

Support Information

New Advances in the Determination of Energetic Surface Properties and Transition Temperatures of Poly Methyl Methacrylate Adsorbed on Alumina

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Table S1. Values of $RT\ln V_n$ (kJ/mol) of n-alkanes adsorbed on α -alumina, PMMA and PMMA/alumina at different recovery rates as a function of temperature.

α -Alumina					
T(K)	C5	C6	C7	C8	C9
303.15	9.016	12.760	16.318	19.961	23.494
313.15	8.146	11.738	15.132	18.606	21.963
323.15	7.512	10.964	14.206	17.522	20.715
328.15	7.273	10.630	13.769	16.978	20.063
333.15	7.067	10.358	13.423	16.556	19.562
338.15	6.988	10.223	13.225	16.436	19.120
343.15	6.557	9.718	12.638	15.619	18.467
348.15	6.402	9.497	12.342	15.242	18.014
353.15	6.420	9.440	12.201	15.017	17.694
363.15	5.660	8.640	11.337	14.084	16.665
373.15	4.852	7.783	10.405	13.070	15.581
378.15	4.455	7.337	9.894	12.489	14.927

383.15	4.349	7.179	9.667	12.129	14.549
388.15	4.079	6.934	9.424	11.942	14.296
393.15	3.865	6.702	9.151	11.624	13.926
398.15	3.648	6.478	8.890	11.320	13.574
403.15	3.392	6.202	8.562	10.931	13.121
408.15	3.379	6.254	8.556	10.899	13.057
413.15	3.133	5.997	8.314	10.623	12.741
423.15	2.539	5.996	8.331	10.283	11.833
433.15	-	5.542	7.818	9.722	11.280
443.15	-	5.111	7.584	9.493	11.022
453.15	-	4.408	6.802	8.695	10.370
463.15	-	3.907	6.413	8.412	10.198
473.15	-	-	6.076	8.098	9.890

PMMA

T(K)	C5	C6	C7	C8	C9
303.15	-0.580	2.437	5.366	8.363	11.294
313.15	-2.014	0.843	3.602	6.125	9.175
323.15	-4.086	-1.332	1.312	4.016	6.643
328.15	-5.409	-2.577	0.140	2.818	5.618
333.15	-6.601	-3.560	-0.643	2.339	5.242
338.15	-2.765	0.053	2.741	5.617	8.055
343.15	-4.064	-1.396	1.137	3.724	6.225
348.15	-5.545	-2.983	-0.562	1.908	4.290
353.15	-6.446	-3.958	-1.620	0.766	3.059
363.15	-7.548	-5.147	-2.814	-0.640	1.538
373.15	-8.631	-6.162	-3.888	-1.577	0.631
378.15	-9.665	-6.863	-4.286	-1.671	0.837
383.15	-10.478	-7.190	-4.172	-1.115	1.830
388.15	-6.265	-3.528	-1.054	1.448	3.835
393.15	-3.460	-1.018	1.156	3.350	5.427
398.15	-3.703	-1.366	0.686	2.752	4.697
403.15	-4.538	-2.277	-0.323	1.639	3.477
408.15	-5.583	-3.328	-1.412	0.504	2.292
413.15	-6.233	-3.969	-2.085	-0.209	1.534
423.15	-8.207	-5.553	-3.467	-1.411	0.494
433.15	-10.660	-7.165	-4.725	-2.358	-0.171
443.15	-	-3.536	-1.387	0.550	2.301
453.15	-	-3.644	-1.741	-0.108	1.326
463.15	-	-4.030	-2.103	-0.584	0.711
473.15	-	-	-2.383	-0.924	0.369

PMMA/alumina, $\theta = 0.38$

T(K)	C5	C6	C7	C8	C9
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303.15	7.992	11.310	14.542	17.850	21.094
313.15	7.383	10.583	13.683	16.861	19.967
323.15	6.833	9.913	12.883	15.921	18.885
328.15	5.983	9.194	12.224	15.451	18.539
333.15	5.464	8.778	11.965	15.223	18.404
338.15	7.942	10.829	13.789	16.943	19.832
343.15	9.310	12.041	14.833	17.684	20.651
348.15	7.756	10.358	13.014	15.726	18.549
353.15	6.246	8.756	11.312	13.919	16.635
363.15	4.255	6.814	9.297	11.826	14.358
373.15	3.529	6.050	8.374	10.736	12.994
378.15	2.652	5.241	7.615	10.024	12.327
383.15	2.119	4.806	7.255	9.737	12.107
388.15	1.273	4.117	6.645	9.294	11.781
393.15	0.272	3.310	6.038	8.792	11.424
398.15	-0.386	2.745	5.524	8.324	10.994
403.15	2.409	5.406	8.026	10.656	13.153
408.15	7.417	10.099	12.394	14.690	16.851
413.15	6.560	9.189	11.355	13.581	15.634
423.15	4.979	7.744	9.889	12.065	14.057
433.15	3.735	6.847	8.984	11.112	13.041
443.15	-	5.668	8.151	10.404	12.455
453.15	-	7.016	9.392	11.453	13.290
463.15	-	5.974	8.537	10.584	12.364
473.15	-	-	7.598	9.633	11.435

PMMA/alumina, $\theta = 0.62$

T(K)	C5	C6	C7	C8	C9
303.15	7.983	11.248	14.427	17.680	20.870
313.15	7.408	10.525	13.481	16.635	19.655
323.15	6.712	9.743	12.604	15.653	18.568
328.15	5.954	9.059	11.984	15.101	18.080
333.15	5.070	8.316	11.373	14.627	17.739
338.15	7.079	10.113	12.956	16.119	18.760
343.15	9.127	11.981	14.643	17.472	20.161
348.15	7.789	10.298	12.811	15.479	18.208
353.15	6.764	9.174	11.583	14.138	16.754
363.15	5.030	7.585	9.922	12.394	14.724
373.15	3.533	6.051	8.329	10.730	12.986
378.15	2.643	5.216	7.531	9.968	12.255
383.15	1.190	3.909	6.343	8.899	11.300
388.15	-0.188	2.776	5.414	8.178	10.778
393.15	-1.213	1.976	4.795	7.739	10.511
398.15	2.733	5.475	7.859	10.340	12.656

403.15	6.747	9.094	11.271	13.529	15.824
408.15	6.106	8.354	10.407	12.528	14.684
413.15	5.511	7.688	9.639	11.644	13.683
423.15	4.490	6.776	8.697	10.647	12.620
433.15	-	5.432	7.717	9.993	12.264
443.15	-	7.922	9.873	11.859	13.832
453.15	-	7.098	9.116	11.074	12.995
463.15	-	6.362	8.535	10.456	12.304
473.15	-	-	8.339	10.237	11.905

PMMA/alumina, $\theta = 0.80$

T(K)	C5	C6	C7	C8	C9
303.15	7.695	10.937	14.092	17.321	20.486
313.15	7.161	10.233	13.208	16.251	19.225
323.15	6.186	9.195	12.095	15.062	17.953
328.15	5.145	8.207	11.152	14.164	17.099
333.15	3.936	7.158	10.254	13.419	16.506
338.15	6.201	9.192	12.052	15.110	17.710
343.15	8.993	11.801	14.471	17.198	19.840
348.15	7.654	10.315	12.830	15.399	17.878
353.15	6.222	8.751	11.217	13.733	16.248
363.15	4.735	7.275	9.643	12.055	14.371
373.15	3.878	6.448	8.818	11.228	13.534
378.15	2.938	5.662	8.163	10.702	13.134
383.15	2.083	4.959	7.586	10.248	12.798
388.15	0.755	3.965	6.882	9.834	12.667
393.15	3.383	6.500	9.302	12.131	14.837
398.15	8.907	11.608	13.995	16.398	18.677
403.15	8.458	10.985	13.180	15.383	17.459
408.15	8.263	10.646	12.676	14.708	16.608
413.15	7.524	9.897	11.874	13.845	15.680
423.15	6.530	9.050	11.026	12.974	14.773
433.15	-	7.746	10.013	12.210	14.233
443.15	-	9.895	12.272	14.104	15.568
453.15	-	8.744	10.914	12.787	14.448
463.15	-	7.766	10.052	11.868	13.436
473.15	-	-	9.383	11.178	12.769

PMMA/alumina, $\theta = 0.88$

T(K)	C5	C6	C7	C8	C9
303.15	7.506	10.685	13.777	16.942	20.041
313.15	6.830	9.874	12.821	15.836	18.781
323.15	6.140	9.134	12.018	14.967	17.842
328.15	5.093	8.136	11.063	14.055	16.972

333.15	4.391	7.577	10.637	13.866	16.716
338.15	6.579	9.530	12.349	15.365	17.927
343.15	9.383	12.141	14.761	17.438	20.029
348.15	7.782	10.394	12.862	15.381	17.812
353.15	6.614	9.177	11.589	14.050	16.419
363.15	4.921	7.434	9.775	12.160	14.448
373.15	3.555	6.067	8.382	10.735	12.985
378.15	2.989	5.615	8.023	10.468	12.805
383.15	1.875	4.716	7.310	9.939	12.456
388.15	0.085	3.338	6.296	9.289	12.162
393.15	3.654	6.640	9.320	12.025	14.608
398.15	7.831	10.485	12.829	15.189	17.424
403.15	7.125	9.596	11.740	13.893	15.918
408.15	6.621	8.917	10.948	12.981	14.973
413.15	6.025	8.399	10.377	12.347	14.183
423.15	4.842	7.431	9.464	11.468	13.322
433.15	-	6.232	8.588	10.871	12.979
443.15	-	8.907	11.082	13.043	14.817
453.15	-	8.608	10.675	12.455	14.028
463.15	-	7.664	9.827	11.541	13.016
473.15	-	-	10.177	11.857	12.345

PMMA/alumina, $\theta = 0.92$

T(K)	C5	C6	C7	C8	C9
303.15	7.257	10.352	13.360	16.439	19.452
313.15	6.537	9.480	12.326	15.237	18.078
323.15	5.684	8.515	11.236	14.020	16.727
328.15	4.971	7.878	10.670	13.525	16.302
333.15	4.204	7.301	10.273	13.311	16.271
338.15	6.361	9.275	12.059	15.037	17.565
343.15	8.761	11.458	14.020	16.636	19.166
348.15	7.581	10.194	12.664	15.186	17.618
353.15	6.405	8.934	11.313	13.739	16.074
363.15	4.874	7.333	9.623	11.956	14.192
373.15	3.541	6.047	8.256	10.703	12.947
378.15	2.982	5.555	7.913	10.307	12.594
383.15	2.012	4.826	7.394	9.997	12.488
388.15	0.309	3.564	6.524	9.518	12.394
393.15	3.575	6.499	9.121	11.767	14.293
398.15	7.785	10.359	12.629	14.915	17.077
403.15	7.658	10.084	12.187	14.300	16.285
408.15	7.212	9.537	11.515	13.494	15.343
413.15	6.468	8.815	10.771	12.719	14.532
423.15	5.074	7.686	9.738	11.760	13.632

433.15	-	6.357	8.734	11.039	13.166
443.15	-	8.807	10.953	12.886	14.633
453.15	-	8.281	10.333	12.099	13.660
463.15	-	7.680	9.771	11.425	12.845
473.15	-	-	9.343	10.931	12.338
PMMA/alumina, $\theta = 1.0$					
T(K)	C5	C6	C7	C8	C9
303.15	8.017	11.300	14.496	17.767	20.975
313.15	7.201	10.339	13.379	16.490	19.531
323.15	6.572	9.649	12.615	15.649	18.609
328.15	6.071	9.208	12.228	15.317	18.330
333.15	5.390	8.650	11.785	14.988	18.115
338.15	7.367	10.425	13.351	16.480	19.143
343.15	9.724	12.422	15.181	17.999	20.932
348.15	7.951	10.532	13.167	15.856	18.658
353.15	6.928	9.410	11.939	14.518	17.207
363.15	4.931	7.557	10.009	12.506	14.906
373.15	4.084	6.631	8.979	11.366	13.650
378.15	3.283	5.936	8.371	10.843	13.207
383.15	2.257	5.017	7.533	10.083	12.522
388.15	1.353	4.208	6.792	9.406	11.904
393.15	0.353	3.438	6.209	9.006	11.681
398.15	-0.539	2.661	5.504	8.368	11.101
403.15	1.813	4.863	7.530	10.208	12.752
408.15	7.018	9.783	12.151	14.520	16.754
413.15	6.236	8.805	10.954	13.094	15.096
423.15	4.918	7.612	9.732	11.821	13.758
433.15	-	6.787	8.923	10.994	12.896
443.15	-	5.720	8.240	10.526	12.661
453.15	-	7.660	9.972	11.874	13.806
463.15	-	6.607	9.053	11.002	12.743
473.15	-	-	8.220	10.183	11.922

Table S2. Values of parameter $2\mathcal{N}a (\gamma_l^d)^{1/2}$ ($m^2 \times mJ^{1/2}$) of n-alkanes adsorbed on solid particles as a function of the temperature

T(K)	C5	C6	C7	C8	C9
303.15	2.084	2.496	2.860	3.262	3.634
313.15	2.023	2.440	2.806	3.209	3.580
323.15	1.957	2.381	2.750	3.152	3.523
328.15	1.922	2.350	2.720	3.123	3.494
333.15	1.886	2.318	2.689	3.093	3.463

338.15	1.848	2.284	2.658	3.062	3.432
343.15	1.809	2.250	2.626	3.030	3.400
348.15	1.768	2.214	2.592	2.997	3.367
353.15	1.726	2.178	2.558	2.963	3.333
363.15	1.635	2.100	2.486	2.893	3.263
373.15	1.535	2.017	2.409	2.818	3.189
378.15	1.481	1.973	2.369	2.779	3.151
383.15	1.424	1.927	2.327	2.739	3.111
388.15	1.364	1.879	2.284	2.698	3.071
393.15	1.299	1.829	2.240	2.655	3.029
398.15	1.231	1.777	2.193	2.611	2.986
403.15	1.157	1.723	2.145	2.565	2.941
408.15	1.076	1.665	2.096	2.518	2.895
413.15	0.988	1.605	2.044	2.469	2.848
423.15	0.776	1.474	1.933	2.367	2.750
433.15	0.464	1.326	1.813	2.256	2.644
443.15	-	1.153	1.680	2.137	2.531
453.15	-	0.943	1.530	2.006	2.410
463.15	-	0.661	1.360	1.863	2.278
473.15	-	-	1.160	1.703	2.135

Table S3. Variations of γ_s^d (mJ/m^2) of α -alumina particles and PMMA adsorbed on alumina as a function of temperature, at different recovery fractions. $\theta = 0$ (Alumina), $\theta = 0.38$, $\theta = 0.62$, $\theta = 0.80$, $\theta = 0.88$, $\theta = 0.92$, $\theta = 1.0$, and $\theta \gg 1$ (PMMA alone).

T(K)	$\theta = 0$	$\theta = 0.38$	$\theta = 0.62$	$\theta = 0.80$	$\theta = 0.88$	$\theta = 0.92$	$\theta = 1.0$	$\theta \gg 1$
303.15	87.41	78.37	69.34	68.31	65.60	64.10	61.48	58.87
313.15	78.91	70.49	62.08	60.23	59.11	57.12	53.90	50.68
323.15	71.26	64.40	57.53	56.67	56.04	51.91	49.51	47.11
328.15	66.43	63.11	59.79	58.11	57.37	54.21	51.64	49.08
333.15	62.95	63.87	64.79	63.79	61.94	60.78	58.70	56.62
338.15	59.68	57.53	55.39	53.77	52.27	52.97	50.25	47.53
343.15	56.24	52.28	48.33	46.71	44.99	44.98	43.50	42.03
348.15	52.93	47.77	42.60	41.09	39.55	41.61	39.82	38.03
353.15	49.36	44.06	38.75	39.06	37.39	38.36	36.75	35.14
363.15	45.90	40.77	35.63	35.21	34.41	34.92	33.12	31.31
373.15	42.26	37.55	32.84	34.27	32.69	34.50	33.02	31.53
378.15	39.53	36.43	33.33	37.51	34.77	35.34	37.57	39.80
383.15	36.57	36.34	36.12	40.58	39.57	40.79	47.16	53.54
388.15	36.03	38.78	41.53	49.00	50.38	52.44	43.84	35.24
393.15	34.06	40.15	46.25	44.16	40.38	40.66	33.63	26.59
398.15	32.19	44.50	32.18	31.20	30.09	30.23	26.65	23.08
403.15	29.91	27.91	25.92	25.61	24.45	25.53	22.92	20.31

408.15	28.40	25.33	22.26	21.19	21.17	22.12	20.49	18.87
413.15	26.83	23.06	19.29	19.34	19.35	20.91	19.23	17.54
423.15	22.52	19.72	16.91	17.53	18.56	20.90	20.21	19.53
433.15	18.96	22.82	26.68	24.19	26.16	28.65	25.91	23.16
443.15	18.41	25.65	18.29	16.96	18.36	19.84	18.88	17.91
453.15	16.46	16.25	16.05	15.11	13.64	15.43	13.46	11.48
463.15	15.04	14.19	13.33	12.26	10.93	12.18	10.38	8.58
473.15	15.23	14.27	13.32	12.00	9.65	11.39	9.66	7.93

Table S4. Variations of $\Delta G_a^p(T)$ (kJ/mol) of polar molecules adsorbed on α -alumina, PMMA, and PMMA/alumina at different recovery rates as a function of temperature.

α-Alumina							
T(K)	CCl ₄	CH ₂ Cl ₂	CHCl ₃	Diethyl ether	THF	Ethyl acetate	Toluene
303.15	6.982	24.568	17.935	18.848	19.316	15.865	10.539
313.15	6.897	23.212	16.887	17.838	18.172	14.944	9.926
323.15	6.815	21.880	15.864	16.836	17.045	14.041	9.327
328.15	6.758	21.155	15.326	16.327	16.425	13.529	8.977
333.15	6.716	20.495	14.826	15.830	15.865	13.081	8.680
338.15	6.679	19.852	14.338	15.343	15.318	12.647	8.392
343.15	6.631	19.179	13.834	14.841	14.743	12.185	8.085
348.15	6.586	18.516	13.340	14.347	14.176	11.731	7.783
353.15	6.535	17.833	12.840	13.851	13.589	11.255	7.463
363.15	6.490	16.692	11.950	12.895	12.626	10.528	7.006
373.15	6.441	15.541	11.061	11.939	11.653	9.790	6.540
378.15	6.398	14.901	10.589	11.454	11.102	9.354	6.252
383.15	6.349	14.236	10.109	10.964	10.526	8.893	5.945
388.15	6.350	13.762	9.714	10.503	10.136	8.625	5.793
393.15	6.321	13.178	9.272	10.026	9.637	8.244	5.551
398.15	6.294	12.603	8.835	9.551	9.148	7.873	5.316
403.15	6.259	11.995	8.386	9.074	8.625	7.467	5.053
408.15	6.241	11.457	7.966	8.604	8.171	7.132	4.848
413.15	6.225	10.924	7.549	8.134	7.722	6.803	4.647
423.15	6.154	9.719	6.662	7.179	6.683	6.001	4.131
433.15	5.866	7.849	5.493	6.082	4.974	4.529	3.086
443.15	5.879	6.965	4.734	5.160	4.254	4.059	2.838
453.15	5.865	5.989	3.941	4.228	3.441	3.492	2.512
463.15	5.911	5.227	3.212	3.308	2.851	3.153	2.366
473.15	5.641	3.616	2.084	2.127	1.405	1.981	1.578
PMMA							
T(K)	CCl ₄	CH ₂ Cl ₂	CHCl ₃	Diethyl ether	THF	Ethyl acetate	Toluene
303.15	10.047	19.251	14.493	15.248	19.777	16.627	11.951
313.15	10.142	18.357	13.862	14.794	19.179	16.162	11.585
323.15	10.303	17.750	13.399	14.416	18.845	15.830	11.442

328.15	10.433	17.669	13.278	14.259	18.889	15.755	11.561
333.15	10.642	17.926	13.323	14.166	19.257	15.828	11.961
338.15	10.621	17.193	12.884	13.904	18.679	15.479	11.526
343.15	10.638	16.636	12.532	13.665	18.266	15.198	11.244
348.15	10.676	16.168	12.229	13.447	17.938	14.959	11.033
353.15	10.729	15.768	11.962	13.242	17.673	14.749	10.878
363.15	10.865	15.098	11.494	12.854	17.267	14.384	10.679
373.15	11.081	14.759	11.178	12.521	17.185	14.163	10.758
378.15	11.342	15.218	11.285	12.442	17.767	14.323	11.335
383.15	11.682	15.988	11.514	12.403	18.664	14.617	12.180
388.15	11.479	14.558	10.824	12.058	17.371	13.963	11.140
393.15	11.408	13.673	10.371	11.792	16.616	13.543	10.566
398.15	11.435	13.186	10.086	11.582	16.256	13.295	10.331
403.15	11.476	12.754	9.827	11.382	15.950	13.070	10.144
408.15	11.850	12.756	9.922	11.500	16.078	13.204	10.372
413.15	11.627	12.174	9.424	11.019	15.621	12.744	10.013
423.15	11.940	12.230	9.255	10.729	15.944	12.693	10.431
433.15	12.367	12.723	9.224	10.476	16.727	12.831	11.230
443.15	12.147	10.846	8.317	9.886	15.066	11.893	10.015
453.15	12.172	9.778	7.776	9.494	14.219	11.360	9.451
463.15	12.310	9.164	7.383	9.138	13.845	11.019	9.285
473.15	12.276	8.131	6.767	8.597	13.044	10.414	8.814

PMMA/alumina, $\theta = 0.38$

T(K)	CCl₄	CH₂Cl₂	CHCl₃	Diethyl ether	THF	Ethyl acetate	Toluene
303.15	4.118	18.040	12.783	13.275	14.285	11.513	7.225
313.15	4.068	17.341	12.225	12.928	13.793	11.038	6.829
323.15	4.011	16.633	11.672	12.582	13.289	10.551	6.420
328.15	4.080	16.705	11.613	12.487	13.440	10.731	6.570
333.15	4.133	16.706	11.514	12.376	13.526	10.843	6.664
338.15	4.014	15.967	11.055	12.142	12.904	10.209	6.131
343.15	3.932	15.404	10.685	11.932	12.448	9.754	5.750
348.15	3.864	14.896	10.349	11.739	12.041	9.349	5.410
353.15	3.813	14.464	10.053	11.560	11.707	9.021	5.134
363.15	3.778	13.893	9.601	11.252	11.319	8.656	4.827
373.15	3.695	13.127	9.072	10.919	10.738	8.092	4.353
378.15	3.724	13.033	8.934	10.795	10.732	8.106	4.362
383.15	3.766	12.995	8.817	10.677	10.782	8.177	4.419
388.15	3.837	13.070	8.746	10.575	10.947	8.366	4.573
393.15	3.923	13.210	8.695	10.476	11.178	8.624	4.784
398.15	3.956	13.124	8.552	10.350	11.186	8.650	4.802
403.15	3.868	12.564	8.221	10.160	10.715	8.181	4.410
408.15	3.686	11.635	7.755	9.929	9.868	7.327	3.700
413.15	3.634	11.226	7.493	9.764	9.544	7.012	3.437

423.15	3.628	10.795	7.119	9.481	9.289	6.787	3.244
433.15	3.648	10.466	6.781	9.208	9.141	6.670	3.140
443.15	3.574	9.931	6.301	8.804	8.793	6.375	2.905
453.15	3.474	9.136	5.815	8.493	8.157	5.761	2.393
463.15	3.485	8.786	5.466	8.212	7.988	5.623	2.271
473.15	3.216	7.696	4.754	7.660	7.063	4.764	1.586

PMMA/alumina, $\theta = 0.62$

T(K)	CCl₄	CH₂Cl₂	CHCl₃	Diethyl ether	THF	Ethyl acetate	Toluene
303.15	4.199	17.657	12.615	13.491	14.570	11.555	7.051
313.15	4.124	16.827	11.967	12.923	13.808	10.888	6.552
323.15	4.076	16.130	11.398	12.382	13.168	10.350	6.162
328.15	4.111	16.039	11.246	12.159	13.091	10.337	6.181
333.15	4.179	16.096	11.163	11.958	13.157	10.474	6.325
338.15	4.065	15.364	10.697	11.629	12.469	9.815	5.801
343.15	3.966	14.715	10.274	11.305	11.857	9.243	5.353
348.15	3.883	14.130	9.889	10.998	11.304	8.731	4.955
353.15	3.823	13.653	9.558	10.712	10.853	8.326	4.645
363.15	3.779	13.013	9.052	10.197	10.254	7.831	4.289
373.15	3.739	12.396	8.560	9.684	9.675	7.359	3.952
378.15	3.755	12.241	8.381	9.450	9.537	7.280	3.914
383.15	3.818	12.272	8.278	9.242	9.584	7.393	4.035
388.15	3.929	12.497	8.252	9.058	9.828	7.709	4.324
393.15	4.029	12.668	8.198	8.864	10.022	7.971	4.567
398.15	3.778	11.439	7.581	8.485	8.809	6.780	3.607
403.15	3.654	10.726	7.180	8.178	8.110	6.122	3.089
408.15	3.579	10.208	6.860	7.898	7.605	5.665	2.738
413.15	3.516	9.741	6.564	7.627	7.151	5.260	2.430
423.15	3.494	9.221	6.130	7.134	6.660	4.881	2.171
433.15	3.575	9.258	5.823	6.591	6.761	5.131	2.444
443.15	3.395	8.112	5.182	6.046	5.621	4.086	1.635
453.15	3.375	7.611	4.755	5.552	5.151	3.728	1.392
463.15	3.364	7.145	4.339	5.060	4.718	3.408	1.180
473.15	3.107	6.039	3.601	4.324	3.633	2.468	0.485

PMMA/alumina, $\theta = 0.80$

T(K)	CCl₄	CH₂Cl₂	CHCl₃	Diethyl ether	THF	Ethyl acetate	Toluene
303.15	4.183	17.555	12.458	13.377	14.510	11.567	7.145
313.15	4.105	16.698	11.801	12.844	13.727	10.871	6.621
323.15	4.079	16.078	11.280	12.360	13.164	10.408	6.291
328.15	4.106	15.951	11.113	12.150	13.056	10.359	6.279
333.15	4.189	16.060	11.061	11.981	13.174	10.546	6.465
338.15	4.069	15.297	10.583	11.665	12.458	9.856	5.913
343.15	3.973	14.653	10.167	11.364	11.853	9.286	5.466
348.15	3.895	14.081	9.792	11.082	11.314	8.785	5.075

353.15	3.870	13.740	9.530	10.840	10.998	8.518	4.880
363.15	3.820	13.067	9.015	10.358	10.370	7.988	4.492
373.15	3.823	12.616	8.603	9.912	9.959	7.684	4.293
378.15	3.897	12.682	8.522	9.731	10.042	7.831	4.443
383.15	3.967	12.734	8.430	9.545	10.115	7.966	4.581
388.15	4.129	13.157	8.487	9.408	10.559	8.486	5.038
393.15	4.068	12.675	8.169	9.147	10.102	8.070	4.718
398.15	3.838	11.520	7.588	8.800	8.965	6.956	3.820
403.15	3.731	10.866	7.215	8.522	8.328	6.358	3.351
408.15	3.638	10.274	6.872	8.255	7.749	5.822	2.933
413.15	3.610	9.937	6.630	8.020	7.427	5.550	2.735
423.15	3.615	9.510	6.241	7.581	7.037	5.267	2.553
433.15	3.631	9.272	5.853	7.062	6.854	5.220	2.578
443.15	3.474	8.205	5.251	6.566	5.798	4.256	1.835
453.15	3.472	7.765	4.855	6.120	5.394	3.959	1.641
463.15	3.456	7.267	4.443	5.672	4.929	3.601	1.396
473.15	3.211	6.189	3.732	4.989	3.874	2.684	0.718

PMMA/alumina, $\theta = 0.88$

T(K)	CCl₄	CH₂Cl₂	CHCl₃	Diethyl ether	THF	Ethyl acetate	Toluene
303.15	4.030	17.367	12.156	13.526	14.052	11.226	6.951
313.15	3.961	16.556	11.510	12.930	13.275	10.563	6.470
323.15	3.932	15.929	10.969	12.373	12.668	10.080	6.139
328.15	3.955	15.780	10.783	12.124	12.521	10.003	6.111
333.15	4.022	15.820	10.689	11.910	12.555	10.113	6.238
338.15	3.899	15.047	10.197	11.555	11.811	9.408	5.683
343.15	3.794	14.365	9.754	11.211	11.151	8.794	5.207
348.15	3.711	13.780	9.365	10.891	10.581	8.274	4.808
353.15	3.680	13.411	9.082	10.608	10.219	7.971	4.590
363.15	3.637	12.765	8.562	10.060	9.582	7.458	4.233
373.15	3.616	12.218	8.090	9.526	9.041	7.043	3.957
378.15	3.664	12.182	7.956	9.294	9.005	7.080	4.022
383.15	3.763	12.354	7.906	9.089	9.178	7.332	4.265
388.15	3.964	12.926	8.016	8.938	9.754	8.000	4.853
393.15	3.806	12.061	7.531	8.587	8.895	7.183	4.207
398.15	3.615	11.067	7.005	8.225	7.903	6.229	3.450
403.15	3.501	10.381	6.611	7.907	7.215	5.592	2.956
408.15	3.433	9.888	6.296	7.616	6.720	5.154	2.627
413.15	3.401	9.534	6.037	7.343	6.364	4.860	2.417
423.15	3.430	9.202	5.659	6.839	6.036	4.665	2.322
433.15	3.453	8.990	5.255	6.244	5.849	4.638	2.379
443.15	3.283	7.879	4.611	5.666	4.716	3.618	1.604
453.15	3.178	7.026	4.065	5.118	3.844	2.868	1.053
463.15	3.147	6.472	3.615	4.591	3.284	2.438	0.764

473.15	3.102	5.750	3.025	3.854	2.785	1.957	0.522
PMMA/alumina, $\theta = 1.0$							
T(K)	CCl₄	CH₂Cl₂	CHCl₃	Diethyl ether	THF	Ethyl acetate	Toluene
303.15	4.513	17.943	12.635	13.780	14.755	12.052	7.851
313.15	4.442	17.020	11.926	13.113	13.909	11.338	7.342
323.15	4.411	16.281	11.324	12.484	13.233	10.803	6.982
328.15	4.440	16.113	11.125	12.205	13.086	10.737	6.970
333.15	4.502	16.080	10.992	11.950	13.069	10.806	7.072
338.15	4.394	15.320	10.504	11.574	12.355	10.142	6.557
343.15	4.306	14.660	10.067	11.206	11.736	9.583	6.134
348.15	4.241	14.096	9.684	10.864	11.206	9.114	5.785
353.15	4.184	13.570	9.322	10.528	10.711	8.683	5.468
363.15	4.142	12.827	8.749	9.912	10.019	8.132	5.092
373.15	4.084	12.022	8.154	9.288	9.263	7.515	4.662
378.15	4.129	11.927	7.990	9.020	9.189	7.522	4.710
383.15	4.172	11.822	7.819	8.750	9.105	7.519	4.748
388.15	4.209	11.687	7.634	8.474	8.995	7.487	4.762
393.15	4.312	11.820	7.554	8.234	9.153	7.733	5.006
398.15	4.352	11.697	7.367	7.957	9.058	7.715	5.031
403.15	4.253	11.020	6.962	7.609	8.404	7.121	4.579
408.15	4.083	10.067	6.456	7.229	7.467	6.238	3.888
413.15	3.957	9.293	6.028	6.875	6.708	5.538	3.350
423.15	3.942	8.687	5.532	6.284	6.144	5.121	3.086
433.15	3.803	7.732	4.857	5.563	5.230	4.369	2.560
443.15	3.936	7.731	4.554	5.011	5.297	4.600	2.828
453.15	3.770	6.538	3.871	4.368	4.119	3.558	2.051
463.15	3.762	5.967	3.393	3.783	3.591	3.176	1.814
473.15	3.505	4.764	2.585	2.937	2.420	2.188	1.108

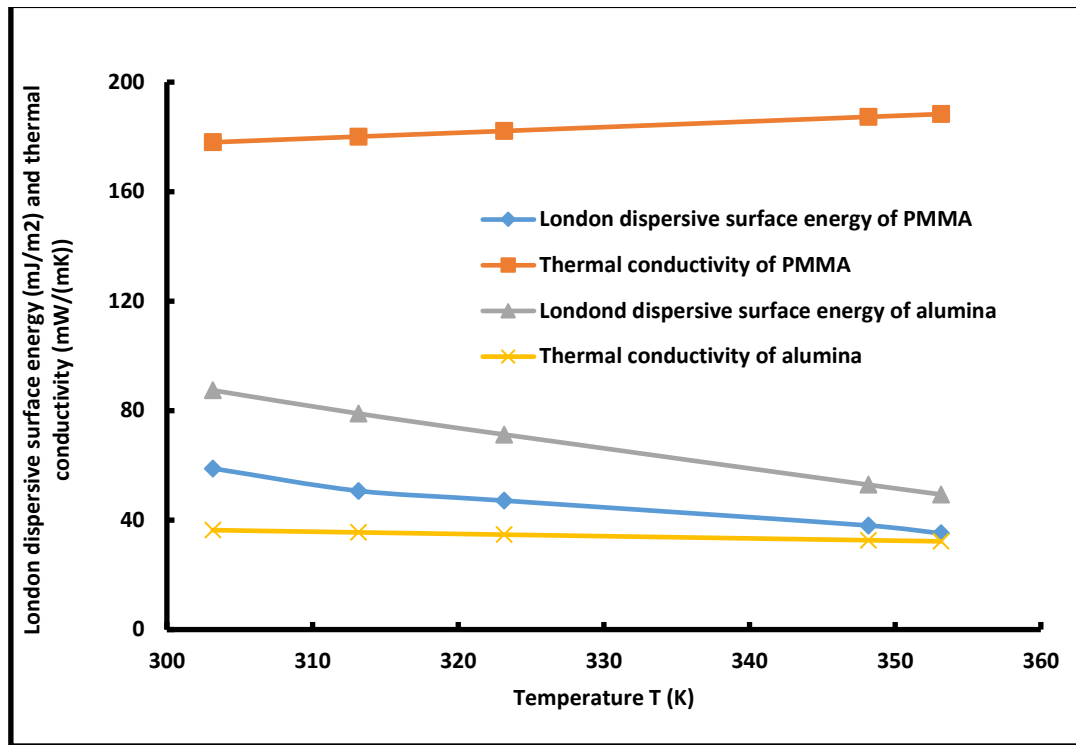


Figure S1. Variations of the thermal conductivity $\lambda(T)$ and London dispersive surface energy $\gamma_s^d(T)$ of PMMA and alumina as a function of temperature.