methylhexane”	197.529	0.69156
3E-C5	“3-Ethylpentane”	200.442	0.70257
3E-PENTAN	“3-Ethylpentane”	200.442	0.70257
N-C7	“Heptane”	209.324	0.68803
N-HEPTANE	“Heptane”	209.324	0.68803
HEPTANE	“Heptane”	209.324	0.68803
MC-C6	“Methylcyclohexane”	213.864	0.77351
MC-HEXANE	“Methylcyclohexane”	213.864	0.77351
EC-C5	“Ethylcyclopentane”	218.492	0.77065
EC-PENTAN	“Ethylcyclopentane”	218.492	0.77065
TOLUENE	“Toluene”	231.669	0.87124
C-C7	“Cycloheptane”	246.350	0.81449
CYCLO-C7	“Cycloheptane”	246.350	0.81449
C-HEPTANE	“Cycloheptane”	246.350	0.81449
CYCLOHEPT	“Cycloheptane”	246.350	0.81449
N-C8	“Octane”	258.194	0.70633

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Full Name	Tb (F)	SG
N-OCTANE	“Octane”	258.194	0.70633
OCTANE	“Octane”	258.194	0.70633
E-BENZENE	“Ethylbenzene”	277.657	0.87086
P-XYLENE	“p-Xylene”	281.681	0.86497
M-XYLENE	“m-Xylene”	282.992	0.86812
O-XYLENE	“o-Xylene”	292.632	0.88359
N-C9	“Nonane”	303.318	0.72092
N-NONANE	“Nonane”	303.318	0.72092
NONANE	“Nonane”	303.318	0.72092
C-C8	“Cyclooctane”	304.169	0.83922
CYCLO-C8	“Cyclooctane”	304.169	0.83922
C-OCTANE	“Cyclooctane”	304.169	0.83922
CYCLOOCTA	“Cyclooctane”	304.169	0.83922
CUMENE	“Cumene”	306.396	0.86529
I-C3-BENZ	“Cumene”	306.396	0.86529
1ME-BENZE	“Cumene”	306.396	0.86529
P-BENZENE	“Propylbenzene”	319.013	0.86492
1E4M-BENZ	“1-Ethyl-4-methylbenzene”	324.050	0.86496
135TM-BEN	“1,3,5-Trimethylbenzene”	328.802	0.84785
124TM-BEN	“1,2,4-Trimethylbenzene”	337.236	0.87804
N-C10	“Decane”	345.150	0.73286
N-DECANE	“Decane”	345.150	0.73286
DECANE	“Decane”	345.150	0.73286
123TM-BEN	“1,2,3-Trimethylbenzene”	349.576	0.89681
N-C11	“Undecane”	384.043	0.74275
N-UNDECAN	“Undecane”	384.043	0.74275
UNDECANE	“Undecane”	384.043	0.74275
N-C12	“Dodecane”	420.658	0.75120
N-DODECAN	“Dodecane”	420.658	0.75120
DODECANE	“Dodecane”	420.658	0.75120
NAPHTHALE	“Naphthalene”	425.280	1.02232
N-C13	“Tridecane”	454.999	0.75853
N-TRIDECA	“Tridecane”	454.999	0.75853
TRIDECA	“Tridecane”	454.999	0.75853
2M-NAPHTH	“2-Methylnaphthalene”	466.600	1.00315
1M-NAPHTH	“1-Methylnaphthalene”	472.925	1.02396
N-C14	“Tetradecane”	488.034	0.76483
N-TETRADE	“Tetradecane”	488.034	0.76483

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>TETRADECA</b>	“Tetradecane”	488.034	0.76483
<b>DPH-C1</b>	“Diphenylmethane”	507.975	1.00971
<b>DPH-METHA</b>	“Diphenylmethane”	507.975	1.00971
<b>N-C15</b>	“Pentadecane”	518.372	0.77032
<b>N-PENTADE</b>	“Pentadecane”	518.372	0.77032
<b>PENTADECA</b>	“Pentadecane”	518.372	0.77032
<b>N-C16</b>	“Hexadecane”	547.620	0.77517
<b>N-HEXADEC</b>	“Hexadecane”	547.620	0.77517
<b>HEXADECAN</b>	“Hexadecane”	547.620	0.77517
<b>N-C17</b>	“Heptadecane”	573.468	0.77963
<b>N-HEPTADE</b>	“Heptadecane”	573.468	0.77963
<b>HEPTADECA</b>	“Heptadecane”	573.468	0.77963
<b>N-C18</b>	“Octadecane”	597.383	0.78391
<b>N-OCTADEC</b>	“Octadecane”	597.383	0.78391
<b>OCTADECAN</b>	“Octadecane”	597.383	0.78391
<b>N-C19</b>	“Nonadecane”	622.571	0.78723
<b>N-NONADEC</b>	“Nonadecane”	622.571	0.78723
<b>NONADECAN</b>	“Nonadecane”	622.571	0.78723
<b>12DPH-BEN</b>	“1,2-Diphenylbenzene”	629.600	0.91020
<b>PHENANTHR</b>	“Phenanthrene”	641.000	0.97619
<b>ANTHRACEN</b>	“Anthracene”	645.904	1.29129
<b>N-C20</b>	“Eicosane”	650.345	0.78722
<b>N-EICOSAN</b>	“Eicosane”	650.345	0.78722
<b>EICOSANE</b>	“Eicosane”	650.345	0.78722
<b>N-C21</b>	“Heneicosane”	673.700	0.78927
<b>N-HENEICO</b>	“Heneicosane”	673.700	0.78927
<b>HENEICOSA</b>	“Heneicosane”	673.700	0.78927
<b>13DPH-BEN</b>	“1,3-Diphenylbenzene”	685.400	0.98848
<b>N-C22</b>	“Docosane”	695.480	0.79101
<b>N-DOCOSAN</b>	“Docosane”	695.480	0.79101
<b>DOCOSANE</b>	“Docosane”	695.480	0.79101
<b>14DPH-BEN</b>	“1,4-Diphenylbenzene”	708.800	1.02275
<b>N-C23</b>	“Tricosane”	716.360	0.79498
<b>N-TRICOSA</b>	“Tricosane”	716.360	0.79498
<b>TRICOSANE</b>	“Tricosane”	716.360	0.79498
<b>N-C24</b>	“Tetracosane”	736.340	0.79350
<b>N-TETRACO</b>	“Tetracosane”	736.340	0.79350
<b>TETRACOSA</b>	“Tetracosane”	736.340	0.79350

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
HE	0.30142	0.91786	0.30142	0.91786	
HELIUM	0.30142	0.91786	0.30142	0.91786	
NE	0.31177	0.66797	0.31177	0.66797	
NEON	0.31177	0.66797	0.31177	0.66797	
AR	0.29119	1.19450	0.29119	1.19450	
ARGON	0.29119	1.19450	0.29119	1.19450	
KR	0.28810	1.46088	0.28810	1.46088	
KRYPTON	0.28810	1.46088	0.28810	1.46088	
XE	0.28606	1.89018	0.28606	1.89018	
XENON	0.28606	1.89018	0.28606	1.89018	
RN	0.28138	2.24258	0.28138	2.24258	
RADON	0.28138	2.24258	0.28138	2.24258	
H2	0.30273	1.02839	0.30273	1.02839	
HYDROGEN	0.30273	1.02839	0.30273	1.02839	
N2	0.29178	1.44326	0.29178	1.44326	
NITROGEN	0.29178	1.44326	0.29178	1.44326	
CO	0.29449	1.49132	0.29449	1.49132	
O2	0.28789	1.17527	0.28789	1.17527	
OXYGEN	0.28789	1.17527	0.28789	1.17527	
NO	0.25113	0.92907	0.25113	0.92907	
N2O	0.27338	1.55379	0.27338	1.55379	
CO2	0.27433	1.50686	0.27433	1.50686	
H2S	0.28292	1.56981	0.28292	1.56981	
NH3	0.24409	1.16086	0.24409	1.16086	
AMMONIA	0.24409	1.16086	0.24409	1.16086	
SO2	0.26853	1.95425	0.26853	1.95425	
NO2	0.47294	2.68790	0.22019	1.25141	0.22195
N2O4	0.47067	2.67508	0.43957	2.49831	0.30050
H2O	0.22943	0.89623	0.22731	0.88793	1.12658
WATER	0.22943	0.89623	0.22731	0.88793	1.12658
C1	0.28620	1.57942	0.28620	1.57942	
CH4	0.28620	1.57942	0.28620	1.57942	
METHANE	0.28620	1.57942	0.28620	1.57942	
C2	0.27924	2.33069	0.27924	2.33069	
C2H6	0.27924	2.33069	0.27924	2.33069	
ETHANE	0.27924	2.33069	0.27924	2.33069	
C3	0.27630	3.20369	0.27630	3.20369	
C3H8	0.27630	3.20369	0.27630	3.20369	



Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Zc	Vc (ft3/lbmol)	ZcVis	VcVis (ft3/lbmol)	Visc (cp)
PROPANE	0.27630	3.20369	0.27630	3.20369	
C-C3	0.27410	2.60781	0.27410	2.60781	
CYCLO-C3	0.27410	2.60781	0.27410	2.60781	
C-PROPANE	0.27410	2.60781	0.27410	2.60781	
CYCLOPROP	0.27410	2.60781	0.27410	2.60781	
I-C4	0.28199	4.20805	0.28199	4.20805	
ISO-C4	0.28199	4.20805	0.28199	4.20805	
I-BUTANE	0.28199	4.20805	0.28199	4.20805	
ISOBUTANE	0.28199	4.20805	0.28199	4.20805	
N-C4	0.27385	4.08471	0.27385	4.08471	
N-BUTANE	0.27385	4.08471	0.27385	4.08471	
BUTANE	0.27385	4.08471	0.27385	4.08471	
NEO-C5	0.26895	4.85680	0.26895	4.85680	
NEOPENTAN	0.26895	4.85680	0.26895	4.85680	
C-C4	0.28442	3.49203	0.28442	3.49203	
CYCLO-C4	0.28442	3.49203	0.28442	3.49203	
C-BUTANE	0.28442	3.49203	0.28442	3.49203	
CYCLOBUTA	0.28442	3.49203	0.28442	3.49203	
I-C5	0.27231	4.93849	0.27633	5.01142	0.23498
ISO-C5	0.27231	4.93849	0.27633	5.01142	0.23498
I-PENTANE	0.27231	4.93849	0.27633	5.01142	0.23498
ISOPENTAN	0.27231	4.93849	0.27633	5.01142	0.23498
N-C5	0.26837	4.98174	0.26763	4.96794	0.23558
N-PENTANE	0.26837	4.98174	0.26763	4.96794	0.23558
PENTANE	0.26837	4.98174	0.26763	4.96794	0.23558
C-C5	0.27554	4.16480	0.28924	4.37183	0.46154
CYCLO-C5	0.27554	4.16480	0.28924	4.37183	0.46154
C-PENTANE	0.27554	4.16480	0.28924	4.37183	0.46154
CYCLOPENT	0.27554	4.16480	0.28924	4.37183	0.46154
22DM-C4	0.27220	5.75223	0.27709	5.85551	0.26494
22DM-BUTA	0.27220	5.75223	0.27709	5.85551	0.26494
23DM-C4	0.26929	5.72820	0.27371	5.82211	0.29400
23DM-BUTA	0.26929	5.72820	0.27371	5.82211	0.29400
2M-C5	0.26684	5.87397	0.26869	5.91462	0.29355
2M-PENTAN	0.26684	5.87397	0.26869	5.91462	0.29355
3M-C5	0.27281	5.87397	0.27137	5.84293	0.31048
3M-PENTAN	0.27281	5.87397	0.27137	5.84293	0.31048
N-C6	0.26377	5.89479	0.26536	5.93039	0.32245

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-HEXANE	0.26377	5.89479	0.26536	5.93039	0.32245
HEXANE	0.26377	5.89479	0.26536	5.93039	0.32245
MC-C5	0.27249	5.10989	0.28418	5.32914	0.53135
MC-PENTAN	0.27249	5.10989	0.28418	5.32914	0.53135
22DM-C5	0.26619	6.66048	0.27256	6.81977	0.35429
22DM-PENT	0.26619	6.66048	0.27256	6.81977	0.35429
BENZENE	0.26815	4.10073	0.27985	4.27964	0.69219
24DM-C5	0.26474	6.68771	0.27096	6.84472	0.35722
24DM-PENT	0.26474	6.68771	0.27096	6.84472	0.35722
C-C6	0.27259	4.93369	0.30190	5.46416	1.05399
CYCLO-C6	0.27259	4.93369	0.30190	5.46416	1.05399
C-HEXANE	0.27259	4.93369	0.30190	5.46416	1.05399
CYCLOHEXA	0.27259	4.93369	0.30190	5.46416	1.05399
223TM-C4	0.26562	6.36894	0.27866	6.68155	0.37633
223TM-BUT	0.26562	6.36894	0.27866	6.68155	0.37633
33DM-C5	0.27396	6.63325	0.27655	6.69597	0.39893
33DM-PENT	0.27396	6.63325	0.27655	6.69597	0.39893
23DM-C5	0.25600	6.29526	0.27319	6.71807	0.41521
23DM-PENT	0.25600	6.29526	0.27319	6.71807	0.41521
2M-C6	0.26077	6.74377	0.26590	6.87655	0.39778
2M-HEXANE	0.26077	6.74377	0.26590	6.87655	0.39778
3M-C6	0.25512	6.47146	0.26853	6.81185	0.41488
3M-HEXANE	0.25512	6.47146	0.26853	6.81185	0.41488
3E-C5	0.26739	6.66048	0.27001	6.72573	0.43369
3E-PENTAN	0.26739	6.66048	0.27001	6.72573	0.43369
N-C7	0.26110	6.85590	0.26281	6.90093	0.43715
N-HEPTANE	0.26110	6.85590	0.26281	6.90093	0.43715
HEPTANE	0.26110	6.85590	0.26281	6.90093	0.43715
MC-C6	0.26849	5.89479	0.28681	6.29697	0.78245
MC-HEXANE	0.26849	5.89479	0.28681	6.29697	0.78245
EC-C5	0.26903	6.00692	0.27276	6.09014	0.53617
EC-PENTAN	0.26903	6.00692	0.27276	6.09014	0.53617
TOLUENE	0.26384	5.06183	0.26625	5.10809	0.64614
C-C7	0.27437	5.75063	0.27859	5.83900	0.65281
CYCLO-C7	0.27437	5.75063	0.27859	5.83900	0.65281
C-HEPTANE	0.27437	5.75063	0.27859	5.83900	0.65281
CYCLOHEPT	0.27437	5.75063	0.27859	5.83900	0.65281
N-C8	0.25909	7.88108	0.25978	7.90224	0.58099

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-OCTANE	0.25909	7.88108	0.25978	7.90224	0.58099
OCTANE	0.25909	7.88108	0.25978	7.90224	0.58099
E-BENZENE	0.26305	5.99091	0.26216	5.97067	0.72363
P-XYLENE	0.25904	6.05498	0.25488	5.95777	0.65065
M-XYLENE	0.25884	6.00692	0.25584	5.93723	0.65532
O-XYLENE	0.26349	5.92683	0.26587	5.98034	0.86923
N-C9	0.25708	8.89025	0.25799	8.92158	0.75412
N-NONANE	0.25708	8.89025	0.25799	8.92158	0.75412
NONANE	0.25708	8.89025	0.25799	8.92158	0.75412
C-C8	0.27201	6.56757	0.27740	6.69781	0.92352
CYCLO-C8	0.27201	6.56757	0.27740	6.69781	0.92352
C-OCTANE	0.27201	6.56757	0.27740	6.69781	0.92352
CYCLOOCTA	0.27201	6.56757	0.27740	6.69781	0.92352
CUMENE	0.26589	6.96323	0.26399	6.91347	0.83587
I-C3-BENZ	0.26589	6.96323	0.26399	6.91347	0.83587
1ME-BENZE	0.26589	6.96323	0.26399	6.91347	0.83587
P-BENZENE	0.26528	7.04812	0.26551	7.05426	1.02813
1E4M-BENZ	0.26700	7.04812	0.26775	7.06815	1.05719
135TM-BEN	0.25376	6.88794	0.26643	7.23181	1.06922
124TM-BEN	0.26050	6.96803	0.26236	7.01778	1.15142
N-C10	0.25636	9.99552	0.25548	9.96117	0.95919
N-DECANE	0.25636	9.99552	0.25548	9.96117	0.95919
DECANE	0.25636	9.99552	0.25548	9.96117	0.95919
123TM-BEN	0.27195	6.96803	0.26918	6.89707	1.25122
N-C11	0.25677	11.03672	0.25617	11.01067	1.19966
N-UNDECAN	0.25677	11.03672	0.25617	11.01067	1.19966
UNDECANE	0.25677	11.03672	0.25617	11.01067	1.19966
N-C12	0.25083	12.07792	0.25110	12.09083	1.47934
N-DODECAN	0.25083	12.07792	0.25110	12.09083	1.47934
DODECANE	0.25083	12.07792	0.25110	12.09083	1.47934
NAPHTHALE	0.26490	6.51951	0.27617	6.79693	2.63165
N-C13	0.24636	13.18320	0.24640	13.18545	1.80147
N-TRIDECA	0.24636	13.18320	0.24640	13.18545	1.80147
TRIDECA	0.24636	13.18320	0.24640	13.18545	1.80147
2M-NAPHTH	0.25848	7.40053	0.26953	7.71702	2.66503
1M-NAPHTH	0.25912	7.40053	0.26555	7.58426	2.80041
N-C14	0.24360	14.32051	0.24310	14.29108	2.17085
N-TETRADE	0.24360	14.32051	0.24310	14.29108	2.17085

Table 6: Additional Properties for Characterization “SRK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
<b>TETRADECA</b>	0.24360	14.32051	0.24310	14.29108	2.17085
<b>DPH-C1</b>	0.24145	9.01839	0.24991	9.33434	3.53557
<b>DPH-METHA</b>	0.24145	9.01839	0.24991	9.33434	3.53557
<b>N-C15</b>	0.24287	15.47384	0.24180	15.40562	2.58800
<b>N-PENTADE</b>	0.24287	15.47384	0.24180	15.40562	2.58800
<b>PENTADECA</b>	0.24287	15.47384	0.24180	15.40562	2.58800
<b>N-C16</b>	0.24081	16.56309	0.24036	16.53208	3.05726
<b>N-HEXADEC</b>	0.24081	16.56309	0.24036	16.53208	3.05726
<b>HEXADECAN</b>	0.24081	16.56309	0.24036	16.53208	3.05726
<b>N-C17</b>	0.24153	17.66837	0.24128	17.65041	3.55732
<b>N-HEPTADE</b>	0.24153	17.66837	0.24128	17.65041	3.55732
<b>HEPTADECA</b>	0.24153	17.66837	0.24128	17.65041	3.55732
<b>N-C18</b>	0.24695	19.04595	0.24335	18.76821	4.10945
<b>N-OCTADEC</b>	0.24695	19.04595	0.24335	18.76821	4.10945
<b>OCTADECAN</b>	0.24695	19.04595	0.24335	18.76821	4.10945
<b>N-C19</b>	0.21390	18.54199	0.23053	19.98310	4.75103
<b>N-NONADEC</b>	0.21390	18.54199	0.23053	19.98310	4.75103
<b>NONADECAN</b>	0.21390	18.54199	0.23053	19.98310	4.75103
<b>12DPH-BEN</b>	0.23288	8.89001	0.38311	14.62482	6.67159
<b>PHENANTHR</b>	0.22006	8.87423	0.26623	10.73636	7.30344
<b>ANTHRACEN</b>	0.21998	8.87423	0.19997	8.06685	6.68134
<b>N-C20</b>	0.20933	20.01048	0.22250	21.27015	5.44791
<b>N-EICOSAN</b>	0.20933	20.01048	0.22250	21.27015	5.44791
<b>EICOSANE</b>	0.20933	20.01048	0.22250	21.27015	5.44791
<b>N-C21</b>	0.20566	20.68891	0.22334	22.46799	6.19982
<b>N-HENEICO</b>	0.20566	20.68891	0.22334	22.46799	6.19982
<b>HENEICOSA</b>	0.20566	20.68891	0.22334	22.46799	6.19982
<b>13DPH-BEN</b>	0.24457	11.59737	0.29493	13.98551	10.18562
<b>N-C22</b>	0.20207	21.58488	0.22176	23.68830	7.00179
<b>N-DOCOSAN</b>	0.20207	21.58488	0.22176	23.68830	7.00179
<b>DOCOSANE</b>	0.20207	21.58488	0.22176	23.68830	7.00179
<b>14DPH-BEN</b>	0.28872	11.67746	0.33530	13.56146	12.06661
<b>N-C23</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>N-TRICOSA</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>TRICOSANE</b>	0.19917	22.77810	0.21752	24.87719	7.96064
<b>N-C24</b>	0.19495	23.87566	0.21390	26.19650	8.77277
<b>N-TETRACO</b>	0.19495	23.87566	0.21390	26.19650	8.77277
<b>TETRACOSA</b>	0.19495	23.87566	0.21390	26.19650	8.77277

Table 7: Essential Properties for Characterization “RK Library”

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
HE	4.003	9.3420	32.924	-0.39000	-0.31494	0.30142	19.20
HELIUM	4.003	9.3420	32.924	-0.39000	-0.31494	0.30142	19.20
NE	20.180	79.9200	400.304	-0.01600	-0.16591	0.31177	41.30
NEON	20.180	79.9200	400.304	-0.01600	-0.16591	0.31177	41.30
AR	39.948	271.5480	710.395	-0.00200	-0.04299	0.29119	74.70
ARGON	39.948	271.5480	710.395	-0.00200	-0.04299	0.29119	74.70
KR	83.800	376.9200	797.708	0.00000	-0.01673	0.28810	148.80
KRYPTON	83.800	376.9200	797.708	0.00000	-0.01673	0.28810	148.80
XE	131.290	521.5320	847.020	0.00000	0.04199	0.28606	229.00
XENON	131.290	521.5320	847.020	0.00000	0.04199	0.28606	229.00
RN	222.018	678.6000	913.738	0.00000	0.06361	0.28138	382.30
RADON	222.018	678.6000	913.738	0.00000	0.06361	0.28138	382.30
H2	2.016	59.3640	187.534	-0.21700	-0.26651	0.30273	35.00
HYDROGEN	2.016	59.3640	187.534	-0.21700	-0.26651	0.30273	35.00
N2	28.014	227.1600	492.838	0.03700	-0.01131	0.29178	59.10
NITROGEN	28.014	227.1600	492.838	0.03700	-0.01131	0.29178	59.10
CO	28.010	239.1300	506.762	0.04500	0.00857	0.29449	61.70
O2	31.999	278.2440	731.425	0.00000	-0.00674	0.28789	53.10
OXYGEN	31.999	278.2440	731.425	0.00000	-0.00674	0.28789	53.10
NO	30.006	324.0000	939.845	0.58200	0.18436	0.25113	56.60
N2O	44.013	557.2800	1052.249	0.00000	0.09848	0.27338	41.30
CO2	44.010	547.4160	1069.508	0.22500	0.30237	0.27433	80.00
H2S	34.082	672.1200	1299.973	0.09000	0.10237	0.28292	80.10
NH3	17.031	729.7200	1646.613	0.25700	0.29163	0.24409	58.00
AMMONIA	17.031	729.7200	1646.613	0.25700	0.29163	0.24409	58.00
SO2	64.065	775.4400	1143.478	0.00000	0.16464	0.26853	127.30
NO2	46.006	775.8000	1464.881	0.83400	0.33428	0.47294	72.80
N2O4	92.011	775.8180	1464.881	1.00700	-0.70211	0.47067	145.60
H2O	18.015	1164.8520	3200.113	0.34400	0.30324	0.22676	52.80
WATER	18.015	1164.8520	3200.113	0.34400	0.30324	0.22676	52.80
C1	16.043	343.0080	667.029	0.01100	-0.02208	0.28620	71.00
CH4	16.043	343.0080	667.029	0.01100	-0.02208	0.28620	71.00
METHANE	16.043	343.0080	667.029	0.01100	-0.02208	0.28620	71.00
C2	30.070	549.5760	706.624	0.09900	0.05026	0.27924	111.00
C2H6	30.070	549.5760	706.624	0.09900	0.05026	0.27924	111.00
ETHANE	30.070	549.5760	706.624	0.09900	0.05026	0.27924	111.00
C3	44.097	665.6940	616.120	0.15200	0.11077	0.27630	151.00
C3H8	44.097	665.6940	616.120	0.15200	0.11077	0.27630	151.00

Table 7: Essential Properties for Characterization “RK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
PROPANE	44.097	665.6940	616.120	0.15200	0.11077	0.27630	151.00
C-C3	42.081	716.8500	808.585	0.13000	-0.13689	0.27410	132.00
CYCLO-C3	42.081	716.8500	808.585	0.13000	-0.13689	0.27410	132.00
C-PROPANE	42.081	716.8500	808.585	0.13000	-0.13689	0.27410	132.00
CYCLOPROP	42.081	716.8500	808.585	0.13000	-0.13689	0.27410	132.00
I-C4	58.123	734.1300	527.937	0.18600	0.15131	0.28199	188.80
ISO-C4	58.123	734.1300	527.937	0.18600	0.15131	0.28199	188.80
I-BUTANE	58.123	734.1300	527.937	0.18600	0.15131	0.28199	188.80
ISOBUTANE	58.123	734.1300	527.937	0.18600	0.15131	0.28199	188.80
N-C4	58.123	765.2160	550.563	0.20000	0.15129	0.27385	191.00
N-BUTANE	58.123	765.2160	550.563	0.20000	0.15129	0.27385	191.00
BUTANE	58.123	765.2160	550.563	0.20000	0.15129	0.27385	191.00
NEO-C5	72.150	780.7500	463.976	0.19700	0.12581	0.26895	225.90
NEOPENTAN	72.150	780.7500	463.976	0.19700	0.12581	0.26895	225.90
C-C4	56.108	828.0000	723.738	0.18500	0.09906	0.28442	166.00
CYCLO-C4	56.108	828.0000	723.738	0.18500	0.09906	0.28442	166.00
C-BUTANE	56.108	828.0000	723.738	0.18500	0.09906	0.28442	166.00
CYCLOBUTA	56.108	828.0000	723.738	0.18500	0.09906	0.28442	166.00
I-C5	72.150	828.7020	490.373	0.22900	0.13738	0.27231	227.40
ISO-C5	72.150	828.7020	490.373	0.22900	0.13738	0.27231	227.40
I-PENTANE	72.150	828.7020	490.373	0.22900	0.13738	0.27231	227.40
ISOPENTAN	72.150	828.7020	490.373	0.22900	0.13738	0.27231	227.40
N-C5	72.150	845.4600	488.777	0.25200	0.16195	0.26691	231.00
N-PENTANE	72.150	845.4600	488.777	0.25200	0.16195	0.26691	231.00
PENTANE	72.150	845.4600	488.777	0.25200	0.16195	0.26691	231.00
C-C5	70.134	920.8800	653.830	0.00000	0.09631	0.28422	203.00
CYCLO-C5	70.134	920.8800	653.830	0.00000	0.09631	0.28422	203.00
C-PENTANE	70.134	920.8800	653.830	0.00000	0.09631	0.28422	203.00
CYCLOPENT	70.134	920.8800	653.830	0.00000	0.09631	0.28422	203.00
22DM-C4	86.177	879.6600	446.716	0.23300	0.11243	0.27658	263.00
22DM-BUTA	86.177	879.6600	446.716	0.23300	0.11243	0.27658	263.00
23DM-C4	86.177	899.8200	453.968	0.24800	0.12830	0.27319	263.40
23DM-BUTA	86.177	899.8200	453.968	0.24800	0.12830	0.27319	263.40
2M-C5	86.177	895.5000	436.564	0.27800	0.15517	0.26812	268.80
2M-PENTAN	86.177	895.5000	436.564	0.27800	0.15517	0.26812	268.80
3M-C5	86.177	907.9200	452.518	0.27300	0.14153	0.27081	267.40
3M-PENTAN	86.177	907.9200	452.518	0.27300	0.14153	0.27081	267.40
N-C6	86.177	913.6800	438.739	0.30000	0.17087	0.26460	271.00

Table 7: Essential Properties for Characterization “RK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-HEXANE	86.177	913.6800	438.739	0.30000	0.17087	0.26460	271.00
HEXANE	86.177	913.6800	438.739	0.30000	0.17087	0.26460	271.00
MC-C5	84.161	959.0220	548.823	0.22700	0.11837	0.28361	243.00
MC-PENTAN	84.161	959.0220	548.823	0.22700	0.11837	0.28361	243.00
22DM-C5	100.204	936.7200	401.755	0.28700	0.13987	0.27202	305.90
22DM-PENT	100.204	936.7200	401.755	0.28700	0.13987	0.27202	305.90
BENZENE	78.114	1011.6900	709.960	0.21000	0.12817	0.27937	205.10
24DM-C5	100.204	935.4600	397.403	0.30400	0.14904	0.27039	306.60
24DM-PENT	100.204	935.4600	397.403	0.30400	0.14904	0.27039	306.60
C-C6	84.161	996.3000	590.739	0.21100	0.10493	0.30137	240.80
CYCLO-C6	84.161	996.3000	590.739	0.21100	0.10493	0.30137	240.80
C-HEXANE	84.161	996.3000	590.739	0.21100	0.10493	0.30137	240.80
CYCLOHEXA	84.161	996.3000	590.739	0.21100	0.10493	0.30137	240.80
223TM-C4	100.204	955.9800	427.861	0.25000	0.10841	0.27817	299.00
223TM-BUT	100.204	955.9800	427.861	0.25000	0.10841	0.27817	299.00
33DM-C5	100.204	965.3400	427.861	0.26900	0.12026	0.27604	303.00
33DM-PENT	100.204	965.3400	427.861	0.26900	0.12026	0.27604	303.00
23DM-C5	100.204	967.1400	422.060	0.29700	0.13908	0.27263	303.40
23DM-PENT	100.204	967.1400	422.060	0.29700	0.13908	0.27263	303.40
2M-C6	100.204	954.1800	395.953	0.33100	0.17391	0.26531	308.80
2M-HEXANE	100.204	954.1800	395.953	0.33100	0.17391	0.26531	308.80
3M-C6	100.204	963.3600	407.556	0.32300	0.16201	0.26794	307.40
3M-HEXANE	100.204	963.3600	407.556	0.32300	0.16201	0.26794	307.40
3E-C5	100.204	972.9000	419.159	0.31100	0.15496	0.26943	305.00
3E-PENTAN	100.204	972.9000	419.159	0.31100	0.15496	0.26943	305.00
N-C7	100.204	972.3600	397.403	0.35000	0.18867	0.26220	311.00
N-HEPTANE	100.204	972.3600	397.403	0.35000	0.18867	0.26220	311.00
HEPTANE	100.204	972.3600	397.403	0.35000	0.18867	0.26220	311.00
MC-C6	98.188	1029.9420	503.426	0.23500	0.12083	0.28628	280.80
MC-HEXANE	98.188	1029.9420	503.426	0.23500	0.12083	0.28628	280.80
EC-C5	98.188	1025.1000	492.693	0.27000	0.13684	0.27223	283.00
EC-PENTAN	98.188	1025.1000	492.693	0.27000	0.13684	0.27223	283.00
TOLUENE	92.141	1065.1500	595.815	0.26400	0.15863	0.26573	245.10
C-C7	98.188	1087.7400	556.945	0.24200	0.10708	0.27815	280.00
CYCLO-C7	98.188	1087.7400	556.945	0.24200	0.10708	0.27815	280.00
C-HEPTANE	98.188	1087.7400	556.945	0.24200	0.10708	0.27815	280.00
CYCLOHEPT	98.188	1087.7400	556.945	0.24200	0.10708	0.27815	280.00
N-C8	114.231	1023.6600	361.144	0.39900	0.21024	0.25913	351.00

Table 7: Essential Properties for Characterization “RK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
N-OCTANE	114.231	1023.6600	361.144	0.39900	0.21024	0.25913	351.00
OCTANE	114.231	1023.6600	361.144	0.39900	0.21024	0.25913	351.00
E-BENZENE	106.167	1110.8700	523.441	0.30400	0.17445	0.26161	285.10
P-XYLENE	106.167	1109.1600	509.227	0.32200	0.19388	0.25431	285.10
M-XYLENE	106.167	1110.6000	513.579	0.32700	0.19002	0.25526	285.10
O-XYLENE	106.167	1134.5400	541.281	0.31200	0.17007	0.26532	285.10
N-C9	128.258	1070.2800	332.136	0.44500	0.22600	0.25731	391.00
N-NONANE	128.258	1070.2800	332.136	0.44500	0.22600	0.25731	391.00
NONANE	128.258	1070.2800	332.136	0.44500	0.22600	0.25731	391.00
C-C8	112.215	1164.9600	517.785	0.25400	0.12572	0.27699	320.00
CYCLO-C8	112.215	1164.9600	517.785	0.25400	0.12572	0.27699	320.00
C-OCTANE	112.215	1164.9600	517.785	0.25400	0.12572	0.27699	320.00
CYCLOOCTA	112.215	1164.9600	517.785	0.25400	0.12572	0.27699	320.00
CUMENE	120.194	1135.8000	465.426	0.32600	0.17676	0.26342	322.90
I-C3-BENZ	120.194	1135.8000	465.426	0.32600	0.17676	0.26342	322.90
1ME-BENZE	120.194	1135.8000	465.426	0.32600	0.17676	0.26342	322.90
P-BENZENE	120.194	1149.0300	464.121	0.34500	0.18704	0.26496	325.10
1E4M-BENZ	120.194	1152.3600	468.472	0.36400	0.17893	0.26748	325.10
135TM-BEN	120.194	1147.1400	453.533	0.39900	0.18923	0.26580	325.10
124TM-BEN	120.194	1168.3800	468.762	0.37700	0.19887	0.26293	325.10
N-C10	142.285	1111.8600	306.030	0.49000	0.24413	0.25479	431.00
N-DECANE	142.285	1111.8600	306.030	0.49000	0.24413	0.25479	431.00
DECANE	142.285	1111.8600	306.030	0.49000	0.24413	0.25479	431.00
123TM-BEN	120.194	1196.1000	500.960	0.36700	0.17179	0.26971	325.10
N-C11	156.312	1150.2000	287.175	0.53700	0.24942	0.25545	471.00
N-UNDECAN	156.312	1150.2000	287.175	0.53700	0.24942	0.25545	471.00
UNDECANE	156.312	1150.2000	287.175	0.53700	0.24942	0.25545	471.00
N-C12	170.338	1184.4000	263.969	0.57600	0.27587	0.25038	511.00
N-DODECAN	170.338	1184.4000	263.969	0.57600	0.27587	0.25038	511.00
DODECANE	170.338	1184.4000	263.969	0.57600	0.27587	0.25038	511.00
NAPHTHALE	128.174	1347.1200	587.403	0.30400	0.17849	0.27415	311.10
N-C13	184.365	1215.0000	243.663	0.61800	0.30013	0.24567	551.00
N-TRIDECA	184.365	1215.0000	243.663	0.61800	0.30013	0.24567	551.00
TRIDECANE	184.365	1215.0000	243.663	0.61800	0.30013	0.24567	551.00
2M-NAPHTH	142.200	1369.8000	513.434	0.37400	0.20268	0.26731	351.10
1M-NAPHTH	142.200	1389.6000	522.136	0.34800	0.20908	0.26535	351.10
N-C14	198.392	1247.4000	227.709	0.64400	0.31759	0.24237	591.00
N-TETRADE	198.392	1247.4000	227.709	0.64400	0.31759	0.24237	591.00



Table 7: Essential Properties for Characterization “RK Library” (cont.)

Component	MW	Tc (R)	Pc (psia)	AF	VTran	ZcVis	Pchor
<b>TETRADECA</b>	198.392	1247.4000	227.709	0.64400	0.31759	0.24237	591.00
<b>DPH-C1</b>	168.238	1368.0000	393.052	0.48100	0.28663	0.24963	419.20
<b>DPH-METHA</b>	168.238	1368.0000	393.052	0.48100	0.28663	0.24963	419.20
<b>N-C15</b>	212.419	1274.4000	214.656	0.68500	0.32817	0.24106	631.00
<b>N-PENTADE</b>	212.419	1274.4000	214.656	0.68500	0.32817	0.24106	631.00
<b>PENTADECA</b>	212.419	1274.4000	214.656	0.68500	0.32817	0.24106	631.00
<b>N-C16</b>	226.446	1301.4000	203.053	0.71800	0.33843	0.23963	671.00
<b>N-HEXADEC</b>	226.446	1301.4000	203.053	0.71800	0.33843	0.23963	671.00
<b>HEXADECAN</b>	226.446	1301.4000	203.053	0.71800	0.33843	0.23963	671.00
<b>N-C17</b>	240.473	1324.8000	194.351	0.75300	0.34028	0.24055	711.00
<b>N-HEPTADE</b>	240.473	1324.8000	194.351	0.75300	0.34028	0.24055	711.00
<b>HEPTADECA</b>	240.473	1324.8000	194.351	0.75300	0.34028	0.24055	711.00
<b>N-C18</b>	254.500	1344.6000	187.099	0.80000	0.33853	0.24261	751.00
<b>N-OCTADEC</b>	254.500	1344.6000	187.099	0.80000	0.33853	0.24261	751.00
<b>OCTADECAN</b>	254.500	1344.6000	187.099	0.80000	0.33853	0.24261	751.00
<b>N-C19</b>	268.527	1359.0000	168.244	0.84500	0.38722	0.22976	791.00
<b>N-NONADEC</b>	268.527	1359.0000	168.244	0.84500	0.38722	0.22976	791.00
<b>NONADECAN</b>	268.527	1359.0000	168.244	0.84500	0.38722	0.22976	791.00
<b>12DPH-BEN</b>	230.309	1542.6000	433.663	0.00000	-0.38838	0.42638	553.30
<b>PHENANTHR</b>	178.233	1564.2000	416.258	0.47900	0.24845	0.26676	417.10
<b>ANTHRACEN</b>	178.233	1564.7400	416.258	0.50100	0.45647	0.19946	417.10
<b>N-C20</b>	282.554	1382.4000	155.190	0.86500	0.41719	0.22175	831.00
<b>N-EICOSAN</b>	282.554	1382.4000	155.190	0.86500	0.41719	0.22175	831.00
<b>EICOSANE</b>	282.554	1382.4000	155.190	0.86500	0.41719	0.22175	831.00
<b>N-C21</b>	296.580	1400.4000	149.389	0.00000	0.42306	0.20984	871.00
<b>N-HENEICO</b>	296.580	1400.4000	149.389	0.00000	0.42306	0.20984	871.00
<b>HENEICOSA</b>	296.580	1400.4000	149.389	0.00000	0.42306	0.20984	871.00
<b>13DPH-BEN</b>	230.309	1589.4000	359.694	0.00000	-0.04578	0.34053	553.30
<b>N-C22</b>	310.607	1414.8000	142.137	0.00000	0.43389	0.20763	911.00
<b>N-DOCOSAN</b>	310.607	1414.8000	142.137	0.00000	0.43389	0.20763	911.00
<b>DOCOSANE</b>	310.607	1414.8000	142.137	0.00000	0.43389	0.20763	911.00
<b>14DPH-BEN</b>	230.309	1634.4000	433.663	0.00000	-0.20989	0.38849	553.30
<b>N-C23</b>	324.634	1422.0000	133.435	0.00000	0.41426	0.21142	951.00
<b>N-TRICOSA</b>	324.634	1422.0000	133.435	0.00000	0.41426	0.21142	951.00
<b>TRICOSANE</b>	324.634	1422.0000	133.435	0.00000	0.41426	0.21142	951.00
<b>N-C24</b>	338.661	1440.0000	126.183	0.00000	0.46840	0.19934	991.00
<b>N-TETRACO</b>	338.661	1440.0000	126.183	0.00000	0.46840	0.19934	991.00
<b>TETRACOSA</b>	338.661	1440.0000	126.183	0.00000	0.46840	0.19934	991.00

Table 8: Additional Properties for Characterization “RK Library”

Component	Full Name	Tb (F)	SG
HE	“Helium”	−451.5069	0.05845
HELIUM	“Helium”	−451.5069	0.05845
NE	“Neon”	−408.8552	0.43433
NEON	“Neon”	−408.8552	0.43433
AR	“Argon”	−296.5826	0.46326
ARGON	“Argon”	−296.5826	0.46326
KR	“Krypton”	−235.7664	0.79151
KRYPTON	“Krypton”	−235.7664	0.79151
XE	“Xenon”	−151.5933	1.13313
XENON	“Xenon”	−151.5933	1.13313
RN	“Radon”	−61.6141	3.56702
RADON	“Radon”	−61.6141	3.56702
H2	“Hydrogen”	−418.6468	0.02670
HYDROGEN	“Hydrogen”	−418.6468	0.02670
N2	“Nitrogen”	−318.2698	0.27163
NITROGEN	“Nitrogen”	−318.2698	0.27163
CO	“Carbon Monoxide”	−311.2341	0.26666
O2	“Oxygen”	−293.0244	0.37638
OXYGEN	“Oxygen”	−293.0244	0.37638
NO	“Nitric Oxide”	−270.1082	0.40978
N2O	“Nitrous Oxide”	−136.9589	0.70268
CO2	“Carbon Dioxide”	−143.1360	0.74887
H2S	“Hydrogen Sulfide”	−77.7157	0.79956
NH3	“Ammonia”	−53.3701	0.59081
AMMONIA	“Ammonia”	−53.3701	0.59081
SO2	“Sulfur Dioxide”	−13.9670	1.37087
NO2	“Nitrogen Dioxide”	−23.3588	1.47106
N2O4	“Nitrogen Tetroxide”	−23.3487	1.45811
H2O	“Water”	154.6618	1.00897
WATER	“Water”	154.6618	1.00897
C1	“Methane”	−252.4182	0.13904
CH4	“Methane”	−252.4182	0.13904
METHANE	“Methane”	−252.4182	0.13904
C2	“Ethane”	−129.4358	0.30352
C2H6	“Ethane”	−129.4358	0.30352
ETHANE	“Ethane”	−129.4358	0.30352
C3	“Propane”	−54.3437	0.49240
C3H8	“Propane”	−54.3437	0.49240

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>PROPANE</b>	“Propane”	−54.3437	0.49240
<b>C-C3</b>	“Cyclopropane”	−34.3764	0.52108
<b>CYCLO-C3</b>	“Cyclopropane”	−34.3764	0.52108
<b>C-PROPANE</b>	“Cyclopropane”	−34.3764	0.52108
<b>CYCLOPROP</b>	“Cyclopropane”	−34.3764	0.52108
<b>I-C4</b>	“Isobutane”	−5.8291	0.57417
<b>ISO-C4</b>	“Isobutane”	−5.8291	0.57417
<b>I-BUTANE</b>	“Isobutane”	−5.8291	0.57417
<b>ISOBUTANE</b>	“Isobutane”	−5.8291	0.57417
<b>N-C4</b>	“Butane”	11.4233	0.59416
<b>N-BUTANE</b>	“Butane”	11.4233	0.59416
<b>BUTANE</b>	“Butane”	11.4233	0.59416
<b>NEO-C5</b>	“Neopentane”	29.2928	0.60543
<b>NEOPENTAN</b>	“Neopentane”	29.2928	0.60543
<b>C-C4</b>	“Cyclobutane”	36.7331	0.70340
<b>CYCLO-C4</b>	“Cyclobutane”	36.7331	0.70340
<b>C-BUTANE</b>	“Cyclobutane”	36.7331	0.70340
<b>CYCLOBUTA</b>	“Cyclobutane”	36.7331	0.70340
<b>I-C5</b>	“Isopentane”	56.4321	0.63282
<b>ISO-C5</b>	“Isopentane”	56.4321	0.63282
<b>I-PENTANE</b>	“Isopentane”	56.4321	0.63282
<b>ISOPENTAN</b>	“Isopentane”	56.4321	0.63282
<b>N-C5</b>	“Pentane”	67.0413	0.63925
<b>N-PENTANE</b>	“Pentane”	67.0413	0.63925
<b>PENTANE</b>	“Pentane”	67.0413	0.63925
<b>C-C5</b>	“Cyclopentane”	97.8151	0.75229
<b>CYCLO-C5</b>	“Cyclopentane”	97.8151	0.75229
<b>C-PENTANE</b>	“Cyclopentane”	97.8151	0.75229
<b>CYCLOPENT</b>	“Cyclopentane”	97.8151	0.75229
<b>22DM-C4</b>	“2,2-Dimethylbutane”	93.3648	0.65618
<b>22DM-BUTA</b>	“2,2-Dimethylbutane”	93.3648	0.65618
<b>23DM-C4</b>	“2,3-Dimethylbutane”	105.1123	0.66852
<b>23DM-BUTA</b>	“2,3-Dimethylbutane”	105.1123	0.66852
<b>2M-C5</b>	“2-Methylpentane”	104.6467	0.66027
<b>2M-PENTAN</b>	“2-Methylpentane”	104.6467	0.66027
<b>3M-C5</b>	“3-Methylpentane”	110.3819	0.67123
<b>3M-PENTAN</b>	“3-Methylpentane”	110.3819	0.67123
<b>N-C6</b>	“Hexane”	115.8105	0.66642

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Full Name	Tb (F)	SG
N-HEXANE	“Hexane”	115.8105	0.66642
HEXANE	“Hexane”	115.8105	0.66642
MC-C5	“Methylcyclopentane”	130.9218	0.75513
MC-PENTAN	“Methylcyclopentane”	130.9218	0.75513
22DM-C5	“2,2-Dimethylpentane”	135.6926	0.68037
22DM-PENT	“2,2-Dimethylpentane”	135.6926	0.68037
BENZENE	“Benzene”	147.9704	0.88545
24DM-C5	“2,4-Dimethylpentane”	135.5633	0.67923
24DM-PENT	“2,4-Dimethylpentane”	135.5633	0.67923
C-C6	“Cyclohexane”	149.4507	0.78449
CYCLO-C6	“Cyclohexane”	149.4507	0.78449
C-HEXANE	“Cyclohexane”	149.4507	0.78449
CYCLOHEXA	“Cyclohexane”	149.4507	0.78449
223TM-C4	“2,2,3-Trimethylbutane”	144.0033	0.69598
223TM-BUT	“2,2,3-Trimethylbutane”	144.0033	0.69598
33DM-C5	“3,3-Dimethylpentane”	149.9139	0.69945
33DM-PENT	“3,3-Dimethylpentane”	149.9139	0.69945
23DM-C5	“2,3-Dimethylpentane”	151.9075	0.70127
23DM-PENT	“2,3-Dimethylpentane”	151.9075	0.70127
2M-C6	“2-Methylhexane”	147.7052	0.68516
2M-HEXANE	“2-Methylhexane”	147.7052	0.68516
3M-C6	“3-Methylhexane”	151.7170	0.69350
3M-HEXANE	“3-Methylhexane”	151.7170	0.69350
3E-C5	“3-Ethylpentane”	155.9865	0.70444
3E-PENTAN	“3-Ethylpentane”	155.9865	0.70444
N-C7	“Heptane”	159.0427	0.69012
N-HEPTANE	“Heptane”	159.0427	0.69012
HEPTANE	“Heptane”	159.0427	0.69012
MC-C6	“Methylcyclohexane”	180.0718	0.77494
MC-HEXANE	“Methylcyclohexane”	180.0718	0.77494
EC-C5	“Ethylcyclopentane”	178.4426	0.77229
EC-PENTAN	“Ethylcyclopentane”	178.4426	0.77229
TOLUENE	“Toluene”	190.9995	0.87297
C-C7	“Cycloheptane”	209.2180	0.81587
CYCLO-C7	“Cycloheptane”	209.2180	0.81587
C-HEPTANE	“Cycloheptane”	209.2180	0.81587
CYCLOHEPT	“Cycloheptane”	209.2180	0.81587
N-C8	“Octane”	198.2287	0.70856

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Full Name	Tb (F)	SG
N-OCTANE	“Octane”	198.2287	0.70856
OCTANE	“Octane”	198.2287	0.70856
E-BENZENE	“Ethylbenzene”	227.6574	0.87270
P-XYLENE	“p-Xylene”	228.4878	0.86693
M-XYLENE	“m-Xylene”	228.7955	0.87009
O-XYLENE	“o-Xylene”	239.9687	0.88542
N-C9	“Nonane”	234.3173	0.72327
N-NONANE	“Nonane”	234.3173	0.72327
NONANE	“Nonane”	234.3173	0.72327
C-C8	“Cyclooctane”	261.9057	0.84055
CYCLO-C8	“Cyclooctane”	261.9057	0.84055
C-OCTANE	“Cyclooctane”	261.9057	0.84055
CYCLOOCTA	“Cyclooctane”	261.9057	0.84055
CUMENE	“Cumene”	251.4260	0.86716
I-C3-BENZ	“Cumene”	251.4260	0.86716
1ME-BENZE	“Cumene”	251.4260	0.86716
P-BENZENE	“Propylbenzene”	259.9138	0.86686
1E4M-BENZ	“1-Ethyl-4-methylbenzene”	261.3173	0.86593
135TM-BEN	“1,3,5-Trimethylbenzene”	260.4158	0.85000
124TM-BEN	“1,2,4-Trimethylbenzene”	271.2946	0.87603
N-C10	“Decane”	267.6352	0.73532
N-DECANE	“Decane”	267.6352	0.73532
DECANE	“Decane”	267.6352	0.73532
123TM-BEN	“1,2,3-Trimethylbenzene”	283.6454	0.89493
N-C11	“Undecane”	297.9203	0.74529
N-UNDECAN	“Undecane”	297.9203	0.74529
UNDECANE	“Undecane”	297.9203	0.74529
N-C12	“Dodecane”	327.6884	0.75385
N-DODECAN	“Dodecane”	327.6884	0.75385
DODECANE	“Dodecane”	327.6884	0.75385
NAPHTHALE	“Naphthalene”	364.3929	1.02988
N-C13	“Tridecane”	355.2427	0.76131
N-TRIDECA	“Tridecane”	355.2427	0.76131
TRIDECA	“Tridecane”	355.2427	0.76131
2M-NAPHTH	“2-Methylnaphthalene”	389.4986	1.01193
1M-NAPHTH	“1-Methylnaphthalene”	400.3297	1.02477
N-C14	“Tetradecane”	383.3630	0.76767
N-TETRADE	“Tetradecane”	383.3630	0.76767

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Full Name	Tb (F)	SG
<b>TETRADECA</b>	“Tetradecane”	383.3630	0.76767
<b>DPH-C1</b>	“Diphenylmethane”	411.7840	1.01090
<b>DPH-METHA</b>	“Diphenylmethane”	411.7840	1.01090
<b>N-C15</b>	“Pentadecane”	407.3988	0.77323
<b>N-PENTADE</b>	“Pentadecane”	407.3988	0.77323
<b>PENTADECA</b>	“Pentadecane”	407.3988	0.77323
<b>N-C16</b>	“Hexadecane”	431.4201	0.77814
<b>N-HEXADEC</b>	“Hexadecane”	431.4201	0.77814
<b>HEXADECAN</b>	“Hexadecane”	431.4201	0.77814
<b>N-C17</b>	“Heptadecane”	452.0389	0.78263
<b>N-HEPTADE</b>	“Heptadecane”	452.0389	0.78263
<b>HEPTADECA</b>	“Heptadecane”	452.0389	0.78263
<b>N-C18</b>	“Octadecane”	469.7607	0.78697
<b>N-OCTADEC</b>	“Octadecane”	469.7607	0.78697
<b>OCTADECAN</b>	“Octadecane”	469.7607	0.78697
<b>N-C19</b>	“Nonadecane”	491.5103	0.79058
<b>N-NONADEC</b>	“Nonadecane”	491.5103	0.79058
<b>NONADECAN</b>	“Nonadecane”	491.5103	0.79058
<b>12DPH-BEN</b>	“1,2-Diphenylbenzene”	513.0928	0.75512
<b>PHENANTHR</b>	“Phenanthrene”	530.8724	0.97413
<b>ANTHRACEN</b>	“Anthracene”	531.2144	1.29459
<b>N-C20</b>	“Eicosane”	517.2513	0.79069
<b>N-EICOSAN</b>	“Eicosane”	517.2513	0.79069
<b>EICOSANE</b>	“Eicosane”	517.2513	0.79069
<b>N-C21</b>	“Heneicosane”	534.5215	0.79827
<b>N-HENEICO</b>	“Heneicosane”	534.5215	0.79827
<b>HENEICOSA</b>	“Heneicosane”	534.5215	0.79827
<b>13DPH-BEN</b>	“1,3-Diphenylbenzene”	562.2583	0.79436
<b>N-C22</b>	“Docosane”	550.8229	0.80230
<b>N-DOCOSAN</b>	“Docosane”	550.8229	0.80230
<b>DOCOSANE</b>	“Docosane”	550.8229	0.80230
<b>14DPH-BEN</b>	“1,4-Diphenylbenzene”	570.9818	0.81586
<b>N-C23</b>	“Tricosane”	563.8474	0.76198
<b>N-TRICOSA</b>	“Tricosane”	563.8474	0.76198
<b>TRICOSANE</b>	“Tricosane”	563.8474	0.76198
<b>N-C24</b>	“Tetracosane”	583.9842	0.80845
<b>N-TETRACO</b>	“Tetracosane”	583.9842	0.80845
<b>TETRACOSA</b>	“Tetracosane”	583.9842	0.80845

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
HE	0.30142	0.91786	0.30142	0.91786	
HELIUM	0.30142	0.91786	0.30142	0.91786	
NE	0.31177	0.66797	0.31177	0.66797	
NEON	0.31177	0.66797	0.31177	0.66797	
AR	0.29119	1.19450	0.29119	1.19450	
ARGON	0.29119	1.19450	0.29119	1.19450	
KR	0.28810	1.46088	0.28810	1.46088	
KRYPTON	0.28810	1.46088	0.28810	1.46088	
XE	0.28606	1.89018	0.28606	1.89018	
XENON	0.28606	1.89018	0.28606	1.89018	
RN	0.28138	2.24258	0.28138	2.24258	
RADON	0.28138	2.24258	0.28138	2.24258	
H2	0.30273	1.02839	0.30273	1.02839	
HYDROGEN	0.30273	1.02839	0.30273	1.02839	
N2	0.29178	1.44326	0.29178	1.44326	
NITROGEN	0.29178	1.44326	0.29178	1.44326	
CO	0.29449	1.49132	0.29449	1.49132	
O2	0.28789	1.17527	0.28789	1.17527	
OXYGEN	0.28789	1.17527	0.28789	1.17527	
NO	0.25113	0.92907	0.25113	0.92907	
N2O	0.27338	1.55379	0.27338	1.55379	
CO2	0.27433	1.50686	0.27433	1.50686	
H2S	0.28292	1.56981	0.28292	1.56981	
NH3	0.24409	1.16086	0.24409	1.16086	
AMMONIA	0.24409	1.16086	0.24409	1.16086	
SO2	0.26853	1.95425	0.26853	1.95425	
NO2	0.47294	2.68790	0.47294	2.68790	
N2O4	0.47067	2.67508	0.47067	2.67508	
H2O	0.22943	0.89623	0.22676	0.88578	1.12658
WATER	0.22943	0.89623	0.22676	0.88578	1.12658
C1	0.28620	1.57942	0.28620	1.57942	
CH4	0.28620	1.57942	0.28620	1.57942	
METHANE	0.28620	1.57942	0.28620	1.57942	
C2	0.27924	2.33069	0.27924	2.33069	
C2H6	0.27924	2.33069	0.27924	2.33069	
ETHANE	0.27924	2.33069	0.27924	2.33069	
C3	0.27630	3.20369	0.27630	3.20369	
C3H8	0.27630	3.20369	0.27630	3.20369	

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
PROPANE	0.27630	3.20369	0.27630	3.20369	
C-C3	0.27410	2.60781	0.27410	2.60781	
CYCLO-C3	0.27410	2.60781	0.27410	2.60781	
C-PROPANE	0.27410	2.60781	0.27410	2.60781	
CYCLOPROP	0.27410	2.60781	0.27410	2.60781	
I-C4	0.28199	4.20805	0.28199	4.20805	
ISO-C4	0.28199	4.20805	0.28199	4.20805	
I-BUTANE	0.28199	4.20805	0.28199	4.20805	
ISOBUTANE	0.28199	4.20805	0.28199	4.20805	
N-C4	0.27385	4.08471	0.27385	4.08471	
N-BUTANE	0.27385	4.08471	0.27385	4.08471	
BUTANE	0.27385	4.08471	0.27385	4.08471	
NEO-C5	0.26895	4.85680	0.26895	4.85680	
NEOPENTAN	0.26895	4.85680	0.26895	4.85680	
C-C4	0.28442	3.49203	0.28442	3.49203	
CYCLO-C4	0.28442	3.49203	0.28442	3.49203	
C-BUTANE	0.28442	3.49203	0.28442	3.49203	
CYCLOBUTA	0.28442	3.49203	0.28442	3.49203	
I-C5	0.27231	4.93849	0.27231	4.93849	
ISO-C5	0.27231	4.93849	0.27231	4.93849	
I-PENTANE	0.27231	4.93849	0.27231	4.93849	
ISOPENTAN	0.27231	4.93849	0.27231	4.93849	
N-C5	0.26837	4.98174	0.26691	4.95462	0.23558
N-PENTANE	0.26837	4.98174	0.26691	4.95462	0.23558
PENTANE	0.26837	4.98174	0.26691	4.95462	0.23558
C-C5	0.27554	4.16480	0.28422	4.29585	0.40356
CYCLO-C5	0.27554	4.16480	0.28422	4.29585	0.40356
C-PENTANE	0.27554	4.16480	0.28422	4.29585	0.40356
CYCLOPENT	0.27554	4.16480	0.28422	4.29585	0.40356
22DM-C4	0.27220	5.75223	0.27658	5.84481	0.26594
22DM-BUTA	0.27220	5.75223	0.27658	5.84481	0.26594
23DM-C4	0.26929	5.72820	0.27319	5.81105	0.29518
23DM-BUTA	0.26929	5.72820	0.27319	5.81105	0.29518
2M-C5	0.26684	5.87397	0.26812	5.90208	0.29498
2M-PENTAN	0.26684	5.87397	0.26812	5.90208	0.29498
3M-C5	0.27281	5.87397	0.27081	5.83095	0.31187
3M-PENTAN	0.27281	5.87397	0.27081	5.83095	0.31187
N-C6	0.26377	5.89479	0.26460	5.91337	0.32245



Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-HEXANE	0.26377	5.89479	0.26460	5.91337	0.32245
HEXANE	0.26377	5.89479	0.26460	5.91337	0.32245
MC-C5	0.27249	5.10989	0.28361	5.31843	0.53135
MC-PENTAN	0.27249	5.10989	0.28361	5.31843	0.53135
22DM-C5	0.26619	6.66048	0.27202	6.80633	0.35620
22DM-PENT	0.26619	6.66048	0.27202	6.80633	0.35620
BENZENE	0.26815	4.10073	0.27937	4.27226	0.69219
24DM-C5	0.26474	6.68771	0.27039	6.83051	0.35931
24DM-PENT	0.26474	6.68771	0.27039	6.83051	0.35931
C-C6	0.27259	4.93369	0.30137	5.45461	1.05399
CYCLO-C6	0.27259	4.93369	0.30137	5.45461	1.05399
C-HEXANE	0.27259	4.93369	0.30137	5.45461	1.05399
CYCLOHEXA	0.27259	4.93369	0.30137	5.45461	1.05399
223TM-C4	0.26562	6.36894	0.27817	6.66993	0.37777
223TM-BUT	0.26562	6.36894	0.27817	6.66993	0.37777
33DM-C5	0.27396	6.63325	0.27604	6.68355	0.40052
33DM-PENT	0.27396	6.63325	0.27604	6.68355	0.40052
23DM-C5	0.25600	6.29526	0.27263	6.70430	0.41702
23DM-PENT	0.25600	6.29526	0.27263	6.70430	0.41702
2M-C6	0.26077	6.74377	0.26531	6.86117	0.40024
2M-HEXANE	0.26077	6.74377	0.26531	6.86117	0.40024
3M-C6	0.25512	6.47146	0.26794	6.79688	0.41711
3M-HEXANE	0.25512	6.47146	0.26794	6.79688	0.41711
3E-C5	0.26739	6.66048	0.26943	6.71121	0.43562
3E-PENTAN	0.26739	6.66048	0.26943	6.71121	0.43562
N-C7	0.26110	6.85590	0.26220	6.88483	0.43989
N-HEPTANE	0.26110	6.85590	0.26220	6.88483	0.43989
HEPTANE	0.26110	6.85590	0.26220	6.88483	0.43989
MC-C6	0.26849	5.89479	0.28628	6.28537	0.78245
MC-HEXANE	0.26849	5.89479	0.28628	6.28537	0.78245
EC-C5	0.26903	6.00692	0.27223	6.07843	0.53716
EC-PENTAN	0.26903	6.00692	0.27223	6.07843	0.53716
TOLUENE	0.26384	5.06183	0.26573	5.09799	0.64614
C-C7	0.27437	5.75063	0.27815	5.82987	0.65358
CYCLO-C7	0.27437	5.75063	0.27815	5.82987	0.65358
C-HEPTANE	0.27437	5.75063	0.27815	5.82987	0.65358
CYCLOHEPT	0.27437	5.75063	0.27815	5.82987	0.65358
N-C8	0.25909	7.88108	0.25913	7.88247	0.58477

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
N-OCTANE	0.25909	7.88108	0.25913	7.88247	0.58477
OCTANE	0.25909	7.88108	0.25913	7.88247	0.58477
E-BENZENE	0.26305	5.99091	0.26161	5.95809	0.72363
P-XYLENE	0.25904	6.05498	0.25431	5.94431	0.65065
M-XYLENE	0.25884	6.00692	0.25526	5.92373	0.65532
O-XYLENE	0.26349	5.92683	0.26532	5.96801	0.86923
N-C9	0.25708	8.89025	0.25731	8.89819	0.75913
N-NONANE	0.25708	8.89025	0.25731	8.89819	0.75913
NONANE	0.25708	8.89025	0.25731	8.89819	0.75913
C-C8	0.27201	6.56757	0.27699	6.68798	0.92467
CYCLO-C8	0.27201	6.56757	0.27699	6.68798	0.92467
C-OCTANE	0.27201	6.56757	0.27699	6.68798	0.92467
CYCLOOCTA	0.27201	6.56757	0.27699	6.68798	0.92467
CUMENE	0.26589	6.96323	0.26342	6.89855	0.83587
I-C3-BENZ	0.26589	6.96323	0.26342	6.89855	0.83587
1ME-BENZE	0.26589	6.96323	0.26342	6.89855	0.83587
P-BENZENE	0.26528	7.04812	0.26496	7.03962	1.02996
1E4M-BENZ	0.26700	7.04812	0.26748	7.06085	1.05813
135TM-BEN	0.25376	6.88794	0.26580	7.21493	1.07150
124TM-BEN	0.26050	6.96803	0.26293	7.03279	1.14941
N-C10	0.25636	9.99552	0.25479	9.93400	0.96587
N-DECANE	0.25636	9.99552	0.25479	9.93400	0.96587
DECANE	0.25636	9.99552	0.25479	9.93400	0.96587
123TM-BEN	0.27195	6.96803	0.26971	6.91067	1.24933
N-C11	0.25677	11.03672	0.25545	10.98003	1.20847
N-UNDECAN	0.25677	11.03672	0.25545	10.98003	1.20847
UNDECANE	0.25677	11.03672	0.25545	10.98003	1.20847
N-C12	0.25083	12.07792	0.25038	12.05604	1.49108
N-DODECAN	0.25083	12.07792	0.25038	12.05604	1.49108
DODECANE	0.25083	12.07792	0.25038	12.05604	1.49108
NAPHTHALE	0.26490	6.51951	0.27415	6.74707	2.63165
N-C13	0.24636	13.18320	0.24567	13.14615	1.81708
N-TRIDECA	0.24636	13.18320	0.24567	13.14615	1.81708
TRIDECA	0.24636	13.18320	0.24567	13.14615	1.81708
2M-NAPHTH	0.25848	7.40053	0.26731	7.65342	2.68017
1M-NAPHTH	0.25912	7.40053	0.26535	7.57854	2.80178
N-C14	0.24360	14.32051	0.24237	14.24831	2.19085
N-TETRADE	0.24360	14.32051	0.24237	14.24831	2.19085

Table 8: Additional Properties for Characterization “RK Library” (cont.)

Component	Zc	Vc (ft <sup>3</sup> /lbmol)	ZcVis	VcVis (ft <sup>3</sup> /lbmol)	Visc (cp)
<b>TETRADECA</b>	0.24360	14.32051	0.24237	14.24831	2.19085
<b>DPH-C1</b>	0.24145	9.01839	0.24963	9.32401	3.53892
<b>DPH-METHA</b>	0.24145	9.01839	0.24963	9.32401	3.53892
<b>N-C15</b>	0.24287	15.47384	0.24106	15.35880	2.61367
<b>N-PENTADE</b>	0.24287	15.47384	0.24106	15.35880	2.61367
<b>PENTADECA</b>	0.24287	15.47384	0.24106	15.35880	2.61367
<b>N-C16</b>	0.24081	16.56309	0.23963	16.48157	3.08957
<b>N-HEXADEC</b>	0.24081	16.56309	0.23963	16.48157	3.08957
<b>HEXADECAN</b>	0.24081	16.56309	0.23963	16.48157	3.08957
<b>N-C17</b>	0.24153	17.66837	0.24055	17.59660	3.59702
<b>N-HEPTADE</b>	0.24153	17.66837	0.24055	17.59660	3.59702
<b>HEPTADECA</b>	0.24153	17.66837	0.24055	17.59660	3.59702
<b>N-C18</b>	0.24695	19.04595	0.24261	18.71068	4.15804
<b>N-OCTADEC</b>	0.24695	19.04595	0.24261	18.71068	4.15804
<b>OCTADECAN</b>	0.24695	19.04595	0.24261	18.71068	4.15804
<b>N-C19</b>	0.21464	18.60587	0.22976	19.91678	4.81522
<b>N-NONADEC</b>	0.21464	18.60587	0.22976	19.91678	4.81522
<b>NONADECAN</b>	0.21464	18.60587	0.22976	19.91678	4.81522
<b>12DPH-BEN</b>	0.22579	8.61924	0.42638	16.27671	2.31427
<b>PHENANTHR</b>	0.22006	8.87423	0.26676	10.75755	7.28877
<b>ANTHRACEN</b>	0.21998	8.87423	0.19946	8.04629	6.68134
<b>N-C20</b>	0.21014	20.08793	0.22175	21.19812	5.52923
<b>N-EICOSAN</b>	0.21014	20.08793	0.22175	21.19812	5.52923
<b>EICOSANE</b>	0.21014	20.08793	0.22175	21.19812	5.52923
<b>N-C21</b>	0.23015	23.15297	0.20984	21.10973	2.97532
<b>N-HENEICO</b>	0.23015	23.15297	0.20984	21.10973	2.97532
<b>HENEICOSA</b>	0.23015	23.15297	0.20984	21.10973	2.97532
<b>13DPH-BEN</b>	0.24457	11.59737	0.34053	16.14796	3.51569
<b>N-C22</b>	0.22848	24.40591	0.20763	22.17896	3.29769
<b>N-DOCOSAN</b>	0.22848	24.40591	0.20763	22.17896	3.29769
<b>DOCOSANE</b>	0.22848	24.40591	0.20763	22.17896	3.29769
<b>14DPH-BEN</b>	0.28872	11.67746	0.38849	15.71268	3.93164
<b>N-C23</b>	0.21880	25.02271	0.21142	24.17961	2.83514
<b>N-TRICOSA</b>	0.21880	25.02271	0.21142	24.17961	2.83514
<b>TRICOSANE</b>	0.21880	25.02271	0.21142	24.17961	2.83514
<b>N-C24</b>	0.22467	27.51463	0.19934	24.41285	4.04463
<b>N-TETRACO</b>	0.22467	27.51463	0.19934	24.41285	4.04463
<b>TETRACOSA</b>	0.22467	27.51463	0.19934	24.41285	4.04463

# Figures

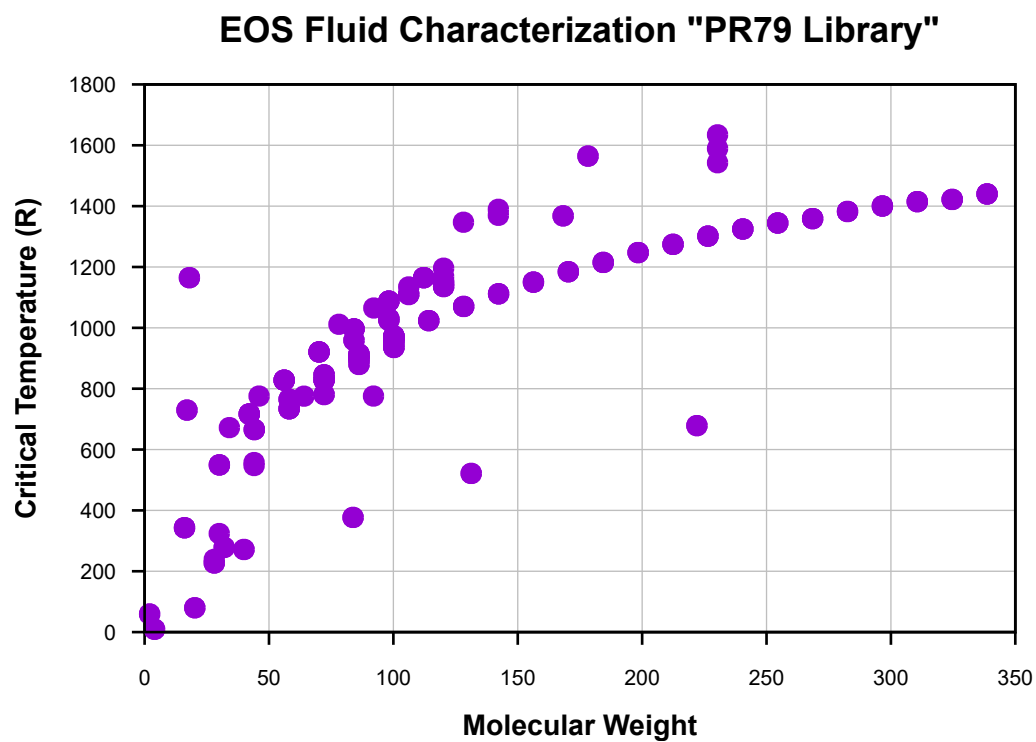


Figure 1: Critical Temperature vs. Molecular Weight for EOS Fluid Characterization “PR79 Library.”

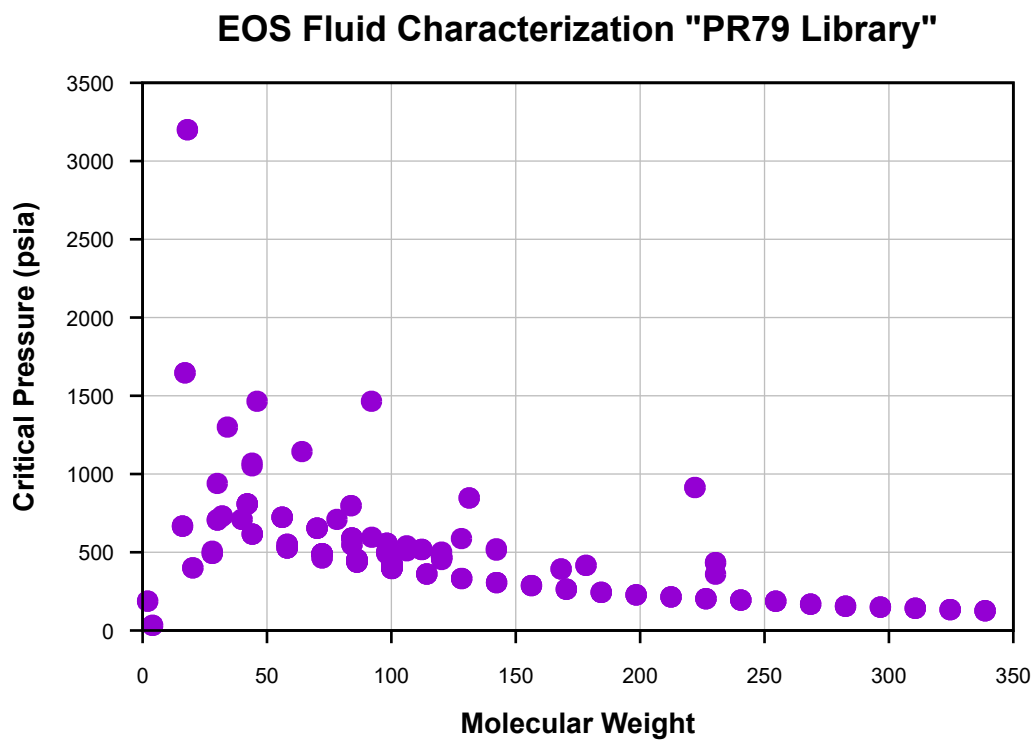


Figure 2: Critical Pressure vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

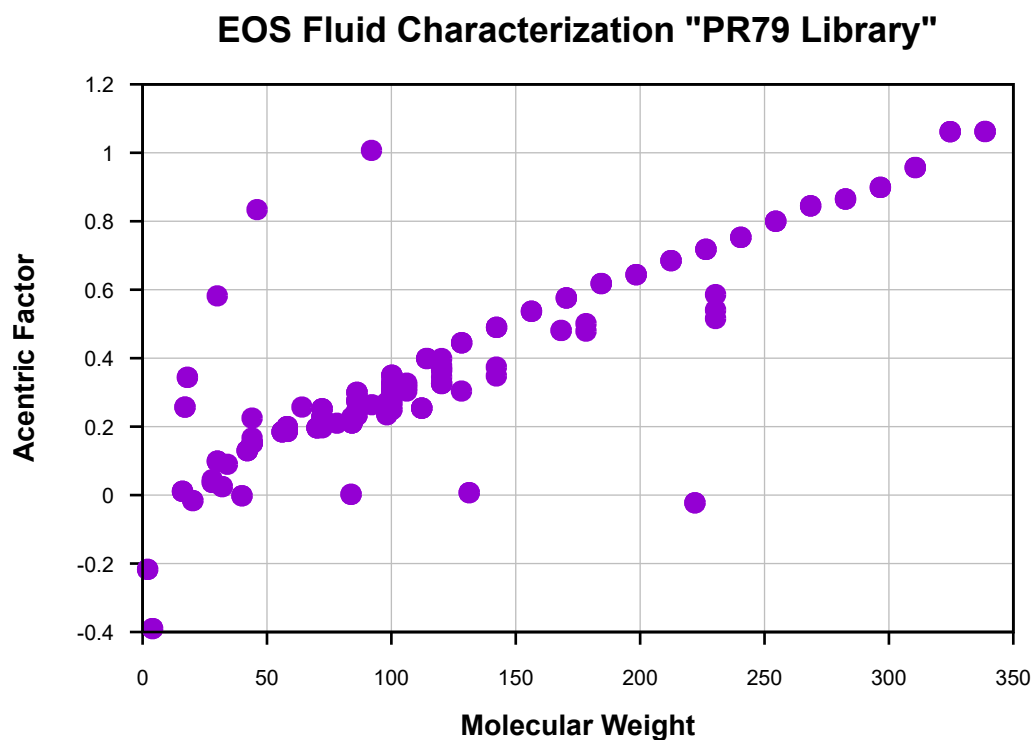


Figure 3: Acentric Factor vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

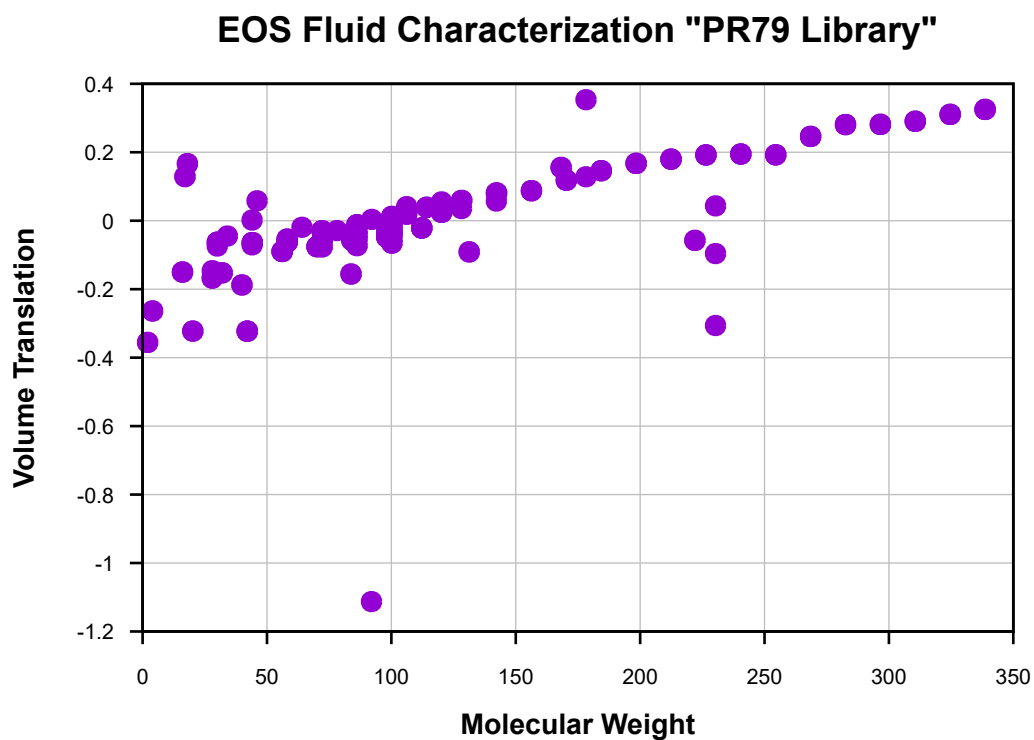


Figure 4: Volume Translation vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

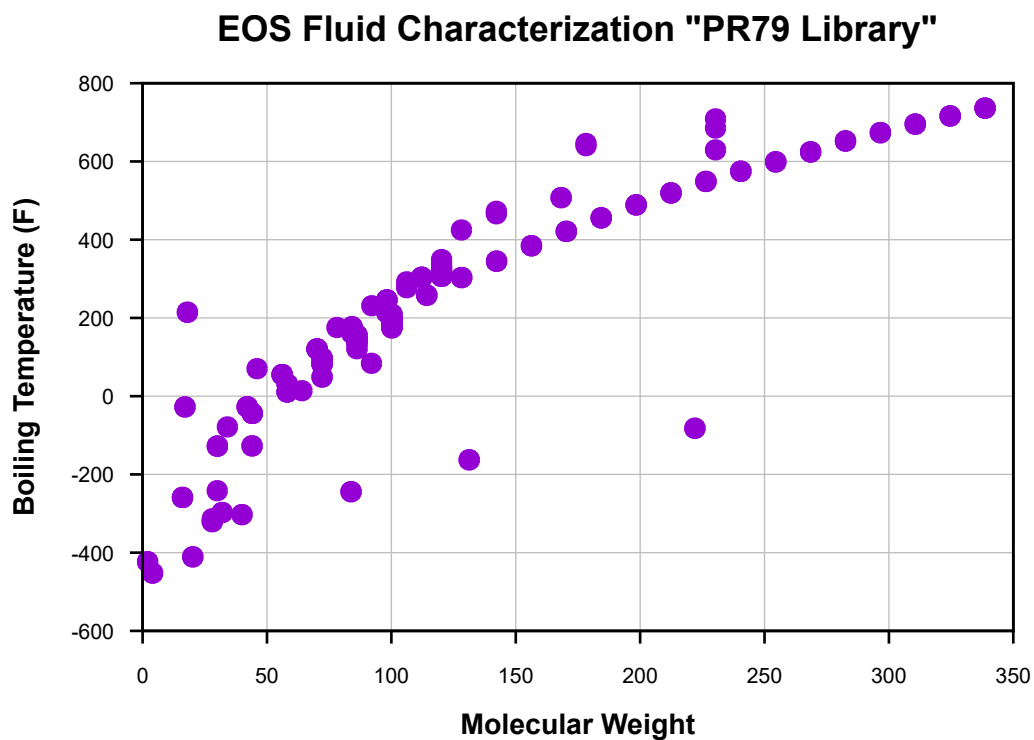


Figure 5: Boiling Temperature vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

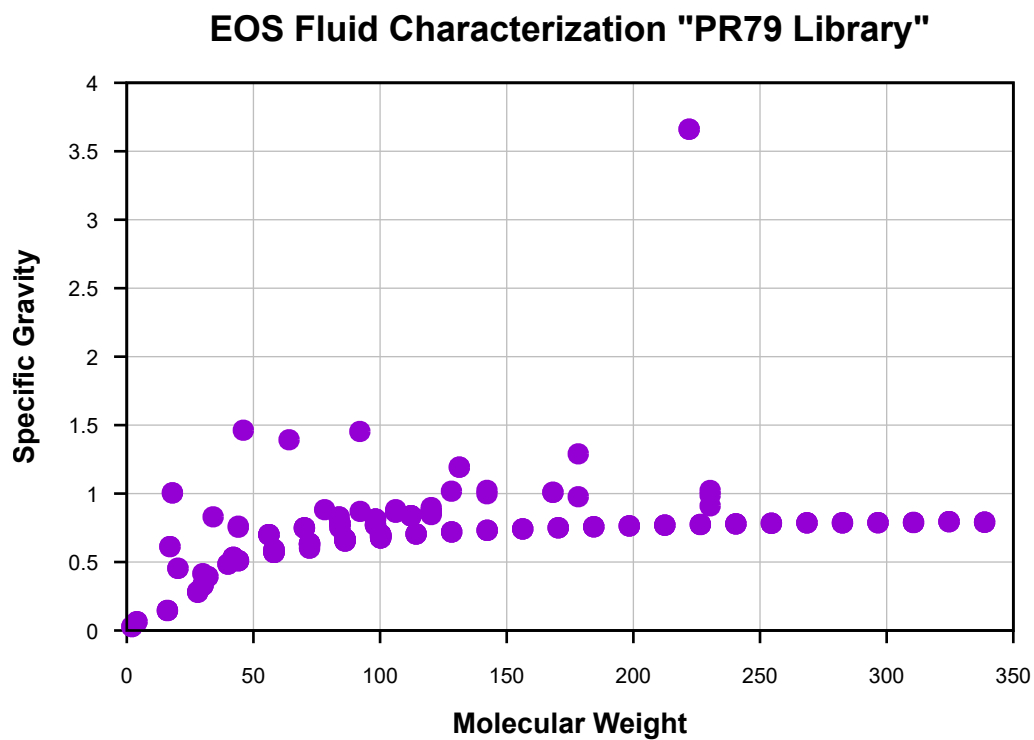


Figure 6: Specific Gravity vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

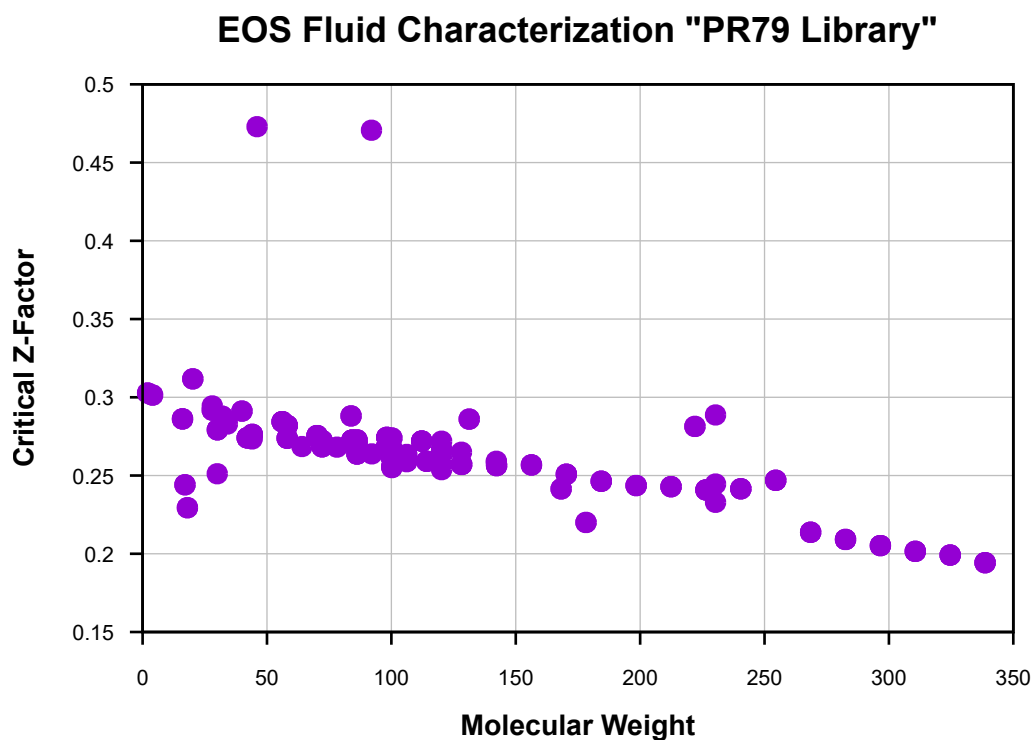


Figure 7: Critical Z-Factor vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

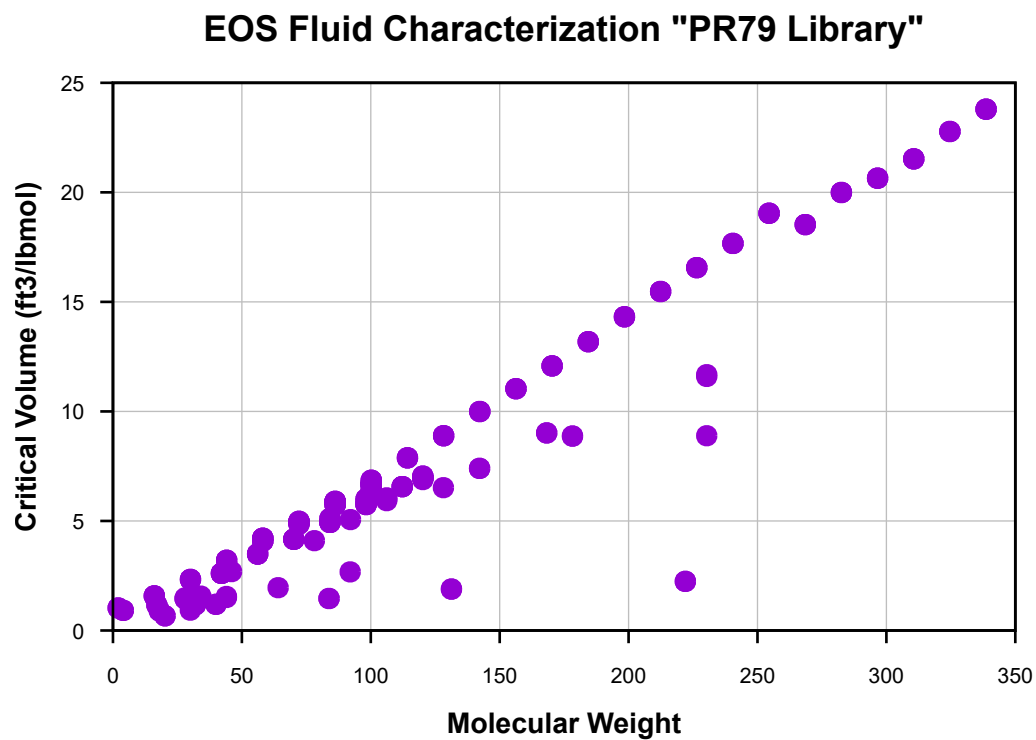


Figure 8: Critical Volume vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

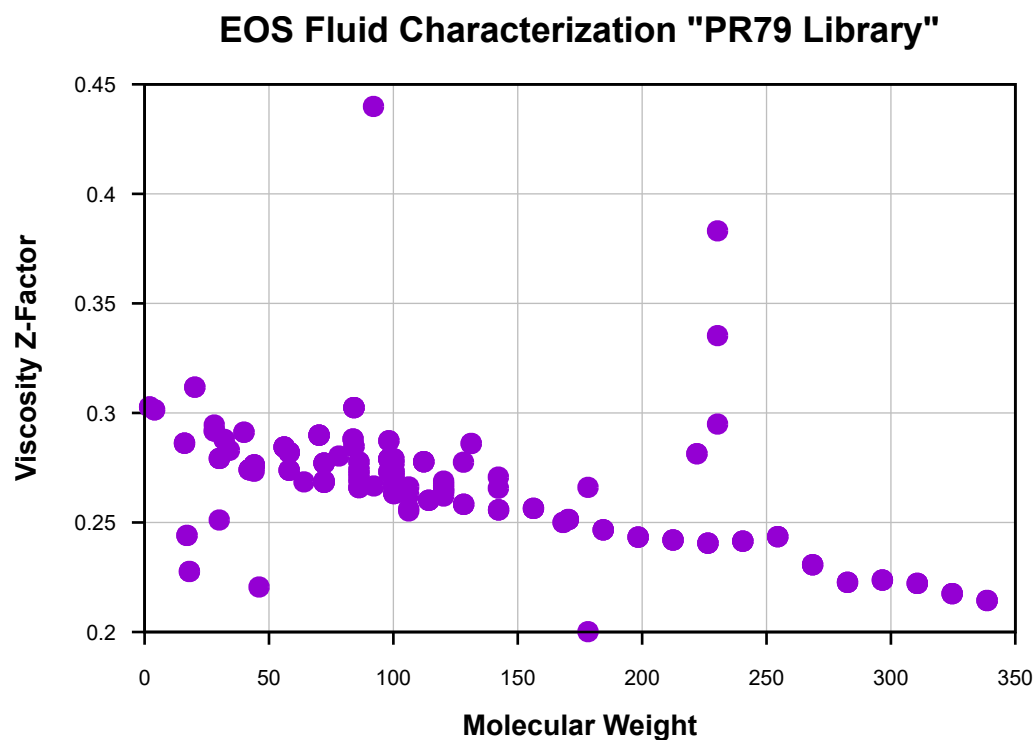


Figure 9: Viscosity Z-Factor vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."



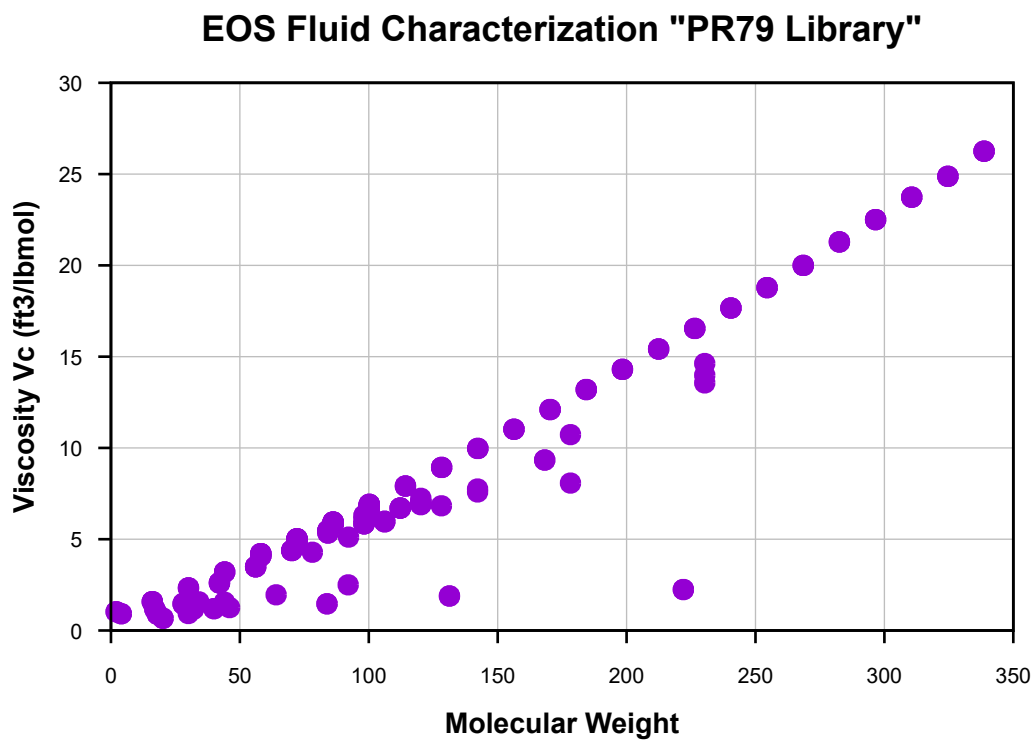


Figure 10: Viscosity  $V_c$  vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

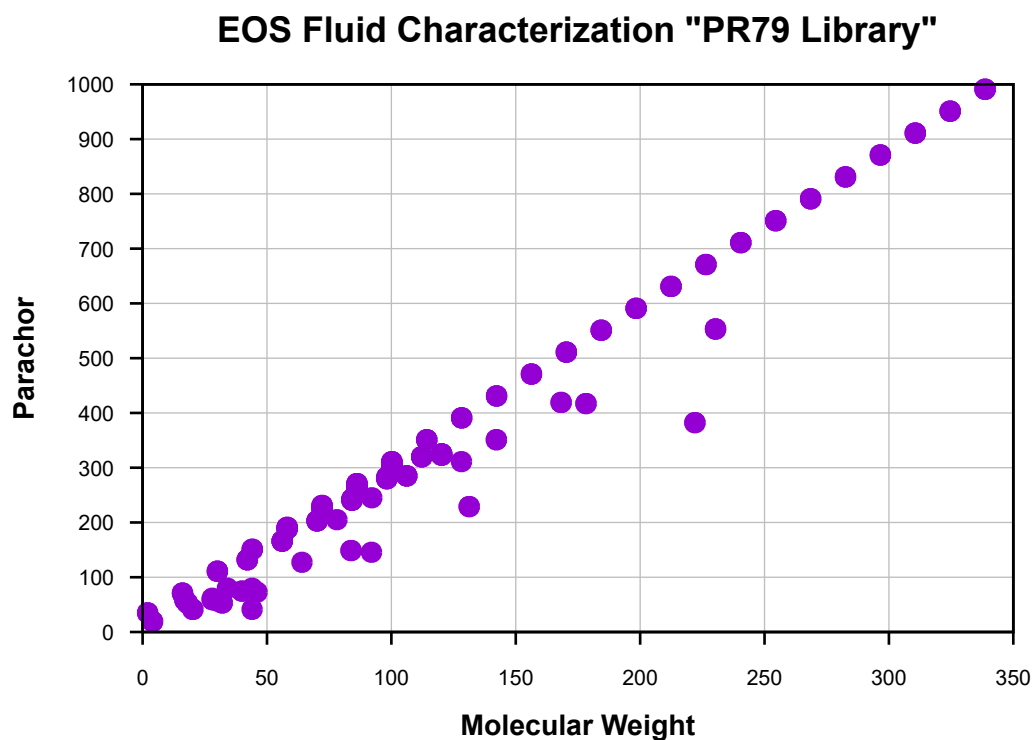


Figure 11: Parachor vs. Molecular Weight for EOS Fluid Characterization "PR79 Library."

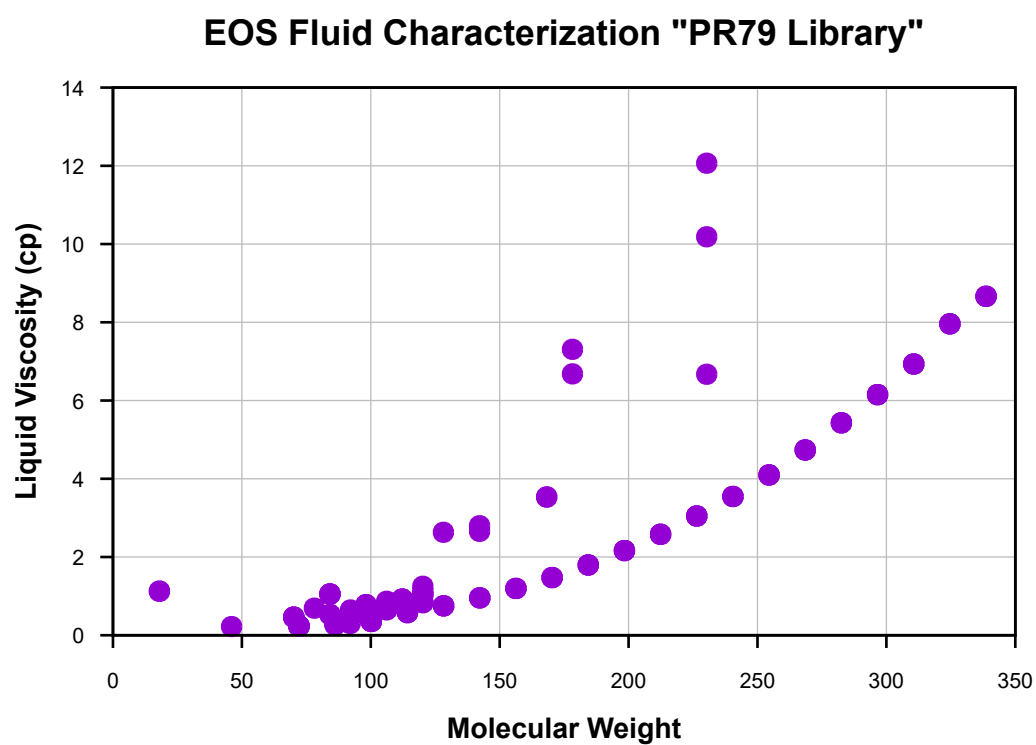


Figure 12: Liquid Viscosity vs. Molecular Weight for EOS Fluid Characterization “PR79 Library.”

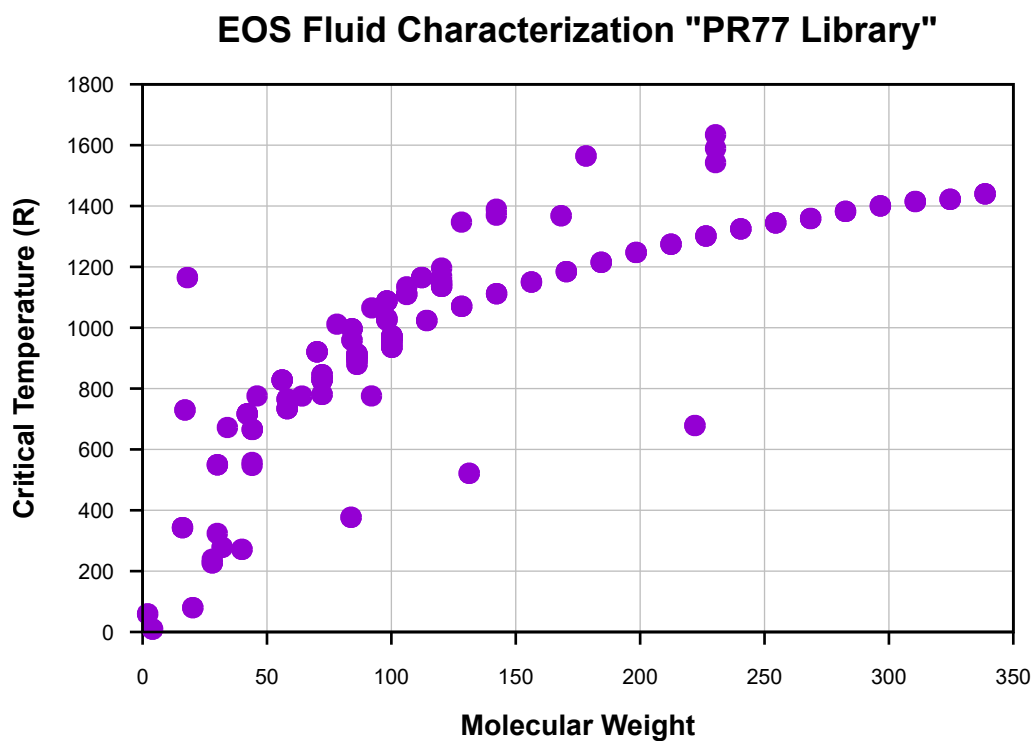


Figure 13: Critical Temperature vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”

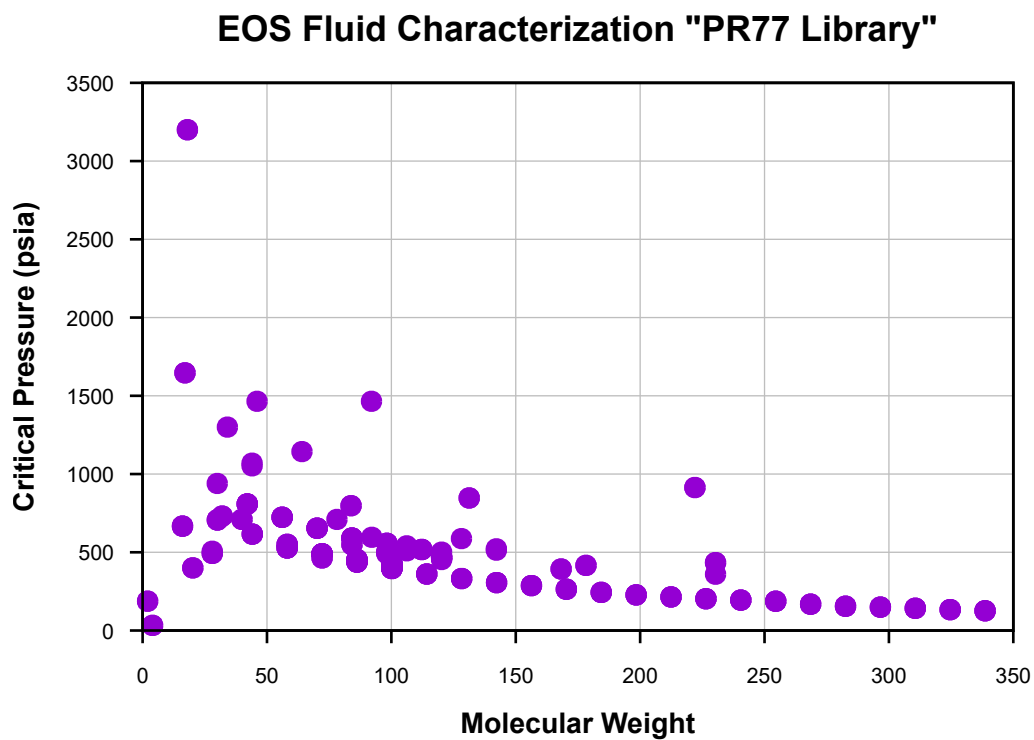


Figure 14: Critical Pressure vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”

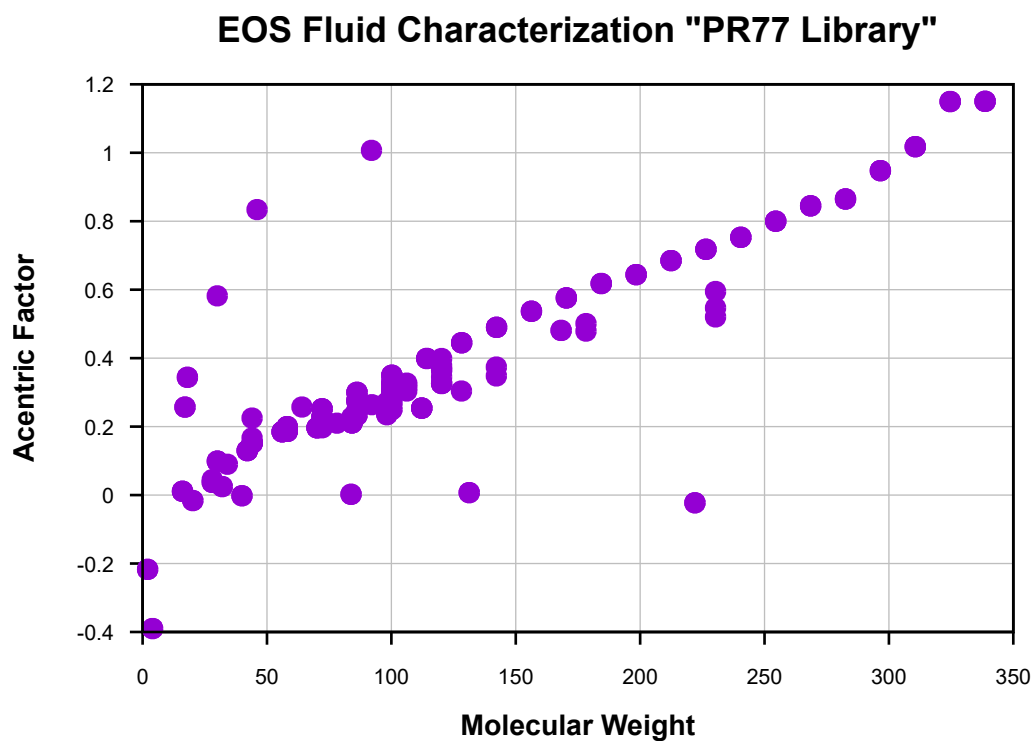


Figure 15: Acentric Factor vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”

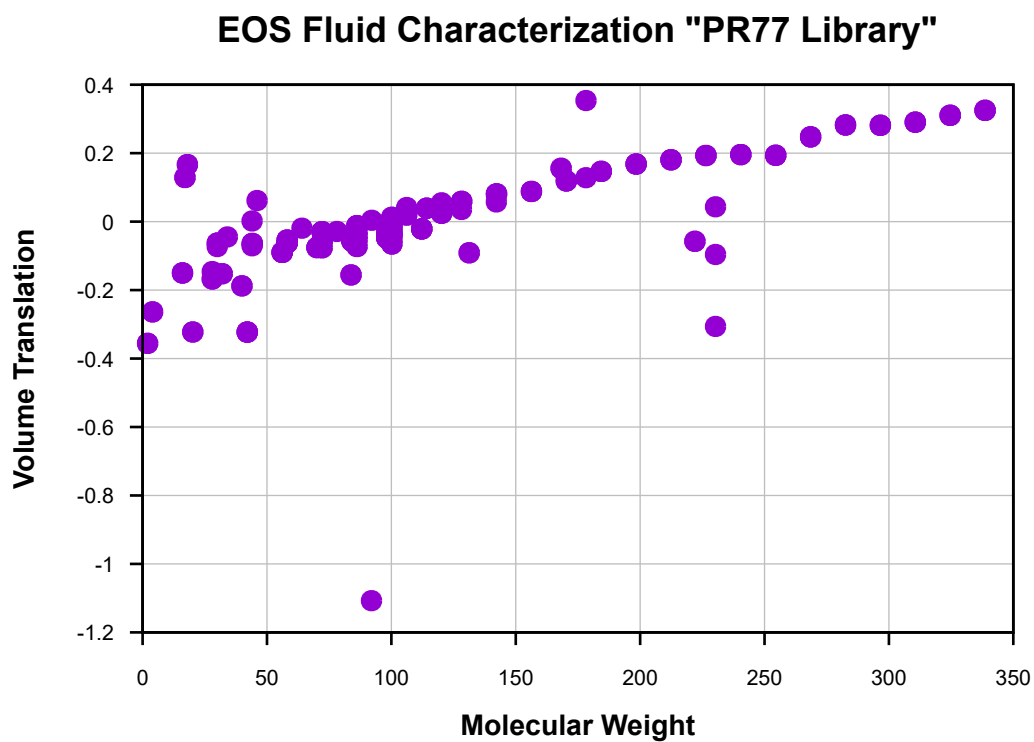


Figure 16: Volume Translation vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”

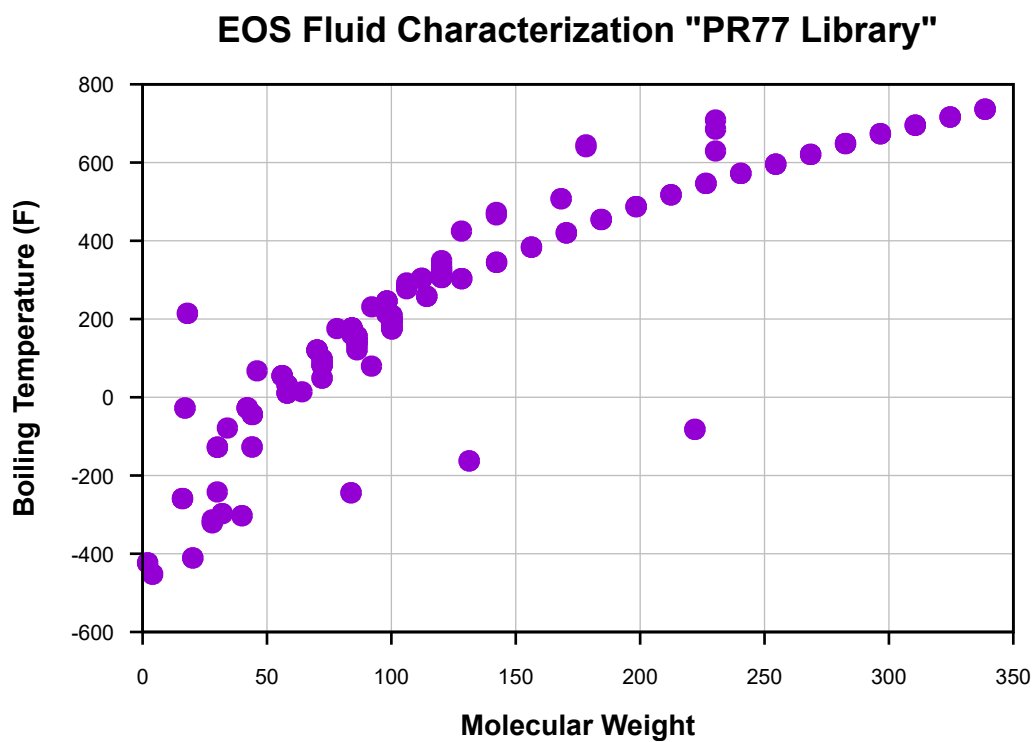


Figure 17: Boiling Temperature vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”

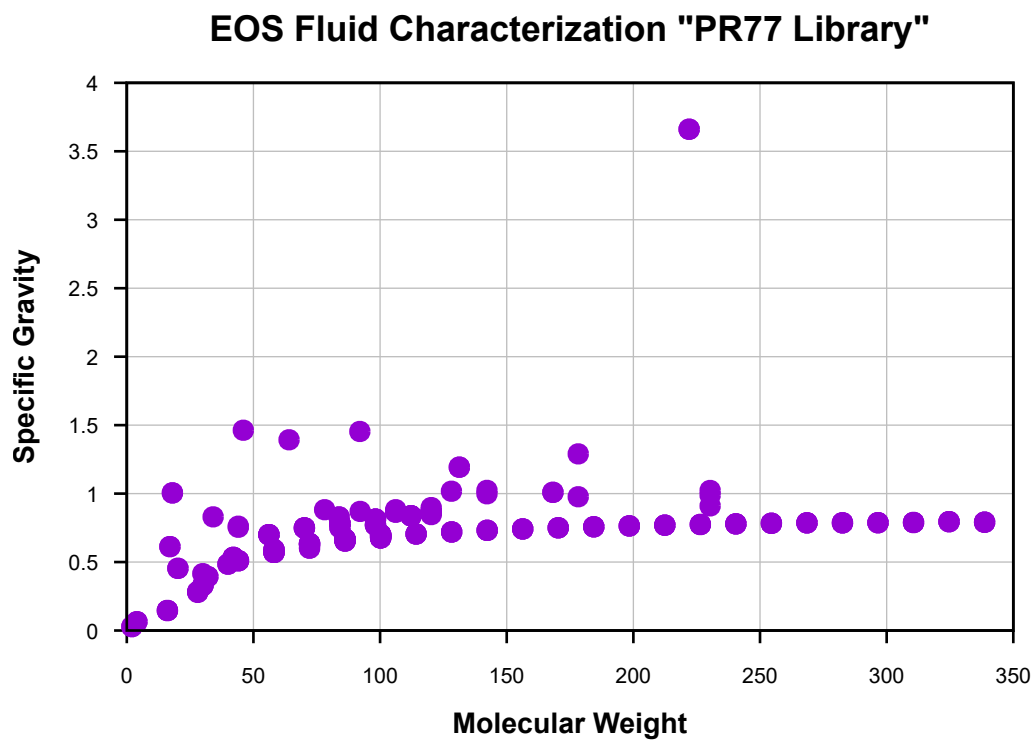


Figure 18: Specific Gravity vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”

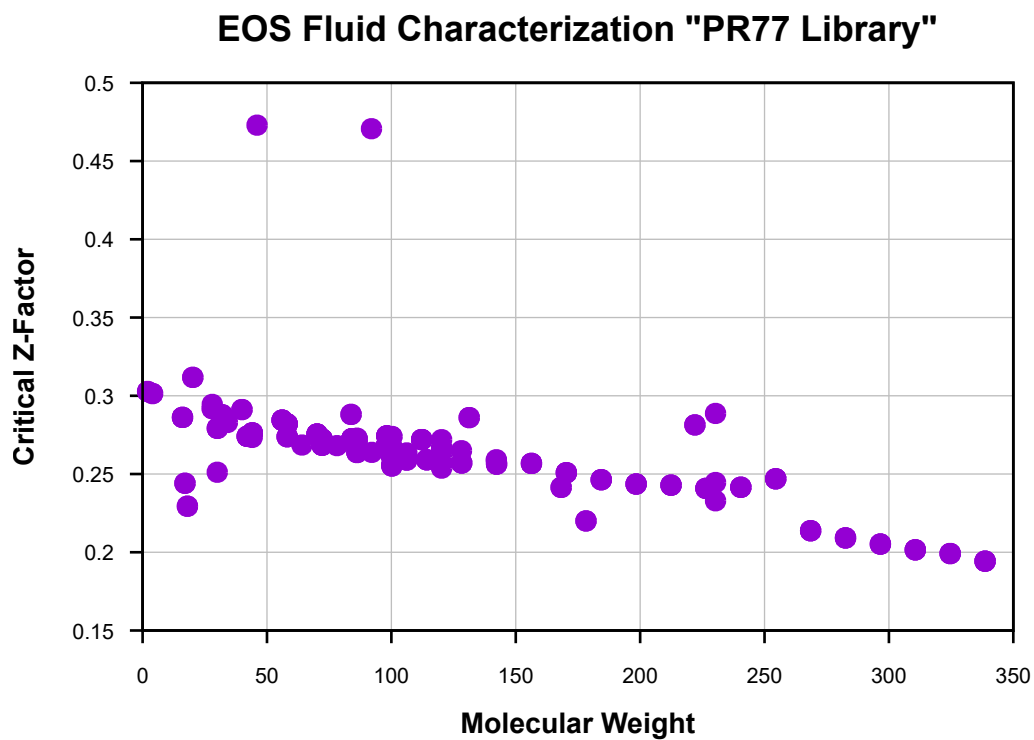


Figure 19: Critical Z-Factor vs. Molecular Weight for EOS Fluid Characterization "PR77 Library."

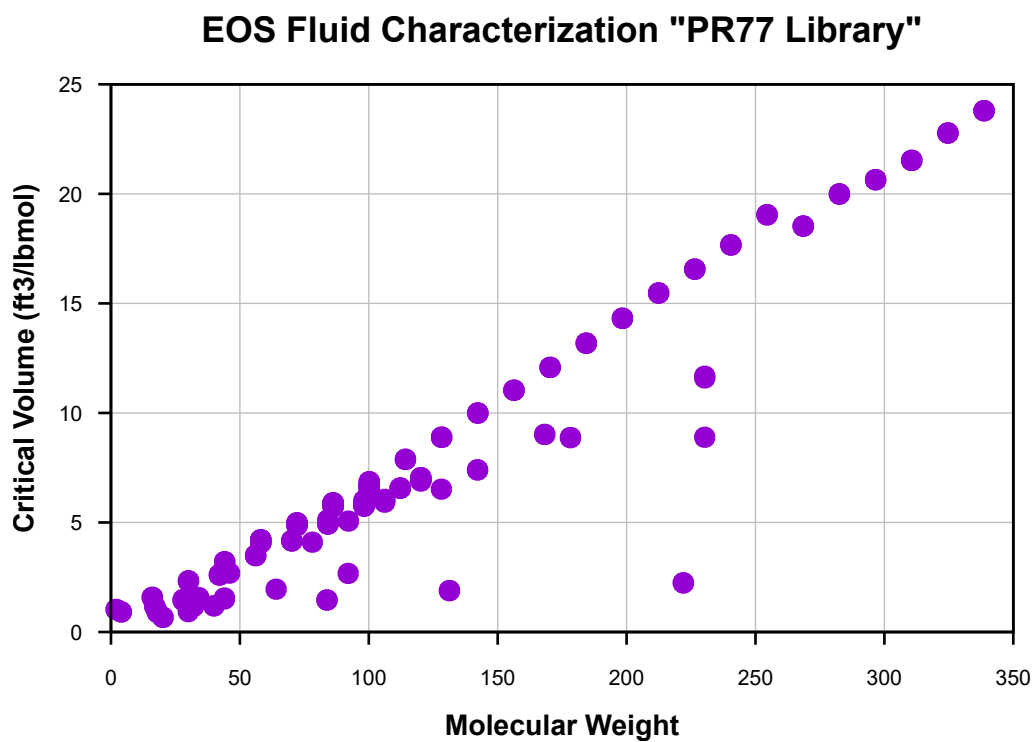


Figure 20: Critical Volume vs. Molecular Weight for EOS Fluid Characterization "PR77 Library."

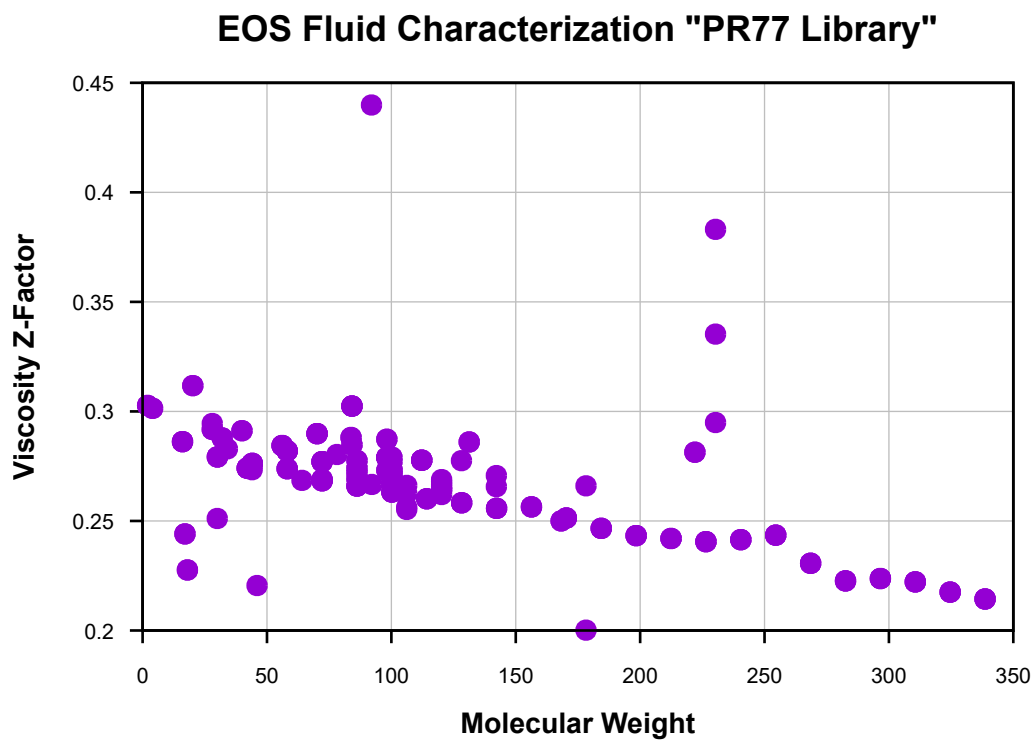


Figure 21: Viscosity Z-Factor vs. Molecular Weight for EOS Fluid Characterization "PR77 Library."

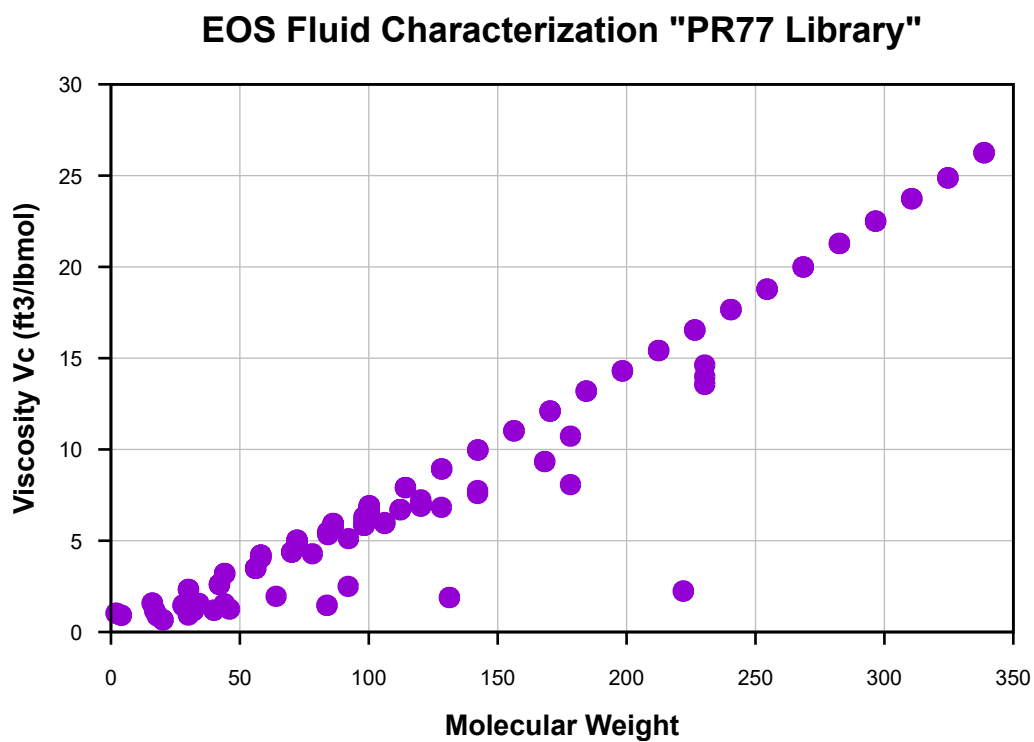


Figure 22: Viscosity Vc vs. Molecular Weight for EOS Fluid Characterization "PR77 Library."

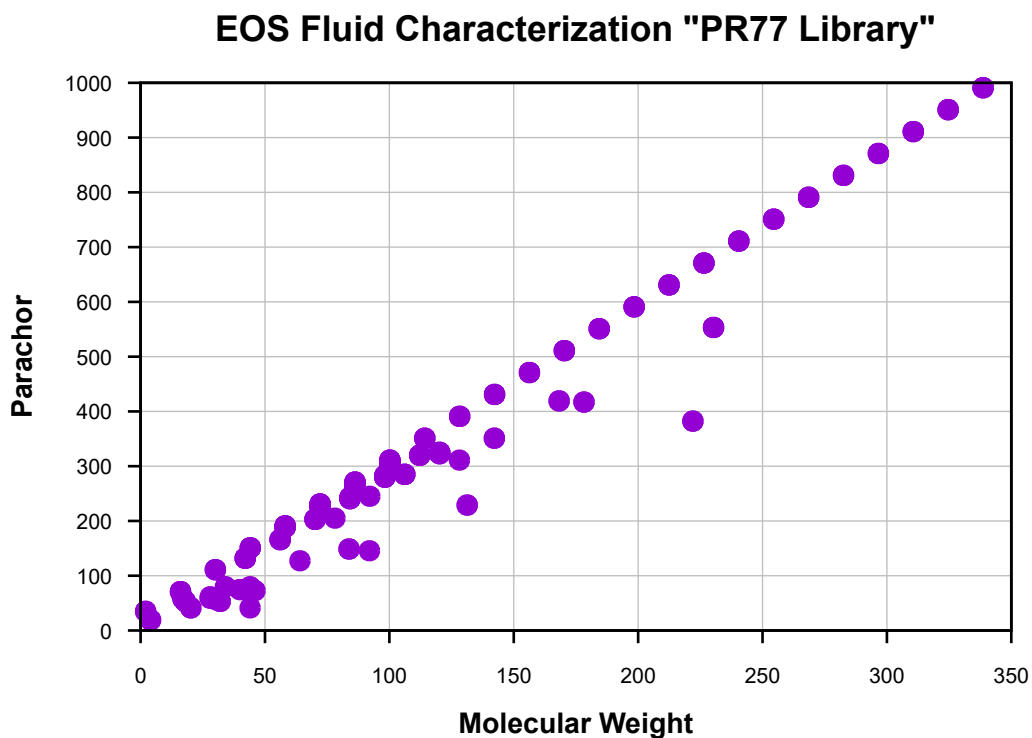


Figure 23: Parachor vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”

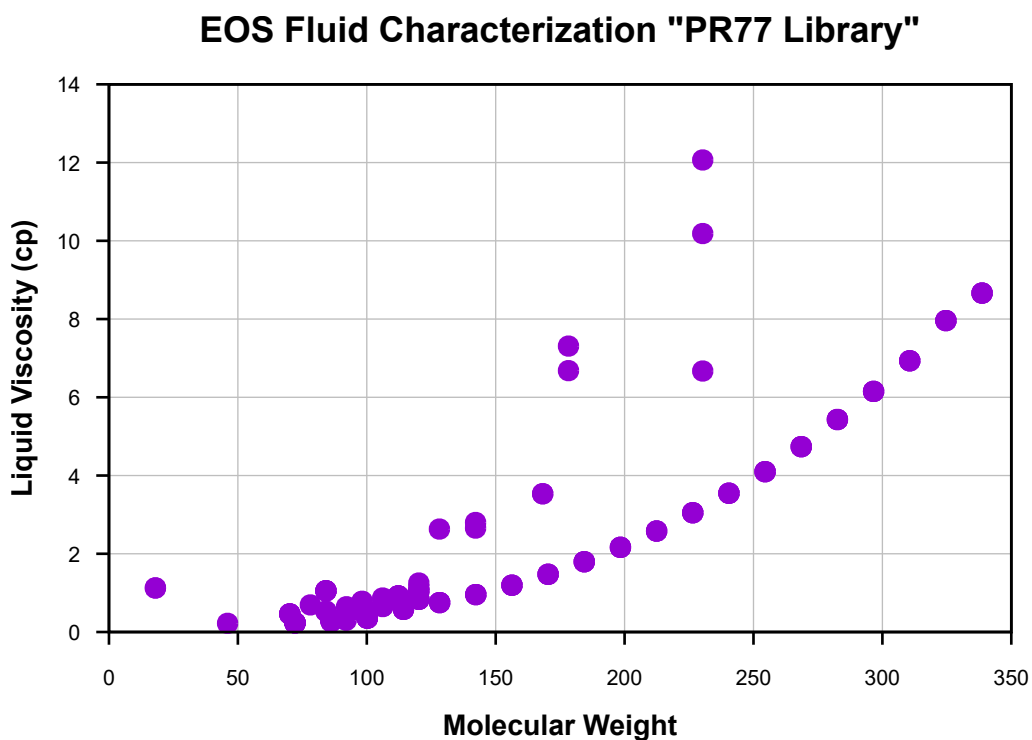


Figure 24: Liquid Viscosity vs. Molecular Weight for EOS Fluid Characterization “PR77 Library.”



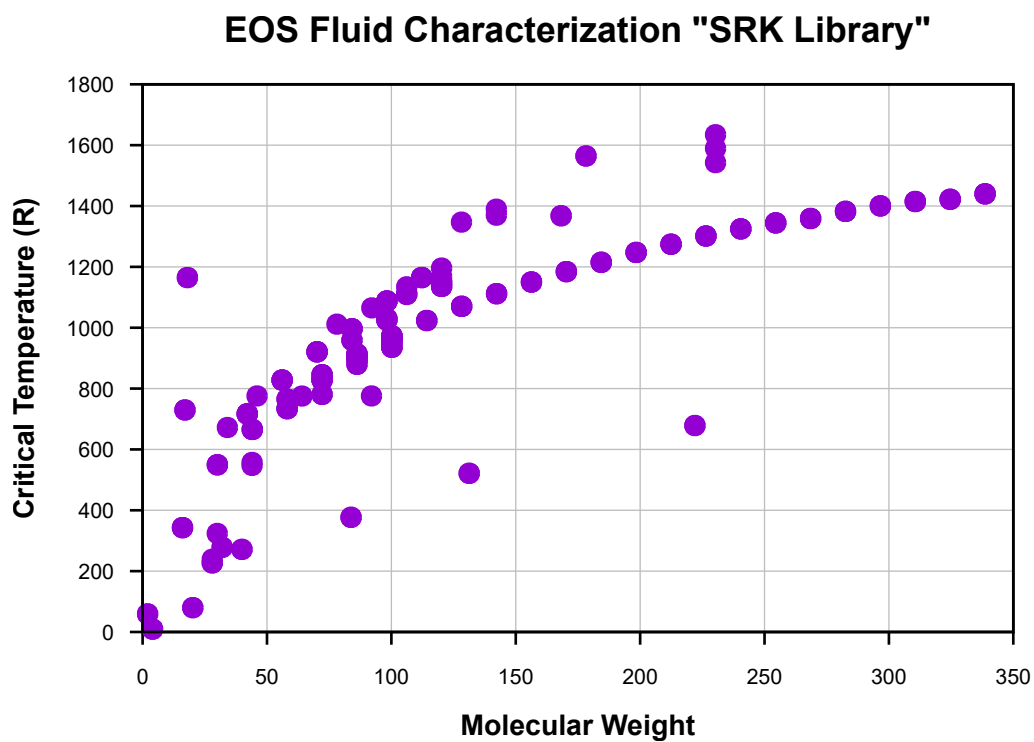


Figure 25: Critical Temperature vs. Molecular Weight for EOS Fluid Characterization “SRK Library.”

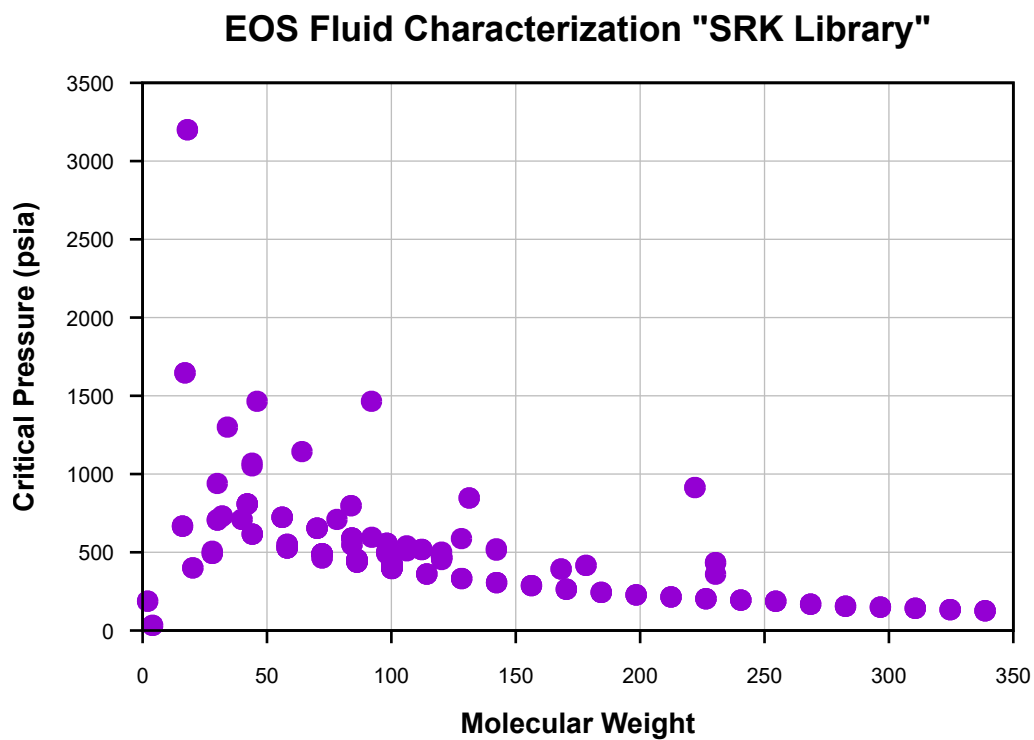


Figure 26: Critical Pressure vs. Molecular Weight for EOS Fluid Characterization “SRK Library.”

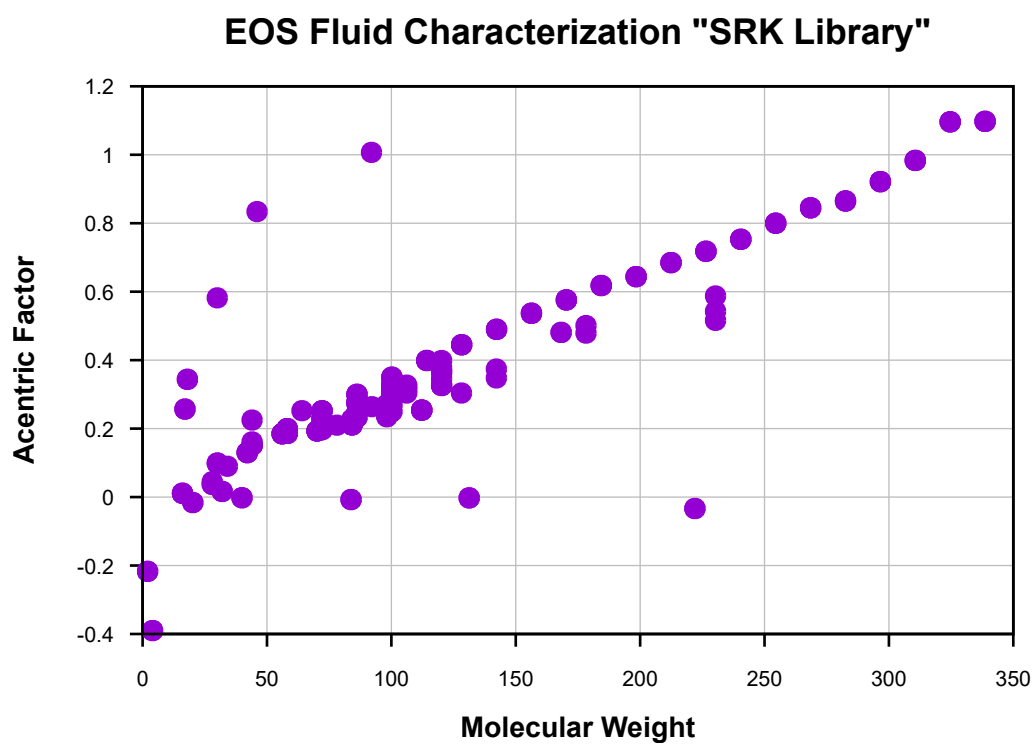


Figure 27: Acentric Factor vs. Molecular Weight for EOS Fluid Characterization "SRK Library."

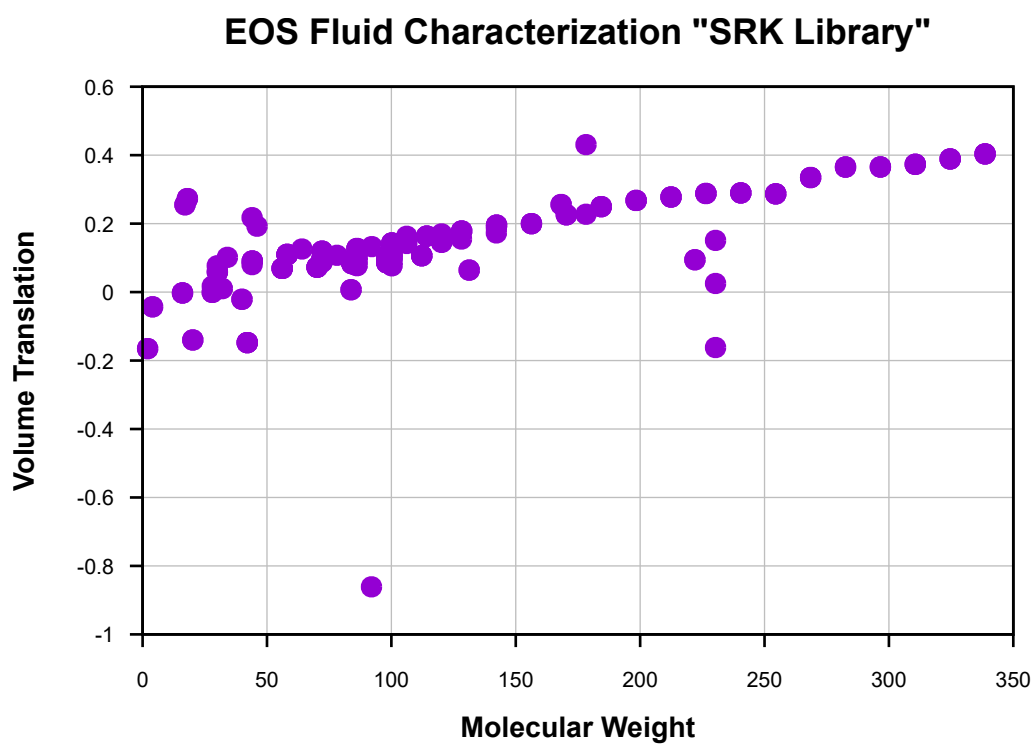


Figure 28: Volume Translation vs. Molecular Weight for EOS Fluid Characterization "SRK Library."

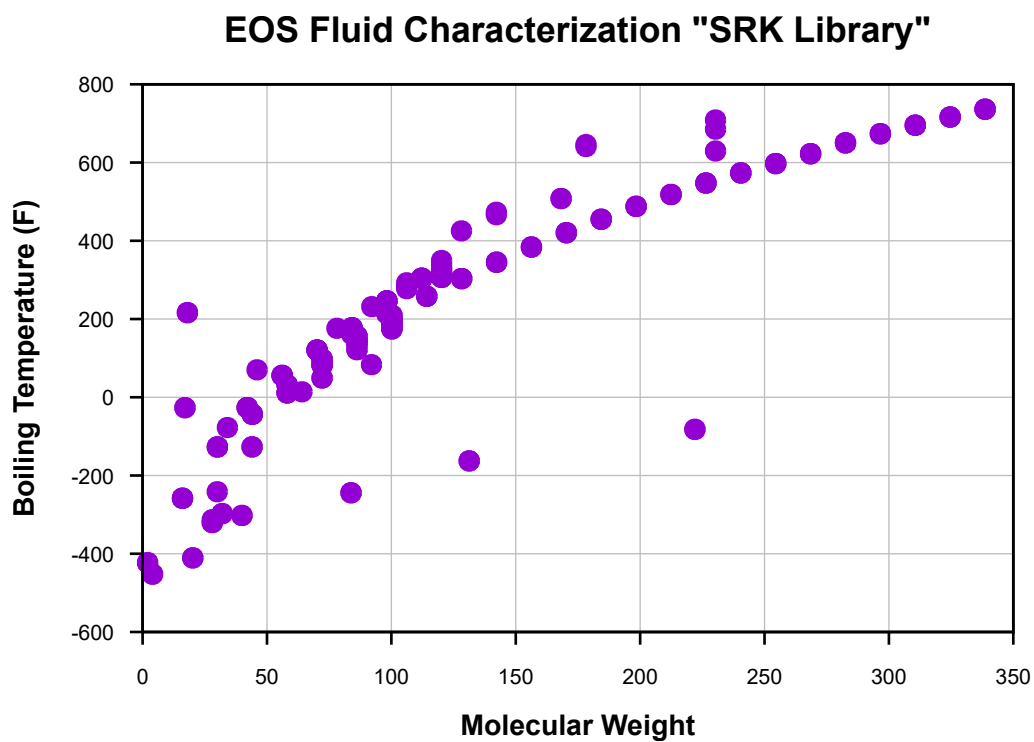


Figure 29: Boiling Temperature vs. Molecular Weight for EOS Fluid Characterization “SRK Library.”

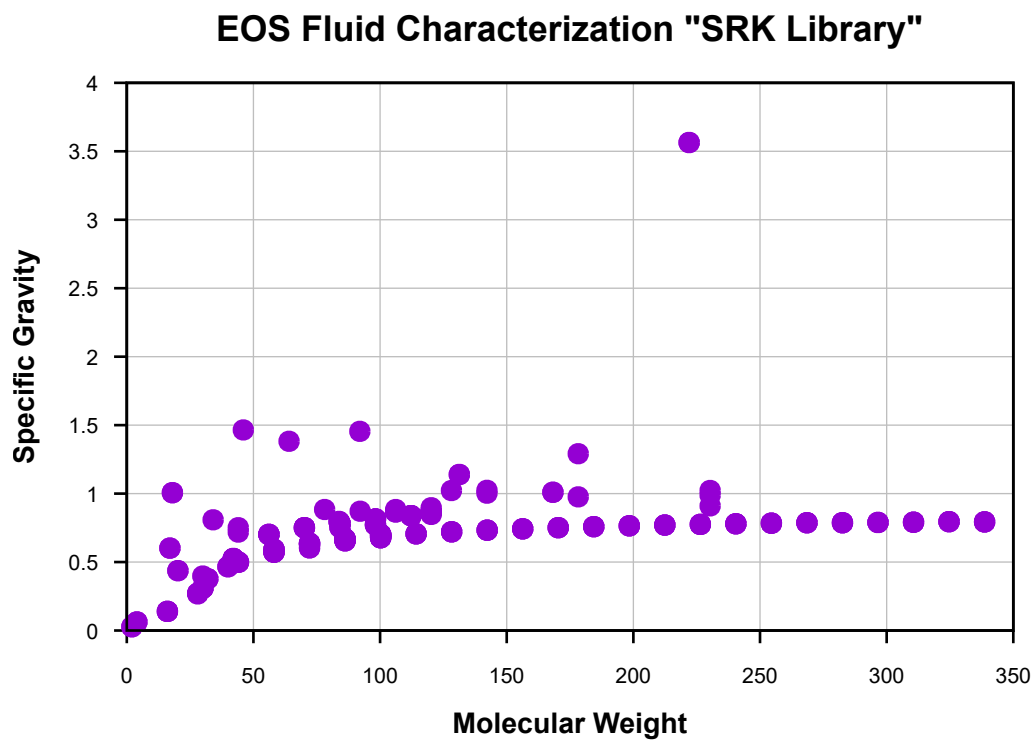


Figure 30: Specific Gravity vs. Molecular Weight for EOS Fluid Characterization “SRK Library.”

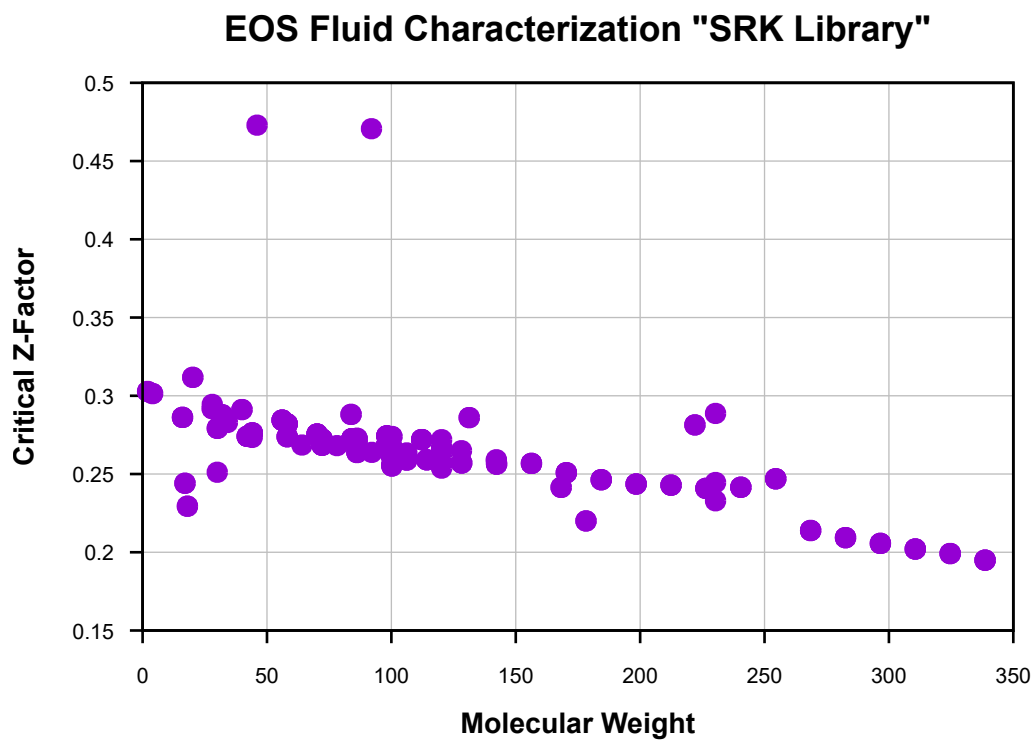


Figure 31: Critical Z-Factor vs. Molecular Weight for EOS Fluid Characterization "SRK Library."

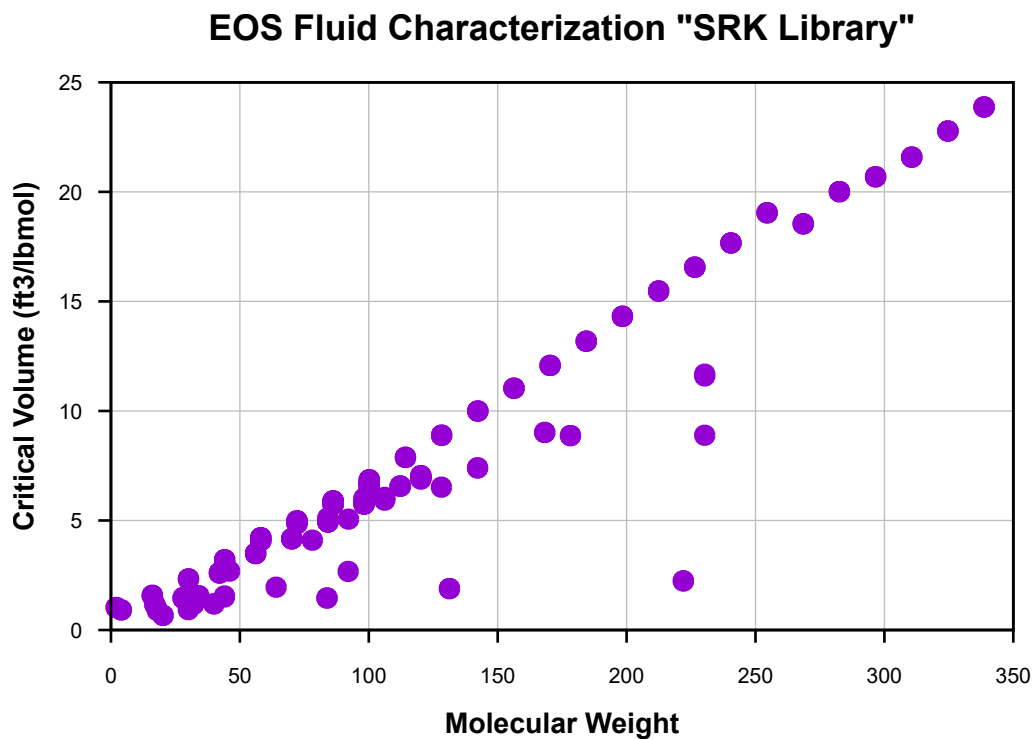


Figure 32: Critical Volume vs. Molecular Weight for EOS Fluid Characterization "SRK Library."

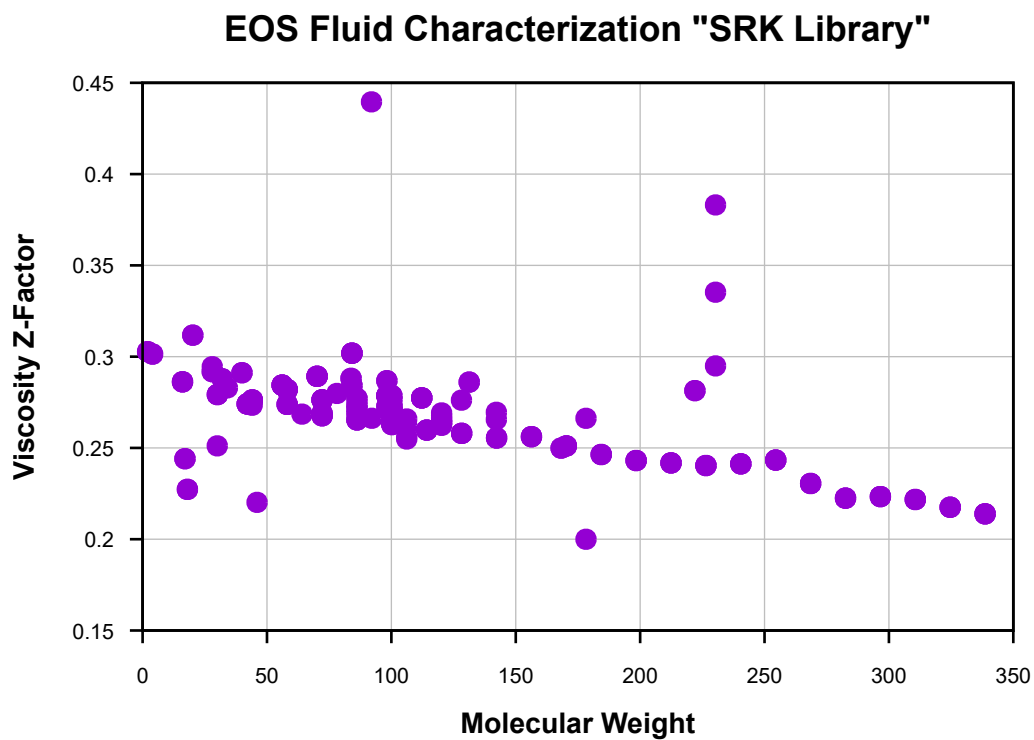


Figure 33: Viscosity Z-Factor vs. Molecular Weight for EOS Fluid Characterization "SRK Library."

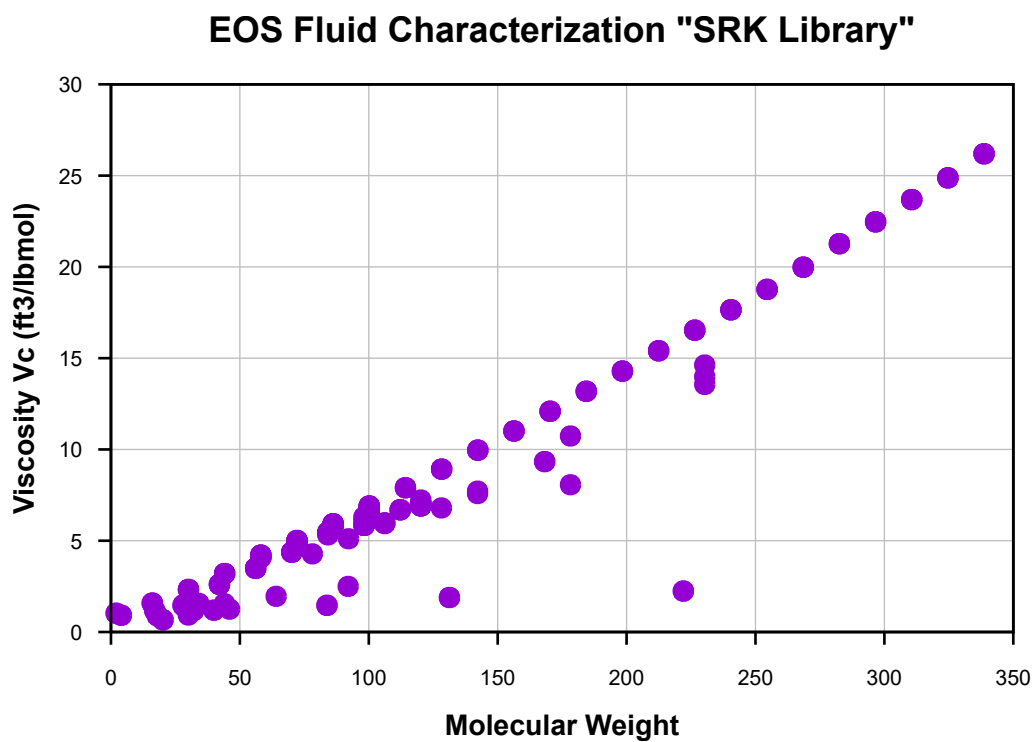


Figure 34: Viscosity Vc vs. Molecular Weight for EOS Fluid Characterization "SRK Library."

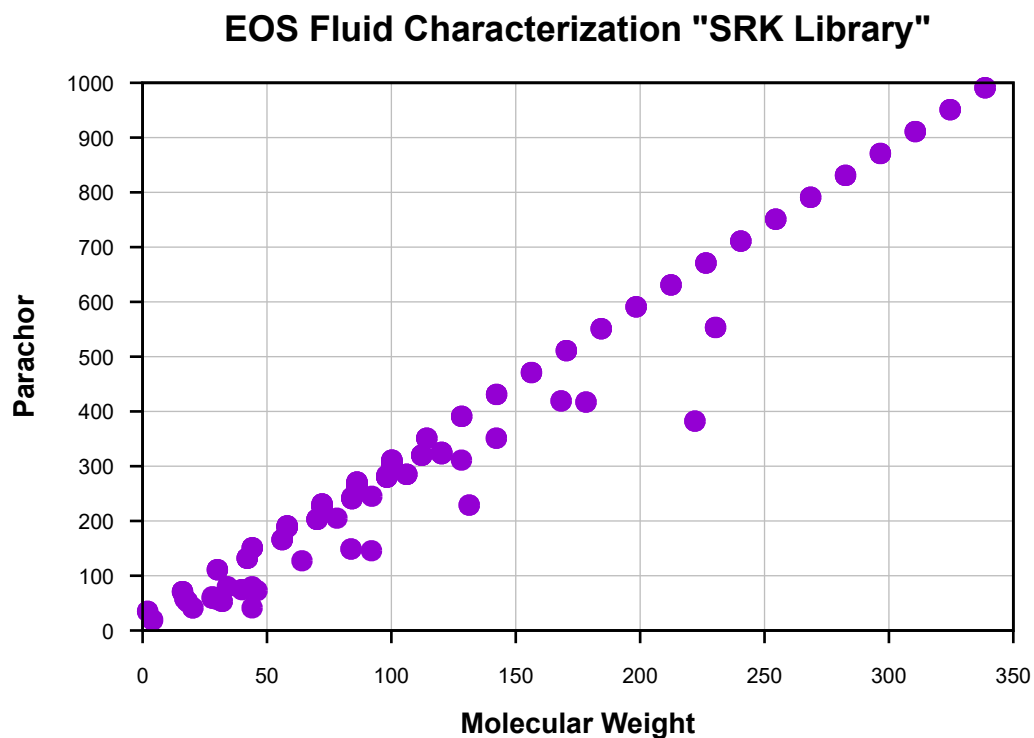


Figure 35: Parachor vs. Molecular Weight for EOS Fluid Characterization “SRK Library.”

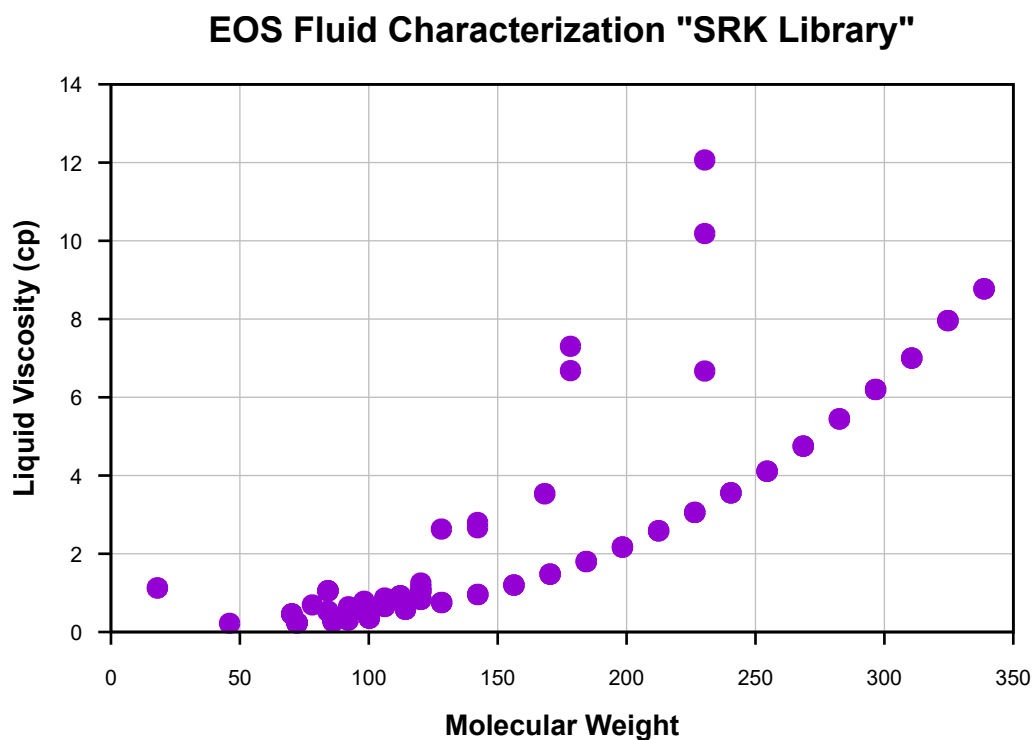


Figure 36: Liquid Viscosity vs. Molecular Weight for EOS Fluid Characterization “SRK Library.”

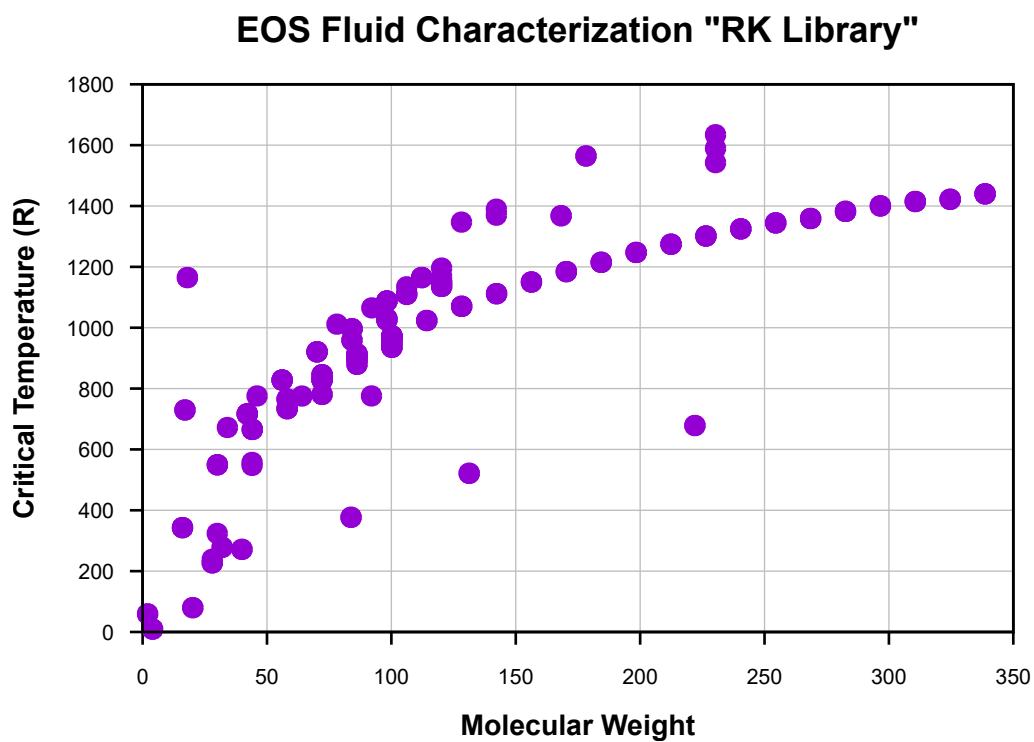


Figure 37: Critical Temperature vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

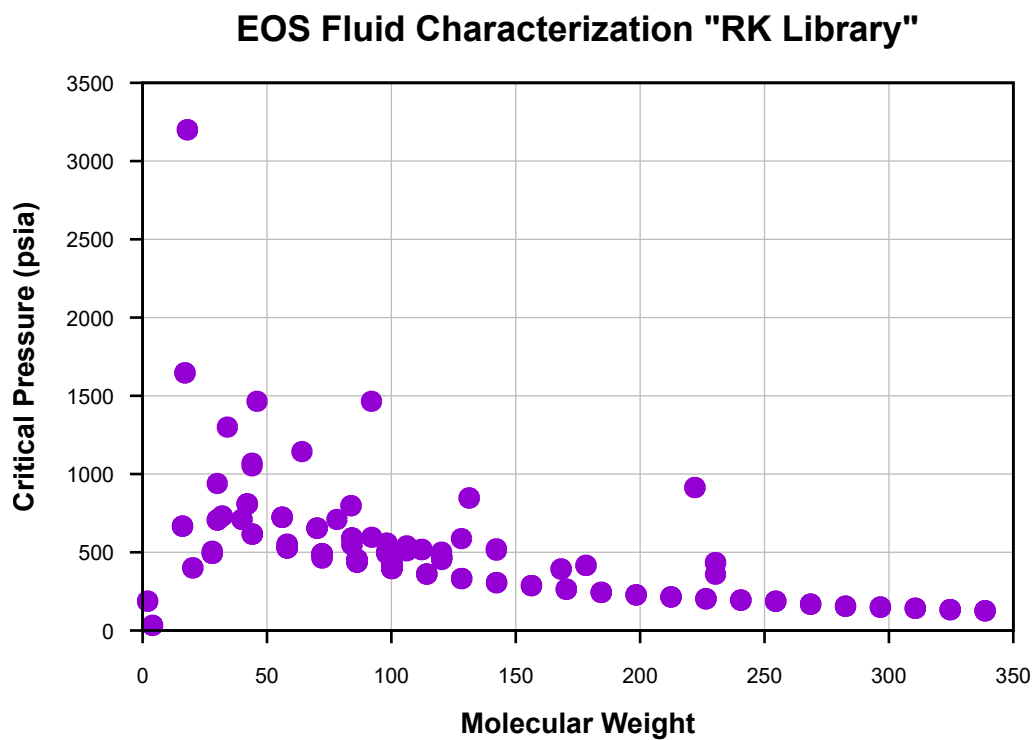


Figure 38: Critical Pressure vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

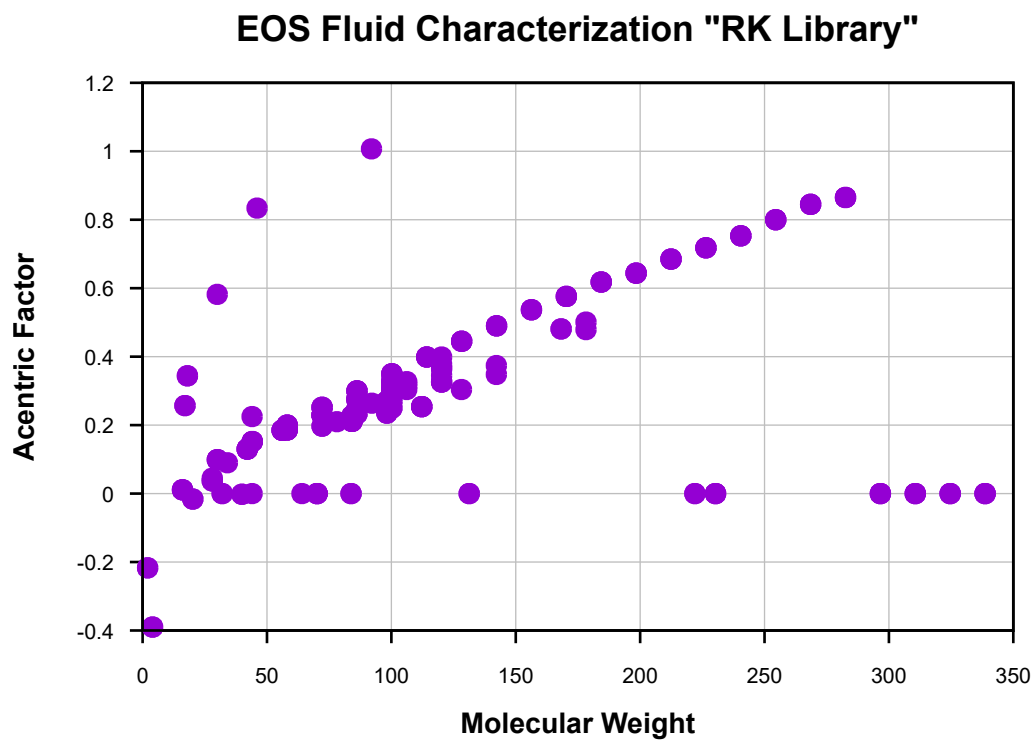


Figure 39: Acentric Factor vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

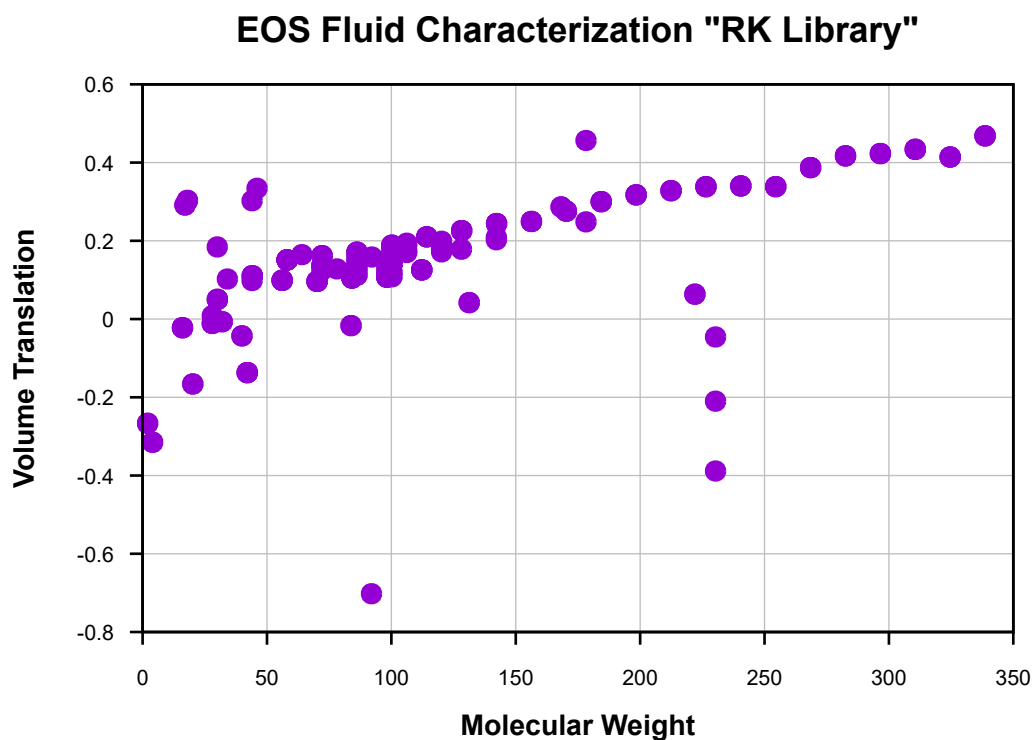


Figure 40: Volume Translation vs. Molecular Weight for EOS Fluid Characterization “RK Library.”



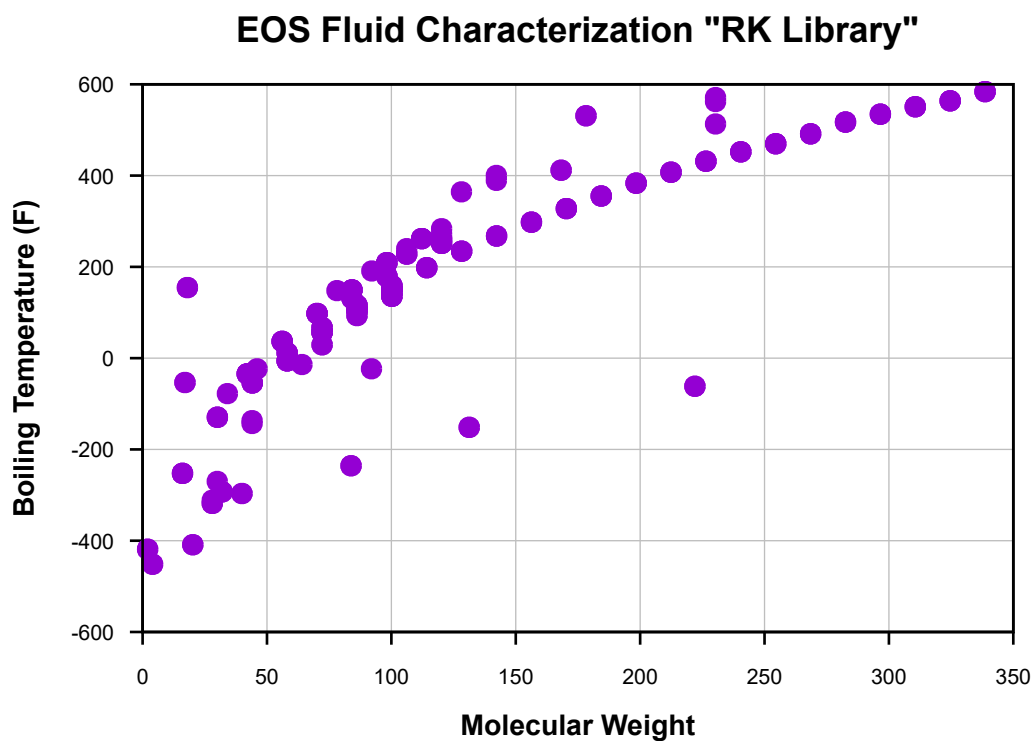


Figure 41: Boiling Temperature vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

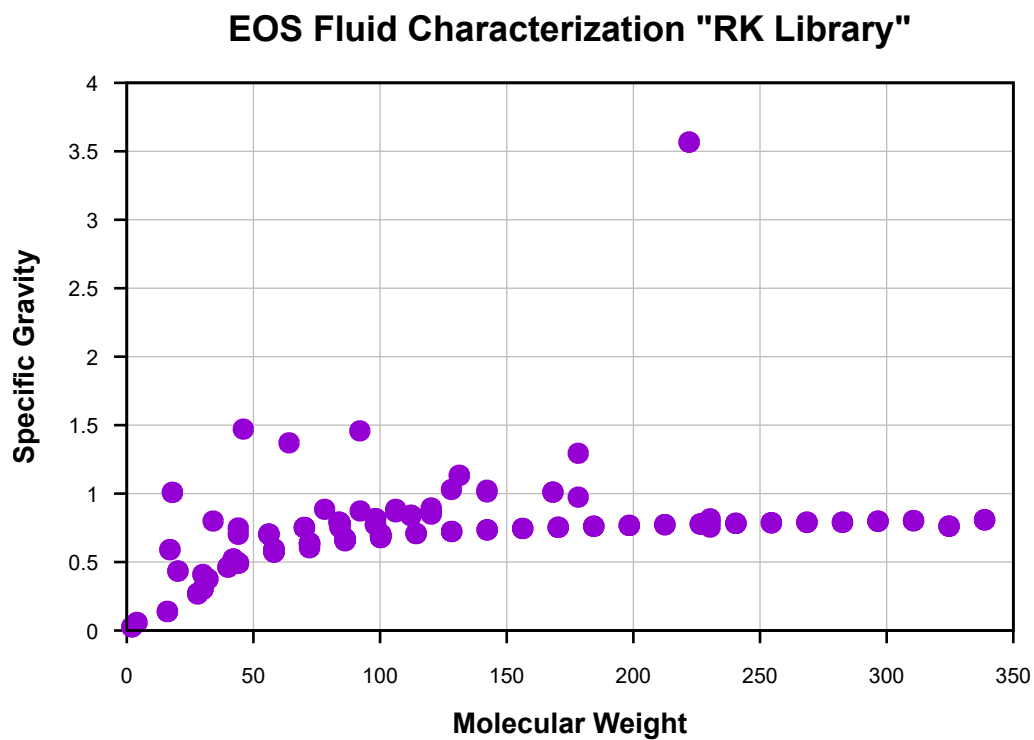


Figure 42: Specific Gravity vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

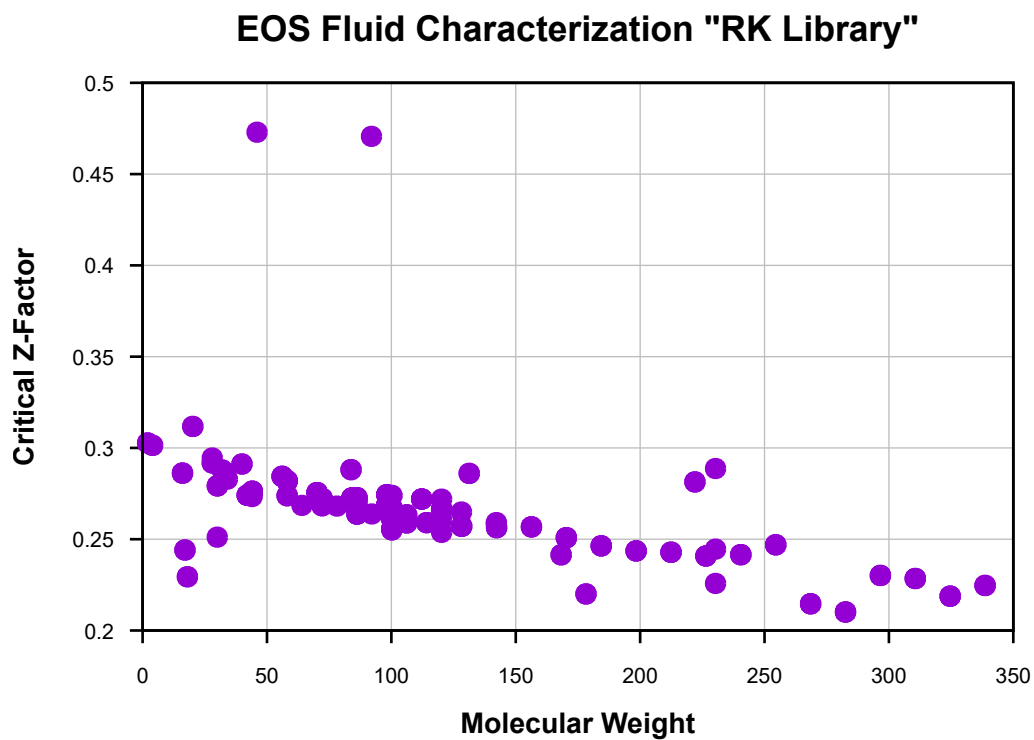


Figure 43: Critical Z-Factor vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

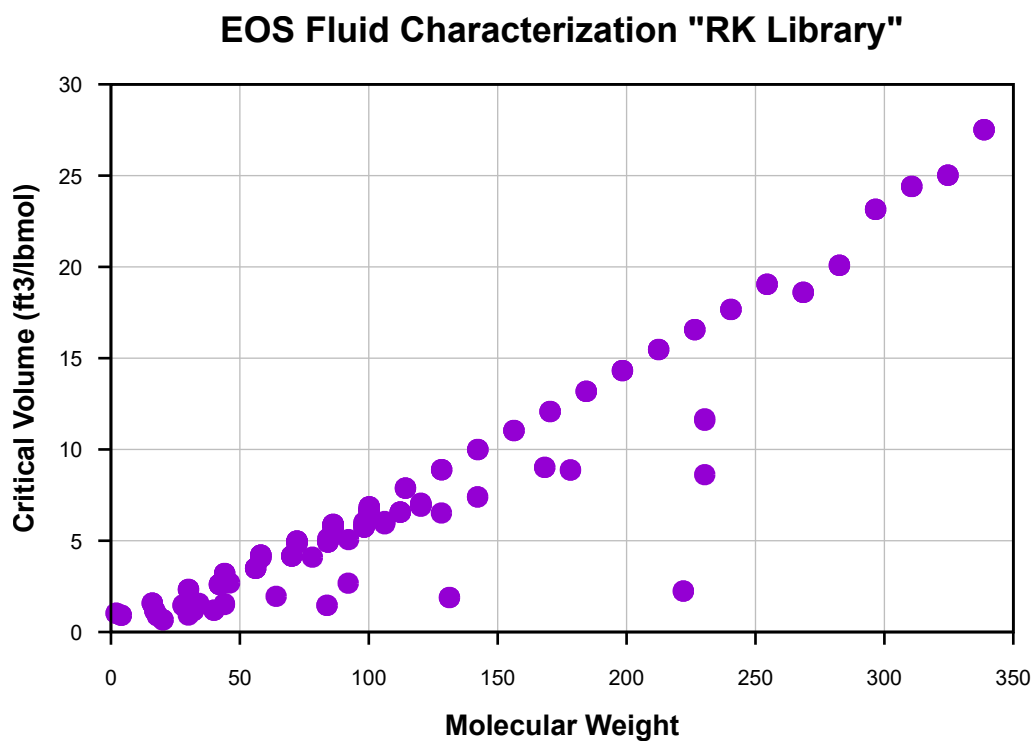


Figure 44: Critical Volume vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

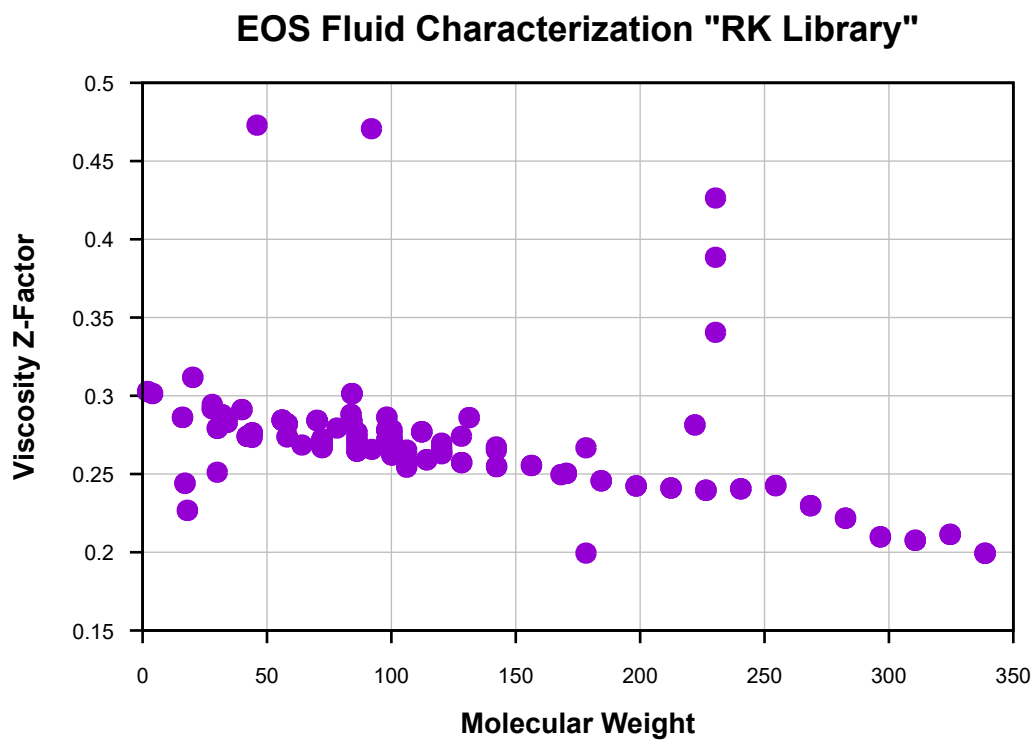


Figure 45: Viscosity Z-Factor vs. Molecular Weight for EOS Fluid Characterization "RK Library."

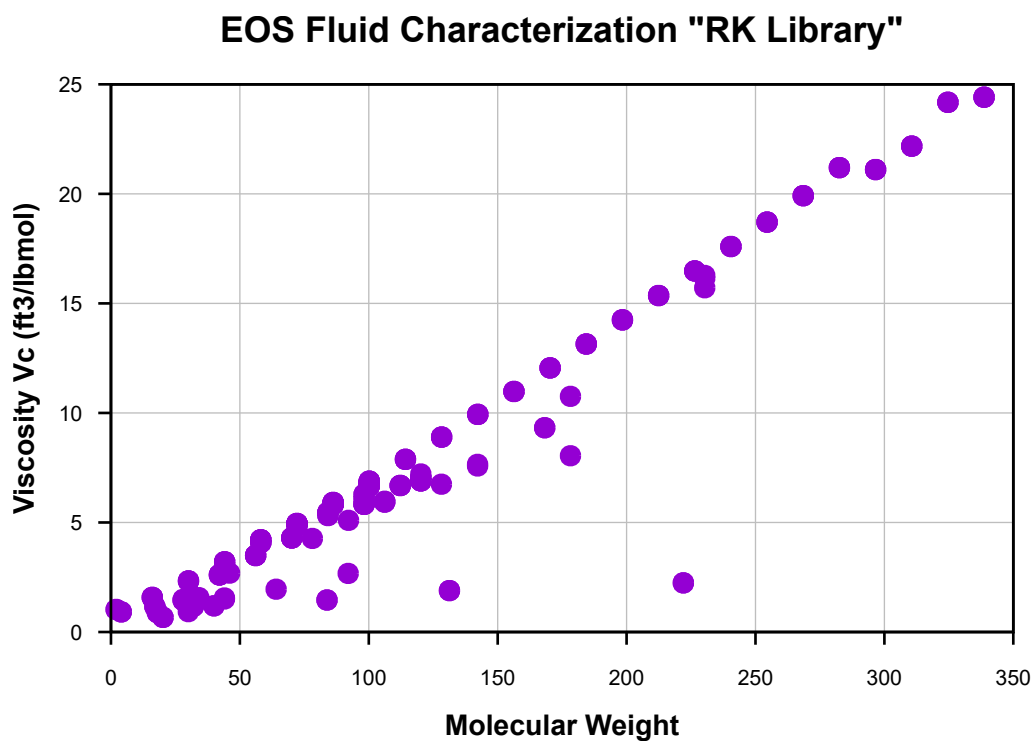


Figure 46: Viscosity Vc vs. Molecular Weight for EOS Fluid Characterization "RK Library."

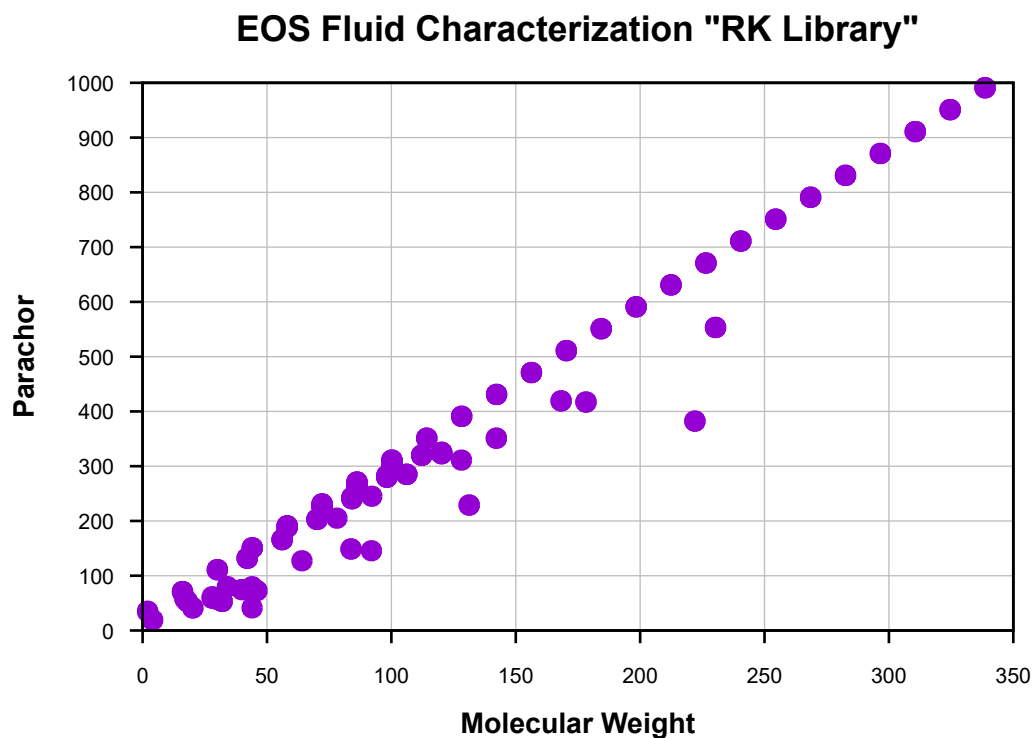


Figure 47: Parachor vs. Molecular Weight for EOS Fluid Characterization “RK Library.”

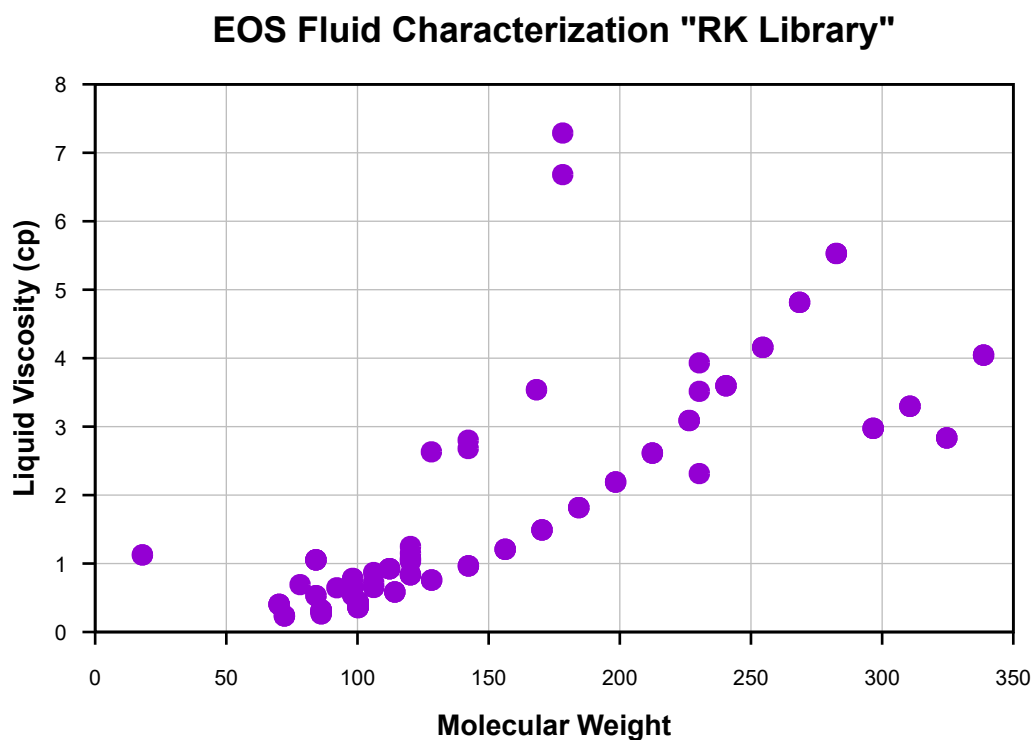


Figure 48: Liquid Viscosity vs. Molecular Weight for EOS Fluid Characterization “RK Library.”