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SUPPLEMENTARY MATERIAL TO
**Densities, refractive indices and viscosities of the binary
mixtures of dimethyl phthalate or dimethyl adipate
with tetrahydrofuran**

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TABLE S-I. Densities, ρ , excess molar volumes, V^E , refractive indices, n_D , refractive index deviations, Δn_D , viscosities, η , and viscosity deviations, $\Delta\eta$, for the investigated binary mixtures at different temperatures (288.15 to 323.15 K) and atmospheric pressure

x_1	$\rho / 10^3 \text{ kg m}^{-3}$	$V^E / 10^{-6} \text{ m}^3 \text{ mol}^{-1}$	n_D	Δn_D	$\eta / \text{mPa s}$	$\Delta\eta / \text{mPa s}$
Dimethyl phthalate (1) + tetrahydrofuran (2)						
$T = 288.15 \text{ K}$						
0.0000	0.893223	–	1.41035	–	0.52938	–
0.1001	0.951806	–0.2981	1.43213	0.0110	0.78600	–2.0116
0.2019	1.000397	–0.4856	1.44958	0.0175	1.1555	–3.9489
0.2966	1.038220	–0.6014	1.46331	0.0211	1.6460	–5.6042
0.3989	1.072728	–0.6633	1.47543	0.0222	2.4016	–7.1667
0.5009	1.101964	–0.6745	1.48538	0.0212	3.5339	–8.3457
0.5992	1.125852	–0.6028	1.49360	0.0189	5.0064	–9.1006
0.7006	1.147415	–0.5133	1.50114	0.0155	7.2867	–9.1180
0.8013	1.165669	–0.3358	1.50733	0.0109	10.581	–8.1055
0.9004	1.181524	–0.1394	1.51266	0.0056	15.675	–5.2571
1.0000	1.196257	–	1.51779	–	23.189	–
$T = 293.15 \text{ K}$						
0.0000	0.887792	–	1.40769	–	0.50849	–
0.1001	0.946485	–0.3080	1.42959	0.0111	0.74260	–1.4794
0.2019	0.995169	–0.5000	1.44709	0.0176	1.0727	–2.8918
0.2966	1.033099	–0.6201	1.46091	0.0212	1.5055	–4.0800
0.3989	1.067701	–0.6834	1.47309	0.0223	2.1555	–5.1812
0.5009	1.097024	–0.6947	1.48303	0.0213	3.1066	–5.9761
0.5992	1.120978	–0.6204	1.49133	0.0189	4.3128	–6.4525
0.7006	1.142600	–0.5274	1.49890	0.0156	6.1205	–6.3805

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TABLE S-I. Continued

x_1	$\rho / 10^3 \text{ kg m}^{-3}$	$V^E / 10^{-6} \text{ m}^3 \text{ mol}^{-1}$	n_D	Δn_D	$\eta / \text{mPa s}$	$\Delta \eta / \text{mPa s}$
Dimethyl phthalate (1) + tetrahydrofuran (2)						
$T = 293.15 \text{ K}$						
0.8013	1.160910	-0.3454	1.50512	0.0109	8.6381	-5.5867
0.9004	1.176814	-0.1440	1.51051	0.0056	12.375	-3.5461
1.0000	1.191593	–	1.51565	–	17.626	–
$T = 298.15 \text{ K}$						
0.0000	0.882330	–	1.40498	–	0.48821	–
0.1001	0.941143	-0.3188	1.42706	0.0112	0.70282	-1.1175
0.2019	0.989952	-0.5181	1.44459	0.0177	0.99857	-2.1765
0.2966	1.027969	-0.6403	1.45851	0.0213	1.3832	-3.0521
0.3989	1.062668	-0.7050	1.47070	0.0224	1.9472	-3.8495
0.5009	1.092073	-0.7154	1.48069	0.0213	2.7556	-4.3985
0.5992	1.116104	-0.6395	1.48906	0.0190	3.7563	-4.7059
0.7006	1.137790	-0.5429	1.49668	0.0156	5.2137	-4.5979
0.8013	1.156155	-0.3560	1.50295	0.0110	7.1807	-3.9710
0.9004	1.172107	-0.1490	1.50834	0.0056	9.9981	-2.4724
1.0000	1.186933	–	1.51354	–	13.796	–
$T = 303.15 \text{ K}$						
0.0000	0.876836	–	1.40227	–	0.46834	–
0.1001	0.935781	-0.3307	1.42451	0.0113	0.66597	-0.8632
0.2019	0.984707	-0.5362	1.44210	0.0178	0.93136	-1.6766
0.2966	1.022833	-0.6625	1.45604	0.0214	1.2760	-2.3356
0.3989	1.057632	-0.7285	1.46832	0.0225	1.7694	-2.9263
0.5009	1.087120	-0.7378	1.47837	0.0214	2.4631	-3.3136
0.5992	1.111228	-0.6598	1.48677	0.0191	3.3033	-3.5152
0.7006	1.132980	-0.5596	1.49444	0.0157	4.4963	-3.3968
0.8013	1.151403	-0.3675	1.50076	0.0110	6.0632	-2.8970
0.9004	1.167407	-0.1550	1.50619	0.0056	8.2385	-1.7720
1.0000	1.182276	–	1.51146	–	11.066	–
$T = 308.15 \text{ K}$						
0.0000	0.871306	–	1.39957	–	0.44865	–
0.1001	0.930389	-0.3431	1.42195	0.0114	0.61968	-0.6914
0.2019	0.979440	-0.5555	1.43956	0.0178	0.86978	-1.3183
0.2966	1.017681	-0.6861	1.45353	0.0214	1.1814	-1.8226
0.3989	1.052580	-0.7530	1.46589	0.0225	1.6162	-2.2691
0.5009	1.082165	-0.7622	1.47597	0.0214	2.2168	-2.5473
0.5992	1.106351	-0.6817	1.48450	0.0191	2.9301	-2.6809
0.7006	1.128170	-0.5774	1.49223	0.0157	3.9201	-2.5645
0.8013	1.146650	-0.3796	1.49859	0.0110	5.1889	-2.1632
0.9004	1.162703	-0.1607	1.50400	0.0055	6.9065	-1.2994
1.0000	1.177622	–	1.50943	–	9.0640	–

TABLE S-I. Continued

x_1	$\rho / 10^3 \text{ kg m}^{-3}$	$V^E / 10^{-6} \text{ m}^3 \text{ mol}^{-1}$	n_D	Δn_D	$\eta / \text{mPa s}$	$\Delta \eta / \text{mPa s}$
Dimethyl phthalate (1) + tetrahydrofuran (2)						
$T = 313.15 \text{ K}$						
0.0000	0.865736	–	1.39685	–	0.42859	–
0.1001	0.924971	–0.3568	1.41934	0.0114	0.65314	–0.4891
0.2019	0.974157	–0.5767	1.43700	0.0178	0.81357	–1.0544
0.2966	1.012514	–0.7114	1.45096	0.0213	1.0972	–1.4460
0.3989	1.047524	–0.7800	1.46338	0.0224	1.4828	–1.7897
0.5009	1.077208	–0.7890	1.47349	0.0213	2.0074	–1.9923
0.5992	1.101471	–0.7053	1.48220	0.0191	2.6187	–2.0818
0.7006	1.123357	–0.5964	1.49001	0.0157	3.4504	–1.9731
0.8013	1.141900	–0.3931	1.49646	0.0111	4.4942	–1.6472
0.9004	1.158004	–0.1674	1.50189	0.0055	5.8703	–0.9776
1.0000	1.172969	–	1.50736	–	7.5580	–
$T = 318.15 \text{ K}$						
0.0000	0.860127	–	1.39417	–	0.40722	–
0.1001	0.919522	–0.3713	1.41669	0.0114	0.55702	–0.4500
0.2019	0.968881	–0.6025	1.43433	0.0177	0.76188	–0.8552
0.2966	1.007333	–0.7388	1.44842	0.0213	1.0212	–1.1634
0.3989	1.042457	–0.8089	1.46096	0.0225	1.3652	–1.4324
0.5009	1.072177	–0.8098	1.47117	0.0214	1.8279	–1.5810
0.5992	1.096585	–0.7305	1.47999	0.0193	2.3566	–1.6413
0.7006	1.118541	–0.6168	1.48780	0.0158	3.0628	–1.5428
0.8013	1.137144	–0.4070	1.49430	0.0111	3.9331	–1.2759
0.9004	1.153304	–0.1745	1.49978	0.0056	5.0561	–0.7467
1.0000	1.168316	–	1.50524	–	6.3997	–
$T = 323.15 \text{ K}$						
0.0000	0.854771	–	1.39130	–	0.38401	–
0.1001	0.914043	–0.3608	1.41407	0.0116	0.49574	–0.3977
0.2019	0.963530	–0.6012	1.43151	0.0176	0.71370	–0.7018
0.2966	1.002133	–0.7473	1.44588	0.0214	0.95223	–0.9472
0.3989	1.037375	–0.8218	1.45833	0.0224	1.2606	–1.1615
0.5009	1.067215	–0.8267	1.46865	0.0213	1.6739	–1.2694
0.5992	1.091695	–0.7455	1.47763	0.0193	2.1356	–1.3099
0.7006	1.113723	–0.6295	1.48554	0.0158	2.7388	–1.2248
0.8013	1.132391	–0.4161	1.49210	0.0111	3.4739	–1.0042
0.9004	1.148606	–0.1791	1.49765	0.0056	4.4040	–0.5804
1.0000	1.163668	–	1.50320	–	5.4933	–
Dimethyl adipate (1) + tetrahydrofuran (2)						
$T = 288.15 \text{ K}$						
0.0000	0.893293	–	1.40963	–	0.52194	–
0.1000	0.925379	–0.0236	1.41374	0.0020	0.69104	–0.1538
0.2000	0.952013	–0.0457	1.41702	0.0032	0.88883	–0.2790
0.3000	0.974375	–0.0557	1.41970	0.0038	1.1197	–0.3711

TABLE S-I. Continued

x_1	$\rho / 10^3 \text{ kg m}^{-3}$	$V^E / 10^{-6} \text{ m}^3 \text{ mol}^{-1}$	n_D	Δn_D	$\eta / \text{mPa s}$	$\Delta \eta / \text{mPa s}$
Dimethyl adipate (1) + tetrahydrofuran (2)						
$T = 288.15 \text{ K}$						
0.3994	0.993294	-0.0551	1.42195	0.0040	1.3843	-0.4275
0.5001	1.009824	-0.0496	1.42390	0.0038	1.6904	-0.4466
0.5909	1.022900	-0.0438	1.42543	0.0035	1.9975	-0.4327
0.5999	1.024112	-0.0430	1.42560	0.0035	2.0280	-0.4313
0.7003	1.036767	-0.0360	1.42703	0.0028	2.4094	-0.3741
0.7999	1.047887	-0.0263	1.42832	0.0020	2.8224	-0.2828
0.8937	1.057253	-0.0138	1.42940	0.0011	3.2410	-0.1671
0.8996	1.057811	-0.0130	1.42945	0.0011	3.2679	-0.1593
1.0000	1.066794	—	1.43050	—	3.7514	—
$T = 293.15 \text{ K}$						
0.0000	0.887862	—	1.40698	—	0.50196	—
0.1000	0.920056	-0.0282	1.41123	0.0021	0.65616	-0.1245
0.2000	0.946777	-0.0528	1.41460	0.0033	0.83538	-0.2241
0.3000	0.969213	-0.0642	1.41735	0.0039	1.0425	-0.2957
0.3994	0.988197	-0.0643	1.41967	0.0041	1.2771	-0.3381
0.5001	1.004778	-0.0582	1.42166	0.0040	1.5448	-0.3512
0.5909	1.017898	-0.0517	1.42323	0.0036	1.8108	-0.3382
0.5999	1.019114	-0.0508	1.42341	0.0036	1.8380	-0.3361
0.7003	1.031808	-0.0423	1.42487	0.0029	2.1629	-0.2911
0.7999	1.042963	-0.0308	1.42619	0.0021	2.5137	-0.2179
0.8937	1.052357	-0.0161	1.42731	0.0012	2.8656	-0.1275
0.8996	1.052916	-0.0152	1.42735	0.0011	2.8878	-0.1217
1.0000	1.061928	—	1.42842	—	3.2894	—
$T = 298.15 \text{ K}$						
0.0000	0.882402	—	1.40432	—	0.47984	—
0.1000	0.914707	-0.0329	1.40869	0.0022	0.62287	-0.1000
0.2000	0.941520	-0.0605	1.41217	0.0034	0.78522	-0.1807
0.3000	0.964035	-0.0735	1.41500	0.0041	0.97313	-0.2358
0.3994	0.983085	-0.0741	1.41737	0.0043	1.1828	-0.2677
0.5001	0.999728	-0.0683	1.41942	0.0041	1.4199	-0.2753
0.5909	1.012886	-0.0603	1.42105	0.0037	1.6519	-0.2640
0.5999	1.014108	-0.0595	1.42121	0.0037	1.6760	-0.2618
0.7003	1.026843	-0.0494	1.42271	0.0030	1.9557	-0.2261
0.7999	1.038034	-0.0360	1.42408	0.0021	2.2549	-0.1689
0.8937	1.047457	-0.0192	1.42520	0.0012	2.5548	-0.0970
0.8996	1.048018	-0.0181	1.42525	0.0011	2.5742	-0.0919
1.0000	1.057056	—	1.42636	—	2.9101	—
$T = 303.15 \text{ K}$						
0.0000	0.876909	—	1.40164	—	0.45948	—
0.1000	0.909335	-0.0382	1.40615	0.0022	0.59091	-0.0830
0.2000	0.936245	-0.0689	1.40971	0.0035	0.74026	-0.1481

TABLE S-I. Continued

x_1	$\rho / 10^3 \text{ kg m}^{-3}$	$V^E / 10^{-6} \text{ m}^3 \text{ mol}^{-1}$	n_D	Δn_D	$\eta / \text{mPa s}$	$\Delta \eta / \text{mPa s}$
Dimethyl adipate (1) + tetrahydrofuran (2)						
$T = 303.15 \text{ K}$						
0.3000	0.958844	-0.0837	1.41265	0.0042	0.91111	-0.1916
0.3994	0.977965	-0.0851	1.41510	0.0044	1.0999	-0.2159
0.5001	0.994666	-0.0788	1.41720	0.0042	1.3111	-0.2207
0.5909	1.007872	-0.0701	1.41884	0.0038	1.5168	-0.2097
0.5999	1.009098	-0.0691	1.41901	0.0038	1.5407	-0.2051
0.7003	1.021874	-0.0571	1.42055	0.0031	1.7800	-0.1811
0.7999	1.033101	-0.0414	1.42194	0.0022	2.0420	-0.1326
0.8937	1.042555	-0.0222	1.42310	0.0012	2.2980	-0.0778
0.8996	1.043118	-0.0209	1.42319	0.0012	2.3143	-0.0741
1.0000	1.052185	—	1.42429	—	2.6037	—
$T = 308.15 \text{ K}$						
0.0000	0.871379	—	1.39896	—	0.43953	—
0.1000	0.903933	-0.0440	1.40358	0.0023	0.55977	-0.0701
0.2000	0.930947	-0.0781	1.40725	0.0036	0.69823	-0.1219
0.3000	0.953632	-0.0947	1.41025	0.0043	0.85393	-0.1565
0.3994	0.972827	-0.0968	1.41277	0.0045	1.0259	-0.1737
0.5001	0.989586	-0.0895	1.41495	0.0044	1.2174	-0.1738
0.5909	1.002844	-0.0803	1.41664	0.0039	1.3997	-0.1643
0.5999	1.004072	-0.0790	1.41680	0.0039	1.4211	-0.1600
0.7003	1.016894	-0.0652	1.41840	0.0032	1.6296	-0.1426
0.7999	1.028161	-0.0473	1.41984	0.0023	1.8579	-0.1038
0.8937	1.037648	-0.0256	1.42100	0.0013	2.0804	-0.0599
0.8996	1.038212	-0.0242	1.42105	0.0012	2.0947	-0.0567
1.0000	1.047308	—	1.42222	—	2.3425	—
$T = 313.15 \text{ K}$						
0.0000	0.865809	—	1.39627	—	0.41845	—
0.1000	0.898500	-0.0504	1.40100	0.0023	0.52938	-0.0594
0.2000	0.925623	-0.0881	1.40477	0.0037	0.65877	-0.1003
0.3000	0.948400	-0.1067	1.40786	0.0044	0.80241	-0.1269
0.3994	0.967674	-0.1097	1.41043	0.0046	0.95798	-0.1406
0.5001	0.984497	-0.1018	1.41269	0.0045	1.1343	-0.1358
0.5909	0.997805	-0.0914	1.41442	0.0040	1.2991	-0.1256
0.5999	0.999039	-0.0900	1.41459	0.0040	1.3155	-0.1245
0.7003	1.011908	-0.0743	1.41624	0.0032	1.5057	-0.1053
0.7999	1.023215	-0.0539	1.41771	0.0023	1.7003	-0.0803
0.8937	1.032733	-0.0291	1.41889	0.0013	1.8924	-0.0479
0.8996	1.033299	-0.0274	1.41895	0.0012	1.9053	-0.0451
1.0000	1.042427	—	1.42017	—	2.1214	—
$T = 318.15 \text{ K}$						
0.0000	0.860201	—	1.39357	—	0.39564	—
0.1000	0.893035	-0.0571	1.39841	0.0024	0.49891	-0.0505

TABLE S-I. Continued

x_1	$\rho / 10^3 \text{ kg m}^{-3}$	$V^E / 10^{-6} \text{ m}^3 \text{ mol}^{-1}$	n_D	Δn_D	$\eta / \text{mPa s}$	$\Delta \eta / \text{mPa s}$
Dimethyl adipate (1) + tetrahydrofuran (2)						
$T = 318.15 \text{ K}$						
0.2000	0.920275	-0.0990	1.40226	0.0038	0.62048	-0.0827
0.3000	0.943148	-0.1198	1.40544	0.0045	0.75434	-0.1026
0.3994	0.962501	-0.1233	1.40808	0.0047	0.90596	-0.1038
0.5001	0.979394	-0.1151	1.41038	0.0045	1.0630	-0.1016
0.5909	0.992751	-0.1030	1.41217	0.0041	1.2060	-0.0982
0.5999	0.993991	-0.1017	1.41235	0.0040	1.2209	-0.0971
0.7003	1.006909	-0.0838	1.41408	0.0033	1.3824	-0.0900
0.7999	1.018258	-0.0607	1.41557	0.0023	1.5555	-0.0700
0.8937	1.027811	-0.0329	1.41682	0.0013	1.7310	-0.0388
0.8996	1.028379	-0.0310	1.41691	0.0012	1.7425	-0.0363
1.0000	1.037539	–	1.41819	–	1.9332	–
$T = 323.15 \text{ K}$						
0.0000	0.854545	–	1.39088	–	0.34173	–
0.1000	0.887537	-0.0650	1.39578	0.0024	0.47056	-0.0160
0.2000	0.914900	-0.1113	1.39974	0.0038	0.58774	-0.0436
0.3000	0.937873	-0.1342	1.40300	0.0046	0.71316	-0.0631
0.3994	0.957311	-0.1385	1.40576	0.0048	0.84589	-0.0743
0.5001	0.974273	-0.1294	1.40812	0.0046	0.99290	-0.0731
0.5909	0.987687	-0.1162	1.40998	0.0042	1.1317	-0.0658
0.5999	0.988931	-0.1147	1.41015	0.0041	1.1464	-0.0641
0.7003	1.001900	-0.0944	1.41191	0.0033	1.3023	-0.0537
0.7999	1.013293	-0.0683	1.41348	0.0024	1.4580	-0.0422
0.8937	1.022881	-0.0370	1.41476	0.0013	1.6088	-0.0273
0.8996	1.023450	-0.0348	1.41483	0.0012	1.6189	-0.0257
1.0000	1.032645	–	1.41614	–	1.7900	–