

Supporting Information

Methylenealkane-based Low-Viscosity Ester Oils: Synthesis and Outlook

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S1. NMR spectra of branched esters and alcohols

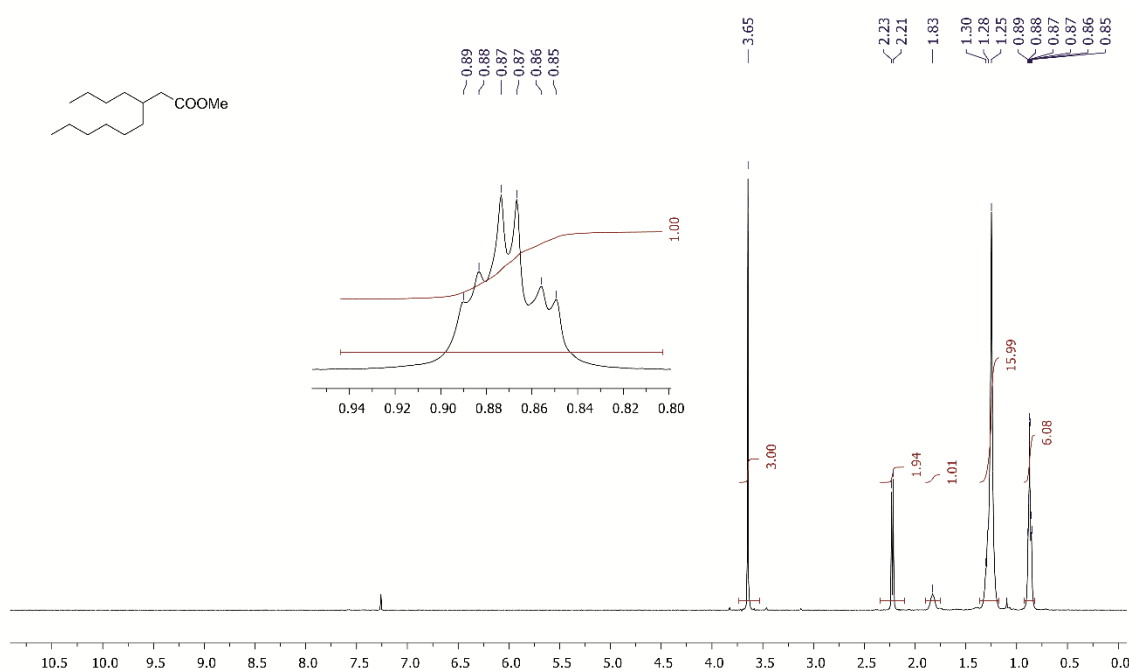


Figure S1. ¹H NMR spectrum (CDCl₃, 20 °C) of methyl 3-butylnonanoate.

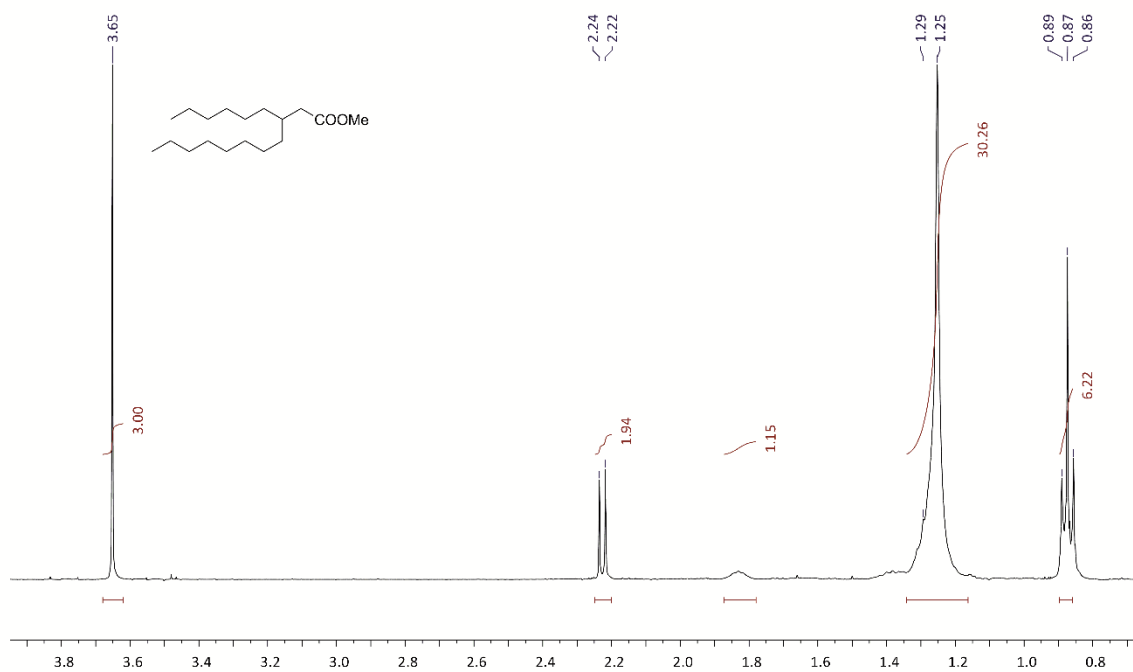


Figure S2. ^1H NMR spectrum (CDCl_3 , 20°C) of methyl 3-hexylundecanoate (E1).

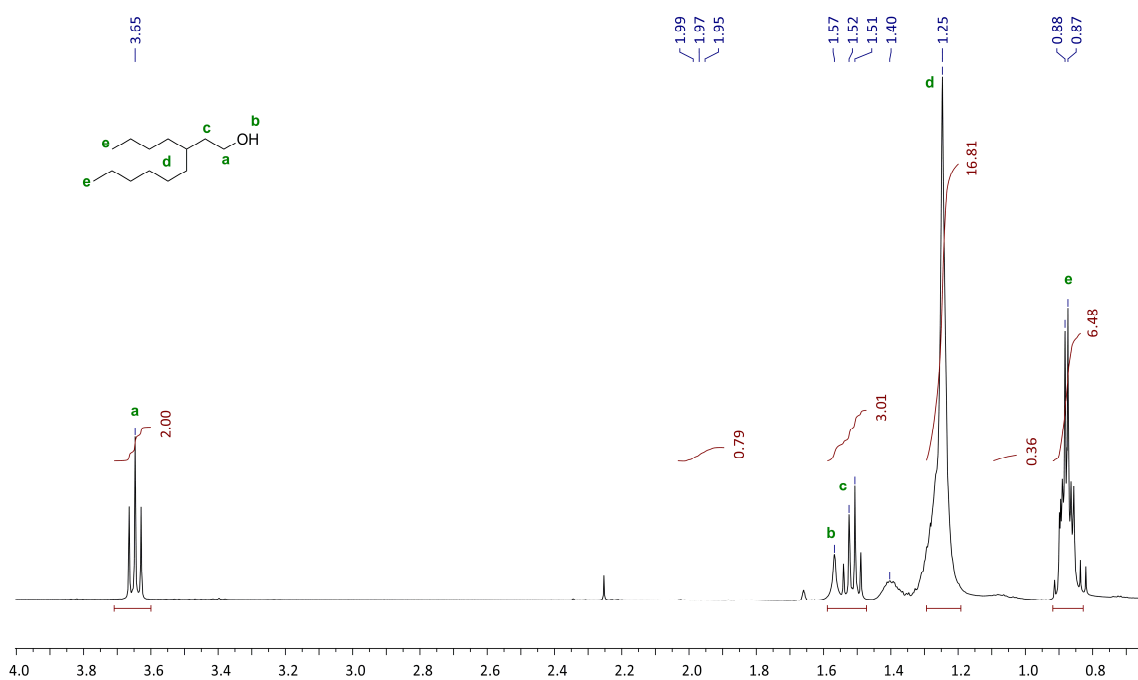


Figure S3. ^1H NMR spectrum (CDCl_3 , 20°C) of 3-butylnonan-1-ol.

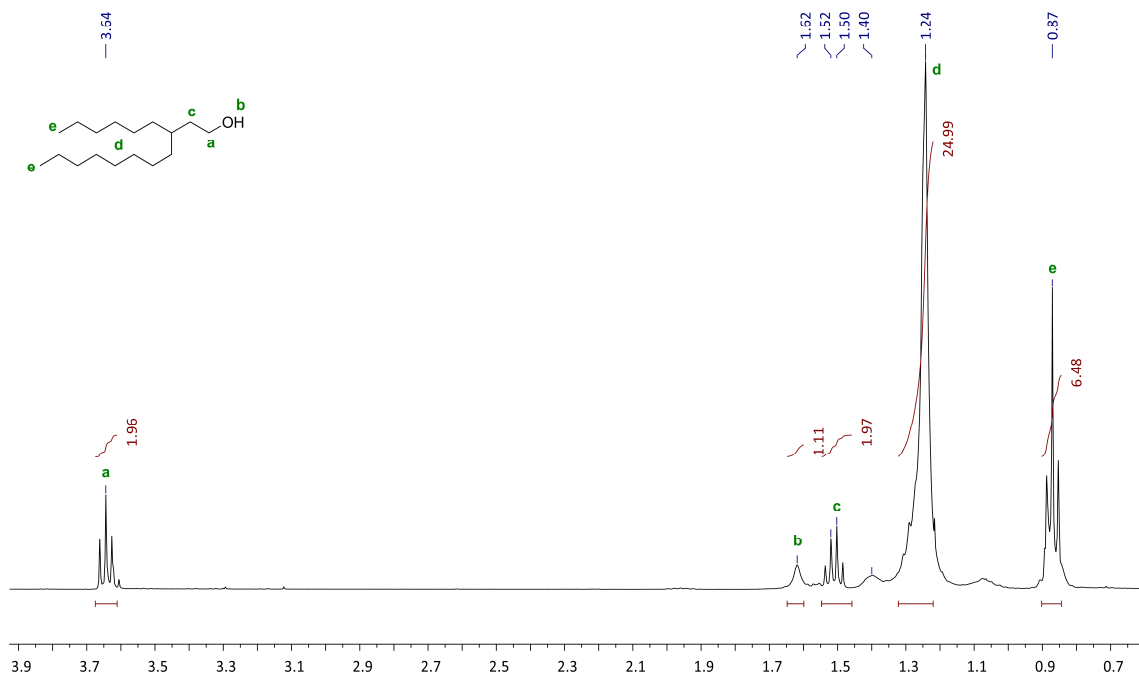


Figure S4. ¹H NMR spectrum (CDCl₃, 20 °C) of 3-hexylundecan-1-ol.

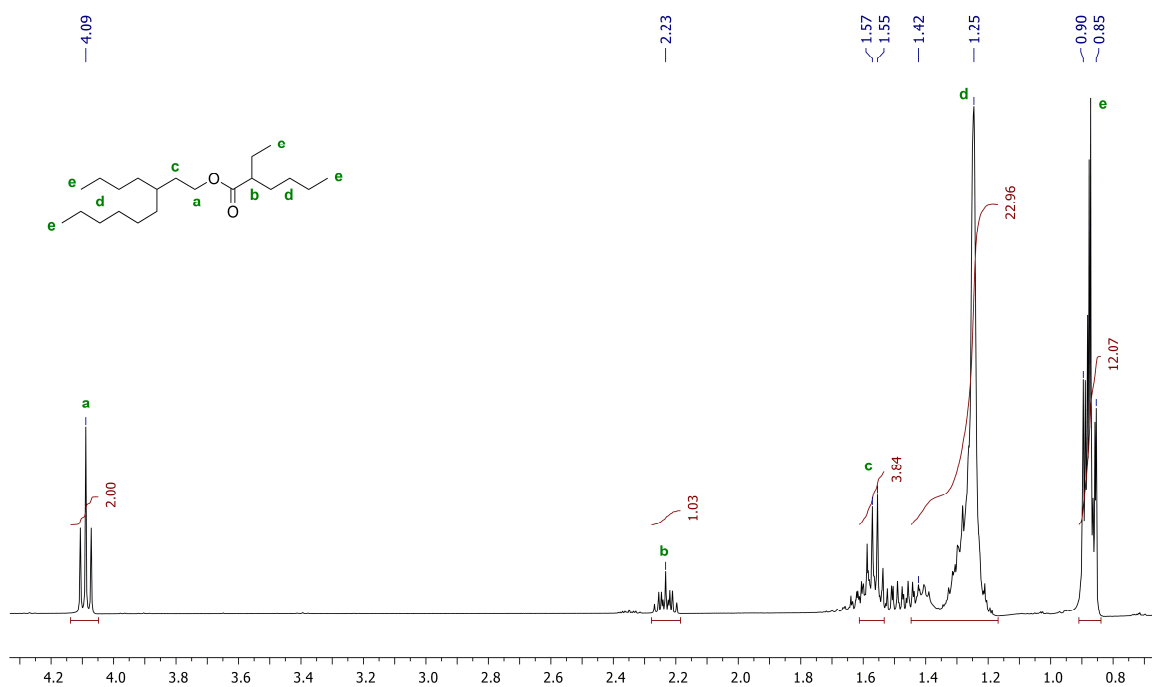


Figure S5. ¹H NMR spectrum (CDCl₃, 20 °C) of 3-butylundecyl 2-ethylhexanoate (E2).

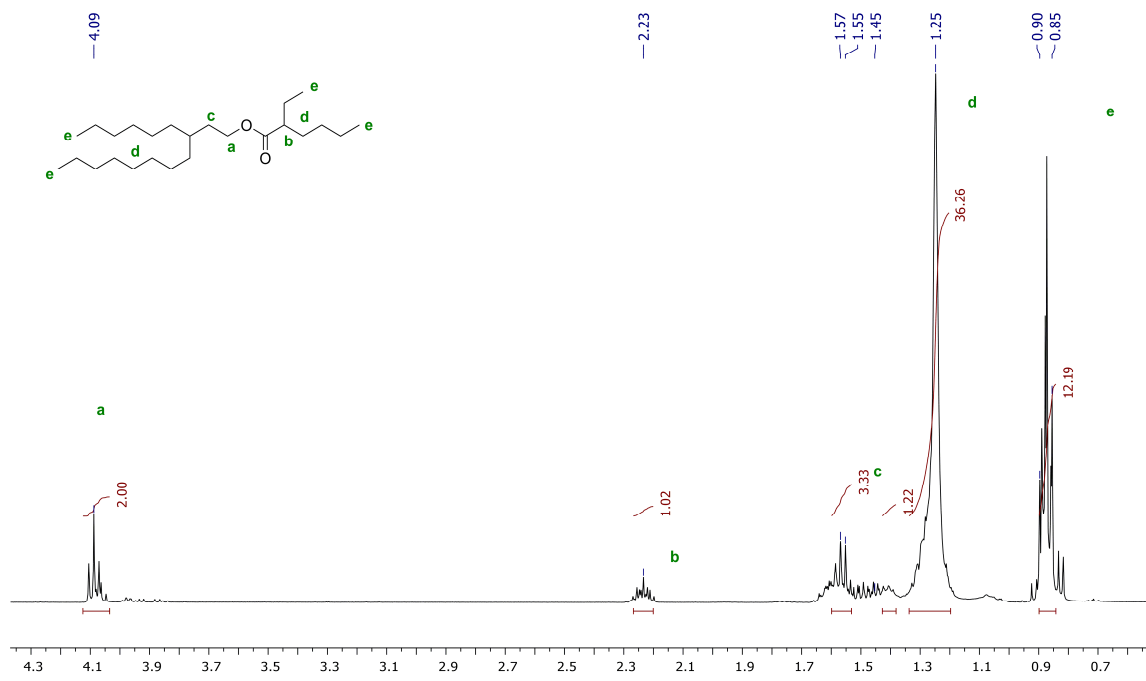


Figure S6. ¹H NMR spectrum (CDCl₃, 20 °C) of 3-hexylundecyl 2-ethylhexanoate (E3).

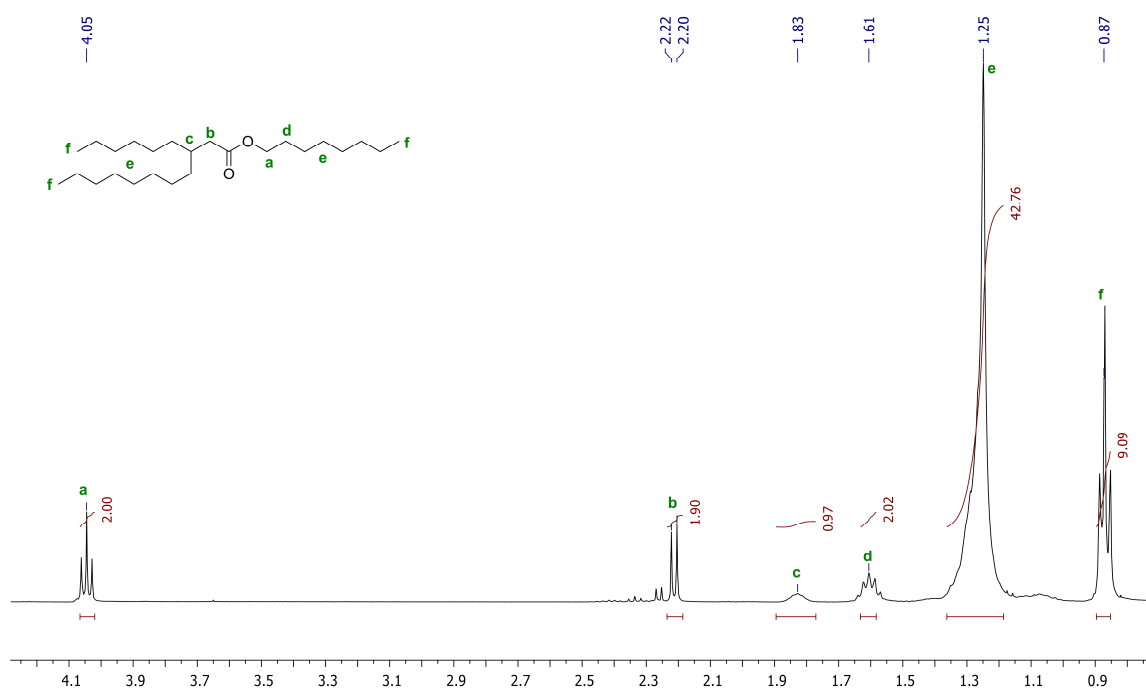


Figure S7. ¹H NMR spectrum (CDCl₃, 20 °C) of octyl 3-hexylundecanoate (E4).

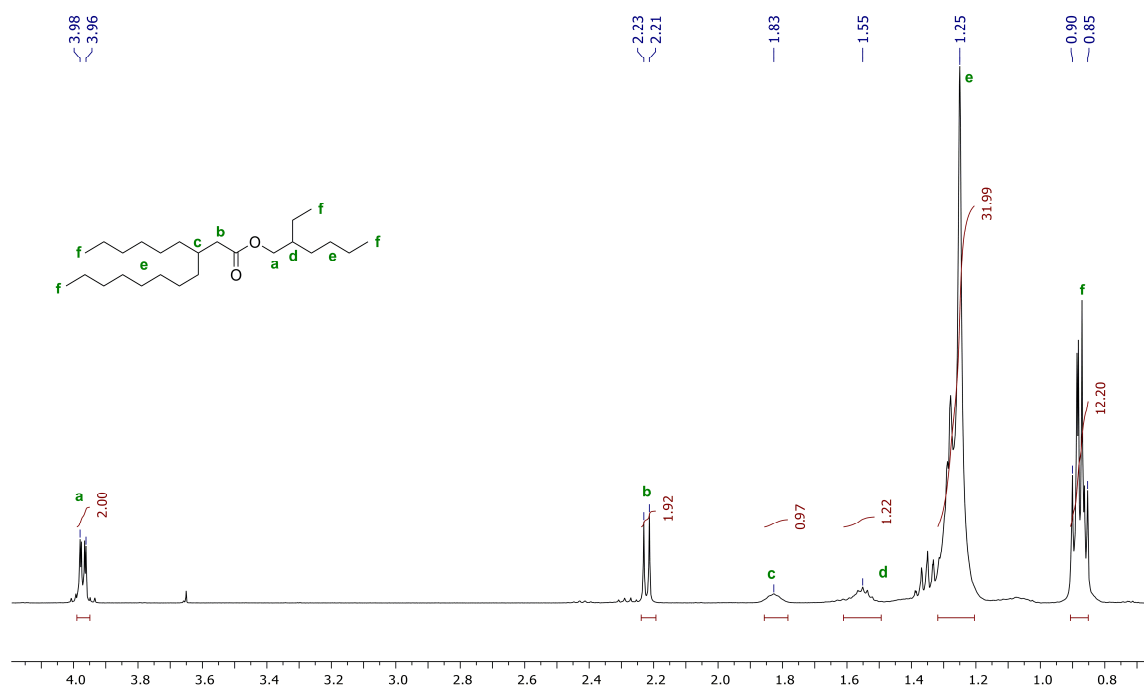


Figure S8. ^1H NMR spectrum (CDCl_3 , 20 $^\circ\text{C}$) of 2-ethylhexyl 3-hexylundecanoate (E5).

S2. Viscosity measurements data

Table S1. Viscosity measurements for methyl 3-hexylundecanoate (E1).

T	visc	1/T	ln Pas
-55.953	1.75231	0.00461	0.56093
-54.049	1.37628	0.00457	0.31938
-52.299	1.0612	0.00453	0.0594
-50.447	0.86027	0.00449	-0.15051
-48.81	0.70802	0.00446	-0.34528
-47.214	0.58657	0.00443	-0.53346
-45.644	0.48942	0.0044	-0.71453
-44.09	0.41696	0.00437	-0.87476
-42.58	0.35352	0.00434	-1.03982
-41.306	0.30859	0.00432	-1.17574
-40.058	0.26859	0.00429	-1.31457
-38.77	0.23751	0.00427	-1.43755
-37.596	0.21275	0.00425	-1.54764
-36.471	0.19068	0.00423	-1.65716
-35.476	0.17317	0.00421	-1.75348
-34.446	0.16022	0.00419	-1.83121
-33.536	0.14546	0.00418	-1.92785
-32.646	0.13386	0.00416	-2.01096
-31.853	0.1252	0.00415	-2.07784
-31.019	0.11626	0.00413	-2.15193
-30.245	0.10963	0.00412	-2.21064
-29.441	0.10305	0.00411	-2.27254
-28.726	0.09825	0.00409	-2.32024
-27.951	0.0934	0.00408	-2.37086
-27.186	0.08793	0.00407	-2.43121

-26.368	0.083	0.00405	-2.48891
-25.603	0.07852	0.00404	-2.5444
-24.811	0.07428	0.00403	-2.59991
-24.06	0.07008	0.00402	-2.65812
-23.297	0.06632	0.004	-2.71326
-22.522	0.06288	0.00399	-2.76653
-21.648	0.05956	0.00398	-2.82077
-20.747	0.05636	0.00396	-2.876
-19.868	0.05296	0.00395	-2.93822
-18.976	0.05004	0.00394	-2.99493
-18.094	0.04699	0.00392	-3.05782
-17.256	0.04401	0.00391	-3.12334
-16.326	0.04149	0.0039	-3.1823
-15.441	0.0391	0.00388	-3.24163
-14.539	0.0369	0.00387	-3.29954
-13.571	0.03484	0.00385	-3.35699
-12.594	0.03299	0.00384	-3.41155
-11.548	0.03114	0.00382	-3.46926
-10.441	0.02933	0.00381	-3.52914
-9.466	0.02766	0.00379	-3.58777
-8.398	0.02613	0.00378	-3.64467
-7.348	0.02465	0.00376	-3.70298
-6.217	0.02323	0.00375	-3.76231
-5.17	0.02193	0.00373	-3.8199
-4.079	0.0207	0.00372	-3.87762
-2.956	0.01951	0.0037	-3.93683
-1.875	0.01847	0.00369	-3.99161
-0.736	0.0174	0.00367	-4.05129
0.422	0.01647	0.00366	-4.10621
1.617	0.01554	0.00364	-4.16434
2.825	0.0147	0.00363	-4.21991
3.943	0.0139	0.00361	-4.27587
5.072	0.01316	0.0036	-4.33057
6.195	0.01248	0.00358	-4.38363
7.326	0.01186	0.00357	-4.43458
8.385	0.0113	0.00355	-4.48295
9.346	0.01078	0.00354	-4.53006
10.376	0.0103	0.00353	-4.57561
11.391	0.00987	0.00352	-4.61826
12.416	0.00945	0.0035	-4.66174
13.271	0.00911	0.00349	-4.69838
14.256	0.00877	0.00348	-4.73642
15.088	0.00847	0.00347	-4.77122
15.953	0.00819	0.00346	-4.80484
16.715	0.00795	0.00345	-4.83458
17.469	0.00771	0.00344	-4.86524
18.181	0.0075	0.00343	-4.89285
18.906	0.00731	0.00343	-4.91851
19.434	0.00715	0.00342	-4.94064
20.108	0.00699	0.00341	-4.96327
20.637	0.00685	0.00341	-4.98351
21.155	0.00672	0.0034	-5.00267

21.628	0.00661	0.00339	-5.01917
22.065	0.0065	0.00339	-5.03595
22.492	0.00641	0.00338	-5.0499
22.853	0.00633	0.00338	-5.06246
23.195	0.00626	0.00338	-5.07358
23.491	0.00618	0.00337	-5.08644
23.75	0.00613	0.00337	-5.09456
23.992	0.00608	0.00337	-5.10275
24.183	0.00603	0.00336	-5.11101
24.356	0.00599	0.00336	-5.11766
24.544	0.00596	0.00336	-5.12268
24.691	0.00593	0.00336	-5.12773
24.79	0.00591	0.00336	-5.13111
24.915	0.0059	0.00336	-5.1328
24.933	0.00583	0.00336	-5.14474
24.977	0.00587	0.00336	-5.1379
25.03	0.00585	0.00336	-5.14131
25.06	0.00585	0.00336	-5.14131
25.106	0.00584	0.00335	-5.14302
25.113	0.00585	0.00335	-5.14131
25.173	0.00584	0.00335	-5.14302
25.188	0.00583	0.00335	-5.14474
25.191	0.00583	0.00335	-5.14474
25.219	0.00583	0.00335	-5.14474
25.222	0.00582	0.00335	-5.14646
25.225	0.00582	0.00335	-5.14646
25.227	0.00582	0.00335	-5.14646
25.265	0.00582	0.00335	-5.14646
25.269	0.00582	0.00335	-5.14646
25.277	0.00582	0.00335	-5.14646
26.191	0.00563	0.00334	-5.17965
26.99	0.00547	0.00333	-5.20848
27.87	0.00532	0.00332	-5.23628
28.668	0.00518	0.00331	-5.26295
29.461	0.00505	0.00331	-5.28837
30.271	0.00492	0.0033	-5.31445
31.07	0.00479	0.00329	-5.34122
31.857	0.00468	0.00328	-5.36446
32.672	0.00457	0.00327	-5.38824
33.439	0.00446	0.00326	-5.41261
34.273	0.00436	0.00325	-5.43528
35.082	0.00427	0.00325	-5.45614
35.901	0.00417	0.00324	-5.47984
36.711	0.00408	0.00323	-5.50166
37.555	0.00399	0.00322	-5.52396
38.387	0.00391	0.00321	-5.54422
39.196	0.00383	0.0032	-5.56489
40.053	0.00375	0.00319	-5.586
40.717	0.00362	0.00319	-5.62128
41.128	0.00356	0.00318	-5.63799
41.718	0.00349	0.00318	-5.65785
42.51	0.00341	0.00317	-5.68104

43.453	0.00333	0.00316	-5.70478
44.49	0.00324	0.00315	-5.73218
45.645	0.00315	0.00314	-5.76035
46.885	0.00306	0.00313	-5.78934
48.129	0.00298	0.00311	-5.81583
49.382	0.00289	0.0031	-5.8465
50.694	0.00282	0.00309	-5.87102
51.893	0.00275	0.00308	-5.89615
53.099	0.00269	0.00307	-5.91821
54.195	0.00263	0.00306	-5.94077
55.281	0.00258	0.00305	-5.95997
56.194	0.00253	0.00304	-5.97954
57.041	0.0025	0.00303	-5.99146
57.823	0.00246	0.00302	-6.00759
58.533	0.00243	0.00302	-6.01986
59.185	0.0024	0.00301	-6.03229
59.866	0.00237	0.003	-6.04487
60.473	0.00234	0.003	-6.0576
61.105	0.00232	0.00299	-6.06619
61.713	0.00229	0.00299	-6.0792
62.306	0.00226	0.00298	-6.09239
63.022	0.00224	0.00298	-6.10128
63.703	0.0022	0.00297	-6.1193
64.415	0.00218	0.00296	-6.12843
65.209	0.00215	0.00296	-6.14229
66.038	0.00212	0.00295	-6.15634
66.925	0.00209	0.00294	-6.17059
67.809	0.00205	0.00293	-6.18992
68.609	0.00201	0.00293	-6.20962
69.303	0.00202	0.00292	-6.20466
70.143	0.00198	0.00291	-6.22466
71.072	0.00196	0.00291	-6.23481
72.058	0.00193	0.0029	-6.25024
73.022	0.0019	0.00289	-6.2659
74.073	0.00187	0.00288	-6.28182
75.072	0.00184	0.00287	-6.29799
76.034	0.00182	0.00287	-6.30892
77.004	0.0018	0.00286	-6.31997
77.873	0.00178	0.00285	-6.33114
78.782	0.00175	0.00284	-6.34814
79.64	0.00174	0.00284	-6.35387
80.431	0.00171	0.00283	-6.37126
81.243	0.0017	0.00282	-6.37713
81.991	0.00168	0.00282	-6.38896
82.8	0.00166	0.00281	-6.40094
83.497	0.00165	0.00281	-6.40698
84.236	0.00163	0.0028	-6.41918
85.04	0.00162	0.00279	-6.42533
85.743	0.00161	0.00279	-6.43152
86.504	0.0016	0.00278	-6.43775
87.285	0.00158	0.00278	-6.45033
88.103	0.00156	0.00277	-6.46307

88.918	0.00155	0.00276	-6.4695
89.725	0.00153	0.00276	-6.48249
90.566	0.00152	0.00275	-6.48904
91.447	0.00151	0.00274	-6.49565
92.277	0.00149	0.00274	-6.50898
93.199	0.00148	0.00273	-6.51571
94.049	0.00146	0.00272	-6.52932
94.906	0.00145	0.00272	-6.53619
95.812	0.00144	0.00271	-6.54311
96.665	0.00142	0.00271	-6.5571
97.504	0.00141	0.0027	-6.56417
98.369	0.0014	0.00269	-6.57128
99.205	0.00139	0.00269	-6.57845
100.059	0.00138	0.00268	-6.58567
100.874	0.00136	0.00267	-6.60027
101.681	0.00135	0.00267	-6.60765
102.534	0.00134	0.00266	-6.61509
103.321	0.00133	0.00266	-6.62258
104.128	0.00132	0.00265	-6.63012
104.984	0.00131	0.00265	-6.63773
105.804	0.0013	0.00264	-6.64539
106.64	0.00129	0.00263	-6.65311
107.445	0.00128	0.00263	-6.6609
108.227	0.00127	0.00262	-6.66874
109.024	0.00126	0.00262	-6.67664
109.906	0.00125	0.00261	-6.68461
110.744	0.00124	0.00261	-6.69264
111.573	0.00123	0.0026	-6.70074
112.262	0.00121	0.0026	-6.71713
112.88	0.00122	0.00259	-6.7089
113.702	0.00121	0.00259	-6.71713
114.564	0.0012	0.00258	-6.72543
115.47	0.00119	0.00257	-6.7338
116.34	0.00118	0.00257	-6.74224
117.017	0.00117	0.00256	-6.75075
117.839	0.00117	0.00256	-6.75075
118.748	0.00116	0.00255	-6.75934
119.751	0.00115	0.00255	-6.76799
120.768	0.00114	0.00254	-6.77673
121.798	0.00113	0.00253	-6.78554
122.789	0.00112	0.00253	-6.79443
123.718	0.00112	0.00252	-6.79443
124.65	0.00111	0.00251	-6.8034
125.507	0.0011	0.00251	-6.81245
126.267	0.00109	0.0025	-6.82158
127.064	0.00109	0.0025	-6.82158
127.886	0.00108	0.00249	-6.83079
128.631	0.00107	0.00249	-6.8401
129.357	0.00107	0.00249	-6.8401
130.096	0.00106	0.00248	-6.84949
130.86	0.00106	0.00248	-6.84949
131.595	0.00105	0.00247	-6.85897

132.371	0.00105	0.00247	-6.85897
133.112	0.00104	0.00246	-6.86853
133.691	0.00102	0.00246	-6.88795
134.039	0.00103	0.00246	-6.8782
134.672	0.00102	0.00245	-6.88795
135.501	0.00102	0.00245	-6.88795
136.403	0.00102	0.00244	-6.88795
137.385	0.00101	0.00244	-6.8978

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Table S2. Viscosity measurements for 3-butylnonyl 2-ethylhexanoate (E2).

T	visc	1/T	ln Pas
-47.704	0.86515	0.00444	-0.14485
-46.852	0.79813	0.00442	-0.22548
-46.097	0.74206	0.00441	-0.29833
-45.415	0.69464	0.00439	-0.36436
-44.758	0.64948	0.00438	-0.43158
-44.17	0.59752	0.00437	-0.51497
-43.502	0.55654	0.00436	-0.58602
-42.713	0.50933	0.00434	-0.67466
-41.933	0.46918	0.00433	-0.75677
-41.042	0.4291	0.00431	-0.84607
-40.132	0.3983	0.00429	-0.92055
-39.329	0.36125	0.00428	-1.01819
-38.526	0.32888	0.00426	-1.11206
-37.723	0.301	0.00425	-1.20065
-36.981	0.2752	0.00424	-1.29026
-36.124	0.25319	0.00422	-1.37362
-35.248	0.23172	0.00421	-1.46223
-34.343	0.21888	0.00419	-1.51923
-33.419	0.20241	0.00417	-1.59746
-32.574	0.1844	0.00416	-1.69065
-31.661	0.17138	0.00414	-1.76387
-30.78	0.15828	0.00413	-1.84339
-29.995	0.14433	0.00412	-1.93565
-29.185	0.13445	0.0041	-2.00656
-28.325	0.12559	0.00409	-2.07473
-27.508	0.11757	0.00407	-2.14072
-26.656	0.1102	0.00406	-2.20546
-25.88	0.10287	0.00405	-2.27429
-25.054	0.09603	0.00403	-2.34309
-24.263	0.08927	0.00402	-2.41609
-23.432	0.08338	0.00401	-2.48435
-22.537	0.078	0.00399	-2.55105
-21.742	0.07261	0.00398	-2.62265
-20.871	0.06782	0.00397	-2.6909
-20.042	0.06335	0.00395	-2.75908
-19.239	0.05986	0.00394	-2.81575
-18.37	0.05608	0.00393	-2.88098
-17.566	0.05285	0.00391	-2.9403
-16.786	0.04992	0.0039	-2.99733
-15.953	0.04694	0.00389	-3.05889
-15.119	0.04425	0.00388	-3.1179

-14.258	0.04168	0.00386	-3.17773
-13.435	0.03928	0.00385	-3.23704
-12.592	0.0371	0.00384	-3.29414
-11.724	0.03514	0.00383	-3.34842
-10.904	0.03326	0.00382	-3.4034
-10.005	0.03149	0.0038	-3.45809
-9.208	0.02984	0.00379	-3.51191
-8.385	0.02838	0.00378	-3.56207
-7.492	0.02698	0.00377	-3.61266
-6.692	0.02568	0.00376	-3.66204
-5.879	0.02448	0.00374	-3.7099
-5.041	0.02332	0.00373	-3.75844
-4.237	0.02228	0.00372	-3.80407
-3.422	0.02127	0.00371	-3.85046
-2.564	0.02028	0.0037	-3.89812
-1.755	0.01941	0.00369	-3.94197
-0.896	0.01843	0.00368	-3.99378
-0.119	0.01752	0.00366	-4.04441
0.718	0.01669	0.00365	-4.09295
1.642	0.01597	0.00364	-4.13704
2.5	0.01529	0.00363	-4.18056
3.314	0.01466	0.00362	-4.22263
4.216	0.01409	0.00361	-4.26229
5.019	0.01352	0.0036	-4.30359
5.897	0.01299	0.00359	-4.34358
6.71	0.01248	0.00358	-4.38363
7.564	0.01201	0.00356	-4.42202
8.374	0.01157	0.00355	-4.45934
9.185	0.01113	0.00354	-4.49811
10.021	0.01074	0.00353	-4.53378
10.842	0.01034	0.00352	-4.57174
11.672	0.00997	0.00351	-4.60817
12.517	0.00963	0.0035	-4.64287
13.333	0.00929	0.00349	-4.67882
14.201	0.00896	0.00348	-4.71499
14.996	0.00866	0.00347	-4.74904
15.814	0.00837	0.00346	-4.7831
16.7	0.00809	0.00345	-4.81713
17.512	0.00782	0.00344	-4.85107
18.304	0.00758	0.00343	-4.88224
19.163	0.00733	0.00342	-4.91578
20.001	0.0071	0.00341	-4.94766
20.85	0.00688	0.0034	-4.97914
21.652	0.00667	0.00339	-5.01014
22.452	0.00647	0.00338	-5.04058
23.303	0.00629	0.00337	-5.06879
24.106	0.0061	0.00337	-5.09947
24.982	0.00593	0.00336	-5.12773
25.804	0.00575	0.00335	-5.15856
26.614	0.0056	0.00334	-5.18499
27.401	0.00544	0.00333	-5.21398
28.291	0.00529	0.00332	-5.24194

29.098	0.00515	0.00331	-5.26876
29.956	0.00502	0.0033	-5.29433
30.781	0.00485	0.00329	-5.32878
31.653	0.00472	0.00328	-5.35595
32.475	0.0046	0.00327	-5.3817
33.309	0.00448	0.00326	-5.40813
34.14	0.00436	0.00326	-5.43528
34.966	0.00425	0.00325	-5.46084
35.804	0.00414	0.00324	-5.48706
36.652	0.00405	0.00323	-5.50904
37.454	0.00395	0.00322	-5.53404
38.323	0.00385	0.00321	-5.55968
39.125	0.00376	0.0032	-5.58334
39.991	0.00367	0.00319	-5.60756
40.796	0.00359	0.00319	-5.6296
41.588	0.0035	0.00318	-5.65499
42.444	0.00343	0.00317	-5.6752
43.246	0.00335	0.00316	-5.69879
44.123	0.00328	0.00315	-5.71991
44.951	0.00321	0.00315	-5.74148
45.757	0.00314	0.00314	-5.76353
46.618	0.00307	0.00313	-5.78608
47.459	0.00301	0.00312	-5.80582
48.285	0.00294	0.00311	-5.82935
49.128	0.00288	0.0031	-5.84996
49.969	0.00282	0.0031	-5.87102
50.772	0.00277	0.00309	-5.88891
51.65	0.00272	0.00308	-5.90712
52.457	0.00266	0.00307	-5.92943
53.328	0.00261	0.00306	-5.94841
54.126	0.00256	0.00306	-5.96775
54.975	0.00251	0.00305	-5.98747
55.782	0.00247	0.00304	-6.00354
56.601	0.00242	0.00303	-6.02399
57.484	0.00238	0.00303	-6.04065
58.297	0.00234	0.00302	-6.0576
59.119	0.0023	0.00301	-6.07485
59.941	0.00226	0.003	-6.09239
60.776	0.00222	0.003	-6.11025
61.663	0.00219	0.00299	-6.12385
62.433	0.00215	0.00298	-6.14229
63.272	0.00211	0.00297	-6.16107
64.139	0.00208	0.00297	-6.17539
64.935	0.00205	0.00296	-6.18992
65.774	0.00202	0.00295	-6.20466
66.649	0.00199	0.00294	-6.21962
67.46	0.00196	0.00294	-6.23481
68.339	0.00193	0.00293	-6.25024
69.137	0.0019	0.00292	-6.2659
69.947	0.00187	0.00292	-6.28182
70.838	0.00184	0.00291	-6.29799
71.629	0.00182	0.0029	-6.30892

72.494	0.00179	0.00289	-6.32554
73.321	0.00177	0.00289	-6.33678
74.106	0.00175	0.00288	-6.34814
74.969	0.00172	0.00287	-6.36543
75.782	0.0017	0.00287	-6.37713
76.659	0.00168	0.00286	-6.38896
77.451	0.00166	0.00285	-6.40094
78.261	0.00164	0.00285	-6.41306
79.162	0.00162	0.00284	-6.42533
79.956	0.0016	0.00283	-6.43775
80.785	0.00158	0.00283	-6.45033
81.597	0.00156	0.00282	-6.46307
82.439	0.00154	0.00281	-6.47597
83.244	0.00152	0.00281	-6.48904
84.145	0.00151	0.0028	-6.49565
84.97	0.00149	0.00279	-6.50898
85.814	0.00147	0.00279	-6.52249
86.621	0.00146	0.00278	-6.52932
87.511	0.00144	0.00277	-6.54311
88.319	0.00142	0.00277	-6.5571
89.111	0.00141	0.00276	-6.56417
89.926	0.0014	0.00276	-6.57128
90.792	0.00138	0.00275	-6.58567
91.621	0.00137	0.00274	-6.59294
92.505	0.00135	0.00274	-6.60765
93.322	0.00134	0.00273	-6.61509
94.166	0.00133	0.00272	-6.62258
94.961	0.00131	0.00272	-6.63773
95.776	0.0013	0.00271	-6.64539
96.623	0.00129	0.00271	-6.65311
97.46	0.00128	0.0027	-6.6609
98.272	0.00127	0.00269	-6.66874
99.12	0.00126	0.00269	-6.67664
99.907	0.00125	0.00268	-6.68461
100.8	0.00124	0.00268	-6.69264
101.602	0.00122	0.00267	-6.7089
102.418	0.00121	0.00266	-6.71713
103.3	0.0012	0.00266	-6.72543
104.098	0.00119	0.00265	-6.7338
104.993	0.00118	0.00265	-6.74224
105.809	0.00117	0.00264	-6.75075
106.639	0.00116	0.00263	-6.75934
107.515	0.00115	0.00263	-6.76799
108.316	0.00114	0.00262	-6.77673
109.183	0.00114	0.00262	-6.77673
110.024	0.00113	0.00261	-6.78554
110.829	0.00112	0.00261	-6.79443
111.694	0.00111	0.0026	-6.8034
112.481	0.0011	0.00259	-6.81245
113.283	0.0011	0.00259	-6.81245
114.168	0.00109	0.00258	-6.82158
114.948	0.00108	0.00258	-6.83079

115.818	0.00107	0.00257	-6.8401
116.643	0.00107	0.00257	-6.8401
117.463	0.00106	0.00256	-6.84949
118.308	0.00105	0.00256	-6.85897
119.096	0.00104	0.00255	-6.86853
119.914	0.00104	0.00255	-6.86853
120.778	0.00103	0.00254	-6.8782
121.636	0.00102	0.00253	-6.88795
122.493	0.00102	0.00253	-6.88795

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Table S3. Viscosity measurements for 3-hexylundecyl 2-ethylhexanoate (E3).

T	visc	1/T	ln Pas
-59.549	13.5517	0.00468	2.60651
-58.083	9.60733	0.00465	2.26253
-56.5	7.74892	0.00462	2.04755
-55.031	6.30625	0.00459	1.84154
-53.456	5.10827	0.00455	1.63086
-52.145	4.25447	0.00453	1.44797
-50.567	3.4926	0.0045	1.25065
-49.315	2.92449	0.00447	1.07312
-47.825	2.46974	0.00444	0.90411
-47.576	2.17699	0.00444	0.77794
-46.829	2.01555	0.00442	0.70089
-46.65	2.12185	0.00442	0.75229
-46.204	1.90043	0.00441	0.64208
-45.611	1.78792	0.0044	0.58105
-45.373	1.82186	0.00439	0.59986
-45.116	1.7008	0.00439	0.5311
-44.68	1.64738	0.00438	0.49919
-44.26	1.54045	0.00437	0.43207
-44.069	1.54535	0.00437	0.43525
-43.781	1.43291	0.00436	0.35971
-43.22	1.33416	0.00435	0.2883
-42.934	1.34727	0.00435	0.29808
-42.572	1.20031	0.00434	0.18258
-41.823	1.10213	0.00433	0.09724
-41.645	1.16057	0.00432	0.14891
-40.981	0.99363	0.00431	-0.00639
-40.332	1.01423	0.0043	0.01413
-40.068	0.89381	0.00429	-0.11226
-39.145	0.88594	0.00428	-0.12111
-39.031	0.79109	0.00427	-0.23434
-38.001	0.71273	0.00426	-0.33865
-37.888	0.7759	0.00425	-0.25373
-37.034	0.64034	0.00424	-0.44576
-36.789	0.69533	0.00423	-0.36337
-36.021	0.58013	0.00422	-0.5445
-35.681	0.61663	0.00421	-0.48349
-35.022	0.53105	0.0042	-0.6329
-34.521	0.54807	0.00419	-0.60135
-34.163	0.48404	0.00419	-0.72559
-33.443	0.49808	0.00417	-0.69699

-33.216	0.44616	0.00417	-0.80708
-32.424	0.44853	0.00416	-0.80178
-32.376	0.41786	0.00416	-0.87261
-31.533	0.38925	0.00414	-0.94353
-31.43	0.40586	0.00414	-0.90175
-30.8	0.36168	0.00413	-1.017
-30.453	0.37039	0.00412	-0.9932
-30.008	0.33607	0.00412	-1.09044
-29.409	0.33964	0.00411	-1.07987
-29.205	0.31469	0.0041	-1.15617
-28.502	0.3126	0.00409	-1.16283
-28.415	0.29258	0.00409	-1.22902
-27.636	0.28792	0.00408	-1.24507
-27.619	0.27364	0.00408	-1.29594
-26.876	0.25577	0.00406	-1.36348
-26.697	0.26704	0.00406	-1.32036
-26.096	0.24005	0.00405	-1.42691
-25.895	0.24759	0.00405	-1.39598
-25.317	0.22291	0.00404	-1.50099
-25.102	0.22898	0.00403	-1.47412
-24.543	0.21034	0.00402	-1.55903
-24.347	0.21569	0.00402	-1.53391
-23.791	0.19629	0.00401	-1.62816
-23.633	0.19983	0.00401	-1.61029
-22.941	0.18202	0.004	-1.70364
-22.915	0.18697	0.004	-1.67681
-22.252	0.177	0.00399	-1.73161
-22.159	0.17003	0.00399	-1.77178
-21.634	0.16771	0.00398	-1.78552
-21.263	0.15879	0.00397	-1.84017
-21.043	0.15888	0.00397	-1.83961
-20.519	0.15193	0.00396	-1.88434
-20.415	0.1474	0.00396	-1.91461
-19.976	0.14498	0.00395	-1.93116
-19.553	0.13692	0.00395	-1.98836
-19.464	0.139	0.00394	-1.97328
-18.936	0.13358	0.00394	-2.01305
-18.677	0.12806	0.00393	-2.05526
-18.477	0.12852	0.00393	-2.05167
-17.989	0.12379	0.00392	-2.08917
-17.757	0.11952	0.00392	-2.12427
-17.464	0.11842	0.00391	-2.13352
-16.901	0.11374	0.0039	-2.17384
-16.871	0.11224	0.0039	-2.18712
-16.345	0.10917	0.0039	-2.21485
-15.957	0.10532	0.00389	-2.25075
-15.783	0.10445	0.00389	-2.25905
-15.214	0.10019	0.00388	-2.30069
-15.109	0.09843	0.00388	-2.31841
-14.665	0.0961	0.00387	-2.34237
-14.21	0.09287	0.00386	-2.37655
-14.064	0.09206	0.00386	-2.38531

-13.454	0.0878	0.00385	-2.43269
-13.396	0.08798	0.00385	-2.43065
-12.82	0.08435	0.00384	-2.47278
-12.539	0.08273	0.00384	-2.49217
-12.215	0.0808	0.00383	-2.51578
-11.731	0.07824	0.00383	-2.54797
-11.588	0.07731	0.00383	-2.55993
-10.932	0.07409	0.00382	-2.60247
-10.919	0.07417	0.00382	-2.6014
-10.278	0.07103	0.00381	-2.64465
-10.101	0.07052	0.0038	-2.65186
-9.611	0.06791	0.0038	-2.68957
-9.326	0.06691	0.00379	-2.70441
-8.833	0.06518	0.00379	-2.7306
-8.548	0.06343	0.00378	-2.75782
-8.095	0.06186	0.00377	-2.78288
-7.745	0.0602	0.00377	-2.81008
-7.261	0.05897	0.00376	-2.83073
-6.97	0.05729	0.00376	-2.85963
-6.426	0.05611	0.00375	-2.88044
-6.16	0.0544	0.00375	-2.91139
-5.583	0.0531	0.00374	-2.93558
-5.342	0.05156	0.00374	-2.96501
-4.674	0.05058	0.00373	-2.9842
-4.512	0.04902	0.00372	-3.01553
-3.803	0.04794	0.00371	-3.03781
-3.611	0.04646	0.00371	-3.06916
-2.869	0.04539	0.0037	-3.09246
-2.801	0.04406	0.0037	-3.1222
-1.957	0.04181	0.00369	-3.17462
-1.929	0.04292	0.00369	-3.14842
-1.05	0.03983	0.00368	-3.22313
-1.019	0.0406	0.00368	-3.20399
-0.215	0.03757	0.00367	-3.28155
-0.024	0.03837	0.00366	-3.26048
0.629	0.03559	0.00365	-3.33569
0.89	0.03644	0.00365	-3.31209
1.456	0.03387	0.00364	-3.38523
1.911	0.03447	0.00364	-3.36767
2.394	0.03218	0.00363	-3.43641
2.957	0.03263	0.00362	-3.42252
3.258	0.03071	0.00362	-3.48317
4.027	0.03085	0.00361	-3.47862
4.13	0.02931	0.00361	-3.52983
4.942	0.02796	0.0036	-3.57698
4.982	0.02924	0.0036	-3.53222
5.777	0.02677	0.00359	-3.62047
5.988	0.02772	0.00358	-3.5856
6.602	0.0256	0.00358	-3.66516
6.975	0.02627	0.00357	-3.63933
7.42	0.02454	0.00357	-3.70745
8.023	0.02497	0.00356	-3.69008

8.183	0.02347	0.00356	-3.75203
9.017	0.02249	0.00355	-3.79468
9.121	0.0237	0.00354	-3.74228
9.866	0.02155	0.00354	-3.83738
10.061	0.02259	0.00353	-3.79025
10.695	0.02064	0.00352	-3.88052
11.016	0.02146	0.00352	-3.84156
11.584	0.01981	0.00351	-3.92157
11.995	0.02047	0.00351	-3.88879
12.414	0.01898	0.0035	-3.96437
12.985	0.01953	0.0035	-3.9358
13.201	0.01823	0.00349	-4.00469
13.935	0.01867	0.00349	-3.98084
14.095	0.01751	0.00348	-4.04498
14.89	0.01787	0.00347	-4.02463
14.928	0.01679	0.00347	-4.08697
15.721	0.01614	0.00346	-4.12645
15.837	0.01709	0.00346	-4.06926
16.587	0.01555	0.00345	-4.16369
16.765	0.01639	0.00345	-4.11108
17.431	0.01495	0.00344	-4.20304
17.694	0.01574	0.00344	-4.15155
18.267	0.01441	0.00343	-4.23983
18.526	0.01512	0.00343	-4.19174
19.078	0.01389	0.00342	-4.27659
19.39	0.01455	0.00342	-4.23016
19.863	0.01337	0.00341	-4.31474
20.341	0.01401	0.00341	-4.26798
20.694	0.01289	0.0034	-4.3513
21.142	0.01353	0.0034	-4.30285
21.531	0.01242	0.0034	-4.38845
21.997	0.01304	0.00339	-4.33973
22.383	0.01199	0.00339	-4.42368
22.77	0.01261	0.00338	-4.37327
23.144	0.01157	0.00338	-4.45934
23.523	0.01223	0.00337	-4.40386
23.961	0.01118	0.00337	-4.49363
24.299	0.01186	0.00336	-4.43458
24.833	0.01079	0.00336	-4.52914
24.982	0.01152	0.00336	-4.46367
25.615	0.01043	0.00335	-4.56307
25.675	0.01119	0.00335	-4.49273
26.358	0.01089	0.00334	-4.51991
26.447	0.01009	0.00334	-4.59621
26.986	0.0106	0.00333	-4.5469
27.284	0.00976	0.00333	-4.62946
27.627	0.01035	0.00333	-4.57077
28.104	0.00945	0.00332	-4.66174
28.178	0.0101	0.00332	-4.59522
28.726	0.00988	0.00331	-4.61724
29.02	0.00915	0.00331	-4.694
29.274	0.00969	0.00331	-4.63666

29.79	0.00951	0.0033	-4.65541
29.819	0.00888	0.0033	-4.72395
30.241	0.00935	0.0033	-4.67238
30.649	0.00862	0.00329	-4.75367
30.698	0.00918	0.00329	-4.69073
31.061	0.00905	0.00329	-4.70499
31.441	0.00892	0.00328	-4.71946
31.525	0.00836	0.00328	-4.7843
31.803	0.00882	0.00328	-4.73073
32.092	0.00871	0.00328	-4.74328
32.191	0.00866	0.00328	-4.74904
32.35	0.00812	0.00327	-4.81343
32.373	0.00862	0.00327	-4.75367
32.511	0.00857	0.00327	-4.75949
32.656	0.00855	0.00327	-4.76182
32.747	0.00849	0.00327	-4.76887
32.843	0.00847	0.00327	-4.77122
32.975	0.00842	0.00327	-4.77715
33.03	0.00841	0.00327	-4.77833
33.152	0.00836	0.00327	-4.7843
33.2	0.00789	0.00327	-4.84216
33.207	0.00837	0.00327	-4.7831
33.292	0.00832	0.00326	-4.78909
33.321	0.00832	0.00326	-4.78909
33.396	0.00829	0.00326	-4.79271
33.396	0.0083	0.00326	-4.7915
33.447	0.00827	0.00326	-4.79512
33.475	0.00826	0.00326	-4.79633
33.489	0.00828	0.00326	-4.79391
33.507	0.00826	0.00326	-4.79633
34.029	0.00766	0.00326	-4.87174
34.873	0.00745	0.00325	-4.89954
35.658	0.00723	0.00324	-4.92952
36.481	0.00704	0.00323	-4.95615
37.327	0.00685	0.00322	-4.98351
38.167	0.00667	0.00321	-5.01014
38.991	0.00648	0.00321	-5.03903
39.826	0.00632	0.0032	-5.06404
40.641	0.00615	0.00319	-5.0913
41.498	0.00599	0.00318	-5.11766
42.326	0.00583	0.00317	-5.14474
43.136	0.00568	0.00316	-5.1708
44.023	0.00554	0.00315	-5.19576
44.825	0.00539	0.00315	-5.22321
45.614	0.00526	0.00314	-5.24762
46.515	0.00512	0.00313	-5.2746
47.32	0.005	0.00312	-5.29832
48.193	0.00488	0.00311	-5.32261
48.996	0.00476	0.00311	-5.34751
49.8	0.00465	0.0031	-5.37089
50.691	0.00454	0.00309	-5.39483
51.471	0.00444	0.00308	-5.4171

52.36	0.00434	0.00307	-5.43988
53.166	0.00424	0.00307	-5.46319
53.99	0.00415	0.00306	-5.48465
54.795	0.00406	0.00305	-5.50657
55.641	0.00397	0.00304	-5.52899
56.459	0.00389	0.00304	-5.54935
57.333	0.00381	0.00303	-5.57013
58.149	0.00373	0.00302	-5.59135
59.008	0.00366	0.00301	-5.61029
59.856	0.00358	0.003	-5.63239
60.664	0.00351	0.003	-5.65214
61.488	0.00344	0.00299	-5.67228
62.322	0.00337	0.00298	-5.69284
63.203	0.00331	0.00297	-5.71081
64.016	0.00325	0.00297	-5.7291
64.809	0.00319	0.00296	-5.74773
65.678	0.00313	0.00295	-5.76672
66.503	0.00307	0.00295	-5.78608
67.315	0.00302	0.00294	-5.8025
68.17	0.00296	0.00293	-5.82257
68.997	0.00291	0.00292	-5.8396
69.861	0.00286	0.00292	-5.85693
70.698	0.00281	0.00291	-5.87457
71.478	0.00276	0.0029	-5.89252
72.356	0.00272	0.0029	-5.90712
73.175	0.00267	0.00289	-5.92568
74.044	0.00263	0.00288	-5.94077
74.843	0.00259	0.00287	-5.9561
75.667	0.00255	0.00287	-5.97166
76.496	0.00251	0.00286	-5.98747
77.327	0.00247	0.00285	-6.00354
78.143	0.00243	0.00285	-6.01986
78.973	0.00239	0.00284	-6.03646
79.829	0.00236	0.00283	-6.04909
80.677	0.00232	0.00283	-6.06619
81.502	0.00229	0.00282	-6.0792
82.324	0.00225	0.00281	-6.09683
83.182	0.00222	0.00281	-6.11025
83.994	0.00219	0.0028	-6.12385
84.792	0.00216	0.00279	-6.13765
85.602	0.00213	0.00279	-6.15163
86.497	0.0021	0.00278	-6.16582
87.352	0.00208	0.00278	-6.17539
88.135	0.00205	0.00277	-6.18992
88.991	0.00202	0.00276	-6.20466
89.854	0.00199	0.00276	-6.21962
90.655	0.00197	0.00275	-6.22972
91.504	0.00195	0.00274	-6.23993
92.33	0.00192	0.00274	-6.25543
93.163	0.0019	0.00273	-6.2659
94.017	0.00188	0.00272	-6.27648
94.842	0.00185	0.00272	-6.29257

95.643	0.00183	0.00271	-6.30344
96.52	0.00181	0.00271	-6.31443
97.329	0.00179	0.0027	-6.32554
98.205	0.00177	0.00269	-6.33678
99.002	0.00175	0.00269	-6.34814
99.829	0.00173	0.00268	-6.35963
100.698	0.00171	0.00268	-6.37126
101.497	0.0017	0.00267	-6.37713
102.317	0.00167	0.00266	-6.39493
103.088	0.00166	0.00266	-6.40094
103.983	0.00164	0.00265	-6.41306
104.842	0.00163	0.00265	-6.41918
105.636	0.00161	0.00264	-6.43152
106.439	0.0016	0.00264	-6.43775
107.252	0.00158	0.00263	-6.45033
108.11	0.00156	0.00262	-6.46307
108.991	0.00155	0.00262	-6.4695
109.786	0.00153	0.00261	-6.48249
110.616	0.00152	0.00261	-6.48904
111.497	0.0015	0.0026	-6.50229
112.329	0.00149	0.0026	-6.50898
113.175	0.00148	0.00259	-6.51571
113.995	0.00146	0.00258	-6.52932
114.829	0.00145	0.00258	-6.53619
115.715	0.00143	0.00257	-6.55008
116.537	0.00142	0.00257	-6.5571
117.368	0.00141	0.00256	-6.56417
118.199	0.0014	0.00256	-6.57128
119.026	0.00139	0.00255	-6.57845
119.883	0.00138	0.00255	-6.58567
120.697	0.00137	0.00254	-6.59294
121.53	0.00135	0.00253	-6.60765
122.397	0.00135	0.00253	-6.60765
123.202	0.00133	0.00252	-6.62258
124.046	0.00133	0.00252	-6.62258
124.884	0.00131	0.00251	-6.63773
125.697	0.00131	0.00251	-6.63773
126.548	0.0013	0.0025	-6.64539
127.368	0.00129	0.0025	-6.65311

Table S4. Viscosity measurements for octyl 3-hexylundecanoate (E4)

T	visc	1/T	In Pas
-53.413	3.82647	0.00455	1.34194
-52.262	3.38161	0.00453	1.21835
-51.194	2.9537	0.00451	1.08306
-50.107	2.60215	0.00449	0.95634
-48.941	2.29361	0.00446	0.83013

-47.819	2.01711	0.00444	0.70167
-46.671	1.77811	0.00442	0.57555
-45.557	1.56123	0.0044	0.44547
-44.636	1.60386	0.00438	0.47241
-44.458	1.38149	0.00438	0.32316
-44.022	1.46859	0.00437	0.3843
-43.423	1.34969	0.00436	0.29987
-43.392	1.22998	0.00436	0.207
-42.808	1.25997	0.00434	0.23109
-42.347	1.09716	0.00434	0.09273
-42.074	1.16016	0.00433	0.14856
-41.356	0.97617	0.00432	-0.02412
-41.326	1.07763	0.00432	0.07476
-40.668	0.98885	0.0043	-0.01121
-40.294	0.88543	0.0043	-0.12168
-39.943	0.91461	0.00429	-0.08926
-39.367	0.79314	0.00428	-0.23176
-39.057	0.82877	0.00427	-0.18781
-38.395	0.71916	0.00426	-0.32967
-38.218	0.75397	0.00426	-0.2824
-37.456	0.65923	0.00425	-0.41668
-37.309	0.69145	0.00424	-0.36896
-36.577	0.6018	0.00423	-0.50783
-36.428	0.63345	0.00423	-0.45657
-35.693	0.5526	0.00421	-0.59312
-35.593	0.57643	0.00421	-0.5509
-34.908	0.5102	0.0042	-0.67295
-34.641	0.52477	0.0042	-0.6448
-34.181	0.46823	0.00419	-0.7588
-33.669	0.47922	0.00418	-0.7356
-33.397	0.43273	0.00417	-0.83764
-32.698	0.43594	0.00416	-0.83025
-32.598	0.40181	0.00416	-0.91178
-31.781	0.37359	0.00415	-0.9846
-31.723	0.39813	0.00414	-0.92098
-31.057	0.34834	0.00413	-1.05458
-30.8	0.37015	0.00413	-0.99385
-30.314	0.32649	0.00412	-1.11936
-30	0.34288	0.00412	-1.07037
-29.581	0.30687	0.00411	-1.18133
-29.164	0.32278	0.0041	-1.13078
-28.948	0.29109	0.0041	-1.23412

-28.375	0.30409	0.00409	-1.19043
-28.31	0.2754	0.00409	-1.28953
-27.711	0.26168	0.00408	-1.34063
-27.59	0.28568	0.00407	-1.25288
-27.202	0.24862	0.00407	-1.39183
-26.884	0.27076	0.00406	-1.30652
-26.632	0.23716	0.00406	-1.43902
-26.186	0.22789	0.00405	-1.47889
-26.173	0.25585	0.00405	-1.36316
-25.758	0.21978	0.00404	-1.51513
-25.454	0.24003	0.00404	-1.42699
-25.274	0.21255	0.00404	-1.54858
-24.866	0.2045	0.00403	-1.58719
-24.74	0.22541	0.00403	-1.48983
-24.445	0.19811	0.00402	-1.61893
-23.994	0.19198	0.00402	-1.65036
-23.944	0.21384	0.00402	-1.54253
-23.553	0.18599	0.00401	-1.68206
-23.231	0.19926	0.004	-1.61314
-23.114	0.17994	0.004	-1.71513
-22.649	0.1733	0.00399	-1.75273
-22.379	0.18544	0.00399	-1.68502
-22.154	0.16685	0.00399	-1.79066
-21.673	0.16185	0.00398	-1.82109
-21.503	0.17306	0.00398	-1.75412
-21.139	0.15527	0.00397	-1.86259
-20.639	0.16184	0.00396	-1.82115
-20.591	0.14987	0.00396	-1.89799
-20.067	0.14459	0.00395	-1.93385
-19.712	0.14981	0.00395	-1.89839
-19.547	0.13872	0.00395	-1.9753
-18.915	0.13334	0.00394	-2.01485
-18.857	0.13983	0.00393	-1.96733
-18.374	0.12804	0.00393	-2.05541
-17.98	0.13036	0.00392	-2.03746
-17.74	0.12204	0.00392	-2.10341
-17.12	0.11719	0.00391	-2.14396
-17.061	0.12276	0.00391	-2.09752
-16.441	0.11209	0.0039	-2.18845
-16.174	0.11447	0.00389	-2.16744
-15.779	0.10706	0.00389	-2.23437
-15.341	0.10788	0.00388	-2.22674

-15.105	0.10212	0.00388	-2.28161
-14.446	0.10176	0.00387	-2.28514
-14.407	0.09766	0.00387	-2.32626
-13.695	0.09305	0.00386	-2.37462
-13.601	0.09656	0.00386	-2.33759
-12.965	0.08845	0.00385	-2.42532
-12.725	0.09096	0.00384	-2.39734
-12.104	0.08377	0.00383	-2.47968
-11.904	0.08559	0.00383	-2.45819
-11.296	0.07928	0.00382	-2.53477
-11.099	0.08067	0.00382	-2.51739
-10.469	0.07523	0.00381	-2.58721
-10.198	0.0765	0.00381	-2.57046
-9.57	0.07135	0.0038	-2.64016
-9.408	0.07224	0.00379	-2.62776
-8.733	0.06762	0.00378	-2.69385
-8.563	0.06842	0.00378	-2.68209
-7.855	0.06399	0.00377	-2.74903
-7.733	0.06467	0.00377	-2.73846
-6.921	0.06051	0.00376	-2.80495
-6.92	0.06139	0.00376	-2.79051
-6.15	0.05859	0.00375	-2.83719
-5.987	0.05709	0.00375	-2.86313
-5.317	0.05567	0.00374	-2.88831
-4.98	0.05414	0.00373	-2.91618
-4.518	0.0529	0.00372	-2.93935
-3.93	0.05103	0.00372	-2.97534
-3.687	0.0503	0.00371	-2.98975
-2.949	0.04815	0.0037	-3.03343
-2.844	0.04795	0.0037	-3.0376
-1.975	0.0457	0.00369	-3.08566
-1.906	0.04539	0.00369	-3.09246
-1.193	0.04336	0.00368	-3.13822
-0.913	0.04284	0.00368	-3.15028
-0.334	0.04155	0.00367	-3.18086
0.141	0.04045	0.00366	-3.20769
0.507	0.03951	0.00366	-3.2312
1.194	0.03822	0.00365	-3.2644
1.253	0.03746	0.00365	-3.28448
2.096	0.03571	0.00364	-3.33232
2.289	0.03613	0.00363	-3.32063
2.938	0.03418	0.00362	-3.37611

3.328	0.03407	0.00362	-3.37934
3.795	0.0327	0.00361	-3.42038
4.381	0.03234	0.00361	-3.43145
4.683	0.03129	0.0036	-3.46446
5.451	0.03054	0.00359	-3.48872
5.513	0.02992	0.00359	-3.50923
6.305	0.02864	0.00358	-3.55295
6.511	0.02891	0.00358	-3.54357
7.201	0.02746	0.00357	-3.59502
7.523	0.02748	0.00356	-3.5943
7.978	0.02634	0.00356	-3.63667
8.641	0.02605	0.00355	-3.64774
8.81	0.02527	0.00355	-3.67814
9.666	0.02431	0.00354	-3.71687
9.754	0.02478	0.00354	-3.69772
10.464	0.02332	0.00353	-3.75844
10.699	0.02358	0.00352	-3.74736
11.284	0.02243	0.00352	-3.79736
11.752	0.02243	0.00351	-3.79736
12.125	0.0215	0.00351	-3.8397
12.769	0.02136	0.0035	-3.84624
12.974	0.02073	0.0035	-3.87617
13.836	0.02036	0.00349	-3.89418
13.863	0.01991	0.00349	-3.91653
14.678	0.0191	0.00348	-3.95807
14.822	0.01944	0.00347	-3.94042
15.587	0.01837	0.00347	-3.99704
15.797	0.01863	0.00346	-3.98298
16.438	0.01765	0.00345	-4.03702
16.832	0.01782	0.00345	-4.02743
17.281	0.01701	0.00344	-4.07395
17.744	0.0171	0.00344	-4.06868
18.161	0.01637	0.00343	-4.1123
18.721	0.01642	0.00343	-4.10926
18.944	0.01577	0.00343	-4.14965
19.606	0.0158	0.00342	-4.14775
19.838	0.01521	0.00341	-4.1858
20.491	0.01523	0.00341	-4.18449
20.635	0.0147	0.00341	-4.21991
21.401	0.01469	0.0034	-4.22059
21.469	0.01421	0.0034	-4.25381
22.222	0.01418	0.00339	-4.25592

22.326	0.01372	0.00339	-4.2889
23.018	0.01368	0.00338	-4.29182
23.101	0.01325	0.00338	-4.32376
23.892	0.01325	0.00337	-4.32376
23.901	0.01283	0.00337	-4.35597
24.65	0.01286	0.00336	-4.35363
24.725	0.01241	0.00336	-4.38925
25.412	0.01247	0.00335	-4.38443
25.542	0.01201	0.00335	-4.42202
26.167	0.01211	0.00334	-4.41372
26.378	0.01164	0.00334	-4.45331
26.905	0.01177	0.00333	-4.4422
27.14	0.01127	0.00333	-4.48561
27.576	0.01147	0.00333	-4.46802
27.945	0.01092	0.00332	-4.51716
28.188	0.01119	0.00332	-4.49273
28.841	0.01057	0.00331	-4.54974
28.895	0.01093	0.00331	-4.51624
29.511	0.01067	0.00331	-4.54032
29.663	0.01025	0.0033	-4.58048
30.072	0.01043	0.0033	-4.56307
30.522	0.00994	0.00329	-4.61119
30.657	0.01022	0.00329	-4.58341
31.158	0.01002	0.00329	-4.60317
31.354	0.00965	0.00329	-4.6408
31.676	0.00984	0.00328	-4.6213
32.152	0.00935	0.00328	-4.67238
32.194	0.00968	0.00328	-4.63769
32.594	0.00952	0.00327	-4.65436
33.015	0.00908	0.00327	-4.70168
33.029	0.00938	0.00327	-4.66918
33.086	0.00941	0.00327	-4.66598
33.425	0.00925	0.00326	-4.68313
33.597	0.00924	0.00326	-4.68421
33.777	0.00913	0.00326	-4.69619
33.822	0.00881	0.00326	-4.73187
34.034	0.00911	0.00326	-4.69838
34.105	0.00903	0.00326	-4.7072
34.376	0.00899	0.00325	-4.71164
34.438	0.00894	0.00325	-4.71722
34.646	0.00886	0.00325	-4.72621
34.689	0.00889	0.00325	-4.72283

34.7	0.00855	0.00325	-4.76182
34.903	0.0088	0.00325	-4.733
34.966	0.00881	0.00325	-4.73187
35.098	0.00873	0.00325	-4.74099
35.158	0.00875	0.00325	-4.7387
35.256	0.0087	0.00324	-4.74443
35.289	0.0087	0.00324	-4.74443
35.38	0.00866	0.00324	-4.74904
35.404	0.00866	0.00324	-4.74904
35.439	0.00863	0.00324	-4.75251
35.5	0.00863	0.00324	-4.75251
35.51	0.00862	0.00324	-4.75367
35.521	0.00832	0.00324	-4.78909
35.523	0.00863	0.00324	-4.75251
36.317	0.00807	0.00323	-4.8196
37.18	0.00786	0.00322	-4.84597
37.974	0.00764	0.00322	-4.87436
38.855	0.00744	0.00321	-4.90088
39.663	0.00724	0.0032	-4.92813
40.453	0.00705	0.00319	-4.95473
41.338	0.00686	0.00318	-4.98205
42.153	0.00669	0.00317	-5.00714
42.973	0.00651	0.00316	-5.03442
43.789	0.00635	0.00316	-5.0593
44.642	0.00619	0.00315	-5.08482
45.511	0.00604	0.00314	-5.10935
46.303	0.00588	0.00313	-5.1362
47.131	0.00575	0.00312	-5.15856
48.012	0.00561	0.00312	-5.1832
48.816	0.00547	0.00311	-5.20848
49.692	0.00534	0.0031	-5.23253
50.524	0.00522	0.00309	-5.25526
51.339	0.0051	0.00308	-5.27851
52.203	0.00498	0.00308	-5.30233
53.017	0.00487	0.00307	-5.32466
53.803	0.00476	0.00306	-5.34751
54.683	0.00465	0.00305	-5.37089
55.506	0.00455	0.00304	-5.39263
56.372	0.00445	0.00304	-5.41485
57.158	0.00435	0.00303	-5.43758
57.969	0.00427	0.00302	-5.45614
58.853	0.00417	0.00301	-5.47984

59.688	0.00409	0.00301	-5.49921
60.488	0.004	0.003	-5.52146
61.331	0.00393	0.00299	-5.53912
62.155	0.00384	0.00298	-5.56228
63.03	0.00377	0.00298	-5.58068
63.851	0.00369	0.00297	-5.60213
64.675	0.00362	0.00296	-5.62128
65.542	0.00355	0.00295	-5.64081
66.36	0.00348	0.00295	-5.66072
67.254	0.00342	0.00294	-5.67811
68.025	0.00335	0.00293	-5.69879
68.843	0.00329	0.00293	-5.71687
69.695	0.00323	0.00292	-5.73527
70.49	0.00318	0.00291	-5.75087
71.314	0.00312	0.0029	-5.76992
72.201	0.00306	0.0029	-5.78934
72.973	0.00301	0.00289	-5.80582
73.827	0.00296	0.00288	-5.82257
74.64	0.00291	0.00288	-5.8396
75.489	0.00286	0.00287	-5.85693
76.337	0.00281	0.00286	-5.87457
77.147	0.00276	0.00286	-5.89252
78.033	0.00272	0.00285	-5.90712
78.85	0.00268	0.00284	-5.92194
79.658	0.00264	0.00284	-5.93698
80.511	0.0026	0.00283	-5.95224
81.344	0.00255	0.00282	-5.97166
82.172	0.00251	0.00282	-5.98747
83.001	0.00248	0.00281	-5.9995
83.827	0.00244	0.0028	-6.01576
84.671	0.0024	0.0028	-6.03229
85.476	0.00237	0.00279	-6.04487
86.309	0.00233	0.00278	-6.06189
87.206	0.0023	0.00278	-6.07485
88.021	0.00227	0.00277	-6.08798
88.856	0.00224	0.00276	-6.10128
89.691	0.0022	0.00276	-6.1193
90.483	0.00217	0.00275	-6.13303
91.34	0.00214	0.00274	-6.14695
92.186	0.00212	0.00274	-6.15634
93.002	0.00209	0.00273	-6.17059
93.881	0.00206	0.00273	-6.18505

94.696	0.00203	0.00272	-6.19972
95.524	0.00201	0.00271	-6.20962
96.357	0.00198	0.00271	-6.22466
97.168	0.00196	0.0027	-6.23481
98.04	0.00193	0.0027	-6.25024
98.866	0.00191	0.00269	-6.26065
99.722	0.00189	0.00268	-6.27118
100.524	0.00187	0.00268	-6.28182
101.332	0.00184	0.00267	-6.29799
102.161	0.00182	0.00267	-6.30892
102.993	0.0018	0.00266	-6.31997
103.807	0.00178	0.00265	-6.33114
104.683	0.00176	0.00265	-6.34244
105.477	0.00174	0.00264	-6.35387
106.336	0.00172	0.00264	-6.36543
107.159	0.0017	0.00263	-6.37713
107.993	0.00169	0.00262	-6.38303
108.761	0.00167	0.00262	-6.39493
109.652	0.00165	0.00261	-6.40698
110.472	0.00163	0.00261	-6.41918
111.325	0.00162	0.0026	-6.42533
112.156	0.0016	0.0026	-6.43775
113.05	0.00158	0.00259	-6.45033
113.856	0.00157	0.00258	-6.45668
114.709	0.00155	0.00258	-6.4695
115.509	0.00154	0.00257	-6.47597
116.348	0.00153	0.00257	-6.48249
117.246	0.00151	0.00256	-6.49565
118.049	0.0015	0.00256	-6.50229
118.86	0.00148	0.00255	-6.51571
119.718	0.00147	0.00255	-6.52249
120.492	0.00146	0.00254	-6.52932
121.304	0.00144	0.00254	-6.54311
122.16	0.00143	0.00253	-6.55008
122.998	0.00142	0.00253	-6.5571
123.864	0.00141	0.00252	-6.56417
124.67	0.0014	0.00251	-6.57128
125.461	0.00138	0.00251	-6.58567
126.372	0.00137	0.0025	-6.59294
127.145	0.00136	0.0025	-6.60027
128.044	0.00135	0.00249	-6.60765

Table S5. Viscosity measurements for 2-ethylhexyl 3-hexylundecanoate (E5)

T	visc	1/T	ln Pas
-52.624	3.74004	0.00454	1.3191
-51.064	3.07019	0.00451	1.12174
-49.653	2.54523	0.00448	0.93422
-48.244	2.1472	0.00445	0.76416
-46.743	1.79419	0.00442	0.58455
-45.353	1.53948	0.00439	0.43144
-43.942	1.31419	0.00437	0.27322
-42.683	1.13185	0.00434	0.12385
-41.354	0.99307	0.00432	-0.00695
-40.039	0.85565	0.00429	-0.15589
-38.916	0.76109	0.00427	-0.273
-37.737	0.67078	0.00425	-0.39931
-36.67	0.59984	0.00423	-0.51109
-35.641	0.53747	0.00421	-0.62088
-34.499	0.48367	0.00419	-0.72635
-33.45	0.4378	0.00417	-0.82599
-32.504	0.39437	0.00416	-0.93047
-31.348	0.36185	0.00414	-1.01653
-30.392	0.3285	0.00412	-1.11322
-29.459	0.30124	0.00411	-1.19985
-28.563	0.27903	0.00409	-1.27644
-27.692	0.25736	0.00408	-1.35728
-26.866	0.23832	0.00406	-1.43414
-26.018	0.22356	0.00405	-1.49808
-25.234	0.2078	0.00404	-1.57118
-24.583	0.19631	0.00403	-1.62806
-23.946	0.18551	0.00402	-1.68465
-23.278	0.17558	0.004	-1.73966
-22.704	0.16682	0.004	-1.79084
-22.095	0.15983	0.00399	-1.83364
-21.563	0.15155	0.00398	-1.88684
-20.98	0.14561	0.00397	-1.92682
-20.382	0.13934	0.00396	-1.97084
-19.831	0.13324	0.00395	-2.0156
-19.274	0.12769	0.00394	-2.05815
-18.66	0.12222	0.00393	-2.10193
-18.113	0.11628	0.00392	-2.15175

-17.531	0.1114	0.00391	-2.19463
-16.882	0.10625	0.0039	-2.24196
-16.234	0.10166	0.00389	-2.28612
-15.571	0.09678	0.00388	-2.33531
-14.922	0.09245	0.00387	-2.38109
-14.268	0.08791	0.00387	-2.43144
-13.489	0.08383	0.00385	-2.47896
-12.797	0.07958	0.00384	-2.53099
-11.944	0.07548	0.00383	-2.58389
-11.128	0.07123	0.00382	-2.64184
-10.29	0.06722	0.00381	-2.69978
-9.376	0.06333	0.00379	-2.7594
-8.522	0.05964	0.00378	-2.81943
-7.615	0.0562	0.00377	-2.87884
-6.62	0.05258	0.00375	-2.94542
-5.623	0.04956	0.00374	-3.00457
-4.534	0.04623	0.00372	-3.07413
-3.509	0.04328	0.00371	-3.14006
-2.431	0.04056	0.0037	-3.20497
-1.292	0.03801	0.00368	-3.26991
-0.193	0.03572	0.00367	-3.33204
0.998	0.03345	0.00365	-3.3977
2.164	0.03138	0.00363	-3.46158
3.314	0.02951	0.00362	-3.52303
4.527	0.02772	0.0036	-3.5856
5.679	0.02603	0.00359	-3.64851
6.803	0.02446	0.00357	-3.71072
8.041	0.0231	0.00356	-3.76792
9.189	0.02175	0.00354	-3.82814
10.449	0.02054	0.00353	-3.88538
11.566	0.01938	0.00351	-3.94351
12.684	0.01832	0.0035	-3.99976
13.851	0.0174	0.00349	-4.05129
14.982	0.01654	0.00347	-4.10197
16.071	0.01572	0.00346	-4.15282
17.188	0.01498	0.00345	-4.20104
18.214	0.01432	0.00343	-4.2461
19.324	0.01367	0.00342	-4.29255
20.328	0.0131	0.00341	-4.33514
21.3	0.01256	0.0034	-4.37724
22.326	0.01207	0.00339	-4.41703
23.248	0.01161	0.00338	-4.45589

24.193	0.01121	0.00336	-4.49095
25.065	0.01082	0.00335	-4.52636
25.874	0.01044	0.00335	-4.56211
26.775	0.01011	0.00334	-4.59423
27.531	0.0098	0.00333	-4.62537
28.285	0.00953	0.00332	-4.65331
29.072	0.00926	0.00331	-4.68205
29.772	0.00904	0.0033	-4.7061
30.464	0.00881	0.0033	-4.73187
31.099	0.00861	0.00329	-4.75483
31.676	0.00843	0.00328	-4.77596
32.252	0.00826	0.00328	-4.79633
32.75	0.0081	0.00327	-4.81589
33.259	0.00797	0.00327	-4.83207
33.725	0.00784	0.00326	-4.84852
33.836	0.00782	0.00326	-4.85107
34.174	0.00773	0.00326	-4.86265
34.349	0.0077	0.00325	-4.86653
34.541	0.00763	0.00325	-4.87567
34.783	0.00759	0.00325	-4.88092
35.153	0.00749	0.00325	-4.89419
35.19	0.00746	0.00324	-4.8982
35.421	0.00742	0.00324	-4.90358
36.713	0.0071	0.00323	-4.94766
37.882	0.00686	0.00322	-4.98205
39.007	0.0066	0.00321	-5.02069
40.193	0.00637	0.00319	-5.05616
41.467	0.00614	0.00318	-5.09293
42.65	0.00594	0.00317	-5.12605
43.828	0.00575	0.00316	-5.15856
44.889	0.00559	0.00315	-5.18678
45.905	0.00544	0.00314	-5.21398
46.858	0.00531	0.00313	-5.23816
47.667	0.00519	0.00312	-5.26102
48.449	0.00509	0.00311	-5.28048
49.219	0.00498	0.0031	-5.30233
49.907	0.00489	0.0031	-5.32056
50.616	0.0048	0.00309	-5.33914
51.226	0.00472	0.00308	-5.35595
51.905	0.00463	0.00308	-5.3752
52.603	0.00455	0.00307	-5.39263
53.304	0.00446	0.00306	-5.41261

54.022	0.00437	0.00306	-5.43299
54.814	0.00428	0.00305	-5.4538
55.554	0.00419	0.00304	-5.47505
56.439	0.00411	0.00304	-5.49433
57.258	0.00402	0.00303	-5.51647
58.181	0.00393	0.00302	-5.53912
59.029	0.00385	0.00301	-5.55968
59.904	0.00376	0.003	-5.58334
60.888	0.00369	0.003	-5.60213
61.735	0.00361	0.00299	-5.62405
62.636	0.00354	0.00298	-5.64363
63.533	0.00347	0.00297	-5.6636
64.409	0.0034	0.00296	-5.68398
65.248	0.00334	0.00296	-5.70178
66.102	0.00328	0.00295	-5.71991
66.93	0.00322	0.00294	-5.73837
67.795	0.00316	0.00293	-5.75718
68.579	0.00311	0.00293	-5.77313
69.393	0.00305	0.00292	-5.79261
70.256	0.003	0.00291	-5.80914
71.016	0.00295	0.00291	-5.82595
71.83	0.00291	0.0029	-5.8396
72.629	0.00286	0.00289	-5.85693
73.433	0.00281	0.00289	-5.87457
74.269	0.00277	0.00288	-5.88891
75.075	0.00273	0.00287	-5.90345
75.941	0.00268	0.00287	-5.92194
76.744	0.00264	0.00286	-5.93698
77.544	0.0026	0.00285	-5.95224
78.431	0.00256	0.00285	-5.96775
79.266	0.00252	0.00284	-5.9835
80.075	0.00248	0.00283	-5.9995
80.943	0.00245	0.00283	-6.01167
81.743	0.00241	0.00282	-6.02813
82.649	0.00238	0.00281	-6.04065
83.488	0.00234	0.00281	-6.0576
84.268	0.00231	0.0028	-6.07051
85.174	0.00228	0.00279	-6.08358
85.985	0.00225	0.00279	-6.09683
86.814	0.00222	0.00278	-6.11025
87.666	0.00219	0.00277	-6.12385
88.481	0.00216	0.00277	-6.13765

89.334	0.00213	0.00276	-6.15163
90.145	0.0021	0.00275	-6.16582
90.974	0.00208	0.00275	-6.17539
91.792	0.00205	0.00274	-6.18992
92.604	0.00203	0.00274	-6.19972
93.483	0.00201	0.00273	-6.20962
94.294	0.00198	0.00272	-6.22466
95.118	0.00196	0.00272	-6.23481
95.974	0.00194	0.00271	-6.24507
96.77	0.00191	0.0027	-6.26065
97.632	0.00189	0.0027	-6.27118
98.405	0.00187	0.00269	-6.28182
99.258	0.00185	0.00269	-6.29257
100.173	0.00183	0.00268	-6.30344
100.944	0.00181	0.00267	-6.31443
101.791	0.00179	0.00267	-6.32554
102.631	0.00177	0.00266	-6.33678
103.481	0.00176	0.00266	-6.34244
104.317	0.00174	0.00265	-6.35387
105.15	0.00172	0.00264	-6.36543
105.965	0.0017	0.00264	-6.37713
106.808	0.00169	0.00263	-6.38303
107.649	0.00167	0.00263	-6.39493
108.472	0.00166	0.00262	-6.40094
109.317	0.00164	0.00262	-6.41306
110.127	0.00163	0.00261	-6.41918
110.986	0.00161	0.0026	-6.43152
111.814	0.0016	0.0026	-6.43775
112.623	0.00158	0.00259	-6.45033
113.463	0.00157	0.00259	-6.45668
114.317	0.00156	0.00258	-6.46307
115.178	0.00154	0.00258	-6.47597
115.973	0.00153	0.00257	-6.48249
116.804	0.00152	0.00257	-6.48904
117.651	0.00151	0.00256	-6.49565
118.481	0.00149	0.00255	-6.50898
119.363	0.00148	0.00255	-6.51571
119.965	0.00148	0.00254	-6.51571
120.687	0.00146	0.00254	-6.52932
121.501	0.00145	0.00253	-6.53619
122.362	0.00144	0.00253	-6.54311
123.178	0.00143	0.00252	-6.55008

124.074	0.00142	0.00252	-6.5571
125.016	0.00141	0.00251	-6.56417
125.957	0.0014	0.00251	-6.57128
126.853	0.00139	0.0025	-6.57845
127.699	0.00138	0.0025	-6.58567
128.648	0.00137	0.00249	-6.59294
129.476	0.00136	0.00248	-6.60027
130.313	0.00135	0.00248	-6.60765
131.139	0.00134	0.00247	-6.61509
131.972	0.00134	0.00247	-6.61509
132.742	0.00132	0.00246	-6.63012
133.539	0.00132	0.00246	-6.63012
134.378	0.00131	0.00245	-6.63773
135.16	0.0013	0.00245	-6.64539
135.962	0.00129	0.00245	-6.65311
136.787	0.00129	0.00244	-6.65311
137.604	0.00128	0.00244	-6.6609
138.356	0.00127	0.00243	-6.66874
139.226	0.00126	0.00243	-6.67664

Table S6. Viscosity measurements for hydrogenated trimer of oct-1-ene (**P1**)

T	visc	1/T	ln Pas
-62.134	12608.5	0.00474	9.44213
-60.475	9.24328	0.00471	2.2239
-58.831	7.5484	0.00467	2.02134
-57.27	5.48511	0.00464	1.70204
-55.609	4.35604	0.0046	1.47156
-54.061	3.54226	0.00457	1.26476
-52.537	2.91802	0.00454	1.07091
-50.893	2.39986	0.0045	0.87541
-49.319	1.99541	0.00447	0.69085
-47.853	1.68992	0.00444	0.52468
-46.436	1.43629	0.00441	0.36206
-44.97	1.19922	0.00439	0.18167
-43.534	1.05	0.00436	0.04879
-42.152	0.90049	0.00433	-0.10482
-40.816	0.77878	0.00431	-0.25003
-39.43	0.68746	0.00428	-0.37475
-38.143	0.60389	0.00426	-0.50436
-36.964	0.53263	0.00424	-0.62993

-35.673	0.46987	0.00421	-0.7553
-34.475	0.41593	0.00419	-0.87724
-33.255	0.37637	0.00417	-0.97718
-32.203	0.33838	0.00415	-1.08359
-31.158	0.31211	0.00413	-1.1644
-30.224	0.2876	0.00412	-1.24618
-29.314	0.26467	0.0041	-1.32927
-28.44	0.24458	0.00409	-1.40821
-27.663	0.22348	0.00408	-1.49843
-26.925	0.21183	0.00406	-1.55197
-26.17	0.19744	0.00405	-1.62232
-25.413	0.18432	0.00404	-1.69108
-24.622	0.17437	0.00403	-1.74658
-23.957	0.16496	0.00402	-1.80205
-23.317	0.15463	0.00401	-1.86672
-22.633	0.14646	0.00399	-1.921
-22.076	0.14309	0.00399	-1.94428
-21.496	0.13706	0.00398	-1.98734
-20.983	0.13047	0.00397	-2.03661
-20.492	0.12425	0.00396	-2.08546
-19.919	0.12174	0.00395	-2.10587
-19.377	0.11701	0.00394	-2.1455
-18.864	0.11154	0.00393	-2.19337
-18.296	0.10783	0.00393	-2.2272
-17.756	0.10518	0.00392	-2.25208
-17.185	0.09907	0.00391	-2.31193
-16.62	0.09725	0.0039	-2.33047
-16.073	0.09378	0.00389	-2.3668
-15.489	0.09001	0.00388	-2.40783
-14.921	0.08562	0.00387	-2.45784
-14.347	0.08229	0.00387	-2.49751
-13.699	0.07914	0.00386	-2.53654
-13.158	0.07625	0.00385	-2.57374
-12.486	0.07314	0.00384	-2.61538
-11.845	0.07064	0.00383	-2.65016
-11.171	0.06769	0.00382	-2.69282
-10.464	0.06425	0.00381	-2.74497
-9.71	0.06197	0.0038	-2.7811
-8.938	0.05849	0.00379	-2.8389
-8.214	0.05637	0.00378	-2.87582
-7.486	0.05387	0.00377	-2.92118
-6.659	0.05072	0.00375	-2.98143

-5.891	0.04893	0.00374	-3.01736
-5.139	0.04601	0.00373	-3.0789
-4.294	0.04412	0.00372	-3.12084
-3.391	0.04199	0.00371	-3.17032
-2.568	0.04013	0.0037	-3.21563
-1.762	0.03829	0.00369	-3.26257
-0.931	0.03649	0.00368	-3.31072
-0.079	0.03491	0.00366	-3.35498
0.748	0.03336	0.00365	-3.4004
1.588	0.03192	0.00364	-3.44452
2.388	0.03053	0.00363	-3.48905
3.167	0.02927	0.00362	-3.53119
4.021	0.02806	0.00361	-3.57341
4.839	0.02691	0.0036	-3.61526
5.622	0.0258	0.00359	-3.65738
6.464	0.02478	0.00358	-3.69772
7.257	0.02378	0.00357	-3.73891
8.055	0.02288	0.00356	-3.77749
8.839	0.02202	0.00355	-3.8158
9.555	0.02117	0.00354	-3.85517
10.354	0.0204	0.00353	-3.89222
11.1	0.01966	0.00352	-3.92917
11.827	0.01897	0.00351	-3.9649
12.584	0.01836	0.0035	-3.99758
13.289	0.01771	0.00349	-4.03363
14.047	0.01715	0.00348	-4.06576
14.726	0.01661	0.00348	-4.09775
15.379	0.0161	0.00347	-4.12894
16.07	0.01563	0.00346	-4.15856
16.742	0.01519	0.00345	-4.18712
17.345	0.01478	0.00344	-4.21448
17.926	0.01438	0.00344	-4.24192
18.51	0.01401	0.00343	-4.26798
19.1	0.01367	0.00342	-4.29255
19.619	0.01336	0.00342	-4.31549
20.173	0.01306	0.00341	-4.3382
20.67	0.01277	0.00341	-4.36066
21.126	0.01251	0.0034	-4.38123
21.605	0.01228	0.00339	-4.39978
22.011	0.01206	0.00339	-4.41786
22.419	0.01185	0.00339	-4.43543
22.811	0.01166	0.00338	-4.45159

23.178	0.01149	0.00338	-4.46628
23.513	0.01134	0.00337	-4.47942
23.805	0.0112	0.00337	-4.49184
24.077	0.01105	0.00337	-4.50532
24.33	0.01094	0.00336	-4.51533
24.577	0.01084	0.00336	-4.52451
24.774	0.01075	0.00336	-4.53285
24.98	0.01066	0.00336	-4.54126
25.127	0.01059	0.00335	-4.54785
25.281	0.01053	0.00335	-4.55353
25.402	0.01048	0.00335	-4.55829
25.477	0.01043	0.00335	-4.56307
25.556	0.0104	0.00335	-4.56595
25.616	0.01038	0.00335	-4.56787
25.622	0.01039	0.00335	-4.56691
25.629	0.01037	0.00335 --	
25.646	0.01038	0.00335	-4.56787
25.662	0.01034	0.00335	-4.57174
25.674	0.01037	0.00335	-4.56884
25.678	0.01036	0.00335 --	
25.679	0.01034	0.00335 --	
25.715	0.01033	0.00335	-4.5727
25.727	0.01032	0.00335	-4.57367
25.732	0.01033	0.00335 --	
25.733	0.01033	0.00335 --	
25.737	0.01031	0.00335 --	
25.748	0.01032	0.00335 --	
25.755	0.01031	0.00335 --	
25.755	0.01031	0.00335 --	
25.757	0.01032	0.00335	-4.57367
28.868	0.01026	0.00331	-4.5795
28.919	0.01067	0.00331 --	
28.986	0.01036	0.00331	-4.5698
29.054	0.00974	0.00331	-4.63151
29.174	0.00949	0.00331	-4.65752
29.453	0.01019	0.00331	-4.58635
29.823	0.00971	0.0033	-4.6346
30.412	0.00906	0.0033	-4.70389
31.092	0.00895	0.00329	-4.7161
31.913	0.00911	0.00328	-4.69838
32.854	0.00877	0.00327	-4.73642
33.925	0.00803	0.00326	-4.82457

35.128	0.00775	0.00325	-4.86006
36.305	0.00734	0.00323	-4.91442
37.59	0.00706	0.00322	-4.95331
38.813	0.00681	0.00321	-4.98936
40.008	0.00657	0.00319	-5.02524
41.229	0.00633	0.00318	-5.06246
42.305	0.00619	0.00317	-5.08482
43.346	0.00594	0.00316	-5.12605
44.367	0.0058	0.00315	-5.1499
45.219	0.00573	0.00314	-5.16204
46.099	0.00562	0.00313	-5.18142
46.826	0.0055	0.00313	-5.20301
47.548	0.0054	0.00312	-5.22136
48.22	0.00517	0.00311	-5.26488
48.862	0.00509	0.00311	-5.28048
49.523	0.00499	0.0031	-5.30032
50.094	0.00505	0.0031	-5.28837
50.737	0.00496	0.00309	-5.30635
51.431	0.00486	0.00308	-5.32672
52.113	0.00478	0.00308	-5.34331
52.804	0.00451	0.00307	-5.40146
53.608	0.00458	0.00306	-5.38606
54.387	0.00448	0.00305	-5.40813
55.259	0.0044	0.00305	-5.42615
56.115	0.0043	0.00304	-5.44914
57.002	0.00399	0.00303	-5.52396
57.933	0.00411	0.00302	-5.49433
58.824	0.00403	0.00301	-5.51399
59.828	0.00394	0.003	-5.53657
60.718	0.00362	0.003	-5.62128
61.63	0.00365	0.00299	-5.61303
62.575	0.00358	0.00298	-5.63239
63.451	0.00351	0.00297	-5.65214
64.322	0.00343	0.00296	-5.6752
65.221	0.00337	0.00296	-5.69284
66.041	0.00329	0.00295	-5.71687
66.901	0.00324	0.00294	-5.73218
67.684	0.00318	0.00294	-5.75087
68.494	0.00313	0.00293	-5.76672
69.301	0.00307	0.00292	-5.78608
70.069	0.00301	0.00291	-5.80582
70.812	0.00297	0.00291	-5.81919

71.652	0.00292	0.0029	-5.83617
72.413	0.00287	0.0029	-5.85344
73.231	0.00282	0.00289	-5.87102
74.019	0.00277	0.00288	-5.88891
74.807	0.00272	0.00288	-5.90712
75.654	0.00269	0.00287	-5.91821
76.46	0.00264	0.00286	-5.93698
77.312	0.00258	0.00285	-5.95997
78.156	0.00254	0.00285	-5.97559
79.003	0.00251	0.00284	-5.98747
79.862	0.00247	0.00283	-6.00354
80.689	0.00243	0.00283	-6.01986
81.553	0.00239	0.00282	-6.03646
82.426	0.00234	0.00281	-6.0576
83.256	0.00232	0.00281	-6.06619
84.119	0.00227	0.0028	-6.08798
84.963	0.00224	0.00279	-6.10128
85.8	0.00221	0.00279	-6.11476
86.658	0.00217	0.00278	-6.13303
87.501	0.00214	0.00277	-6.14695
88.297	0.00211	0.00277	-6.16107
89.159	0.00208	0.00276	-6.17539
89.986	0.00205	0.00275	-6.18992
90.83	0.00202	0.00275	-6.20466
91.638	0.002	0.00274	-6.21461
92.443	0.00197	0.00274	-6.22972
93.281	0.00194	0.00273	-6.24507
94.114	0.00191	0.00272	-6.26065
94.949	0.00189	0.00272	-6.27118
95.765	0.00186	0.00271	-6.28718
96.584	0.00183	0.00271	-6.30344
97.435	0.00181	0.0027	-6.31443
98.285	0.00178	0.00269	-6.33114
99.064	0.00176	0.00269	-6.34244
99.963	0.00175	0.00268	-6.34814
100.757	0.00172	0.00268	-6.36543
101.633	0.0017	0.00267	-6.37713
102.422	0.00168	0.00266	-6.38896
103.242	0.00166	0.00266	-6.40094
104.106	0.00164	0.00265	-6.41306
104.94	0.00161	0.00265	-6.43152
105.826	0.0016	0.00264	-6.43775

106.585	0.00158	0.00263	-6.45033
107.415	0.00156	0.00263	-6.46307
108.283	0.00154	0.00262	-6.47597
109.089	0.00152	0.00262	-6.48904
109.939	0.0015	0.00261	-6.50229
110.754	0.00149	0.00261	-6.50898
111.609	0.00147	0.0026	-6.52249
112.474	0.00145	0.00259	-6.53619
113.26	0.00144	0.00259	-6.54311
114.102	0.00142	0.00258	-6.5571
114.989	0.00141	0.00258	-6.56417
115.772	0.00138	0.00257	-6.58567
116.664	0.00137	0.00257	-6.59294
117.455	0.00135	0.00256	-6.60765
118.265	0.00135	0.00256	-6.60765
119.134	0.00133	0.00255	-6.62258
119.948	0.00132	0.00254	-6.63012
120.739	0.00131	0.00254	-6.63773
121.634	0.00129	0.00253	-6.65311
122.432	0.00128	0.00253	-6.6609
123.31	0.00126	0.00252	-6.67664
124.117	0.00126	0.00252	-6.67664
124.915	0.00124	0.00251	-6.69264
125.778	0.00123	0.00251	-6.70074
126.609	0.00122	0.0025	-6.7089
127.487	0.00121	0.0025	-6.71713
128.306	0.00119	0.00249	-6.7338
129.125	0.00118	0.00249	-6.74224
130.006	0.00117	0.00248	-6.75075
130.796	0.00116	0.00248	-6.75934
131.614	0.00115	0.00247	-6.76799
132.48	0.00114	0.00247	-6.77673
133.284	0.00114	0.00246	-6.77673
134.158	0.00113	0.00246	-6.78554
134.966	0.00111	0.00245	-6.8034
135.769	0.00111	0.00245	-6.8034
136.641	0.00109	0.00244	-6.82158
137.417	0.00109	0.00244	-6.82158
138.304	0.00108	0.00243	-6.83079
139.058	0.00107	0.00243	-6.8401
139.88	0.00106	0.00242	-6.84949
140.787	0.00106	0.00242	-6.84949

141.603	0.00105	0.00241	-6.85897
142.396	0.00104	0.00241	-6.86853
143.279	0.00103	0.0024	-6.8782
144.09	0.00103	0.0024	-6.8782
144.964	0.00102	0.00239	-6.88795
145.745	0.00101	0.00239	-6.8978
146.62	0.00101	0.00238	-6.8978
147.472	9.99E-04	0.00238	-6.90905
148.275	9.90E-04	0.00237	-6.91733
149.123	9.88E-04	0.00237	-6.9196
149.996	9.77E-04	0.00236	-6.93062

Table S7. Viscosity measurements for hydrogenated trimer of dec-1-ene (**P2**)

T	visc	1/T	ln Pas
-60.957	6349.35	0.00472	8.75611
-60.001	2736.45	0.00469	7.91442
-59.102	8357.02	0.00468	9.03086
-58.139	5118.55	0.00465	8.54063
-57.319	30.0183	0.00464	3.40181
-56.489	18.0614	0.00462	2.89378
-55.79	14.8771	0.0046	2.69982
-55.19	16.2892	0.00459	2.7905
-54.556	12.2915	0.00458	2.50891
-53.968	12.0561	0.00457	2.48957
-53.089	11.6164	0.00455	2.45242
-51.926	9.9802	0.00452	2.3006
-50.486	7.0865	0.00449	1.95819
-48.726	5.33425	0.00446	1.67415
-46.693	4.31286	0.00442	1.4616
-44.745	3.47101	0.00438	1.24445
-42.753	2.84903	0.00434	1.04698
-40.904	2.05328	0.00431	0.71944
-39.108	1.65109	0.00428	0.50144
-37.46	1.37555	0.00425	0.31885
-35.956	1.14221	0.00422	0.13296
-34.478	0.99929	0.00419	-7.10E-04
-33.127	0.85866	0.00417	-0.15238
-31.958	0.75128	0.00415	-0.28598
-30.637	0.67033	0.00413	-0.39999
-29.376	0.59341	0.0041	-0.52187

-28.446	0.54558	0.00409	-0.60591
-27.35	0.49341	0.00407	-0.70641
-26.258	0.44866	0.00405	-0.80149
-25.239	0.41345	0.00404	-0.88322
-24.279	0.38593	0.00402	-0.9521
-23.267	0.35067	0.004	-1.04791
-22.208	0.32517	0.00399	-1.12341
-21.237	0.29875	0.00397	-1.20815
-20.185	0.27455	0.00396	-1.29262
-19.296	0.25547	0.00394	-1.36465
-18.318	0.23731	0.00393	-1.43839
-17.283	0.2162	0.00391	-1.53155
-16.169	0.2	0.00389	-1.60944
-15.056	0.18415	0.00388	-1.692
-13.897	0.16873	0.00386	-1.77946
-12.699	0.15576	0.00384	-1.85944
-11.446	0.14321	0.00382	-1.94344
-10.342	0.13298	0.00381	-2.01756
-9.175	0.12287	0.00379	-2.09663
-7.862	0.11318	0.00377	-2.17878
-6.61	0.10415	0.00375	-2.26192
-5.268	0.09718	0.00374	-2.33119
-4.016	0.08987	0.00372	-2.40939
-2.803	0.08263	0.0037	-2.49338
-1.509	0.07657	0.00368	-2.56955
-0.262	0.07139	0.00367	-2.6396
0.994	0.06655	0.00365	-2.7098
2.299	0.0617	0.00363	-2.78547
3.502	0.05774	0.00362	-2.85181
4.783	0.05387	0.0036	-2.92118
6	0.05019	0.00358	-2.99194
7.161	0.04663	0.00357	-3.06551
8.369	0.04385	0.00355	-3.12698
9.529	0.04129	0.00354	-3.18713
10.564	0.03901	0.00353	-3.24394
11.716	0.0368	0.00351	-3.30226
12.791	0.03475	0.0035	-3.35958
13.763	0.03303	0.00349	-3.41034
14.691	0.03145	0.00348	-3.45936
15.605	0.03006	0.00346	-3.50456
16.485	0.02881	0.00345	-3.54703
17.269	0.02768	0.00345	-3.58705

18.09	0.02662	0.00344	-3.62609
18.807	0.02573	0.00343	-3.6601
19.454	0.02487	0.00342	-3.69409
20.119	0.02413	0.00341	-3.7243
20.685	0.02348	0.00341	-3.75161
21.18	0.0229	0.0034	-3.77662
21.705	0.02237	0.00339	-3.80003
22.13	0.02189	0.00339	-3.82173
22.562	0.02146	0.00338	-3.84156
22.907	0.02114	0.00338	-3.85659
23.25	0.0208	0.00338	-3.8728
23.546	0.02051	0.00337	-3.88684
23.78	0.02026	0.00337	-3.89911
24.009	0.02006	0.00337	-3.90903
24.188	0.01985	0.00336	-3.91955
24.368	0.01974	0.00336	-3.92511
24.535	0.0196	0.00336	-3.93223
24.642	0.0195	0.00336	-3.93734
24.726	0.01941	0.00336	-3.94197
24.752	0.01935	0.00336	-3.94506
24.85	0.01928	0.00336	-3.94869
24.888	0.01922	0.00336	-3.9518
24.893	0.01926	0.00336	-3.94972
24.931	0.01923	0.00336	-3.95128
24.934	0.01923	0.00336	-3.95128
24.941	0.0192	0.00336	-3.95284
24.945	0.01916	0.00336	-3.95493
24.947	0.01919	0.00336	-3.95337
24.949	0.01919	0.00336	-3.95337
24.95	0.01918	0.00336	-3.95389
24.951	0.01919	0.00336	-3.95337
24.961	0.01919	0.00336	-3.95337
24.961	0.01919	0.00336	-3.95337
24.965	0.01917	0.00336	-3.95441
31.57	0.0166	0.00328	-4.09835
31.758	0.01663	0.00328	-4.09655
31.984	0.01559	0.00328	-4.16113
32.186	0.01593	0.00328	-4.13955
32.398	0.01625	0.00327	-4.11966
32.631	0.01514	0.00327	-4.19042
32.826	0.01629	0.00327	-4.1172
32.993	0.01538	0.00327	-4.17469

33.213	0.01561	0.00327	-4.15984
33.433	0.01538	0.00326	-4.17469
33.746	0.01509	0.00326	-4.19372
34.215	0.01492	0.00326	-4.20505
34.777	0.0147	0.00325	-4.21991
35.55	0.01327	0.00324	-4.32225
36.388	0.01277	0.00323	-4.36066
37.334	0.01228	0.00322	-4.39978
38.42	0.01194	0.00321	-4.42786
39.561	0.01222	0.0032	-4.40468
40.742	0.01084	0.00319	-4.52451
41.932	0.01106	0.00318	-4.50442
43.087	0.0108	0.00316	-4.52821
44.234	0.01041	0.00315	-4.56499
45.384	0.00982	0.00314	-4.62333
46.454	0.00913	0.00313	-4.69619
47.413	0.00942	0.00312	-4.66492
48.319	0.00861	0.00311	-4.75483
49.197	0.00864	0.0031	-4.75135
49.991	0.00857	0.0031	-4.75949
50.73	0.00829	0.00309	-4.79271
51.462	0.00784	0.00308	-4.84852
52.137	0.00802	0.00308	-4.82582
52.819	0.00787	0.00307	-4.8447
53.444	0.00769	0.00306	-4.86783
54.159	0.00751	0.00306	-4.89152
54.884	0.00741	0.00305	-4.90492
55.583	0.00726	0.00304	-4.92538
56.323	0.0071	0.00304	-4.94766
57.109	0.00686	0.00303	-4.98205
57.888	0.0067	0.00302	-5.00565
58.722	0.00653	0.00301	-5.03135
59.569	0.00648	0.00301	-5.03903
60.438	0.00633	0.003	-5.06246
61.368	0.00618	0.00299	-5.08644
62.241	0.00604	0.00298	-5.10935
63.208	0.00575	0.00297	-5.15856
64.066	0.00577	0.00297	-5.15508
64.956	0.00549	0.00296	-5.20483
65.909	0.00537	0.00295	-5.22693
66.736	0.00524	0.00294	-5.25143
67.568	0.0053	0.00294	-5.24005

68.474	0.00501	0.00293	-5.29632
69.303	0.00508	0.00292	-5.28244
70.163	0.005	0.00291	-5.29832
70.937	0.00491	0.00291	-5.31648
71.726	0.00481	0.0029	-5.33706
72.564	0.00453	0.00289	-5.39703
73.365	0.00465	0.00289	-5.37089
74.203	0.00435	0.00288	-5.43758
74.954	0.00426	0.00287	-5.45849
75.757	0.00418	0.00287	-5.47744
76.592	0.00411	0.00286	-5.49433
77.394	0.00427	0.00285	-5.45614
78.188	0.00395	0.00285	-5.53404
79.032	0.00387	0.00284	-5.5545
79.854	0.00379	0.00283	-5.57539
80.691	0.00373	0.00283	-5.59135
81.489	0.00392	0.00282	-5.54166
82.385	0.00372	0.00281	-5.59403
83.245	0.00365	0.00281	-5.61303
84.084	0.00359	0.0028	-5.6296
85.006	0.00353	0.00279	-5.64646
85.823	0.00347	0.00279	-5.6636
86.649	0.00341	0.00278	-5.68104
87.524	0.00335	0.00277	-5.69879
88.34	0.0033	0.00277	-5.71383
89.171	0.00324	0.00276	-5.73218
90.019	0.0032	0.00275	-5.7446
90.843	0.00315	0.00275	-5.76035
91.714	0.00309	0.00274	-5.77958
92.503	0.00305	0.00274	-5.79261
93.327	0.003	0.00273	-5.80914
94.174	0.00295	0.00272	-5.82595
94.981	0.00291	0.00272	-5.8396
95.779	0.00287	0.00271	-5.85344
96.621	0.00283	0.00271	-5.86748
97.429	0.00278	0.0027	-5.8853
98.281	0.00274	0.00269	-5.8998
99.081	0.00271	0.00269	-5.91081
99.928	0.00267	0.00268	-5.92568
100.808	0.00263	0.00268	-5.94077
101.617	0.0026	0.00267	-5.95224
102.469	0.00256	0.00266	-5.96775

103.302	0.00252	0.00266	-5.9835
104.109	0.00248	0.00265	-5.9995
104.998	0.00245	0.00265	-6.01167
105.818	0.00242	0.00264	-6.02399
106.615	0.00238	0.00263	-6.04065
107.495	0.00235	0.00263	-6.05334
108.298	0.00231	0.00262	-6.07051
109.19	0.00229	0.00262	-6.0792
109.991	0.00226	0.00261	-6.09239
110.81	0.00223	0.00261	-6.10575
111.651	0.0022	0.0026	-6.1193
112.457	0.00217	0.00259	-6.13303
113.328	0.00214	0.00259	-6.14695
114.127	0.00212	0.00258	-6.15634
114.949	0.00209	0.00258	-6.17059
115.805	0.00207	0.00257	-6.18021
116.609	0.00203	0.00257	-6.19972
117.443	0.00201	0.00256	-6.20962
118.291	0.00199	0.00256	-6.21962
119.096	0.00196	0.00255	-6.23481
119.955	0.00194	0.00254	-6.24507
120.739	0.00191	0.00254	-6.26065
121.602	0.00189	0.00253	-6.27118
122.49	0.00187	0.00253	-6.28182
123.295	0.00185	0.00252	-6.29257
124.096	0.00183	0.00252	-6.30344
124.971	0.0018	0.00251	-6.31997
125.811	0.00178	0.00251	-6.33114
126.661	0.00176	0.0025	-6.34244
127.41	0.00174	0.0025	-6.35387
128.307	0.00172	0.00249	-6.36543
129.164	0.00171	0.00249	-6.37126
129.989	0.00168	0.00248	-6.38896
130.839	0.00166	0.00248	-6.40094
131.653	0.00165	0.00247	-6.40698
132.473	0.00163	0.00247	-6.41918
133.234	0.00162	0.00246	-6.42533
134.128	0.0016	0.00246	-6.43775
134.944	0.00158	0.00245	-6.45033
135.799	0.00156	0.00245	-6.46307
136.596	0.00155	0.00244	-6.4695
137.486	0.00153	0.00244	-6.48249

138.308	0.00152	0.00243	-6.48904
139.103	0.0015	0.00243	-6.50229
139.977	0.00149	0.00242	-6.50898
140.794	0.00147	0.00242	-6.52249
141.671	0.00146	0.00241	-6.52932
142.467	0.00144	0.00241	-6.54311
143.287	0.00143	0.0024	-6.55008
144.166	0.00142	0.0024	-6.5571
144.979	0.0014	0.00239	-6.57128
145.792	0.00139	0.00239	-6.57845
146.629	0.00138	0.00238	-6.58567
147.458	0.00137	0.00238	-6.59294
148.319	0.00135	0.00237	-6.60765
149.128	0.00134	0.00237	-6.61509
149.955	0.00133	0.00236	-6.62258
148.319	0.00135	0.00237	-6.60715
149.128	0.00134	0.00237	-6.61743
149.955	0.00133	0.00236	-6.62398

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