Supporting Information.

Lukáš Šimurka, Ivan Cibulka, and Lubomír Hnědkovský: Partial molar volumes of selected aliphatic alcohols at infinite dilution in water at temperatures T = (278 to 573) K and pressures up to 30 MPa.

Table S1. Direct experimental data measured for 2,2-dimethylpropane-1-ol (aq)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
278.15	0.10	0.048498	-0.611	293.15	0.10	0.048498	-0.644	318.15	0.10	0.048498	-0.693
278.15	0.10	0.048498	-0.609	293.15	0.10	0.048498	-0.642	318.15	0.10	0.048498	-0.689
278.15	0.10	0.099947	-1.226	293.15	0.10	0.099947	-1.307	318.15	0.10	0.099947	-1.406
278.15	0.10	0.099947	-1.222	293.15	0.10	0.099947	-1.302	318.15	0.10	0.099947	-1.414
278.15	0.10	0.147155	-1.786	293.15	0.10	0.147155	-1.899	318.15	0.10	0.147155	-2.073
278.15	0.10	0.147155	-1.781	293.15	0.10	0.147155	-1.892	318.15	0.10	0.147155	-2.063
278.15	0.10	0.199879	-2.375	293.15	0.10	0.199879	-2.539	318.15	0.10	0.199879	-2.788
278.15	0.10	0.199879	-2.368	293.15	0.10	0.199879	-2.531	318.15	0.10	0.199879	-2.777
283.15	0.10	0.048498	-0.622	298.15	0.10	0.048498	-0.654	298.19	0.51	0.050877	-0.6829
283.15	0.10	0.048498	-0.619	298.15	0.10	0.048498	-0.653	298.19	0.51	0.050877	-0.6838
283.15	0.10	0.099947	-1.256	298.15	0.10	0.099947	-1.342	298.19	0.51	0.050877	-0.6834
283.15	0.10	0.099947	-1.249	298.15	0.10	0.099947	-1.327	298.19	0.51	0.099023	-1.3185
283.15	0.10	0.147155	-1.826	298.15	0.10	0.147155	-1.935	298.19	0.51	0.099023	-1.3191
283.15	0.10	0.147155	-1.815	298.15	0.10	0.147155	-1.931	298.19	0.51	0.099023	-1.3196
283.15	0.10	0.199879	-2.432	298.15	0.10	0.199879	-2.592	298.19	0.51	0.149831	-1.9759
283.15	0.10	0.199879	-2.418	298.15	0.10	0.199879	-2.59	298.19	0.51	0.149831	-1.9764
								298.19	0.51	0.149831	-1.9760
288.15	0.10	0.048498	-0.630	308.15	0.10	0.048498	-0.672	298.19	0.51	0.194319	-2.5355
288.15	0.10	0.048498	-0.628	308.15	0.10	0.048498	-0.669	298.19	0.51	0.194319	-2.5379
288.15	0.10	0.099947	-1.277	308.15	0.10	0.099947	-1.361	298.19	0.51	0.194319	-2.5368
288.15	0.10	0.099947	-1.272	308.15	0.10	0.099947	-1.356				
288.15	0.10	0.147155	-1.853	308.15	0.10	0.147155	-2.004				
288.15	0.10	0.147155	-1.847	308.15	0.10	0.147155	-1.993				
288.15	0.10	0.199879	-2.476	308.15	0.10	0.199879	-2.689				
288.15	0.10	0.199879	-2.465	308.15	0.10	0.199879	-2.676				

Table S1. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
298.19	15.11	0.050877	-0.7198	318.21	0.53	0.050877	-0.7386	318.21	29.89	0.050877	-0.7755
298.19	15.11	0.050877	-0.7205	318.21	0.53	0.050877	-0.7385	318.21	29.89	0.050877	-0.7760
298.19	15.11	0.050877	-0.7205	318.21	0.53	0.050877	-0.7388	318.21	29.89	0.050877	-0.7756
298.19	15.11	0.099023	-1.3872	318.21	0.53	0.099023	-1.4234	318.21	29.89	0.099023	-1.4958
298.19	15.11	0.099023	-1.3878	318.21	0.53	0.099023	-1.4249	318.21	29.89	0.099023	-1.4940
298.19	15.11	0.099023	-1.3865	318.21	0.53	0.099023	-1.4232	318.21	29.89	0.099023	-1.4951
298.19	15.11	0.149831	-2.0743	318.21	0.53	0.149831	-2.1387	318.21	29.89	0.149831	-2.2426
298.19	15.11	0.149831	-2.0746	318.21	0.53	0.149831	-2.1386	318.21	29.89	0.149831	-2.2428
298.19	15.11	0.149831	-2.0755	318.21	0.53	0.149831	-2.1393	318.21	29.89	0.149831	-2.2450
298.19	15.11	0.194319	-2.6623	318.21	0.53	0.194319	-2.7555	318.21	29.89	0.194319	-2.8883
298.19	15.11	0.194319	-2.6616	318.21	0.53	0.194319	-2.7551	318.21	29.89	0.194319	-2.8893
298.19	15.11	0.194319	-2.6614	318.21	0.53	0.194319	-2.7561	318.21	29.89	0.194319	-2.8880
298.22	30.45	0.050877	-0.7488	318.21	15.07	0.050877	-0.7553	338.21	0.52	0.050877	-0.7924
298.22	30.45	0.050877	-0.7525	318.21	15.07	0.050877	-0.7551	338.21	0.52	0.050877	-0.7923
298.22	30.45	0.050877	-0.7522	318.21	15.07	0.050877	-0.7559	338.21	0.52	0.050877	-0.7925
298.22	30.45	0.099023	-1.4487	318.21	15.07	0.099023	-1.4585	338.21	0.52	0.099023	-1.5337
298.22	30.45	0.099023	-1.4478	318.21	15.07	0.099023	-1.4584	338.21	0.52	0.099023	-1.5344
298.22	30.45	0.099023	-1.4471	318.21	15.07	0.099023	-1.4582	338.21	0.52	0.099023	-1.5329
298.22	30.45	0.149831	-2.1663	318.21	15.07	0.149831	-2.1901	338.21	0.52	0.149831	-2.3092
298.22	30.45	0.149831	-2.1663	318.21	15.07	0.149831	-2.1893	338.21	0.52	0.149831	-2.3098
298.22	30.45	0.149831	-2.1653	318.21	15.07	0.149831	-2.1907	338.21	0.52	0.149831	-2.3098
298.22	30.45	0.194319	-2.7791	318.21	15.07	0.194319	-2.8222	338.21	0.52	0.194319	-2.9861
298.22	30.45	0.194319	-2.7788	318.21	15.07	0.194319	-2.8228	338.21	0.52	0.194319	-2.9871
298.22	30.45	0.194319	-2.7796	318.21	15.07	0.194319	-2.8176	338.21	0.52	0.194319	-2.9879

Table S1. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
338.21	15.24	0.050877	-0.7980	358.16	0.51	0.050877	-0.8529	358.16	29.84	0.048498	-0.8090
338.21	15.24	0.050877	-0.8000	358.16	0.51	0.050877	-0.8550	358.16	29.84	0.048498	-0.8095
338.21	15.24	0.050877	-0.7976	358.16	0.51	0.050877	-0.8554	358.16	29.84	0.048498	-0.8082
338.21	15.24	0.099023	-1.5463	358.16	0.51	0.099023	-1.6518	358.16	29.84	0.095647	-1.5888
338.21	15.24	0.099023	-1.5457	358.16	0.51	0.099023	-1.6538	358.16	29.84	0.095647	-1.5892
338.21	15.24	0.099023	-1.5458	358.16	0.51	0.099023	-1.6536	358.16	29.84	0.095647	-1.5876
338.21	15.24	0.149831	-2.3289	358.16	0.51	0.149831	-2.4935	358.16	29.84	0.147155	-2.4401
338.21	15.24	0.149831	-2.3271	358.16	0.51	0.149831	-2.4960	358.16	29.84	0.147155	-2.4406
338.21	15.24	0.149831	-2.3269	358.16	0.51	0.149831	-2.4963	358.16	29.84	0.147155	-2.4414
338.21	15.24	0.194319	-3.0090	358.16	0.51	0.194319	-3.2369	358.16	29.84	0.199879	-3.2854
338.21	15.24	0.194319	-3.0118	358.16	0.51	0.194319	-3.2378	358.16	29.84	0.199879	-3.2863
338.21	15.24	0.194319	-3.0117	358.16	0.51	0.194319	-3.2373	358.16	29.84	0.199879	-3.2858
338.21	30.04	0.050877	-0.8055	358.17	15.11	0.048498	-0.8084	373.15	0.52	0.048498	-0.8520
338.21	30.04	0.050877	-0.8052	358.17	15.11	0.048498	-0.8101	373.15	0.52	0.048498	-0.8521
338.21	30.04	0.050877	-0.8040	358.17	15.11	0.095647	-1.5835	373.15	0.52	0.048498	-0.8544
338.21	30.04	0.099023	-1.5591	358.17	15.11	0.095647	-1.5854	373.15	0.52	0.095647	-1.6724
338.21	30.04	0.099023	-1.5590	358.17	15.11	0.147155	-2.4414	373.15	0.52	0.095647	-1.6730
338.21	30.04	0.099023	-1.5575	358.17	15.11	0.147155	-2.4402	373.15	0.52	0.095647	-1.6730
338.21	30.04	0.149831	-2.3470	358.17	15.11	0.147155	-2.4403	373.15	0.52	0.147155	-2.5838
338.21	30.04	0.149831	-2.3468	358.17	15.11	0.199879	-3.2857	373.15	0.52	0.147155	-2.5849
338.21	30.04	0.149831	-2.3473	358.17	15.11	0.199879	-3.2872	373.15	0.52	0.147155	-2.5852
338.21	30.04	0.194319	-3.0365	358.17	15.11	0.199879	-3.2843	373.15	0.52	0.199879	-3.4823
338.21	30.04	0.194319	-3.0382					373.15	0.52	0.199879	-3.4832
338.21	30.04	0.194319	-3.0379					373.15	0.52	0.199879	-3.4866

Table S1. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
373.15	15.07	0.048498	-0.8440	398.14	2.03	0.050375	-0.9653	398.14	30.03	0.050375	-0.9300
373.15	15.07	0.048498	-0.8439	398.14	2.03	0.050375	-0.9652	398.14	30.03	0.050375	-0.9317
373.15	15.07	0.048498	-0.8441	398.14	2.03	0.096569	-1.8584	398.14	30.03	0.050375	-0.9304
373.15	15.07	0.095647	-1.6510	398.14	2.03	0.096569	-1.8597	398.14	30.03	0.096569	-1.7937
373.15	15.07	0.095647	-1.6536	398.14	2.03	0.096569	-1.8599	398.14	30.03	0.096569	-1.7954
373.15	15.07	0.095647	-1.6532	398.14	2.03	0.147004	-2.8238	398.14	30.03	0.096569	-1.7955
373.15	15.07	0.147155	-2.5576	398.14	2.03	0.147004	-2.8250	398.14	30.03	0.147004	-2.7256
373.15	15.07	0.147155	-2.5570	398.14	2.03	0.147004	-2.8249	398.14	30.03	0.147004	-2.7247
373.15	15.07	0.147155	-2.5577	398.14	2.03	0.194287	-3.7051	398.14	30.03	0.147004	-2.7245
373.15	15.07	0.199879	-3.4425	398.14	2.03	0.194287	-3.7055	398.14	30.03	0.194287	-3.5694
373.15	15.07	0.199879	-3.4420	398.14	2.03	0.194287	-3.7049	398.14	30.03	0.194287	-3.5708
373.15	15.07	0.199879	-3.4417					398.14	30.03	0.194287	-3.5685
				398.14	15.04	0.050375	-0.9462				
373.15	30.03	0.048498	-0.8362	398.14	15.04	0.050375	-0.9498	423.15	2.05	0.050375	-1.0444
373.15	30.03	0.048498	-0.8382	398.14	15.04	0.050375	-0.9484	423.15	2.05	0.050375	-1.0443
373.15	30.03	0.048498	-0.8393	398.14	15.04	0.096569	-1.8273	423.15	2.05	0.050375	-1.0442
373.15	30.03	0.095647	-1.6410	398.14	15.04	0.096569	-1.8279	423.15	2.05	0.096569	-2.0113
373.15	30.03	0.095647	-1.6406	398.14	15.04	0.096569	-1.8281	423.15	2.05	0.096569	-2.0118
373.15	30.03	0.095647	-1.6404	398.14	15.04	0.147004	-2.7731	423.15	2.05	0.096569	-2.0129
373.15	30.03	0.147155	-2.5359	398.14	15.04	0.147004	-2.7735	423.15	2.05	0.147004	-3.0521
373.15	30.03	0.147155	-2.5380	398.14	15.04	0.147004	-2.7733	423.15	2.05	0.147004	-3.0522
373.15	30.03	0.147155	-2.5384	398.14	15.04	0.194287	-3.6355	423.15	2.05	0.147004	-3.0526
373.15	30.03	0.199879	-3.4141	398.14	15.04	0.194287	-3.6355	423.15	2.05	0.194287	-4.0024
373.15	30.03	0.199879	-3.4122	398.14	15.04	0.194287	-3.6361	423.15	2.05	0.194287	-4.0027
373.15	30.03	0.199879	-3.4127					423.15	2.05	0.194287	-4.0031

Table S1. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
423.14	15.01	0.050375	-1.0124	448.15	2.04	0.050106	-1.1088	448.16	30.06	0.050640	-1.0552
423.14	15.01	0.050375	-1.0128	448.15	2.04	0.050106	-1.1080	448.16	30.06	0.050640	-1.0550
423.14	15.01	0.050375	-1.0131	448.15	2.04	0.050106	-1.1093	448.16	30.06	0.050640	-1.0554
423.14	15.01	0.096569	-1.9556	448.15	2.04	0.096569	-2.1624	448.16	30.06	0.096569	-2.0112
423.14	15.01	0.096569	-1.9572	448.15	2.04	0.096569	-2.1633	448.16	30.06	0.096569	-2.0122
423.14	15.01	0.096569	-1.9575	448.15	2.04	0.096569	-2.1636	448.16	30.06	0.096569	-2.0128
423.14	15.01	0.147004	-2.9657	448.15	2.04	0.153762	-3.3758	448.16	30.06	0.147004	-3.0477
423.14	15.01	0.147004	-2.9675	448.15	2.04	0.153762	-3.3757	448.16	30.06	0.147004	-3.0480
423.14	15.01	0.147004	-2.9675	448.15	2.04	0.153762	-3.3763	448.16	30.06	0.147004	-3.0482
423.14	15.01	0.194287	-3.8913	448.15	2.04	0.194287	-4.2970	448.16	30.06	0.194287	-3.9896
423.14	15.01	0.194287	-3.8916	448.15	2.04	0.194287	-4.2974	448.16	30.06	0.194287	-3.9895
423.14	15.01	0.194287	-3.8912	448.15	2.04	0.194287	-4.2974	448.16	30.06	0.194287	-3.9901
423.15	30.03	0.050375	-0.9855	448.16	15.05	0.050106	-1.0691	473.15	2.04	0.147004	-3.5177
423.15	30.03	0.050375	-0.9867	448.16	15.05	0.050106	-1.0690	473.15	2.04	0.147004	-3.5168
423.15	30.03	0.050375	-0.9856	448.16	15.05	0.050106	-1.0688	473.15	2.04	0.147004	-3.5173
423.15	30.03	0.096569	-1.9068	448.16	15.05	0.050375	-1.0776	473.15	2.04	0.050640	-1.2188
423.15	30.03	0.096569	-1.9063	448.16	15.05	0.050640	-1.0927	473.15	2.04	0.050640	-1.2209
423.15	30.03	0.096569	-1.9066	448.16	15.05	0.096569	-2.0851	473.15	2.04	0.050640	-1.2218
423.15	30.03	0.147004	-2.8893	448.16	15.05	0.096569	-2.0838	473.15	2.04	0.111835	-2.7050
423.15	30.03	0.147004	-2.8904	448.16	15.05	0.096569	-2.0844	473.15	2.04	0.111835	-2.7054
423.15	30.03	0.147004	-2.8894	448.16	15.05	0.102610	-2.1654	473.15	2.04	0.111835	-2.7052
423.15	30.03	0.194287	-3.7845	448.16	15.05	0.147004	-3.1586	473.15	2.04	0.200650	-4.8285
423.15	30.03	0.194287	-3.7893	448.16	15.05	0.153762	-3.2530	473.15	2.04	0.200650	-4.8316
423.15	30.03	0.194287	-3.7879	448.16	15.05	0.153762	-3.2543	473.15	2.04	0.200650	-4.8189
				448.16	15.05	0.153762	-3.2539				
				448.16	15.05	0.194287	-4.1410				
				448.16	15.05	0.194287	-4.1407				
				448.16	15.05	0.194287	-4.1406				
				448.16	15.05	0.206104	-4.3451				

Table S1. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
473.15	15.11	0.050640	-1.1613	498.13	3.06	0.050640	-1.3029	498.15	30.01	0.050640	-1.1553
473.15	15.11	0.050640	-1.1604	498.13	3.06	0.050640	-1.3047	498.15	30.01	0.050640	-1.1570
473.15	15.11	0.050640	-1.1609	498.13	3.06	0.050640	-1.3038	498.15	30.01	0.050640	-1.1570
473.15	15.11	0.111835	-2.5687	498.13	3.06	0.111835	-2.8809	498.15	30.01	0.111835	-2.5483
473.15	15.11	0.111835	-2.5682	498.13	3.06	0.111835	-2.8821	498.15	30.01	0.111835	-2.5484
473.15	15.11	0.111835	-2.5685	498.13	3.06	0.111835	-2.8829	498.15	30.01	0.111835	-2.5476
473.15	15.11	0.152397	-3.4989	498.13	3.06	0.152397	-3.9379	498.15	30.01	0.152397	-3.4962
473.15	15.11	0.152397	-3.4965	498.13	3.06	0.152397	-3.9390	498.15	30.01	0.152397	-3.4973
473.15	15.11	0.152397	-3.4977	498.13	3.06	0.152397	-3.9413	498.15	30.01	0.152397	-3.4968
473.15	15.11	0.200650	-4.5976	498.13	3.06	0.200650	-5.1768	498.15	30.01	0.200650	-4.5923
473.15	15.11	0.200650	-4.5984	498.13	3.06	0.200650	-5.1757	498.15	30.01	0.200650	-4.5930
473.15	15.11	0.200650	-4.5975	498.13	3.06	0.200650	-5.1766	498.15	30.01	0.200650	-4.5921
473.16	30.03	0.050640	-1.1103	498.14	15.10	0.050640	-1.2267	523.18	5.09	0.050640	-1.3890
473.16	30.03	0.050640	-1.1093	498.14	15.10	0.050640	-1.2269	523.18	5.09	0.050640	-1.3927
473.16	30.03	0.050640	-1.1100	498.14	15.10	0.050640	-1.2272	523.18	5.09	0.050640	-1.3968
473.16	30.03	0.111835	-2.4580	498.14	15.10	0.111835	-2.7099	523.18	5.09	0.111835	-3.0597
473.16	30.03	0.111835	-2.4574	498.14	15.10	0.111835	-2.7103	523.18	5.09	0.111835	-3.0704
473.16	30.03	0.111835	-2.4574	498.14	15.10	0.111835	-2.7113	523.18	5.09	0.111835	-3.0744
473.16	30.03	0.152397	-3.3440	498.14	15.10	0.152397	-3.7097	523.18	5.09	0.152397	-4.2200
473.16	30.03	0.152397	-3.3435	498.14	15.10	0.152397	-3.7091	523.18	5.09	0.152397	-4.2306
473.16	30.03	0.152397	-3.3449	498.14	15.10	0.152397	-3.7092	523.18	5.09	0.152397	-4.2324
473.16	30.03	0.200650	-4.3926	498.14	15.10	0.200650	-4.8714	523.18	5.09	0.200650	-5.5497
473.16	30.03	0.200650	-4.3932	498.14	15.10	0.200650	-4.8715	523.18	5.09	0.200650	-5.5564
473.16	30.03	0.200650	-4.3946	498.14	15.10	0.200650	-4.8728	523.18	5.09	0.200650	-5.5579

Table S1. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
523.16	15.04	0.050640	-1.2956	548.15	7.02	0.049774	-1.5243	548.14	30.03	0.049774	-1.2574
523.16	15.04	0.050640	-1.2928	548.15	7.02	0.049774	-1.5225	548.14	30.03	0.049774	-1.2598
523.16	15.04	0.050640	-1.2926	548.15	7.02	0.049774	-1.5259	548.14	30.03	0.049774	-1.2584
523.16	15.04	0.111835	-2.8482	548.15	7.02	0.098054	-3.0053	548.14	30.03	0.098054	-2.4874
523.16	15.04	0.111835	-2.8475	548.15	7.02	0.098054	-3.0048	548.14	30.03	0.098054	-2.4844
523.16	15.04	0.111835	-2.8458	548.15	7.02	0.098054	-3.0091	548.14	30.03	0.098054	-2.4882
523.16	15.04	0.152397	-3.9458	548.15	7.02	0.147833	-4.5138	548.14	30.03	0.147833	-3.7177
523.16	15.04	0.152397	-3.9494	548.15	7.02	0.147833	-4.5195	548.14	30.03	0.147833	-3.7153
523.16	15.04	0.152397	-3.9492	548.15	7.02	0.147833	-4.5182	548.14	30.03	0.147833	-3.7162
523.16	15.04	0.200650	-5.1871	548.15	7.02	0.198150	-6.0328	548.14	30.03	0.198150	-4.9662
523.16	15.04	0.200650	-5.1813	548.15	7.02	0.198150	-6.0281	548.14	30.03	0.198150	-4.9654
523.16	15.04	0.200650	-5.1849	548.15	7.02	0.198150	-6.0279	548.14	30.03	0.198150	-4.9627
523.15	30.08	0.050640	-1.1985	548.15	14.99	0.049774	-1.4078	573.15	10.22	0.049774	-1.7017
523.15	30.08	0.050640	-1.1995	548.15	14.99	0.049774	-1.4066	573.15	10.22	0.049774	-1.7014
523.15	30.08	0.050640	-1.1997	548.15	14.99	0.049774	-1.4134	573.15	10.22	0.049774	-1.6968
523.15	30.08	0.111835	-2.6364	548.15	14.99	0.098054	-2.7757	573.15	10.22	0.098054	-3.3583
523.15	30.08	0.111835	-2.6388	548.15	14.99	0.098054	-2.7738	573.15	10.22	0.098054	-3.3561
523.15	30.08	0.111835	-2.6387	548.15	14.99	0.098054	-2.7739	573.15	10.22	0.098054	-3.3539
523.15	30.08	0.152397	-3.6487	548.15	14.99	0.147833	-4.1670	573.15	10.22	0.147833	-4.9954
523.15	30.08	0.152397	-3.6473	548.15	14.99	0.147833	-4.1685	573.15	10.22	0.147833	-4.9890
523.15	30.08	0.152397	-3.6489	548.15	14.99	0.147833	-4.1635	573.15	10.22	0.147833	-4.9949
523.15	30.08	0.200650	-4.7889	548.15	14.99	0.198150	-5.5589	573.15	10.22	0.198150	-6.6876
523.15	30.08	0.200650	-4.7914	548.15	14.99	0.198150	-5.5563	573.15	10.22	0.198150	-6.6996
523.15	30.08	0.200650	-4.7916	548.15	14.99	0.198150	-5.5584	573.15	10.22	0.198150	-6.6866

Table S1. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
573.16	15.18	0.049774	-1.5680	573.16	30.08	0.049774	-1.3336				
573.16	15.18	0.049774	-1.5700	573.16	30.08	0.049774	-1.3306				
573.16	15.18	0.049774	-1.5691	573.16	30.08	0.049774	-1.3334				
573.16	15.18	0.098054	-3.1006	573.16	30.08	0.098054	-2.6358				
573.16	15.18	0.098054	-3.0961	573.16	30.08	0.098054	-2.6323				
573.16	15.18	0.098054	-3.0970	573.16	30.08	0.098054	-2.6347				
573.16	15.18	0.147833	-4.5425	573.16	30.08	0.147833	-3.8916				
573.16	15.18	0.147833	-4.5424	573.16	30.08	0.147833	-3.8924				
573.16	15.18	0.147833	-4.5424	573.16	30.08	0.147833	-3.8920				
573.16	15.18	0.198150	-6.1144	573.16	30.08	0.198150	-5.2121				
573.16	15.18	0.198150	-6.1069	573.16	30.08	0.198150	-5.2163				
573.16	15.18	0.198150	-6.1067	573.16	30.08	0.198150	-5.2112				

Standard uncertainties u are $u(T)$/K = 0.02 , $u(p)$/MPa = 0.01 except for p = 0.10 MPa (non-measured atmospheric pressure), $u(m_2)/(\text{mol}\cdot\text{kg}^{-1}) = 2\cdot10^{-4}\ m_2/(\text{mol}\cdot\text{kg}^{-1})$, and the combined expanded uncertainty $U_c(\Delta\rho)/(\text{kg}\cdot\text{m}^{-3}) = 0.002|\Delta\rho/(\text{kg}\cdot\text{m}^{-3})| + \delta_g$ where $\delta_g = 0$ for measurements by DSA 5000 (p = 0.10 MPa) and δ_g = 0.005 for measurements by HTHP (other pressures).

Table S2. Direct experimental data measured for 2-methylpropane-1,3-diol (aq)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
278.15	0.10	0.109745	0.363	293.15	0.10	0.109745	0.332	318.15	0.10	0.109745	0.286
278.15	0.10	0.109745	0.367	293.15	0.10	0.109745	0.332	318.15	0.10	0.109745	0.288
278.15	0.10	0.199656	0.680	293.15	0.10	0.199656	0.615	318.15	0.10	0.199656	0.526
278.15	0.10	0.199656	0.683	293.15	0.10	0.199656	0.616	318.15	0.10	0.199656	0.525
278.15	0.10	0.309109	1.082	293.15	0.10	0.309109	0.971	318.15	0.10	0.309109	0.818
278.15	0.10	0.309109	1.085	293.15	0.10	0.309109	0.972	318.15	0.10	0.309109	0.820
278.15	0.10	0.398301	1.422	293.15	0.10	0.398301	1.266	318.15	0.10	0.398301	1.060
278.15	0.10	0.398301	1.426	293.15	0.10	0.398301	1.267	318.15	0.10	0.398301	1.060
283.15	0.10	0.109745	0.352	298.15	0.10	0.109745	0.322	298.19	0.51	0.097412	0.2871
283.15	0.10	0.109745	0.354	298.15	0.10	0.109745	0.323	298.19	0.51	0.097412	0.2900
283.15	0.10	0.199656	0.654	298.15	0.10	0.199656	0.597	298.19	0.51	0.097412	0.2891
283.15	0.10	0.199656	0.658	298.15	0.10	0.199656	0.597	298.19	0.51	0.219302	0.6564
283.15	0.10	0.309109	1.039	298.15	0.10	0.309109	0.939	298.19	0.51	0.219302	0.6569
283.15	0.10	0.309109	1.043	298.15	0.10	0.309109	0.940	298.19	0.51	0.219302	0.6567
283.15	0.10	0.398301	1.363	298.15	0.10	0.398301	1.224	298.19	0.51	0.311270	0.9421
283.15	0.10	0.398301	1.367	298.15	0.10	0.398301	1.224	298.19	0.51	0.311270	0.9409
								298.19	0.51	0.311270	0.9357
288.15	0.10	0.109745	0.342	308.15	0.10	0.109745	0.304	298.19	0.51	0.408540	1.2499
288.15	0.10	0.109745	0.342	308.15	0.10	0.109745	0.305	298.19	0.51	0.408540	1.2492
288.15	0.10	0.199656	0.635	308.15	0.10	0.199656	0.560	298.19	0.51	0.408540	1.2478
288.15	0.10	0.199656	0.636	308.15	0.10	0.199656	0.561				
288.15	0.10	0.309109	1.004	308.15	0.10	0.309109	0.878				
288.15	0.10	0.309109	1.005	308.15	0.10	0.309109	0.879				
288.15	0.10	0.398301	1.314	308.15	0.10	0.398301	1.139				
288.15	0.10	0.398301	1.316	308.15	0.10	0.398301	1.141				

Table S2. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
298.19	15.12	0.097412	0.2433	318.21	0.53	0.097412	0.2490	318.21	29.90	0.097412	0.1993
298.19	15.12	0.097412	0.2448	318.21	0.53	0.097412	0.2503	318.21	29.90	0.097412	0.1956
298.19	15.12	0.097412	0.2420	318.21	0.53	0.097412	0.2506	318.21	29.90	0.097412	0.1961
298.19	15.12	0.219302	0.5609	318.21	0.53	0.219302	0.5675	318.21	29.90	0.219302	0.4500
298.19	15.12	0.219302	0.5603	318.21	0.53	0.219302	0.5661	318.21	29.90	0.219302	0.4517
298.19	15.12	0.219302	0.5606	318.21	0.53	0.219302	0.5691	318.21	29.90	0.219302	0.4511
298.19	15.12	0.311270	0.8092	318.21	0.53	0.311270	0.8115	318.21	29.90	0.311270	0.6478
298.19	15.12	0.311270	0.8103	318.21	0.53	0.311270	0.8124	318.21	29.90	0.311270	0.6491
298.19	15.12	0.311270	0.8090	318.21	0.53	0.311270	0.8113	318.21	29.90	0.311270	0.6506
298.19	15.12	0.408540	1.0801	318.21	0.53	0.408540	1.0736	318.21	29.90	0.408540	0.8591
298.19	15.12	0.408540	1.0799	318.21	0.53	0.408540	1.0715	318.21	29.90	0.408540	0.8618
298.19	15.12	0.408540	1.0792	318.21	0.53	0.408540	1.0723	318.21	29.90	0.408540	0.8609
298.22	30.47	0.097412	0.2061	318.21	15.08	0.097412	0.2240	338.21	0.52	0.097412	0.2142
298.22	30.47	0.097412	0.2054	318.21	15.08	0.097412	0.2240	338.21	0.52	0.097412	0.2137
298.22	30.47	0.097412	0.2043	318.21	15.08	0.097412	0.2245	338.21	0.52	0.097412	0.2136
298.22	30.47	0.219302	0.4707	318.21	15.08	0.219302	0.5110	338.21	0.52	0.219302	0.4825
298.22	30.47	0.219302	0.4731	318.21	15.08	0.219302	0.5108	338.21	0.52	0.219302	0.4820
298.22	30.47	0.219302	0.4737	318.21	15.08	0.219302	0.5100	338.21	0.52	0.219302	0.4817
298.22	30.47	0.311270	0.6851	318.21	15.08	0.311270	0.7317	338.21	0.52	0.311270	0.6852
298.22	30.47	0.311270	0.6848	318.21	15.08	0.311270	0.7323	338.21	0.52	0.311270	0.6852
298.22	30.47	0.311270	0.6858	318.21	15.08	0.311270	0.7318	338.21	0.52	0.311270	0.6860
298.22	30.47	0.408540	0.9183	318.21	15.08	0.408540	0.9683	338.21	0.52	0.408540	0.9003
298.22	30.47	0.408540	0.9189	318.21	15.08	0.408540	0.9688	338.21	0.52	0.408540	0.9000
298.22	30.47	0.408540	0.9200	318.21	15.08	0.408540	0.9679	338.21	0.52	0.408540	0.8998

Table S2. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
338.21	15.24	0.097412	0.1975	358.16	0.51	0.097412	0.1721	358.16	29.85	0.109745	0.1727
338.21	15.24	0.097412	0.1987	358.16	0.51	0.097412	0.1694	358.16	29.85	0.109745	0.1718
338.21	15.24	0.219302	0.4420	358.16	0.51	0.097412	0.1703	358.16	29.85	0.109745	0.1738
338.21	15.24	0.219302	0.4501	358.16	0.51	0.219302	0.3850	358.16	29.85	0.199656	0.3150
338.21	15.24	0.219302	0.4450	358.16	0.51	0.219302	0.3868	358.16	29.85	0.199656	0.3156
338.21	15.24	0.311270	0.6292	358.16	0.51	0.219302	0.3860	358.16	29.85	0.199656	0.3168
338.21	15.24	0.311270	0.6364	358.16	0.51	0.311270	0.5495	358.16	29.85	0.309109	0.4909
338.21	15.24	0.311270	0.6346	358.16	0.51	0.311270	0.5488	358.16	29.85	0.309109	0.4912
338.21	15.24	0.408540	0.8362	358.16	0.51	0.311270	0.5498	358.16	29.85	0.309109	0.4926
338.21	15.24	0.408540	0.8419	358.16	0.51	0.408540	0.7194	358.16	29.85	0.398301	0.6337
338.21	15.24	0.408540	0.8349	358.16	0.51	0.408540	0.7191	358.16	29.85	0.398301	0.6327
				358.16	0.51	0.408540	0.7185	358.16	29.85	0.398301	0.6351
338.21	30.03	0.097412	0.1834								
338.21	30.03	0.097412	0.1811	358.17	15.10	0.109745	0.1822	373.15	0.52	0.109745	0.1593
338.21	30.03	0.097412	0.1819	358.17	15.10	0.109745	0.1841	373.15	0.52	0.109745	0.1592
338.21	30.03	0.219302	0.4096	358.17	15.10	0.109745	0.1813	373.15	0.52	0.109745	0.1583
338.21	30.03	0.219302	0.4111	358.17	15.10	0.199656	0.3283	373.15	0.52	0.199656	0.2905
338.21	30.03	0.219302	0.4096	358.17	15.10	0.199656	0.3341	373.15	0.52	0.199656	0.2899
338.21	30.03	0.311270	0.5840	358.17	15.10	0.309109	0.5170	373.15	0.52	0.199656	0.2886
338.21	30.03	0.311270	0.5837	358.17	15.10	0.309109	0.5213	373.15	0.52	0.309109	0.4466
338.21	30.03	0.311270	0.5836	358.17	15.10	0.398301	0.6700	373.15	0.52	0.309109	0.4462
338.21	30.03	0.408540	0.7699	358.17	15.10	0.398301	0.6679	373.15	0.52	0.309109	0.4461
338.21	30.03	0.408540	0.7694					373.15	0.52	0.398301	0.5728
338.21	30.03	0.408540	0.7691					373.15	0.52	0.398301	0.5729
								373.15	0.52	0.398301	0.5731

Table S2. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
373.15	15.08	0.109745	0.1564	398.14	2.03	0.102008	0.0962	398.14	30.04	0.102008	0.1057
373.15	15.08	0.109745	0.1566	398.14	2.03	0.102008	0.0967	398.14	30.04	0.102008	0.1037
373.15	15.08	0.109745	0.1568	398.14	2.03	0.224345	0.2100	398.14	30.04	0.102008	0.1056
373.15	15.08	0.199656	0.2852	398.14	2.03	0.224345	0.2090	398.14	30.04	0.224345	0.2306
373.15	15.08	0.199656	0.2840	398.14	2.03	0.224345	0.2092	398.14	30.04	0.224345	0.2282
373.15	15.08	0.199656	0.2852	398.14	2.03	0.315402	0.2909	398.14	30.04	0.224345	0.2283
373.15	15.08	0.309109	0.4390	398.14	2.03	0.315402	0.2916	398.14	30.04	0.315402	0.3193
373.15	15.08	0.309109	0.4382	398.14	2.03	0.315402	0.2913	398.14	30.04	0.315402	0.3176
373.15	15.08	0.309109	0.4383	398.14	2.03	0.406582	0.3731	398.14	30.04	0.315402	0.3173
373.15	15.08	0.398301	0.5636	398.14	2.03	0.406582	0.3727	398.14	30.04	0.406582	0.4080
373.15	15.08	0.398301	0.5631	398.14	2.03	0.406582	0.3715	398.14	30.04	0.406582	0.4104
373.15	15.08	0.398301	0.5626					398.14	30.04	0.406582	0.4084
				398.14	15.04	0.102008	0.1006				
373.15	30.06	0.109745	0.1523	398.14	15.04	0.102008	0.1005	423.15	2.05	0.102008	0.0415
373.15	30.06	0.109745	0.1505	398.14	15.04	0.224345	0.2192	423.15	2.05	0.102008	0.0437
373.15	30.06	0.109745	0.1512	398.14	15.04	0.224345	0.2183	423.15	2.05	0.102008	0.0426
373.15	30.06	0.199656	0.2752	398.14	15.04	0.224345	0.2211	423.15	2.05	0.224345	0.0954
373.15	30.06	0.199656	0.2757	398.14	15.04	0.315402	0.3064	423.15	2.05	0.224345	0.0953
373.15	30.06	0.199656	0.2747	398.14	15.04	0.315402	0.3063	423.15	2.05	0.224345	0.0953
373.15	30.06	0.309109	0.4254	398.14	15.04	0.315402	0.3047	423.15	2.05	0.315402	0.1334
373.15	30.06	0.309109	0.4256	398.14	15.04	0.406582	0.3925	423.15	2.05	0.315402	0.1329
373.15	30.06	0.398301	0.5478	398.14	15.04	0.406582	0.3923	423.15	2.05	0.315402	0.1333
373.15	30.06	0.398301	0.5460	398.14	15.04	0.406582	0.3916	423.15	2.05	0.406582	0.1705
373.15	30.06	0.398301	0.5470					423.15	2.05	0.406582	0.1706
								423.15	2.05	0.406582	0.1709

Table S2. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
423.15	15.01	0.102008	0.0583	448.15	2.04	0.102008	-0.0018	448.16	30.07	0.102008	0.0394
423.15	15.01	0.102008	0.0577	448.15	2.04	0.102008	-0.0027	448.16	30.07	0.102008	0.0373
423.15	15.01	0.102008	0.0583	448.15	2.04	0.102008	-0.0034	448.16	30.07	0.102008	0.0380
423.15	15.01	0.224345	0.1263	448.15	2.04	0.224345	-0.0060	448.16	30.07	0.224345	0.0839
423.15	15.01	0.224345	0.1260	448.15	2.04	0.224345	-0.0048	448.16	30.07	0.224345	0.0825
423.15	15.01	0.224345	0.1265	448.15	2.04	0.224345	-0.0054	448.16	30.07	0.224345	0.0833
423.15	15.01	0.315402	0.1757	448.15	2.04	0.315402	-0.0071	448.16	30.07	0.315402	0.1162
423.15	15.01	0.315402	0.1756	448.15	2.04	0.315402	-0.0082	448.16	30.07	0.315402	0.1156
423.15	15.01	0.315402	0.1757	448.15	2.04	0.315402	-0.0085	448.16	30.07	0.315402	0.1157
423.15	15.01	0.406582	0.2242	448.15	2.04	0.406582	-0.0101	448.16	30.07	0.406582	0.1496
423.15	15.01	0.406582	0.2236	448.15	2.04	0.406582	-0.0100	448.16	30.07	0.406582	0.1484
423.15	15.01	0.406582	0.2243	448.15	2.04	0.406582	-0.0107	448.16	30.07	0.406582	0.1467
423.15	30.03	0.102008	0.0701	448.16	15.05	0.102008	0.0199	473.15	2.04	0.102008	-0.0492
423.15	30.03	0.102008	0.0691	448.16	15.05	0.102008	0.0200	473.15	2.04	0.102008	-0.0488
423.15	30.03	0.102008	0.0697	448.16	15.05	0.102008	0.0195	473.15	2.04	0.102008	-0.0488
423.15	30.03	0.224345	0.1494	448.16	15.05	0.224345	0.0418	473.15	2.04	0.224345	-0.1026
423.15	30.03	0.224345	0.1504	448.16	15.05	0.224345	0.0415	473.15	2.04	0.224345	-0.1034
423.15	30.03	0.224345	0.1500	448.16	15.05	0.224345	0.0410	473.15	2.04	0.224345	-0.1049
423.15	30.03	0.315402	0.2106	448.16	15.05	0.315402	0.0588	473.15	2.04	0.315402	-0.1429
423.15	30.03	0.315402	0.2101	448.16	15.05	0.315402	0.0582	473.15	2.04	0.315402	-0.1429
423.15	30.03	0.315402	0.2092	448.16	15.05	0.315402	0.0577	473.15	2.04	0.315402	-0.1437
423.15	30.03	0.406582	0.2678	448.16	15.05	0.406582	0.0747	473.15	2.04	0.406582	-0.1806
423.15	30.03	0.406582	0.2679	448.16	15.05	0.406582	0.0738	473.15	2.04	0.406582	-0.1808
423.15	30.03	0.406582	0.2674	448.16	15.05	0.406582	0.0740	473.15	2.04	0.406582	-0.1806

Table S2. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
473.15	15.11	0.104802	-0.0172	498.13	3.06	0.104802	-0.0854	498.15	30.02	0.104802	-0.0026
473.15	15.11	0.104802	-0.0176	498.13	3.06	0.104802	-0.0859	498.15	30.02	0.104802	-0.0050
473.15	15.11	0.104802	-0.0182	498.13	3.06	0.104802	-0.0869	498.15	30.02	0.104802	-0.0035
473.15	15.11	0.203594	-0.0304	498.13	3.06	0.203594	-0.1658	498.15	30.02	0.203594	-0.0078
473.15	15.11	0.203594	-0.0314	498.13	3.06	0.203594	-0.1676	498.15	30.02	0.203594	-0.0080
473.15	15.11	0.203594	-0.0303	498.13	3.06	0.203594	-0.1660	498.15	30.02	0.203594	-0.0073
473.15	15.11	0.293742	-0.0427	498.13	3.06	0.293742	-0.2346	498.15	30.02	0.293742	-0.0076
473.15	15.11	0.293742	-0.0418	498.13	3.06	0.293742	-0.2360	498.15	30.02	0.293742	-0.0087
473.15	15.11	0.293742	-0.0419	498.13	3.06	0.293742	-0.2370	498.15	30.02	0.293742	-0.0093
473.15	15.11	0.403245	-0.0556	498.13	3.06	0.403245	-0.3175	498.15	30.02	0.403245	-0.0103
473.15	15.11	0.403245	-0.0554	498.13	3.06	0.403245	-0.3191	498.15	30.02	0.403245	-0.0081
473.15	15.11	0.403245	-0.0559	498.13	3.06	0.403245	-0.3180	498.15	30.02	0.403245	-0.0091
473.16	30.03	0.104802	0.0108	498.14	15.11	0.104802	-0.0465	523.18	5.09	0.104802	-0.1123
473.16	30.03	0.104802	0.0115	498.14	15.11	0.104802	-0.0415	523.18	5.09	0.104802	-0.1131
473.16	30.03	0.104802	0.0116	498.14	15.11	0.104802	-0.0424	523.18	5.09	0.104802	-0.1161
473.16	30.03	0.203594	0.0251	498.14	15.11	0.203594	-0.0779	523.18	5.09	0.203594	-0.2147
473.16	30.03	0.203594	0.0245	498.14	15.11	0.203594	-0.0810	523.18	5.09	0.203594	-0.2209
473.16	30.03	0.203594	0.0250	498.14	15.11	0.203594	-0.0816	523.18	5.09	0.203594	-0.2199
473.16	30.03	0.293742	0.0373	498.14	15.11	0.293742	-0.1136	523.18	5.09	0.293742	-0.3122
473.16	30.03	0.293742	0.0372	498.14	15.11	0.293742	-0.1148	523.18	5.09	0.293742	-0.3156
473.16	30.03	0.293742	0.0379	498.14	15.11	0.293742	-0.1191	523.18	5.09	0.293742	-0.3141
473.16	30.03	0.403245	0.0516	498.14	15.11	0.403245	-0.1550	523.18	5.09	0.403245	-0.4185
473.16	30.03	0.403245	0.0524	498.14	15.11	0.403245	-0.1538	523.18	5.09	0.403245	-0.4216
473.16	30.03	0.403245	0.0521	498.14	15.11	0.403245	-0.1548	523.18	5.09	0.403245	-0.4257

Table S2. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
523.16	15.04	0.104802	-0.0651	548.15	7.02	0.123380	-0.1618	548.14	30.03	0.123380	-0.0114
523.16	15.04	0.104802	-0.0649	548.15	7.02	0.123380	-0.1753	548.14	30.03	0.123380	-0.0122
523.16	15.04	0.104802	-0.0643	548.15	7.02	0.123380	-0.1709	548.14	30.03	0.213961	-0.0143
523.16	15.04	0.203594	-0.1241	548.15	7.02	0.213961	-0.2917	548.14	30.03	0.213961	-0.0158
523.16	15.04	0.203594	-0.1240	548.15	7.02	0.213961	-0.2908	548.14	30.03	0.213961	-0.0140
523.16	15.04	0.203594	-0.1248	548.15	7.02	0.213961	-0.2911	548.14	30.03	0.308207	-0.0142
523.16	15.04	0.293742	-0.1731	548.15	7.02	0.308207	-0.4062	548.14	30.03	0.308207	-0.0176
523.16	15.04	0.293742	-0.1763	548.15	7.02	0.308207	-0.4076	548.14	30.03	0.308207	-0.0188
523.16	15.04	0.293742	-0.1742	548.15	7.02	0.308207	-0.4072	548.14	30.03	0.405687	-0.0133
523.16	15.04	0.403245	-0.2328	548.15	7.02	0.405687	-0.5242	548.14	30.03	0.405687	-0.0151
523.16	15.04	0.403245	-0.2348	548.15	7.02	0.405687	-0.5260	548.14	30.03	0.405687	-0.0110
523.16	15.04	0.403245	-0.2330	548.15	7.02	0.405687	-0.5212				
								573.15	10.22	0.123380	-0.1837
523.16	30.08	0.104802	-0.0100	548.15	14.99	0.123380	-0.1000	573.15	10.22	0.123380	-0.1894
523.16	30.08	0.104802	-0.0090	548.15	14.99	0.123380	-0.1034	573.15	10.22	0.123380	-0.1882
523.16	30.08	0.104802	-0.0112	548.15	14.99	0.123380	-0.1023	573.15	10.22	0.213961	-0.3151
523.16	30.08	0.203594	-0.0192	548.15	14.99	0.213961	-0.1645	573.15	10.22	0.213961	-0.3175
523.16	30.08	0.203594	-0.0169	548.15	14.99	0.213961	-0.1678	573.15	10.22	0.213961	-0.3172
523.16	30.08	0.203594	-0.0157	548.15	14.99	0.213961	-0.1734	573.15	10.22	0.308207	-0.4453
523.16	30.08	0.293742	-0.0227	548.15	14.99	0.308207	-0.2344	573.15	10.22	0.308207	-0.4420
523.16	30.08	0.293742	-0.0246	548.15	14.99	0.308207	-0.2331	573.15	10.22	0.308207	-0.4421
523.16	30.08	0.293742	-0.0229	548.15	14.99	0.308207	-0.2369	573.15	10.22	0.405687	-0.5625
523.16	30.08	0.403245	-0.0280	548.15	14.99	0.405687	-0.2968	573.15	10.22	0.405687	-0.5591
523.16	30.08	0.403245	-0.0301	548.15	14.99	0.405687	-0.2970	573.15	10.22	0.405687	-0.5566
523.16	30.08	0.403245	-0.0272	548.15	14.99	0.405687	-0.2959				

Table S2. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
573.16	15.19	0.123380	-0.1197	573.16	30.08	0.123380	0.0052				
573.16	15.19	0.123380	-0.1262	573.16	30.08	0.123380	0.0068				
573.16	15.19	0.123380	-0.1201	573.16	30.08	0.123380	0.0063				
573.16	15.19	0.213961	-0.2045	573.16	30.08	0.213961	0.0142				
573.16	15.19	0.213961	-0.2044	573.16	30.08	0.213961	0.0158				
573.16	15.19	0.213961	-0.2091	573.16	30.08	0.213961	0.0174				
573.16	15.19	0.308207	-0.2810	573.16	30.08	0.308207	0.0314				
573.16	15.19	0.308207	-0.2811	573.16	30.08	0.308207	0.0288				
573.16	15.19	0.308207	-0.2818	573.16	30.08	0.308207	0.0329				
573.16	15.19	0.405687	-0.3436	573.16	30.08	0.405687	0.0584				
573.16	15.19	0.405687	-0.3451	573.16	30.08	0.405687	0.0613				
573.16	15.19	0.405687	-0.3470	573.16	30.08	0.405687	0.0577				

Standard uncertainties u are $u(T)$/K = 0.02 , $u(p)$/MPa = 0.01 except for p = 0.10 MPa (non-measured atmospheric pressure), $u(m_2)/(\text{mol}\cdot\text{kg}^{-1}) = 2\cdot10^{-4}\ m_2/(\text{mol}\cdot\text{kg}^{-1})$, and the combined expanded uncertainty $U_c(\Delta\rho)/(\text{kg}\cdot\text{m}^{-3}) = 0.002|\Delta\rho/(\text{kg}\cdot\text{m}^{-3})| + \delta_g$ where $\delta_g = 0$ for measurements by DSA 5000 (p = 0.10 MPa) and δ_g = 0.005 for measurements by HTHP (other pressures).

Table S3. Direct experimental data measured for 2,2-bis(hydroxymethyl)propane-1-ol (aq)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
278.15	0.10	0.099952	1.883	288.15	0.10	0.099952	1.835	298.15	0.10	0.099952	1.798
278.15	0.10	0.099952	1.886	288.15	0.10	0.099952	1.837	298.15	0.10	0.099952	1.799
278.15	0.10	0.198504	3.722	288.15	0.10	0.198504	3.623	298.15	0.10	0.198504	3.546
278.15	0.10	0.198504	3.726	288.15	0.10	0.198504	3.624	298.15	0.10	0.198504	3.548
278.15	0.10	0.290953	5.425	288.15	0.10	0.290953	5.274	298.15	0.10	0.290953	5.159
278.15	0.10	0.290953	5.428	288.15	0.10	0.290953	5.276	298.15	0.10	0.290953	5.162
278.15	0.10	0.392296	7.271	288.15	0.10	0.392296	7.066	298.15	0.10	0.392296	6.907
278.15	0.10	0.392296	7.277	288.15	0.10	0.392296	7.068	298.15	0.10	0.392296	6.910
278.15	0.10	0.496187	9.142	288.15	0.10	0.496187	8.879	298.15	0.10	0.496187	8.675
278.15	0.10	0.496187	9.149	288.15	0.10	0.496187	8.881	298.15	0.10	0.496187	8.679
278.15	0.10	0.604245	11.042	288.15	0.10	0.604245	10.714	298.15	0.10	0.604245	10.460
278.15	0.10	0.604245	11.048	288.15	0.10	0.604245	10.717	298.15	0.10	0.604245	10.464
283.15	0.10	0.099952	1.857	293.15	0.10	0.099952	1.815	308.15	0.10	0.099952	1.767
283.15	0.10	0.099952	1.860	293.15	0.10	0.099952	1.816	308.15	0.10	0.099952	1.768
283.15	0.10	0.198504	3.667	293.15	0.10	0.198504	3.581	308.15	0.10	0.198504	3.484
283.15	0.10	0.198504	3.671	293.15	0.10	0.198504	3.582	308.15	0.10	0.198504	3.486
283.15	0.10	0.290953	5.344	293.15	0.10	0.290953	5.214	308.15	0.10	0.290953	5.070
283.15	0.10	0.290953	5.348	293.15	0.10	0.290953	5.215	308.15	0.10	0.290953	5.071
283.15	0.10	0.392296	7.159	293.15	0.10	0.392296	6.988	308.15	0.10	0.392296	6.781
283.15	0.10	0.392296	7.165	293.15	0.10	0.392296	6.990	308.15	0.10	0.392296	6.782
283.15	0.10	0.496187	8.998	293.15	0.10	0.496187	8.769	308.15	0.10	0.496187	8.517
283.15	0.10	0.496187	9.004	293.15	0.10	0.496187	8.772	308.15	0.10	0.496187	8.518
283.15	0.10	0.604245	10.862	293.15	0.10	0.604245	10.579	308.15	0.10	0.604245	10.264
283.15	0.10	0.604245	10.868	293.15	0.10	0.604245	10.582	308.15	0.10	0.604245	10.266

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
318.15	0.10	0.099952	1.744	298.19	0.51	0.099549	1.7862	298.19	15.13	0.099549	1.7382
318.15	0.10	0.099952	1.738	298.19	0.51	0.099549	1.7863	298.19	15.13	0.099549	1.7386
318.15	0.10	0.198504	3.433	298.19	0.51	0.099549	1.7854	298.19	15.13	0.099549	1.7387
318.15	0.10	0.198504	3.435	298.19	0.51	0.198164	3.5295	298.19	15.13	0.198164	3.4366
318.15	0.10	0.290953	4.990	298.19	0.51	0.198164	3.5288	298.19	15.13	0.198164	3.4352
318.15	0.10	0.290953	4.992	298.19	0.51	0.198164	3.5287	298.19	15.13	0.198164	3.4344
318.15	0.10	0.392296	6.676	298.19	0.51	0.300427	5.3090	298.19	15.13	0.300427	5.1703
318.15	0.10	0.392296	6.677	298.19	0.51	0.300427	5.3087	298.19	15.13	0.300427	5.1686
318.15	0.10	0.496187	8.371	298.19	0.51	0.300427	5.3077	298.19	15.13	0.300427	5.1687
318.15	0.10	0.496187	8.373	298.19	0.51	0.400621	7.0259	298.19	15.13	0.400621	6.8391
318.15	0.10	0.604245	10.085	298.19	0.51	0.400621	7.0243	298.19	15.13	0.400621	6.8411
318.15	0.10	0.604245	10.087	298.19	0.51	0.400621	7.0239	298.19	15.13	0.400621	6.8402
				298.19	0.51	0.493004	8.5830	298.19	15.13	0.493004	8.3585
				298.19	0.51	0.493004	8.5836	298.19	15.13	0.493004	8.3590
				298.19	0.51	0.493004	8.5824	298.19	15.13	0.493004	8.3582
				298.19	0.51	0.596095	10.2952	298.19	15.13	0.596095	10.0269
				298.19	0.51	0.596095	10.2946	298.19	15.13	0.596095	10.0285
				298.19	0.51	0.596095	10.2938	298.19	15.13	0.596095	10.0285

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
298.22	30.47	0.099549	1.6898	318.22	0.52	0.099549	1.7304	318.22	15.07	0.099549	1.6988
298.22	30.47	0.099549	1.6914	318.22	0.52	0.099549	1.7301	318.22	15.07	0.099549	1.6980
298.22	30.47	0.099549	1.6901	318.22	0.52	0.099549	1.7306	318.22	15.07	0.099549	1.6982
298.22	30.47	0.198164	3.3411	318.22	0.52	0.198164	3.4145	318.22	15.07	0.198164	3.3515
298.22	30.47	0.198164	3.3443	318.22	0.52	0.198164	3.4147	318.22	15.07	0.198164	3.3530
298.22	30.47	0.198164	3.3392	318.22	0.52	0.198164	3.4146	318.22	15.07	0.198164	3.3537
298.22	30.47	0.300427	5.0285	318.22	0.52	0.300427	5.1329	318.22	15.07	0.300427	5.0391
298.22	30.47	0.300427	5.0275	318.22	0.52	0.300427	5.1323	318.22	15.07	0.300427	5.0390
298.22	30.47	0.300427	5.0263	318.22	0.52	0.300427	5.1332	318.22	15.07	0.300427	5.0388
298.22	30.47	0.400621	6.6568	318.22	0.52	0.400621	6.7856	318.22	15.07	0.400621	6.6637
298.22	30.47	0.400621	6.6554	318.22	0.52	0.400621	6.7857	318.22	15.07	0.400621	6.6642
298.22	30.47	0.400621	6.6544	318.22	0.52	0.400621	6.7853	318.22	15.07	0.400621	6.6635
298.22	30.47	0.493004	8.1344	318.22	0.52	0.493004	8.2841	318.22	15.07	0.493004	8.1357
298.22	30.47	0.493004	8.1344	318.22	0.52	0.493004	8.2854	318.22	15.07	0.493004	8.1371
298.22	30.47	0.493004	8.1339	318.22	0.52	0.493004	8.2843	318.22	15.07	0.493004	8.1366
298.22	30.47	0.596095	9.7605	318.22	0.52	0.596095	9.9280	318.22	15.07	0.596095	9.7531
298.22	30.47	0.596095	9.7595	318.22	0.52	0.596095	9.9282	318.22	15.07	0.596095	9.7521
298.22	30.47	0.596095	9.7599	318.22	0.52	0.596095	9.9284	318.22	15.07	0.596095	9.7523

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
318.21	29.96	0.099549	1.6613	338.21	0.52	0.099549	1.6865	338.21	15.20	0.099549	1.6610
318.21	29.96	0.099549	1.6654	338.21	0.52	0.099549	1.6859	338.21	15.20	0.099549	1.6618
318.21	29.96	0.099549	1.6629	338.21	0.52	0.099549	1.6847	338.21	15.20	0.099549	1.6613
318.21	29.96	0.198164	3.2873	338.21	0.52	0.198164	3.3259	338.21	15.20	0.198164	3.2802
318.21	29.96	0.198164	3.2850	338.21	0.52	0.198164	3.3257	338.21	15.20	0.198164	3.2787
318.21	29.96	0.198164	3.2862	338.21	0.52	0.198164	3.3260	338.21	15.20	0.198164	3.2776
318.21	29.96	0.300427	4.9396	338.21	0.52	0.300427	4.9952	338.21	15.20	0.300427	4.9257
318.21	29.96	0.300427	4.9405	338.21	0.52	0.300427	4.9947	338.21	15.20	0.300427	4.9249
318.21	29.96	0.300427	4.9400	338.21	0.52	0.300427	4.9951	338.21	15.20	0.300427	4.9243
318.21	29.96	0.400621	6.5308	338.21	0.52	0.400621	6.6002	338.21	15.20	0.400621	6.5073
318.21	29.96	0.400621	6.5318	338.21	0.52	0.400621	6.5996	338.21	15.20	0.400621	6.5057
318.21	29.96	0.400621	6.5321	338.21	0.52	0.400621	6.5994	338.21	15.20	0.400621	6.5049
318.21	29.96	0.493004	7.9763	338.21	0.52	0.493004	8.0534	338.21	15.20	0.493004	7.9408
318.21	29.96	0.493004	7.9770	338.21	0.52	0.493004	8.0538	338.21	15.20	0.493004	7.9363
318.21	29.96	0.493004	7.9775	338.21	0.52	0.493004	8.0527	338.21	15.20	0.493004	7.9406
318.21	29.96	0.596095	9.5628	338.21	0.52	0.596095	9.6456	338.21	15.20	0.596095	9.5145
318.21	29.96	0.596095	9.5638	338.21	0.52	0.596095	9.6460	338.21	15.20	0.596095	9.5105
318.21	29.96	0.596095	9.5607	338.21	0.52	0.596095	9.6460	338.21	15.20	0.596095	9.5114

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
338.21	30.14	0.099549	1.6410	358.17	0.52	0.604245	9.5379	358.16	15.09	0.099952	1.6377
338.21	30.14	0.099549	1.6397	358.17	0.52	0.604245	9.5382	358.16	15.09	0.099952	1.6402
338.21	30.14	0.099549	1.6370	358.17	0.52	0.604245	9.5377	358.16	15.09	0.099952	1.6398
338.21	30.14	0.198164	3.2332	358.17	0.52	0.099549	1.6442	358.16	15.09	0.198504	3.2334
338.21	30.14	0.198164	3.2320	358.17	0.52	0.099549	1.6444	358.16	15.09	0.198504	3.2335
338.21	30.14	0.198164	3.2332	358.17	0.52	0.099549	1.6439	358.16	15.09	0.198504	3.2342
338.21	30.14	0.300427	4.8554	358.17	0.52	0.198164	3.2476	358.16	15.09	0.290953	4.6991
338.21	30.14	0.300427	4.8574	358.17	0.52	0.198164	3.2478	358.16	15.09	0.290953	4.6972
338.21	30.14	0.300427	4.8558	358.17	0.52	0.198164	3.2467	358.16	15.09	0.290953	4.6966
338.21	30.14	0.400621	6.4209	358.17	0.52	0.300427	4.8773	358.16	15.09	0.392296	6.2729
338.21	30.14	0.400621	6.4162	358.17	0.52	0.300427	4.8764	358.16	15.09	0.392296	6.2725
338.21	30.14	0.400621	6.4164	358.17	0.52	0.300427	4.8759	358.16	15.09	0.392296	6.2727
338.21	30.14	0.493004	7.8279	358.17	0.52	0.400621	6.4424	358.16	15.09	0.496187	7.8687
338.21	30.14	0.493004	7.8315	358.17	0.52	0.400621	6.4426	358.16	15.09	0.496187	7.8677
338.21	30.14	0.493004	7.8303	358.17	0.52	0.400621	6.4412	358.16	15.09	0.496187	7.8685
338.21	30.14	0.596095	9.3801	358.17	0.52	0.493004	7.8598	358.16	15.09	0.604245	9.4815
338.21	30.14	0.596095	9.3809	358.17	0.52	0.493004	7.8588	358.16	15.09	0.604245	9.4795
338.21	30.14	0.596095	9.3807	358.17	0.52	0.493004	7.8586	358.16	15.09	0.604245	9.4792

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
358.16	30.07	0.099952	1.6253	373.15	0.52	0.099952	1.6294	373.14	15.06	0.099952	1.6170
358.16	30.07	0.099952	1.6243	373.15	0.52	0.099952	1.6284	373.14	15.06	0.099952	1.6166
358.16	30.07	0.099952	1.6237	373.15	0.52	0.099952	1.6262	373.14	15.06	0.099952	1.6164
358.16	30.07	0.198504	3.2023	373.15	0.52	0.198504	3.2083	373.14	15.06	0.198504	3.1838
358.16	30.07	0.198504	3.2021	373.15	0.52	0.198504	3.2090	373.14	15.06	0.198504	3.1833
358.16	30.07	0.198504	3.2002	373.15	0.52	0.198504	3.2083	373.14	15.06	0.198504	3.1826
358.16	30.07	0.290953	4.6487	373.15	0.52	0.290953	4.6570	373.14	15.06	0.290953	4.6203
358.16	30.07	0.290953	4.6480	373.15	0.52	0.290953	4.6562	373.14	15.06	0.290953	4.6204
358.16	30.07	0.290953	4.6485	373.15	0.52	0.290953	4.6587	373.14	15.06	0.290953	4.6197
358.16	30.07	0.392296	6.2111	373.15	0.52	0.392296	6.2169	373.14	15.06	0.392296	6.1702
358.16	30.07	0.392296	6.2112	373.15	0.52	0.392296	6.2171	373.14	15.06	0.392296	6.1701
358.16	30.07	0.392296	6.2102	373.15	0.52	0.392296	6.2166	373.14	15.06	0.392296	6.1695
358.16	30.07	0.496187	7.7880	373.15	0.52	0.496187	7.7973	373.14	15.06	0.496187	7.7374
358.16	30.07	0.496187	7.7876	373.15	0.52	0.496187	7.7979	373.14	15.06	0.496187	7.7379
358.16	30.07	0.496187	7.7869	373.15	0.52	0.496187	7.7968	373.14	15.06	0.496187	7.7379
358.16	30.07	0.604245	9.3824	373.15	0.52	0.604245	9.3935	373.14	15.06	0.604245	9.3216
358.16	30.07	0.604245	9.3832	373.15	0.52	0.604245	9.3933	373.14	15.06	0.604245	9.3211
358.16	30.07	0.604245	9.3820	373.15	0.52	0.604245	9.3934	373.14	15.06	0.604245	9.3212

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
373.14	30.06	0.099952	1.6031	398.14	2.03	0.097479	1.5571	398.15	15.04	0.097479	1.5497
373.14	30.06	0.099952	1.6024	398.14	2.03	0.097479	1.5558	398.15	15.04	0.097479	1.5489
373.14	30.06	0.099952	1.6021	398.14	2.03	0.097479	1.5567	398.15	15.04	0.097479	1.5500
373.14	30.06	0.198504	3.1556	398.14	2.03	0.200908	3.1740	398.15	15.04	0.200908	3.1620
373.14	30.06	0.198504	3.1553	398.14	2.03	0.200908	3.1731	398.15	15.04	0.200908	3.1627
373.14	30.06	0.198504	3.1552	398.14	2.03	0.200908	3.1737	398.15	15.04	0.200908	3.1605
373.14	30.06	0.290953	4.5795	398.14	2.03	0.295574	4.6280	398.15	15.04	0.295574	4.6101
373.14	30.06	0.290953	4.5795	398.14	2.03	0.295574	4.6265	398.15	15.04	0.295574	4.6104
373.14	30.06	0.290953	4.5794	398.14	2.03	0.295574	4.6270	398.15	15.04	0.295574	4.6095
373.14	30.06	0.392296	6.1158	398.14	2.03	0.392457	6.0865	398.15	15.04	0.392457	6.0627
373.14	30.06	0.392296	6.1158	398.14	2.03	0.392457	6.0857	398.15	15.04	0.392457	6.0631
373.14	30.06	0.392296	6.1163	398.14	2.03	0.392457	6.0838	398.15	15.04	0.392457	6.0612
373.14	30.06	0.496187	7.6693	398.14	2.03	0.492849	7.5685	398.15	15.04	0.492849	7.5420
373.14	30.06	0.496187	7.6692	398.14	2.03	0.492849	7.5675	398.15	15.04	0.492849	7.5411
373.14	30.06	0.496187	7.6687	398.14	2.03	0.492849	7.5671	398.15	15.04	0.492849	7.5407
373.14	30.06	0.604245	9.2423	398.14	2.03	0.597191	9.0890	398.15	15.04	0.597191	9.0559
373.14	30.06	0.604245	9.2431	398.14	2.03	0.597191	9.0877	398.15	15.04	0.597191	9.0550
373.14	30.06	0.604245	9.2420	398.14	2.03	0.597191	9.0880	398.15	15.04	0.597191	9.0552

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
398.15	29.99	0.097479	1.5396	423.15	2.05	0.097479	1.5295	423.15	15.00	0.097479	1.5292
398.15	29.99	0.097479	1.5399	423.15	2.05	0.097479	1.5314	423.15	15.00	0.097479	1.5302
398.15	29.99	0.097479	1.5405	423.15	2.05	0.097479	1.5305	423.15	15.00	0.097479	1.5290
398.15	29.99	0.200908	3.1424	423.15	2.05	0.200908	3.1242	423.15	15.00	0.200908	3.1208
398.15	29.99	0.200908	3.1422	423.15	2.05	0.200908	3.1235	423.15	15.00	0.200908	3.1196
398.15	29.99	0.200908	3.1421	423.15	2.05	0.200908	3.1230	423.15	15.00	0.200908	3.1194
398.15	29.99	0.295574	4.5816	423.15	2.05	0.295574	4.5558	423.15	15.00	0.295574	4.5499
398.15	29.99	0.295574	4.5826	423.15	2.05	0.295574	4.5557	423.15	15.00	0.295574	4.5504
398.15	29.99	0.295574	4.5823	423.15	2.05	0.295574	4.5562	423.15	15.00	0.295574	4.5506
398.15	29.99	0.392457	6.0265	423.15	2.05	0.392457	5.9902	423.15	15.00	0.392457	5.9838
398.15	29.99	0.392457	6.0254	423.15	2.05	0.392457	5.9908	423.15	15.00	0.392457	5.9824
398.15	29.99	0.392457	6.0254	423.15	2.05	0.392457	5.9910	423.15	15.00	0.392457	5.9826
398.15	29.99	0.492849	7.4952	423.15	2.05	0.492849	7.4515	423.15	15.00	0.492849	7.4419
398.15	29.99	0.492849	7.4969	423.15	2.05	0.492849	7.4519	423.15	15.00	0.492849	7.4406
398.15	29.99	0.492849	7.4957	423.15	2.05	0.492849	7.4511	423.15	15.00	0.492849	7.4406
398.15	29.99	0.597191	9.0011	423.15	2.05	0.597191	8.9489	423.15	15.00	0.597191	8.9378
398.15	29.99	0.597191	9.0017	423.15	2.05	0.597191	8.9490	423.15	15.00	0.597191	8.9368
398.15	29.99	0.597191	9.0015	423.15	2.05	0.597191	8.9487	423.15	15.00	0.597191	8.9366

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
423.15	30.06	0.097479	1.5237	448.15	2.04	0.097479	1.5181	448.15	15.06	0.097479	1.5193
423.15	30.06	0.097479	1.5241	448.15	2.04	0.097479	1.5175	448.15	15.06	0.097479	1.5181
423.15	30.06	0.097479	1.5246	448.15	2.04	0.097479	1.5177	448.15	15.06	0.097479	1.5185
423.15	30.06	0.200908	3.1086	448.15	2.04	0.200908	3.0986	448.15	15.06	0.200908	3.0993
423.15	30.06	0.200908	3.1094	448.15	2.04	0.200908	3.0972	448.15	15.06	0.200908	3.0996
423.15	30.06	0.200908	3.1108	448.15	2.04	0.200908	3.0966	448.15	15.06	0.200908	3.0991
423.15	30.06	0.295574	4.5366	448.15	2.04	0.295574	4.5208	448.15	15.06	0.295574	4.5232
423.15	30.06	0.295574	4.5369	448.15	2.04	0.295574	4.5210	448.15	15.06	0.295574	4.5230
423.15	30.06	0.295574	4.5362	448.15	2.04	0.295574	4.5205	448.15	15.06	0.295574	4.5281
423.15	30.06	0.392457	5.9630	448.15	2.04	0.392457	5.9435	448.15	15.06	0.392457	5.9461
423.15	30.06	0.392457	5.9644	448.15	2.04	0.392457	5.9427	448.15	15.06	0.392457	5.9460
423.15	30.06	0.392457	5.9648	448.15	2.04	0.392457	5.9432	448.15	15.06	0.392457	5.9460
423.15	30.06	0.492849	7.4174	448.15	2.04	0.492849	7.3944	448.15	15.06	0.492849	7.3972
423.15	30.06	0.492849	7.4183	448.15	2.04	0.492849	7.3950	448.15	15.06	0.492849	7.3984
423.15	30.06	0.492849	7.4187	448.15	2.04	0.492849	7.3942	448.15	15.06	0.492849	7.3971
423.15	30.06	0.597191	8.9087	448.15	2.04	0.597191	8.8825	448.15	15.06	0.597191	8.8863
423.15	30.06	0.597191	8.9106	448.15	2.04	0.597191	8.8819	448.15	15.06	0.597191	8.8871
423.15	30.06	0.597191	8.9088	448.15	2.04	0.597191	8.8814	448.15	15.06	0.597191	8.8872

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
448.16	30.04	0.097479	1.5192	473.15	2.05	0.096773	1.5069	473.15	15.10	0.096773	1.5104
448.16	30.04	0.097479	1.5193	473.15	2.05	0.096773	1.5068	473.15	15.10	0.096773	1.5102
448.16	30.04	0.097479	1.5187	473.15	2.05	0.096773	1.5061	473.15	15.10	0.096773	1.5104
448.16	30.04	0.200908	3.0992	473.15	2.05	0.203084	3.1297	473.15	15.10	0.203084	3.1384
448.16	30.04	0.200908	3.0988	473.15	2.05	0.203084	3.1308	473.15	15.10	0.203084	3.1378
448.16	30.04	0.200908	3.0983	473.15	2.05	0.203084	3.1318	473.15	15.10	0.203084	3.1380
448.16	30.04	0.295574	4.5226	473.15	2.05	0.289934	4.4348	473.15	15.10	0.289934	4.4449
448.16	30.04	0.295574	4.5218	473.15	2.05	0.289934	4.4343	473.15	15.10	0.289934	4.4450
448.16	30.04	0.295574	4.5218	473.15	2.05	0.289934	4.4342	473.15	15.10	0.289934	4.4448
448.16	30.04	0.392457	5.9444	473.15	2.05	0.403292	6.1039	473.15	15.10	0.403292	6.1194
448.16	30.04	0.392457	5.9431	473.15	2.05	0.403292	6.1051	473.15	15.10	0.403292	6.1199
448.16	30.04	0.392457	5.9437	473.15	2.05	0.403292	6.1038	473.15	15.10	0.403292	6.1196
448.16	30.04	0.492849	7.3954	473.15	2.05	0.497975	7.4725	473.15	15.10	0.497975	7.4886
448.16	30.04	0.492849	7.3952	473.15	2.05	0.497975	7.4731	473.15	15.10	0.497975	7.4910
448.16	30.04	0.492849	7.3949	473.15	2.05	0.497975	7.4718	473.15	15.10	0.497975	7.4906
448.16	30.04	0.597191	8.8827	473.15	2.05	0.599726	8.9167	473.15	15.10	0.599726	8.9383
448.16	30.04	0.597191	8.8829	473.15	2.05	0.599726	8.9160	473.15	15.10	0.599726	8.9389
448.16	30.04	0.597191	8.8827	473.15	2.05	0.599726	8.9163	473.15	15.10	0.599726	8.9377

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
473.15	29.95	0.096773	1.5109	498.14	3.05	0.096773	1.5180	498.14	15.15	0.096773	1.5242
473.15	29.95	0.096773	1.5104	498.14	3.05	0.096773	1.5207	498.14	15.15	0.096773	1.5257
473.15	29.95	0.096773	1.5103	498.14	3.05	0.096773	1.5201	498.14	15.15	0.096773	1.5273
473.15	29.95	0.203084	3.1365	498.14	3.05	0.203084	3.1613	498.14	15.15	0.203084	3.1709
473.15	29.95	0.203084	3.1387	498.14	3.05	0.203084	3.1606	498.14	15.15	0.203084	3.1698
473.15	29.95	0.203084	3.1377	498.14	3.05	0.203084	3.1636	498.14	15.15	0.203084	3.1693
473.15	29.95	0.289934	4.4454	498.14	3.05	0.289934	4.4818	498.14	15.15	0.289934	4.4923
473.15	29.95	0.289934	4.4456	498.14	3.05	0.289934	4.4800	498.14	15.15	0.289934	4.4919
473.15	29.95	0.289934	4.4453	498.14	3.05	0.289934	4.4815	498.14	15.15	0.289934	4.4923
473.15	29.95	0.403292	6.1193	498.14	3.05	0.403292	6.1743	498.14	15.15	0.403292	6.1882
473.15	29.95	0.403292	6.1209	498.14	3.05	0.403292	6.1720	498.14	15.15	0.403292	6.1883
473.15	29.95	0.403292	6.1215	498.14	3.05	0.403292	6.1720	498.14	15.15	0.403292	6.1900
473.15	29.95	0.497975	7.4930	498.14	3.05	0.497975	7.5580	498.14	15.15	0.497975	7.5763
473.15	29.95	0.497975	7.4927	498.14	3.05	0.497975	7.5576	498.14	15.15	0.497975	7.5775
473.15	29.95	0.497975	7.4917	498.14	3.05	0.497975	7.5585	498.14	15.15	0.497975	7.5777
473.15	29.95	0.599726	8.9391	498.14	3.05	0.599726	9.0263	498.14	15.15	0.599726	9.0459
473.15	29.95	0.599726	8.9389	498.14	3.05	0.599726	9.0241	498.14	15.15	0.599726	9.0475
473.15	29.95	0.599726	8.9414	498.14	3.05	0.599726	9.0256	498.14	15.15	0.599726	9.0468

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
498.16	30.03	0.096773	1.5263	523.18	5.10	0.096773	1.5587	523.16	15.03	0.096773	1.5588
498.16	30.03	0.096773	1.5265	523.18	5.10	0.096773	1.5563	523.16	15.03	0.096773	1.5627
498.16	30.03	0.096773	1.5287	523.18	5.10	0.096773	1.5608	523.16	15.03	0.096773	1.5589
498.16	30.03	0.203084	3.1741	523.18	5.10	0.203084	3.2426	523.16	15.03	0.203084	3.2470
498.16	30.03	0.203084	3.1743	523.18	5.10	0.203084	3.2450	523.16	15.03	0.203084	3.2477
498.16	30.03	0.203084	3.1730	523.18	5.10	0.203084	3.2422	523.16	15.03	0.203084	3.2483
498.16	30.03	0.289934	4.4980	523.18	5.10	0.289934	4.5993	523.16	15.03	0.289934	4.6037
498.16	30.03	0.289934	4.4993	523.18	5.10	0.289934	4.5999	523.16	15.03	0.289934	4.6027
498.16	30.03	0.289934	4.4993	523.18	5.10	0.289934	4.5996	523.16	15.03	0.289934	4.6023
498.16	30.03	0.403292	6.1981	523.18	5.10	0.403292	6.3401	523.16	15.03	0.403292	6.3425
498.16	30.03	0.403292	6.1970	523.18	5.10	0.403292	6.3408	523.16	15.03	0.403292	6.3474
498.16	30.03	0.403292	6.1966	523.18	5.10	0.403292	6.3385	523.16	15.03	0.403292	6.3501
498.16	30.03	0.497975	7.5837	523.18	5.10	0.497975	7.7585	523.16	15.03	0.497975	7.7649
498.16	30.03	0.497975	7.5865	523.18	5.10	0.497975	7.7626	523.16	15.03	0.497975	7.7664
498.16	30.03	0.497975	7.5858	523.18	5.10	0.497975	7.7595	523.16	15.03	0.497975	7.7664
498.16	30.03	0.599726	9.0557	523.18	5.10	0.599726	9.2767	523.16	15.03	0.599726	9.2806
498.16	30.03	0.599726	9.0559	523.18	5.10	0.599726	9.2760	523.16	15.03	0.599726	9.2791
498.16	30.03	0.599726	9.0551	523.18	5.10	0.599726	9.2737	523.16	15.03	0.599726	9.2805

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
523.16	30.02	0.096773	1.5618	548.16	7.00	0.097121	1.6304	548.14	15.00	0.097121	1.6294
523.16	30.02	0.096773	1.5626	548.16	7.00	0.097121	1.6355	548.14	15.00	0.097121	1.6261
523.16	30.02	0.203084	3.2472	548.16	7.00	0.194655	3.2593	548.14	15.00	0.097121	1.6302
523.16	30.02	0.203084	3.2499	548.16	7.00	0.194655	3.2614	548.14	15.00	0.194655	3.2405
523.16	30.02	0.203084	3.2461	548.16	7.00	0.194655	3.2616	548.14	15.00	0.194655	3.2450
523.16	30.02	0.289934	4.6046	548.16	7.00	0.194655	3.2550	548.14	15.00	0.194655	3.2480
523.16	30.02	0.289934	4.6042	548.16	7.00	0.194655	3.2615	548.14	15.00	0.298875	4.9446
523.16	30.02	0.289934	4.6013	548.16	7.00	0.289934	4.8221	548.14	15.00	0.298875	4.9464
523.16	30.02	0.403292	6.3466	548.16	7.00	0.289934	4.8260	548.14	15.00	0.298875	4.9490
523.16	30.02	0.403292	6.3453	548.16	7.00	0.289934	4.8293	548.14	15.00	0.400416	6.5753
523.16	30.02	0.403292	6.3428	548.16	7.00	0.403292	6.6603	548.14	15.00	0.400416	6.5709
523.16	30.02	0.497975	7.7684	548.16	7.00	0.403292	6.6553	548.14	15.00	0.400416	6.5763
523.16	30.02	0.497975	7.7653	548.16	7.00	0.403292	6.6656	548.14	15.00	0.500117	8.1456
523.16	30.02	0.599726	9.2798	548.16	7.00	0.497975	8.1559	548.14	15.00	0.500117	8.1523
523.16	30.02	0.599726	9.2790	548.16	7.00	0.497975	8.1559	548.14	15.00	0.500117	8.1542
				548.16	7.00	0.497975	8.1565	548.14	15.00	0.591585	9.5788
				548.16	7.00	0.591585	9.6249	548.14	15.00	0.591585	9.5821
				548.16	7.00	0.591585	9.6242	548.14	15.00	0.591585	9.5787
				548.16	7.00	0.591585	9.6349				

Table S3. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
548.14	30.02	0.097121	1.6219	573.15	10.26	0.096271	1.7488	573.15	15.21	0.097121	1.7402
548.14	30.02	0.097121	1.6235	573.15	10.26	0.096271	1.7539	573.15	15.21	0.194655	3.4621
548.14	30.02	0.097121	1.6255	573.15	10.26	0.096271	1.7523	573.15	15.21	0.194655	3.4706
548.14	30.02	0.194655	3.2270	573.15	10.26	0.194655	3.5155	573.15	15.21	0.194655	3.4728
548.14	30.02	0.194655	3.2320	573.15	10.26	0.194655	3.5173	573.15	15.21	0.298875	5.2994
548.14	30.02	0.194655	3.2314	573.15	10.26	0.194655	3.5221	573.15	15.21	0.298875	5.3080
548.14	30.02	0.298875	4.9208	573.15	10.26	0.298875	5.3761	573.15	15.21	0.298875	5.3100
548.14	30.02	0.298875	4.9211	573.15	10.26	0.298875	5.3769	573.15	15.21	0.400416	7.0476
548.14	30.02	0.298875	4.9229	573.15	10.26	0.298875	5.3781	573.15	15.21	0.400416	7.0615
548.14	30.02	0.400416	6.5380	573.15	10.26	0.400416	7.1513	573.15	15.21	0.400416	7.0634
548.14	30.02	0.400416	6.5410	573.15	10.26	0.400416	7.1573	573.15	15.21	0.500117	8.7567
548.14	30.02	0.400416	6.5388	573.15	10.26	0.400416	7.1600	573.15	15.21	0.500117	8.7638
548.14	30.02	0.500117	8.1008	573.15	10.26	0.500117	8.8714	573.15	15.21	0.500117	8.7660
548.14	30.02	0.500117	8.1038	573.15	10.26	0.500117	8.8756	573.15	15.21	0.591585	10.2946
548.14	30.02	0.500117	8.1044	573.15	10.26	0.500117	8.8791	573.15	15.21	0.591585	10.2989
548.14	30.02	0.591585	9.5165	573.15	10.26	0.591585	10.4358	573.15	15.21	0.591585	10.3056
548.14	30.02	0.591585	9.5163	573.15	10.26	0.591585	10.4428				
548.14	30.02	0.591585	9.5179	573.15	10.26	0.591585	10.4461				

Table S3. (continued)

T/K	p/MPa	m_2/mol·kg^{-1}	$\Delta\rho$/kg·m^{-3}	T/K	p/MPa	m_2/mol·kg^{-1}	$\Delta\rho$/kg·m^{-3}	T/K	p/MPa	m_2/mol·kg^{-1}	$\Delta\rho$/kg·m^{-3}
573.15	30.00	0.194655	3.4022								
573.15	30.00	0.194655	3.4055								
573.15	30.00	0.194655	3.4088								
573.15	30.00	0.298875	5.1920								
573.15	30.00	0.298875	5.1970								
573.15	30.00	0.298875	5.1970								
573.15	30.00	0.400416	6.9050								
573.15	30.00	0.400416	6.9132								
573.15	30.00	0.400416	6.9156								
573.15	30.00	0.500117	8.5648								
573.15	30.00	0.500117	8.5723								
573.15	30.00	0.500117	8.5740								
573.15	30.00	0.591585	10.0696								
573.15	30.00	0.591585	10.0751								
573.15	30.00	0.591585	10.0642								

Standard uncertainties u are $u(T)$/K = 0.02 , $u(p)$/MPa = 0.01 except for p = 0.10 MPa (non-measured atmospheric pressure), $u(m_2)/(\text{mol}\cdot\text{kg}^{-1}) = 2\cdot10^{-4}\ m_2/(\text{mol}\cdot\text{kg}^{-1})$, and the combined expanded uncertainty $U_c(\Delta\rho)/(\text{kg}\cdot\text{m}^{-3}) = 0.002|\Delta\rho/(\text{kg}\cdot\text{m}^{-3})| + \delta_g$ where $\delta_g = 0$ for measurements by DSA 5000 (p = 0.10 MPa) and δ_g = 0.005 for measurements by HTHP (other pressures).

Table S4. Direct experimental data measured for 2,2-bis(hydroxymethyl)butane-1-ol (aq)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
278.15	0.10	0.099736	1.981	288.15	0.10	0.099736	1.910	298.15	0.10	0.099736	1.851
278.15	0.10	0.099736	1.984	288.15	0.10	0.099736	1.911	298.15	0.10	0.099736	1.853
278.15	0.10	0.199810	3.928	288.15	0.10	0.199810	3.781	298.15	0.10	0.199810	3.665
278.15	0.10	0.199810	3.931	288.15	0.10	0.199810	3.783	298.15	0.10	0.199810	3.667
278.15	0.10	0.299981	5.863	288.15	0.10	0.299981	5.638	298.15	0.10	0.299981	5.460
278.15	0.10	0.299981	5.866	288.15	0.10	0.299981	5.640	298.15	0.10	0.299981	5.462
278.15	0.10	0.396143	7.696	288.15	0.10	0.396143	7.394	298.15	0.10	0.396143	7.153
278.15	0.10	0.396143	7.699	288.15	0.10	0.396143	7.397	298.15	0.10	0.396143	7.156
278.15	0.10	0.504794	9.739	288.15	0.10	0.504794	9.350	298.15	0.10	0.504794	9.038
278.15	0.10	0.504794	9.745	288.15	0.10	0.504794	9.354	298.15	0.10	0.504794	9.040
283.15	0.10	0.099736	1.942	293.15	0.10	0.099736	1.880	308.15	0.10	0.099736	1.806
283.15	0.10	0.099736	1.946	293.15	0.10	0.099736	1.881	308.15	0.10	0.099736	1.804
283.15	0.10	0.199810	3.849	293.15	0.10	0.199810	3.720	308.15	0.10	0.199810	3.568
283.15	0.10	0.199810	3.853	293.15	0.10	0.199810	3.721	308.15	0.10	0.199810	3.567
283.15	0.10	0.299981	5.741	293.15	0.10	0.299981	5.545	308.15	0.10	0.299981	5.311
283.15	0.10	0.299981	5.747	293.15	0.10	0.299981	5.545	308.15	0.10	0.299981	5.310
283.15	0.10	0.396143	7.534	293.15	0.10	0.396143	7.268	308.15	0.10	0.396143	6.954
283.15	0.10	0.396143	7.540	293.15	0.10	0.396143	7.270	308.15	0.10	0.396143	6.955
283.15	0.10	0.504794	9.530	293.15	0.10	0.504794	9.185	308.15	0.10	0.504794	8.776
283.15	0.10	0.504794	9.536	293.15	0.10	0.504794	9.187	308.15	0.10	0.504794	8.777

Table S4. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
318.15	0.10	0.099736	1.762	298.19	15.12	0.098944	1.7632	318.22	0.52	0.098944	1.7331
318.15	0.10	0.099736	1.764	298.19	15.12	0.098944	1.7636	318.22	0.52	0.098944	1.7329
318.15	0.10	0.199810	3.481	298.19	15.12	0.098944	1.7610	318.22	0.52	0.098944	1.7332
318.15	0.10	0.199810	3.481	298.19	15.12	0.199354	3.5260	318.22	0.52	0.199354	3.4592
318.15	0.10	0.299981	5.177	298.19	15.12	0.199354	3.5261	318.22	0.52	0.199354	3.4586
318.15	0.10	0.299981	5.178	298.19	15.12	0.199354	3.5265	318.22	0.52	0.199354	3.4588
318.15	0.10	0.396143	6.774	298.19	15.12	0.303779	5.3320	318.22	0.52	0.303779	5.2183
318.15	0.10	0.396143	6.775	298.19	15.12	0.303779	5.3312	318.22	0.52	0.303779	5.2195
318.15	0.10	0.504794	8.543	298.19	15.12	0.303779	5.3314	318.22	0.52	0.303779	5.2186
318.15	0.10	0.504794	8.545	298.19	15.12	0.401223	6.9882	318.22	0.52	0.401223	6.8300
				298.19	15.12	0.401223	6.9910	318.22	0.52	0.401223	6.8304
298.19	0.51	0.098944	1.8233	298.19	15.12	0.401223	6.9908	318.22	0.52	0.401223	6.8305
298.19	0.51	0.098944	1.8228	298.19	15.12	0.486542	8.4200	318.22	0.52	0.486542	8.2135
298.19	0.51	0.098944	1.8217	298.19	15.12	0.486542	8.4193	318.22	0.52	0.486542	8.2119
298.19	0.51	0.199354	3.6449	298.19	15.12	0.486542	8.4188	318.22	0.52	0.486542	8.2138
298.19	0.51	0.199354	3.6435								
298.19	0.51	0.199354	3.6439	298.22	30.48	0.098944	1.7022	318.21	15.08	0.098944	1.6949
298.19	0.51	0.303779	5.5079	298.22	30.48	0.098944	1.7028	318.21	15.08	0.098944	1.6934
298.19	0.51	0.303779	5.5073	298.22	30.48	0.098944	1.7021	318.21	15.08	0.098944	1.6933
298.19	0.51	0.303779	5.5068	298.22	30.48	0.199354	3.4082	318.21	15.08	0.199354	3.3816
298.19	0.51	0.401223	7.2182	298.22	30.48	0.199354	3.4070	318.21	15.08	0.199354	3.3821
298.19	0.51	0.401223	7.2177	298.22	30.48	0.199354	3.4071	318.21	15.08	0.199354	3.3819
298.19	0.51	0.401223	7.2178	298.22	30.48	0.303779	5.1539	318.21	15.08	0.303779	5.1041
298.19	0.51	0.486542	8.6929	298.22	30.48	0.303779	5.1525	318.21	15.08	0.303779	5.1045
298.19	0.51	0.486542	8.6922	298.22	30.48	0.303779	5.1524	318.21	15.08	0.303779	5.1041
298.19	0.51	0.486542	8.6924	298.22	30.48	0.401223	6.7590	318.21	15.08	0.401223	6.6835
				298.22	30.48	0.401223	6.7593	318.21	15.08	0.401223	6.6837
				298.22	30.48	0.401223	6.7595	318.21	15.08	0.401223	6.6842
				298.22	30.48	0.486542	8.1453	318.21	15.08	0.486542	8.0381
				298.22	30.48	0.486542	8.1446	318.21	15.08	0.486542	8.0368
				298.22	30.48	0.486542	8.1449	318.21	15.08	0.486542	8.0363

Table S4. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
318.21	29.95	0.098944	1.6527	338.21	15.21	0.098944	1.6270	358.17	0.52	0.098944	1.5853
318.21	29.95	0.098944	1.6525	338.21	15.21	0.098944	1.6292	358.17	0.52	0.098944	1.5847
318.21	29.95	0.098944	1.6537	338.21	15.21	0.098944	1.6298	358.17	0.52	0.098944	1.5847
318.21	29.95	0.199354	3.3005	338.21	15.21	0.199354	3.2513	358.17	0.52	0.199354	3.1609
318.21	29.95	0.199354	3.3021	338.21	15.21	0.199354	3.2499	358.17	0.52	0.199354	3.1606
318.21	29.95	0.199354	3.3002	338.21	15.21	0.199354	3.2494	358.17	0.52	0.199354	3.1596
318.21	29.95	0.303779	4.9841	338.21	15.21	0.303779	4.8943	358.17	0.52	0.303779	4.7611
318.21	29.95	0.303779	4.9839	338.21	15.21	0.303779	4.8954	358.17	0.52	0.303779	4.7618
318.21	29.95	0.303779	4.9832	338.21	15.21	0.303779	4.8955	358.17	0.52	0.303779	4.7628
318.21	29.95	0.401223	6.5256	338.21	15.21	0.401223	6.4075	358.17	0.52	0.401223	6.2258
318.21	29.95	0.401223	6.5256	338.21	15.21	0.401223	6.4064	358.17	0.52	0.401223	6.2271
318.21	29.95	0.401223	6.5259	338.21	15.21	0.401223	6.4055	358.17	0.52	0.401223	6.2263
318.21	29.95	0.486542	7.8546	338.21	15.21	0.486542	7.6943	358.17	0.52	0.486542	7.4731
318.21	29.95	0.486542	7.8525	338.21	15.21	0.486542	7.6920	358.17	0.52	0.486542	7.4724
318.21	29.95	0.486542	7.8530	338.21	15.21	0.486542	7.6902	358.17	0.52	0.486542	7.4725
338.21	0.52	0.098944	1.6577	338.21	30.15	0.098944	1.6033	358.16	15.08	0.100236	1.5954
338.21	0.52	0.098944	1.6576	338.21	30.15	0.098944	1.6027	358.16	15.08	0.100236	1.5949
338.21	0.52	0.098944	1.6574	338.21	30.15	0.098944	1.6017	358.16	15.08	0.100236	1.5959
338.21	0.52	0.199354	3.3026	338.21	30.15	0.199354	3.1952	358.16	15.08	0.199810	3.1499
338.21	0.52	0.199354	3.3023	338.21	30.15	0.199354	3.1957	358.16	15.08	0.199810	3.1488
338.21	0.52	0.199354	3.3032	338.21	30.15	0.199354	3.1945	358.16	15.08	0.199810	3.1471
338.21	0.52	0.303779	4.9776	338.21	30.15	0.303779	4.8158	358.16	15.08	0.299981	4.6760
338.21	0.52	0.303779	4.9777	338.21	30.15	0.303779	4.8162	358.16	15.08	0.299981	4.6753
338.21	0.52	0.303779	4.9772	338.21	30.15	0.303779	4.8166	358.16	15.08	0.299981	4.6759
338.21	0.52	0.401223	6.5091	338.21	30.15	0.401223	6.3000	358.16	15.08	0.396143	6.1056
338.21	0.52	0.401223	6.5090	338.21	30.15	0.401223	6.3009	358.16	15.08	0.396143	6.1056
338.21	0.52	0.401223	6.5073	338.21	30.15	0.401223	6.3007	358.16	15.08	0.396143	6.1055
338.21	0.52	0.486542	7.8195	338.21	30.15	0.486542	7.5707	358.16	15.08	0.504794	7.6967
338.21	0.52	0.486542	7.8187	338.21	30.15	0.486542	7.5727	358.16	15.08	0.504794	7.6961
338.21	0.52	0.486542	7.8191	338.21	30.15	0.486542	7.5709	358.16	15.08	0.504794	7.6960

Table S4. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
358.16	30.09	0.100236	1.5773	373.14	15.06	0.100236	1.5504	398.14	2.03	0.100381	1.4961
358.16	30.09	0.100236	1.5779	373.14	15.06	0.100236	1.5502	398.14	2.03	0.100381	1.4957
358.16	30.09	0.100236	1.5781	373.14	15.06	0.100236	1.5495	398.14	2.03	0.100381	1.4951
358.16	30.09	0.199810	3.1133	373.14	15.06	0.199810	3.0577	398.14	2.03	0.200127	2.9382
358.16	30.09	0.199810	3.1140	373.14	15.06	0.199810	3.0581	398.14	2.03	0.200127	2.9379
358.16	30.09	0.199810	3.1124	373.14	15.06	0.199810	3.0571	398.14	2.03	0.200127	2.9380
358.16	30.09	0.299981	4.6244	373.14	15.06	0.299981	4.5376	398.14	2.03	0.305740	4.4458
358.16	30.09	0.299981	4.6232	373.14	15.06	0.299981	4.5378	398.14	2.03	0.305740	4.4452
358.16	30.09	0.299981	4.6249	373.14	15.06	0.299981	4.5374	398.14	2.03	0.305740	4.4444
358.16	30.09	0.396143	6.0409	373.14	15.06	0.396143	5.9236	398.14	2.03	0.404088	5.8097
358.16	30.09	0.396143	6.0412	373.14	15.06	0.396143	5.9241	398.14	2.03	0.404088	5.8085
358.16	30.09	0.396143	6.0396	373.14	15.06	0.396143	5.9229	398.14	2.03	0.404088	5.8094
358.16	30.09	0.504794	7.6129	373.14	15.06	0.504794	7.4649	398.14	2.03	0.493147	7.0176
358.16	30.09	0.504794	7.6118	373.14	15.06	0.504794	7.4661	398.14	2.03	0.493147	7.0164
358.16	30.09	0.504794	7.6123	373.14	15.06	0.504794	7.4643	398.14	2.03	0.493147	7.0159
373.15	0.52	0.100236	1.5615	373.14	30.06	0.100236	1.5366	398.15	15.04	0.100381	1.4933
373.15	0.52	0.100236	1.5616	373.14	30.06	0.100236	1.5362	398.15	15.04	0.100381	1.4934
373.15	0.52	0.100236	1.5613	373.14	30.06	0.100236	1.5361	398.15	15.04	0.100381	1.4927
373.15	0.52	0.199810	3.0801	373.14	30.06	0.199810	3.0305	398.15	15.04	0.200127	2.9331
373.15	0.52	0.199810	3.0791	373.14	30.06	0.199810	3.0310	398.15	15.04	0.200127	2.9330
373.15	0.52	0.199810	3.0796	373.14	30.06	0.199810	3.0305	398.15	15.04	0.200127	2.9327
373.15	0.52	0.299981	4.5692	373.14	30.06	0.299981	4.4993	398.15	15.04	0.305740	4.4406
373.15	0.52	0.299981	4.5697	373.14	30.06	0.299981	4.4990	398.15	15.04	0.305740	4.4383
373.15	0.52	0.299981	4.5697	373.14	30.06	0.299981	4.4980	398.15	15.04	0.305740	4.4394
373.15	0.52	0.396143	5.9660	373.14	30.06	0.396143	5.8752	398.15	15.04	0.404088	5.8042
373.15	0.52	0.396143	5.9646	373.14	30.06	0.396143	5.8752	398.15	15.04	0.404088	5.7988
373.15	0.52	0.396143	5.9632	373.14	30.06	0.396143	5.8742	398.15	15.04	0.404088	5.8011
373.15	0.52	0.504794	7.5145	373.14	30.06	0.504794	7.4054	398.15	15.04	0.493147	7.0110
373.15	0.52	0.504794	7.5148	373.14	30.06	0.504794	7.4044	398.15	15.04	0.493147	7.0108
373.15	0.52	0.504794	7.5149	373.14	30.06	0.504794	7.4045	398.15	15.04	0.493147	7.0096

Table S4. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
398.15	29.98	0.100381	1.4875	423.15	15.00	0.100381	1.4443	448.15	2.04	0.100381	1.3963
398.15	29.98	0.100381	1.4869	423.15	15.00	0.100381	1.4440	448.15	2.04	0.100381	1.3967
398.15	29.98	0.100381	1.4868	423.15	15.00	0.100381	1.4441	448.15	2.04	0.100381	1.3960
398.15	29.98	0.200127	2.9224	423.15	15.00	0.200127	2.8373	448.15	2.04	0.200127	2.7455
398.15	29.98	0.200127	2.9224	423.15	15.00	0.200127	2.8370	448.15	2.04	0.200127	2.7443
398.15	29.98	0.200127	2.9227	423.15	15.00	0.200127	2.8365	448.15	2.04	0.200127	2.7444
398.15	29.98	0.305740	4.4229	423.15	15.00	0.305740	4.2939	448.15	2.04	0.305740	4.1567
398.15	29.98	0.305740	4.4223	423.15	15.00	0.305740	4.2942	448.15	2.04	0.305740	4.1565
398.15	29.98	0.305740	4.4239	423.15	15.00	0.305740	4.2933	448.15	2.04	0.305740	4.1568
398.15	29.98	0.404088	5.7823	423.15	15.00	0.404088	5.6142	448.15	2.04	0.404088	5.4365
398.15	29.98	0.404088	5.7827	423.15	15.00	0.404088	5.6137	448.15	2.04	0.404088	5.4361
398.15	29.98	0.404088	5.7824	423.15	15.00	0.404088	5.6144	448.15	2.04	0.404088	5.4364
398.15	29.98	0.493147	6.9861	423.15	15.00	0.493147	6.7821	448.15	2.04	0.493147	6.5702
398.15	29.98	0.493147	6.9853	423.15	15.00	0.493147	6.7819	448.15	2.04	0.493147	6.5704
398.15	29.98	0.493147	6.9861	423.15	15.00	0.493147	6.7815	448.15	2.04	0.493147	6.5707
423.15	2.05	0.100381	1.4374	423.15	30.06	0.100381	1.4447	448.15	15.05	0.100381	1.4077
423.15	2.05	0.100381	1.4373	423.15	30.06	0.100381	1.4451	448.15	15.05	0.100381	1.4085
423.15	2.05	0.100381	1.4384	423.15	30.06	0.100381	1.4461	448.15	15.05	0.100381	1.4075
423.15	2.05	0.200127	2.8265	423.15	30.06	0.200127	2.8392	448.15	15.05	0.200127	2.7663
423.15	2.05	0.200127	2.8265	423.15	30.06	0.200127	2.8398	448.15	15.05	0.200127	2.7678
423.15	2.05	0.200127	2.8274	423.15	30.06	0.200127	2.8392	448.15	15.05	0.200127	2.7667
423.15	2.05	0.305740	4.2784	423.15	30.06	0.305740	4.2982	448.15	15.05	0.305740	4.1912
423.15	2.05	0.305740	4.2787	423.15	30.06	0.305740	4.2994	448.15	15.05	0.305740	4.1928
423.15	2.05	0.305740	4.2779	423.15	30.06	0.305740	4.2997	448.15	15.05	0.305740	4.1909
423.15	2.05	0.404088	5.5935	423.15	30.06	0.404088	5.6218	448.15	15.05	0.404088	5.4820
423.15	2.05	0.404088	5.5935	423.15	30.06	0.404088	5.6221	448.15	15.05	0.404088	5.4821
423.15	2.05	0.404088	5.5939	423.15	30.06	0.404088	5.6215	448.15	15.05	0.404088	5.4819
423.15	2.05	0.493147	6.7578	423.15	30.06	0.493147	6.7922	448.15	15.05	0.493147	6.6251
423.15	2.05	0.493147	6.7575	423.15	30.06	0.493147	6.7924	448.15	15.05	0.493147	6.6257
423.15	2.05	0.493147	6.7570	423.15	30.06	0.493147	6.7922	448.15	15.05	0.493147	6.6255

Table S4. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
448.16	30.04	0.100381	1.4167	473.15	15.10	0.101338	1.4006	498.14	3.05	0.101338	1.3705
448.16	30.04	0.100381	1.4179	473.15	15.10	0.101338	1.4009	498.14	3.05	0.101338	1.3673
448.16	30.04	0.100381	1.4161	473.15	15.10	0.101338	1.4014	498.14	3.05	0.101338	1.3687
448.16	30.04	0.200127	2.7870	473.15	15.10	0.198413	2.7158	498.14	3.05	0.198413	2.6594
448.16	30.04	0.200127	2.7857	473.15	15.10	0.198413	2.7146	498.14	3.05	0.198413	2.6576
448.16	30.04	0.200127	2.7856	473.15	15.10	0.198413	2.7134	498.14	3.05	0.198413	2.6581
448.16	30.04	0.305740	4.2177	473.15	15.10	0.296636	4.0180	498.14	3.05	0.296636	3.9387
448.16	30.04	0.305740	4.2165	473.15	15.10	0.296636	4.0182	498.14	3.05	0.296636	3.9370
448.16	30.04	0.305740	4.2184	473.15	15.10	0.296636	4.0195	498.14	3.05	0.296636	3.9386
448.16	30.04	0.404088	5.5182	473.15	15.10	0.398426	5.3415	498.14	3.05	0.398426	5.2377
448.16	30.04	0.404088	5.5184	473.15	15.10	0.398426	5.3398	498.14	3.05	0.398426	5.2395
448.16	30.04	0.404088	5.5177	473.15	15.10	0.398426	5.3397	498.14	3.05	0.398426	5.2394
448.16	30.04	0.493147	6.6697	473.15	15.10	0.495765	6.5804	498.14	3.05	0.495765	6.4607
448.16	30.04	0.493147	6.6688	473.15	15.10	0.495765	6.5806	498.14	3.05	0.495765	6.4612
448.16	30.04	0.493147	6.6688	473.15	15.10	0.495765	6.5804	498.14	3.05	0.495765	6.4601
473.15	2.05	0.101338	1.3814	473.15	29.94	0.101338	1.4168	498.14	15.14	0.101338	1.3921
473.15	2.05	0.101338	1.3805	473.15	29.94	0.101338	1.4128	498.14	15.14	0.101338	1.3947
473.15	2.05	0.101338	1.3812	473.15	29.94	0.101338	1.4136	498.14	15.14	0.101338	1.3934
473.15	2.05	0.198413	2.6764	473.15	29.94	0.198413	2.7398	498.14	15.14	0.198413	2.7056
473.15	2.05	0.198413	2.6790	473.15	29.94	0.198413	2.7419	498.14	15.14	0.198413	2.7061
473.15	2.05	0.198413	2.6763	473.15	29.94	0.198413	2.7406	498.14	15.14	0.198413	2.7061
473.15	2.05	0.296636	3.9624	473.15	29.94	0.296636	4.0593	498.14	15.14	0.296636	4.0089
473.15	2.05	0.296636	3.9623	473.15	29.94	0.296636	4.0577	498.14	15.14	0.296636	4.0076
473.15	2.05	0.296636	3.9618	473.15	29.94	0.296636	4.0573	498.14	15.14	0.296636	4.0070
473.15	2.05	0.398426	5.2671	473.15	29.94	0.398426	5.3919	498.14	15.14	0.398426	5.3328
473.15	2.05	0.398426	5.2676	473.15	29.94	0.398426	5.3929	498.14	15.14	0.398426	5.3304
473.15	2.05	0.398426	5.2666	473.15	29.94	0.398426	5.3929	498.14	15.14	0.398426	5.3301
473.15	2.05	0.495765	6.4904	473.15	29.94	0.495765	6.6460	498.14	15.14	0.495765	6.5705
473.15	2.05	0.495765	6.4908	473.15	29.94	0.495765	6.6442	498.14	15.14	0.495765	6.5716
473.15	2.05	0.495765	6.4902	473.15	29.94	0.495765	6.6445	498.14	15.14	0.495765	6.5707

Table S4. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
498.16	30.03	0.101338	1.4153	523.16	15.03	0.101338	1.4058	548.16	7.00	0.101338	1.4242
498.16	30.03	0.101338	1.4164	523.16	15.03	0.101338	1.4092	548.16	7.00	0.101338	1.4280
498.16	30.03	0.101338	1.4147	523.16	15.03	0.101338	1.4073	548.16	7.00	0.101338	1.4243
498.16	30.03	0.198413	2.7463	523.16	15.03	0.198413	2.7398	548.16	7.00	0.200274	2.8011
498.16	30.03	0.198413	2.7469	523.16	15.03	0.198413	2.7386	548.16	7.00	0.200274	2.7985
498.16	30.03	0.198413	2.7453	523.16	15.03	0.198413	2.7407	548.16	7.00	0.200274	2.8012
498.16	30.03	0.296636	4.0665	523.16	15.03	0.296636	4.0597	548.16	7.00	0.296636	4.1263
498.16	30.03	0.296636	4.0661	523.16	15.03	0.296636	4.0587	548.16	7.00	0.296636	4.1264
498.16	30.03	0.296636	4.0645	523.16	15.03	0.296636	4.0591	548.16	7.00	0.296636	4.1322
498.16	30.03	0.398426	5.4075	523.16	15.03	0.398426	5.4028	548.16	7.00	0.398426	5.4971
498.16	30.03	0.398426	5.4081	523.16	15.03	0.398426	5.4022	548.16	7.00	0.398426	5.4940
498.16	30.03	0.398426	5.4068	523.16	15.03	0.398426	5.4026	548.16	7.00	0.398426	5.5017
498.16	30.03	0.495765	6.6661	523.16	15.03	0.495765	6.6657	548.16	7.00	0.495765	6.7932
498.16	30.03	0.495765	6.6637	523.16	15.03	0.495765	6.6667	548.16	7.00	0.495765	6.7921
498.16	30.03	0.495765	6.6643	523.16	15.03	0.495765	6.6651	548.16	7.00	0.495765	6.7948
523.18	5.11	0.101338	1.3807	523.16	30.02	0.101338	1.4342	548.14	15.00	0.101212	1.4458
523.18	5.11	0.101338	1.3817	523.16	30.02	0.101338	1.4344	548.14	15.00	0.101212	1.4554
523.18	5.11	0.101338	1.3817	523.16	30.02	0.101338	1.4341	548.14	15.00	0.101212	1.4422
523.18	5.11	0.198413	2.6891	523.16	30.02	0.198413	2.7911	548.14	15.00	0.200274	2.8397
523.18	5.11	0.198413	2.6873	523.16	30.02	0.198413	2.7856	548.14	15.00	0.200274	2.8432
523.18	5.11	0.198413	2.6899	523.16	30.02	0.198413	2.7907	548.14	15.00	0.200274	2.8449
523.18	5.11	0.296636	3.9882	523.16	30.02	0.296636	4.1313	548.14	15.00	0.274755	3.8733
523.18	5.11	0.296636	3.9875	523.16	30.02	0.296636	4.1326	548.14	15.00	0.274755	3.8765
523.18	5.11	0.296636	3.9850	523.16	30.02	0.296636	4.1357	548.14	15.00	0.274755	3.8765
523.18	5.11	0.398426	5.3087	523.16	30.02	0.398426	5.5002	548.14	15.00	0.400246	5.5901
523.18	5.11	0.398426	5.3079	523.16	30.02	0.398426	5.4995	548.14	15.00	0.400246	5.5940
523.18	5.11	0.398426	5.3081	523.16	30.02	0.398426	5.4995	548.14	15.00	0.400246	5.5967
523.18	5.11	0.495765	6.5495	523.16	30.02	0.495765	6.7811	548.14	15.00	0.497326	6.8974
523.18	5.11	0.495765	6.5505	523.16	30.02	0.495765	6.7844	548.14	15.00	0.497326	6.9065
523.18	5.11	0.495765	6.5487	523.16	30.02	0.495765	6.7806	548.14	15.00	0.497326	6.9062

Table S4. (continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
548.14	30.02	0.101212	1.4793	573.15	15.21	0.101212	1.5204	573.15	29.99	0.101212	1.5443
548.14	30.02	0.101212	1.4856	573.15	15.21	0.101212	1.5196	573.15	29.99	0.101212	1.5452
548.14	30.02	0.101212	1.4857	573.15	15.21	0.200274	3.0034	573.15	29.99	0.200274	3.0423
548.14	30.02	0.200274	2.9006	573.15	15.21	0.200274	3.0000	573.15	29.99	0.200274	3.0459
548.14	30.02	0.200274	2.9017	573.15	15.21	0.200274	2.9986	573.15	29.99	0.200274	3.0459
548.14	30.02	0.200274	2.9017	573.15	15.21	0.274755	4.0964	573.15	29.99	0.274755	4.1427
548.14	30.02	0.274755	3.9531	573.15	15.21	0.274755	4.1009	573.15	29.99	0.274755	4.1498
548.14	30.02	0.274755	3.9549	573.15	15.21	0.274755	4.1074	573.15	29.99	0.274755	4.1503
548.14	30.02	0.274755	3.9537	573.15	15.21	0.400246	5.9126	573.15	29.99	0.400246	5.9822
548.14	30.02	0.400246	5.6954	573.15	15.21	0.400246	5.9154	573.15	29.99	0.400246	5.9876
548.14	30.02	0.400246	5.6941	573.15	15.21	0.400246	5.9227	573.15	29.99	0.400246	5.9919
548.14	30.02	0.400246	5.6974	573.15	15.21	0.497326	7.3171	573.15	29.99	0.497326	7.3942
548.14	30.02	0.497326	7.0263	573.15	15.21	0.497326	7.3250	573.15	29.99	0.497326	7.3958
548.14	30.02	0.497326	7.0281	573.15	15.21	0.497326	7.3248	573.15	29.99	0.497326	7.3942
548.14	30.02	0.497326	7.0288								
573.15	10.26	0.101212	1.5082								
573.15	10.26	0.101212	1.5115								
573.15	10.26	0.200274	2.9776								
573.15	10.26	0.200274	2.9833								
573.15	10.26	0.200274	2.9855								
573.15	10.26	0.274755	4.0701								
573.15	10.26	0.274755	4.0683								
573.15	10.26	0.274755	4.0722								
573.15	10.26	0.400246	5.8797								
573.15	10.26	0.400246	5.8906								
573.15	10.26	0.400246	5.8914								
573.15	10.26	0.497326	7.2827								
573.15	10.26	0.497326	7.2870								
573.15	10.26	0.497326	7.2907								

Standard uncertainties u are $u(T)$/K = 0.02 , $u(p)$/MPa = 0.01 except for p = 0.10 MPa (non-measured atmospheric pressure), $u(m_2)$/(mol·kg^{-1}) = 2·10^{-4} m_2/(mol·kg^{-1}), and the combined expanded uncertainty $U_c(\Delta\rho)$/(kg·m^{-3}) = 0.002|$\Delta\rho$/(kg·m^{-3})| + δ_g where δ_g = 0 for measurements by DSA 5000 (p = 0.10 MPa) and δ_g = 0.005 for measurements by HTHP (other pressures).

Table S5. Direct experimental data measured for 3,3,7,7-tetrakis(hydroxymethyl)-5-oxanonane (aq)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
278.15	0.10	0.019719	0.680	293.15	0.10	0.019719	0.641	318.15	0.10	0.019719	0.591
278.15	0.10	0.019719	0.682	293.15	0.10	0.019719	0.641	318.15	0.10	0.019719	0.592
278.15	0.10	0.041050	1.415	293.15	0.10	0.041050	1.329	318.15	0.10	0.041050	1.226
278.15	0.10	0.041050	1.416	293.15	0.10	0.041050	1.330	318.15	0.10	0.041050	1.228
278.15	0.10	0.060452	2.079	293.15	0.10	0.060452	1.952	318.15	0.10	0.060452	1.799
278.15	0.10	0.060452	2.081	293.15	0.10	0.060452	1.952	318.15	0.10	0.060452	1.801
278.15	0.10	0.079001	2.712	293.15	0.10	0.079001	2.544	318.15	0.10	0.079001	2.344
278.15	0.10	0.079001	2.714	293.15	0.10	0.079001	2.546	318.15	0.10	0.079001	2.345
283.15	0.10	0.019719	0.666	298.15	0.10	0.019719	0.629	298.19	0.51	0.019922	0.6395
283.15	0.10	0.019719	0.667	298.15	0.10	0.019719	0.630	298.19	0.51	0.019922	0.6400
283.15	0.10	0.041050	1.383	298.15	0.10	0.041050	1.306	298.19	0.51	0.019922	0.6396
283.15	0.10	0.041050	1.384	298.15	0.10	0.041050	1.306	298.19	0.51	0.040225	1.2818
283.15	0.10	0.060452	2.032	298.15	0.10	0.060452	1.917	298.19	0.51	0.040225	1.2806
283.15	0.10	0.060452	2.034	298.15	0.10	0.060452	1.918	298.19	0.51	0.040225	1.2803
283.15	0.10	0.079001	2.649	298.15	0.10	0.079001	2.496	298.19	0.51	0.060282	1.9132
283.15	0.10	0.079001	2.652	298.15	0.10	0.079001	2.496	298.19	0.51	0.060282	1.9127
								298.19	0.51	0.060282	1.9112
288.15	0.10	0.019719	0.654	308.15	0.10	0.019719	0.610	298.19	0.51	0.079007	2.4968
288.15	0.10	0.019719	0.653	308.15	0.10	0.019719	0.611	298.19	0.51	0.079007	2.4960
288.15	0.10	0.041050	1.357	308.15	0.10	0.041050	1.265	298.19	0.51	0.079007	2.4966
288.15	0.10	0.041050	1.356	308.15	0.10	0.041050	1.266				
288.15	0.10	0.060452	1.991	308.15	0.10	0.060452	1.857				
288.15	0.10	0.060452	1.992	308.15	0.10	0.060452	1.858				
288.15	0.10	0.079001	2.596	308.15	0.10	0.079001	2.420				
288.15	0.10	0.079001	2.597	308.15	0.10	0.079001	2.421				

Table S5.(continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
298.19	15.11	0.019922	0.6140	318.21	0.53	0.019922	0.5942	318.21	29.89	0.019922	0.5665
298.19	15.11	0.019922	0.6137	318.21	0.53	0.019922	0.5936	318.21	29.89	0.019922	0.5669
298.19	15.11	0.040225	1.2347	318.21	0.53	0.019922	0.5932	318.21	29.89	0.019922	0.5679
298.19	15.11	0.040225	1.2349	318.21	0.53	0.040225	1.1984	318.21	29.89	0.040225	1.1423
298.19	15.11	0.040225	1.2344	318.21	0.53	0.040225	1.1962	318.21	29.89	0.040225	1.1419
298.19	15.11	0.060282	1.8437	318.21	0.53	0.040225	1.1969	318.21	29.89	0.040225	1.1418
298.19	15.11	0.060282	1.8436	318.21	0.53	0.060282	1.7881	318.21	29.89	0.060282	1.7103
298.19	15.11	0.060282	1.8439	318.21	0.53	0.060282	1.7882	318.21	29.89	0.060282	1.7071
298.19	15.11	0.079007	2.4093	318.21	0.53	0.060282	1.7875	318.21	29.89	0.060282	1.7067
298.19	15.11	0.079007	2.4101	318.21	0.53	0.079007	2.3343	318.21	29.89	0.079007	2.2311
298.19	15.11	0.079007	2.4090	318.21	0.53	0.079007	2.3315	318.21	29.89	0.079007	2.2300
				318.21	0.53	0.079007	2.3336	318.21	29.89	0.079007	2.2304
298.22	30.44	0.019922	0.5938								
298.22	30.44	0.019922	0.5921	318.21	15.07	0.019922	0.5828	338.21	0.52	0.019922	0.5622
298.22	30.44	0.019922	0.5929	318.21	15.07	0.019922	0.5825	338.21	0.52	0.019922	0.5620
298.22	30.44	0.040225	1.1913	318.21	15.07	0.019922	0.5821	338.21	0.52	0.019922	0.5615
298.22	30.44	0.040225	1.1917	318.21	15.07	0.040225	1.1735	338.21	0.52	0.040225	1.1308
298.22	30.44	0.040225	1.1913	318.21	15.07	0.040225	1.1723	338.21	0.52	0.040225	1.1300
298.22	30.44	0.060282	1.7820	318.21	15.07	0.040225	1.1714	338.21	0.52	0.040225	1.1302
298.22	30.44	0.060282	1.7809	318.21	15.07	0.060282	1.7508	338.21	0.52	0.060282	1.6882
298.22	30.44	0.060282	1.7772	318.21	15.07	0.060282	1.7503	338.21	0.52	0.060282	1.6887
298.22	30.44	0.079007	2.3249	318.21	15.07	0.060282	1.7506	338.21	0.52	0.060282	1.6885
298.22	30.44	0.079007	2.3260	318.21	15.07	0.079007	2.2854	338.21	0.52	0.079007	2.2037
298.22	30.44	0.079007	2.3278	318.21	15.07	0.079007	2.2856	338.21	0.52	0.079007	2.2033
				318.21	15.07	0.079007	2.2846	338.21	0.52	0.079007	2.2028

Table S5.(continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
338.21	15.24	0.019922	0.5551	358.16	0.51	0.019922	0.5294	358.16	29.83	0.019719	0.5181
338.21	15.24	0.019922	0.5565	358.16	0.51	0.019922	0.5309	358.16	29.83	0.019719	0.5172
338.21	15.24	0.019922	0.5552	358.16	0.51	0.019922	0.5298	358.16	29.83	0.019719	0.5174
338.21	15.24	0.040225	1.1166	358.16	0.51	0.040225	1.0729	358.16	29.83	0.041050	1.0753
338.21	15.24	0.040225	1.1171	358.16	0.51	0.040225	1.0707	358.16	29.83	0.041050	1.0742
338.21	15.24	0.040225	1.1165	358.16	0.51	0.040225	1.0702	358.16	29.83	0.041050	1.0749
338.21	15.24	0.060282	1.6657	358.16	0.51	0.060282	1.5989	358.16	29.83	0.060452	1.5806
338.21	15.24	0.060282	1.6648	358.16	0.51	0.060282	1.5966	358.16	29.83	0.060452	1.5802
338.21	15.24	0.060282	1.6662	358.16	0.51	0.060282	1.5987	358.16	29.83	0.060452	1.5803
338.21	15.24	0.079007	2.1745	358.16	0.51	0.079007	2.0877	358.16	29.83	0.079001	2.0572
338.21	15.24	0.079007	2.1733	358.16	0.51	0.079007	2.0873	358.16	29.83	0.079001	2.0544
338.21	15.24	0.079007	2.1738	358.16	0.51	0.079007	2.0860	358.16	29.83	0.079001	2.0579
338.21	30.04	0.019922	0.5486	358.17	15.11	0.019719	0.5216	373.15	0.52	0.019719	0.5084
338.21	30.04	0.019922	0.5472	358.17	15.11	0.019719	0.5204	373.15	0.52	0.019719	0.5085
338.21	30.04	0.019922	0.5467	358.17	15.11	0.019719	0.5224	373.15	0.52	0.019719	0.5070
338.21	30.04	0.040225	1.1004	358.17	15.11	0.041050	1.0866	373.15	0.52	0.041050	1.0548
338.21	30.04	0.040225	1.1013	358.17	15.11	0.041050	1.0822	373.15	0.52	0.041050	1.0543
338.21	30.04	0.040225	1.0991	358.17	15.11	0.041050	1.0843	373.15	0.52	0.041050	1.0536
338.21	30.04	0.060282	1.6413	358.17	15.11	0.060452	1.5940	373.15	0.52	0.060452	1.5492
338.21	30.04	0.060282	1.6417	358.17	15.11	0.060452	1.5915	373.15	0.52	0.060452	1.5477
338.21	30.04	0.060282	1.6382	358.17	15.11	0.060452	1.5937	373.15	0.52	0.060452	1.5483
338.21	30.04	0.079007	2.1430	358.17	15.11	0.079001	2.0766	373.15	0.52	0.079001	2.0164
338.21	30.04	0.079007	2.1429	358.17	15.11	0.079001	2.0750	373.15	0.52	0.079001	2.0158
338.21	30.04	0.079007	2.1430	358.17	15.11	0.079001	2.0746	373.15	0.52	0.079001	2.0150

Table S5.(continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
373.15	15.07	0.019719	0.5093	398.14	2.03	0.017958	0.4399	398.14	30.03	0.017958	0.4440
373.15	15.07	0.019719	0.5084	398.14	2.03	0.017958	0.4403	398.14	30.03	0.017958	0.4424
373.15	15.07	0.019719	0.5077	398.14	2.03	0.017958	0.4384	398.14	30.03	0.017958	0.4436
373.15	15.07	0.041050	1.0529	398.14	2.03	0.038270	0.9336	398.14	30.03	0.038270	0.9408
373.15	15.07	0.041050	1.0525	398.14	2.03	0.038270	0.9329	398.14	30.03	0.038270	0.9380
373.15	15.07	0.041050	1.0525	398.14	2.03	0.055262	1.3439	398.14	30.03	0.038270	0.9406
373.15	15.07	0.060452	1.5471	398.14	2.03	0.055262	1.3432	398.14	30.03	0.055262	1.3535
373.15	15.07	0.060452	1.5467	398.14	2.03	0.055262	1.3431	398.14	30.03	0.055262	1.3536
373.15	15.07	0.060452	1.5469	398.14	2.03	0.079096	1.9156	398.14	30.03	0.055262	1.3532
373.15	15.07	0.079001	2.0169	398.14	2.03	0.079096	1.9122	398.14	30.03	0.079096	1.9255
373.15	15.07	0.079001	2.0169	398.14	2.03	0.079096	1.9118	398.14	30.03	0.079096	1.9270
373.15	15.07	0.079001	2.0153					398.14	30.03	0.079096	1.9257
				398.14	15.03	0.017958	0.4412				
373.15	30.02	0.019719	0.5050	398.14	15.03	0.017958	0.4413	423.15	2.05	0.017958	0.4176
373.15	30.02	0.019719	0.5059	398.14	15.03	0.017958	0.4404	423.15	2.05	0.017958	0.4182
373.15	30.02	0.019719	0.5059	398.14	15.03	0.038270	0.9365	423.15	2.05	0.017958	0.4170
373.15	30.02	0.041050	1.0482	398.14	15.03	0.038270	0.9364	423.15	2.05	0.038270	0.8911
373.15	30.02	0.041050	1.0478	398.14	15.03	0.038270	0.9367	423.15	2.05	0.038270	0.8905
373.15	30.02	0.041050	1.0469	398.14	15.03	0.055262	1.3505	423.15	2.05	0.038270	0.8899
373.15	30.02	0.060452	1.5401	398.14	15.03	0.055262	1.3485	423.15	2.05	0.055262	1.2826
373.15	30.02	0.060452	1.5403	398.14	15.03	0.055262	1.3493	423.15	2.05	0.055262	1.2833
373.15	30.02	0.060452	1.5409	398.14	15.03	0.079096	1.9213	423.15	2.05	0.055262	1.2822
373.15	30.02	0.079001	2.0072	398.14	15.03	0.079096	1.9212	423.15	2.05	0.079096	1.8325
373.15	30.02	0.079001	2.0056	398.14	15.03	0.079096	1.9208	423.15	2.05	0.079096	1.8267
373.15	30.02	0.079001	2.0059					423.15	2.05	0.079096	1.8287

Table S5.(continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
423.14	15.01	0.017958	0.4261	448.15	2.04	0.017958	0.4065	448.16	30.06	0.017958	0.4211
423.14	15.01	0.017958	0.4254	448.15	2.04	0.017958	0.4052	448.16	30.06	0.017958	0.4217
423.14	15.01	0.017958	0.4246	448.15	2.04	0.017958	0.4050	448.16	30.06	0.017958	0.4204
423.14	15.01	0.038270	0.9044	448.15	2.04	0.038270	0.8645	448.16	30.06	0.038270	0.8948
423.14	15.01	0.038270	0.9032	448.15	2.04	0.038270	0.8638	448.16	30.06	0.038270	0.8939
423.14	15.01	0.038270	0.9030	448.15	2.04	0.038270	0.8639	448.16	30.06	0.038270	0.8941
423.14	15.01	0.055262	1.3010	448.15	2.04	0.055262	1.2455	448.16	30.06	0.055262	1.2886
423.14	15.01	0.055262	1.3009	448.15	2.04	0.055262	1.2444	448.16	30.06	0.055262	1.2877
423.14	15.01	0.055262	1.3004	448.15	2.04	0.055262	1.2424	448.16	30.06	0.055262	1.2871
423.14	15.01	0.079096	1.8529	448.15	2.04	0.079096	1.7736	448.16	30.06	0.079096	1.8365
423.14	15.01	0.079096	1.8522	448.15	2.04	0.079096	1.7736	448.16	30.06	0.079096	1.8360
423.14	15.01	0.079096	1.8519	448.15	2.04	0.079096	1.7736	448.16	30.06	0.079096	1.8357
423.15	30.02	0.017958	0.4299	448.16	15.04	0.017958	0.4153	473.15	2.04	0.038270	0.8437
423.15	30.02	0.017958	0.4301	448.16	15.04	0.017958	0.4144	473.15	2.04	0.038270	0.8417
423.15	30.02	0.017958	0.4303	448.16	15.04	0.017958	0.4146	473.15	2.04	0.038270	0.8427
423.15	30.02	0.038270	0.9122	448.16	15.04	0.038270	0.8801	473.15	2.04	0.055262	1.2165
423.15	30.02	0.038270	0.9122	448.16	15.04	0.038270	0.8796	473.15	2.04	0.055262	1.2169
423.15	30.02	0.038270	0.9111	448.16	15.04	0.038270	0.8799	473.15	2.04	0.055262	1.2157
423.15	30.02	0.055262	1.3131	448.16	15.04	0.055262	1.2681	473.15	2.04	0.079096	1.7394
423.15	30.02	0.055262	1.3125	448.16	15.04	0.055262	1.2687	473.15	2.04	0.079096	1.7368
423.15	30.02	0.055262	1.3121	448.16	15.04	0.055262	1.2683	473.15	2.04	0.079096	1.7378
423.15	30.02	0.079096	1.8693	448.16	15.04	0.079096	1.8042				
423.15	30.02	0.079096	1.8696	448.16	15.04	0.079096	1.8049				
423.15	30.02	0.079096	1.8691	448.16	15.04	0.079096	1.8072				

Table S5.(continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
473.15	15.11	0.021381	0.4836	498.13	3.06	0.021381	0.4701	498.15	30.01	0.021381	0.4984
473.15	15.11	0.021381	0.4833	498.13	3.06	0.021381	0.4695	498.15	30.01	0.021381	0.4982
473.15	15.11	0.021381	0.4822	498.13	3.06	0.021381	0.4708	498.15	30.01	0.021381	0.4983
473.15	15.11	0.040814	0.9249	498.13	3.06	0.040814	0.8960	498.15	30.01	0.040814	0.9512
473.15	15.11	0.040814	0.9228	498.13	3.06	0.040814	0.8958	498.15	30.01	0.040814	0.9507
473.15	15.11	0.040814	0.9229	498.13	3.06	0.040814	0.8961	498.15	30.01	0.040814	0.9507
473.15	15.11	0.059935	1.3534	498.13	3.06	0.059935	1.3151	498.15	30.01	0.059935	1.3939
473.15	15.11	0.059935	1.3525	498.13	3.06	0.059935	1.3138	498.15	30.01	0.059935	1.3940
473.15	15.11	0.059935	1.3535	498.13	3.06	0.059935	1.3149	498.15	30.01	0.059935	1.3918
473.15	15.11	0.079846	1.7968	498.13	3.06	0.079846	1.7456	498.15	30.01	0.079846	1.8503
473.15	15.11	0.079846	1.7970	498.13	3.06	0.079846	1.7446	498.15	30.01	0.079846	1.8498
473.15	15.11	0.079846	1.7978	498.13	3.06	0.079846	1.7454	498.15	30.01	0.079846	1.8481
473.16	30.03	0.021381	0.4949	498.13	15.10	0.021381	0.4868	523.18	5.09	0.021381	0.4824
473.16	30.03	0.021381	0.4945	498.13	15.10	0.021381	0.4867	523.18	5.09	0.021381	0.4778
473.16	30.03	0.021381	0.4934	498.13	15.10	0.021381	0.4870	523.18	5.09	0.021381	0.4800
473.16	30.03	0.040814	0.9445	498.13	15.10	0.040814	0.9274	523.18	5.09	0.040814	0.9152
473.16	30.03	0.040814	0.9438	498.13	15.10	0.040814	0.9273	523.18	5.09	0.040814	0.9150
473.16	30.03	0.040814	0.9439	498.13	15.10	0.040814	0.9261	523.18	5.09	0.040814	0.9128
473.16	30.03	0.059935	1.3821	498.13	15.10	0.059935	1.3590	523.18	5.09	0.059935	1.3385
473.16	30.03	0.059935	1.3818	498.13	15.10	0.059935	1.3583	523.18	5.09	0.059935	1.3401
473.16	30.03	0.059935	1.3809	498.13	15.10	0.059935	1.3576	523.18	5.09	0.059935	1.3385
473.16	30.03	0.079846	1.8362	498.13	15.10	0.079846	1.8019	523.18	5.09	0.079846	1.7797
473.16	30.03	0.079846	1.8357	498.13	15.10	0.079846	1.8032	523.18	5.09	0.079846	1.7767
473.16	30.03	0.079846	1.8387	498.13	15.10	0.079846	1.8019	523.18	5.09	0.079846	1.7774

Table S5.(continued)

T/K	p/MPa	m_2/mol·kg^{-1}	$\Delta\rho$/kg·m^{-3}	T/K	p/MPa	m_2/mol·kg^{-1}	$\Delta\rho$/kg·m^{-3}	T/K	p/MPa	m_2/mol·kg^{-1}	$\Delta\rho$/kg·m^{-3}
523.16	15.03	0.021381	0.4977	548.15	7.03	0.021381	0.4993	548.14	30.03	0.020189	0.5036
523.16	15.03	0.021381	0.4975	548.15	7.03	0.021381	0.4945	548.14	30.03	0.020189	0.5036
523.16	15.03	0.021381	0.4963	548.15	7.03	0.021381	0.4960	548.14	30.03	0.020189	0.5077
523.16	15.03	0.040814	0.9457	548.15	7.03	0.040107	0.9284	548.14	30.03	0.040107	0.9997
523.16	15.03	0.040814	0.9448	548.15	7.03	0.040107	0.9333	548.14	30.03	0.040107	1.0000
523.16	15.03	0.040814	0.9431	548.15	7.03	0.040107	0.9318	548.14	30.03	0.040107	0.9957
523.16	15.03	0.059935	1.3835	548.15	7.03	0.059935	1.3948	548.14	30.03	0.059998	1.4918
523.16	15.03	0.059935	1.3801	548.15	7.03	0.059935	1.3895	548.14	30.03	0.059998	1.4895
523.16	15.03	0.059935	1.3837	548.15	7.03	0.059935	1.3981	548.14	30.03	0.059998	1.4895
523.16	15.03	0.079846	1.8361	548.15	7.03	0.079846	1.8550	548.14	30.03	0.080104	1.9872
523.16	15.03	0.079846	1.8375	548.15	7.03	0.079846	1.8523	548.14	30.03	0.080104	1.9853
523.16	15.03	0.079846	1.8356	548.15	7.03	0.079846	1.8478				
								573.15	10.22	0.020189	0.4954
523.15	30.08	0.021381	0.5153	548.15	14.99	0.021381	0.5154	573.15	10.22	0.020189	0.5021
523.15	30.08	0.021381	0.5143	548.15	14.99	0.021381	0.5176	573.15	10.22	0.020189	0.5007
523.15	30.08	0.021381	0.5148	548.15	14.99	0.021381	0.5167	573.15	10.22	0.040107	1.0064
523.15	30.08	0.040814	0.9773	548.15	14.99	0.040107	0.9646	573.15	10.22	0.040107	0.9989
523.15	30.08	0.040814	0.9778	548.15	14.99	0.040107	0.9613	573.15	10.22	0.040107	1.0025
523.15	30.08	0.040814	0.9751	548.15	14.99	0.040107	0.9675	573.15	10.22	0.059998	1.5050
523.15	30.08	0.059935	1.4329	548.15	14.99	0.059935	1.4387	573.15	10.22	0.059998	1.5018
523.15	30.08	0.059935	1.4313	548.15	14.99	0.059935	1.4393	573.15	10.22	0.059998	1.4989
523.15	30.08	0.059935	1.4319	548.15	14.99	0.059935	1.4415	573.15	10.22	0.080104	2.0058
523.15	30.08	0.079846	1.8985	548.15	14.99	0.079846	1.9123	573.15	10.22	0.080104	2.0099
523.15	30.08	0.079846	1.8957	548.15	14.99	0.079846	1.9125	573.15	10.22	0.080104	2.0071
523.15	30.08	0.079846	1.8949	548.15	14.99	0.079846	1.9071				

Table S5.(continued)

T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}	T / K	p / MPa	m_2 / mol · kg^{-1}	$\Delta\rho$ / kg · m^{-3}
573.16	15.19	0.020189	0.5112	573.16	30.08	0.020189	0.5325				
573.16	15.19	0.020189	0.5098	573.16	30.08	0.020189	0.5334				
573.16	15.19	0.020189	0.5108	573.16	30.08	0.020189	0.5338				
573.16	15.19	0.040107	1.0198	573.16	30.08	0.040107	1.0610				
573.16	15.19	0.040107	1.0208	573.16	30.08	0.040107	1.0617				
573.16	15.19	0.040107	1.0189	573.16	30.08	0.040107	1.0596				
573.16	15.19	0.059998	1.5327	573.16	30.08	0.059998	1.5891				
573.16	15.19	0.059998	1.5351	573.16	30.08	0.059998	1.5871				
573.16	15.19	0.059998	1.5313	573.16	30.08	0.059998	1.5868				
573.16	15.19	0.080104	2.0425	573.16	30.08	0.080104	2.1182				
573.16	15.19	0.080104	2.0437	573.16	30.08	0.080104	2.1186				
573.16	15.19	0.080104	2.0468	573.16	30.08	0.080104	2.1190				

Standard uncertainties u are $u(T)$/K = 0.02 , $u(p)$/MPa = 0.01 except for p = 0.10 MPa (non-measured atmospheric pressure), $u(m_2)/(\text{mol}\cdot\text{kg}^{-1}) = 2\cdot10^{-4}\ m_2/(\text{mol}\cdot\text{kg}^{-1})$, and the combined expanded uncertainty $U_c(\Delta\rho)/(\text{kg}\cdot\text{m}^{-3}) = 0.002|\Delta\rho/(\text{kg}\cdot\text{m}^{-3})| + \delta_g$ where $\delta_g = 0$ for measurements by DSA 5000 (p = 0.10 MPa) and δ_g = 0.005 for measurements by HTHP (other pressures).

Table S6. Parameters of equation (3)

		a_{ij}				
i	*j*	2,2-Dimethylpropane-1-ol	2-Methylpropane-1,3-diol	2,2-bis(Hydroxymethyl) propane-1-ol	2,2-bis(Hydroxymethyl) butane-1-ol	3,3,7,7-tetrakis(Hydroxymethyl)-5-oxanonane
1	1	2.98230849712224E+03	9.22146532420470E+02	1.07945844058407E+02	-5.80361166624692E+01	3.24762262324970E+02
1	2	-9.14418313387558E+01	3.92757195689573E+01	1.81484705093635E+01	1.23566945554755E+01	2.08691526991382E+01
1	3	-1.94513121820840E+00	-1.72444387503817E+00	-5.11966499950207E-01	-1.84358350498610E-01	-6.81133434680819E-01
2	1	-4.62133597248132E+01	-1.29902389002081E+01	-1.58943004279242E-01	2.20891641902665E+00	-1.44172611362900E+00
2	2	1.55494671290268E+00	-5.12877002704755E-01	-2.15544278653727E-01	-1.48467221225530E-01	-1.97648910511607E-01
2	3	2.55562724684289E-02	2.43860214196205E-02	6.21727210713383E-03	2.22475418007021E-03	6.69588721651487E-03
3	1	3.07342282263077E-01	8.40063215906598E-02	8.46597716595183E-04	-1.17584689818879E-02	6.25319427734872E-03
3	2	-1.08434411219452E-02	2.68563149635526E-03	1.01433198130792E-03	7.18734679788348E-04	6.87084638257972E-04
3	3	-1.34353560429411E-04	-1.41482213639030E-04	-2.98459987719742E-05	-1.07722728096039E-05	-2.42591344158476E-05
4	1	-1.08668134083803E-03	-2.90216887033344E-04	-1.90601383830736E-06	3.16277136217915E-05	-1.10884942521960E-05
4	2	3.97854168489376E-05	-7.10493593800731E-06	-2.36495811134980E-06	-1.75419362773021E-06	-1.03565881303293E-06
4	3	3.55961349360516E-07	4.30450210088302E-07	7.07936075368340E-08	2.61869400060381E-08	3.83488291245500E-08
5	1	2.15464329040652E-06	5.65151593270981E-07	2.47912448330435E-09	-4.17453698729310E-08	7.82991124322952E-09
5	2	-8.11427489977839E-08	9.70410320403730E-09	2.73160553451349E-09	2.15812627053279E-09	5.63232195558542E-10
5	3	-4.85489834134521E-10	-7.22978090318209E-10	-8.29792684028039E-11	-3.19917239777072E-11	-2.22687735162328E-11
6	1	-2.26804569613097E-09	-5.86265544196587E-10	-1.11707824311462E-12	2.21102381290459E-11	
6	2	8.73299902235803E-11	-6.00126810901633E-12	-1.25392848840780E-12	-1.07493650773175E-12	
6	3	2.98118222563701E-13	6.33968221234650E-13	3.84762766345559E-14	1.57474694708501E-14	
7	1	9.90700108816452E-13	2.53277021205725E-13			
7	2	-3.88112030556532E-14	9.42292992525158E-16			
7	3	-4.54099740242221E-17	-2.25836414232465E-16			
T_{min}/K		278	278	278	278	278
T_{max}/K		573	573	573	573	573
std.dev[a]		0.21	0.03	0.04	0.04	0.21
w. std. dev.[b]		0.81	0.36	0.38	0.44	0.47

Table S6. Continued

		a_{ij}		
i	*j*	Propane-1,3-diol[c]	2,2-Dimethylpropane-1,3-diol[d]	2,2-bis(Hydroxymethyl) propane-1,3-diol[d]
1	1	-4.25694142449619E+01	2.37332994568833E+03	-1.05784047178911E+02
1	2	5.07870141740187E+00	-9.11894946096613E+01	3.75774328462612E+00
1	3	1.03886540787502E-01	6.57661416601489E-01	7.25544325520202E-03
2	1	1.59690528467246E+00	-3.48716065343122E+01	2.05554461502993E+00
2	2	-5.83175644090065E-02	1.43715147717142E+00	-4.00275096210267E-02
2	3	-1.50137633282737E-03	-1.09365303841953E-02	-4.07259316540491E-05
3	1	-8.95059368826143E-03	2.21729924193561E-01	-7.80436268014205E-03
3	2	2.68955790625138E-04	-9.35578149493785E-03	1.60037453702053E-04
3	3	8.33837223030733E-06	7.50614301893131E-05	2.52204420939237E-09
4	1	2.46530917365650E-05	-7.49262661817868E-04	1.34594763106328E-05
4	2	-6.28760080457997E-07	3.22307871648294E-05	-2.84695848359882E-07
4	3	-2.23346927315978E-08	-2.72210675571321E-07	2.95066485387856E-10
5	1	-3.30252830488024E-08	1.42047795484712E-06	-8.61827099535635E-09
5	2	7.51161888811951E-10	-6.20251797824487E-08	1.89060815055730E-10
5	3	2.89140248387336E-11	5.50251709766928E-10	-3.94682301380513E-13
6	1	1.76589464165648E-11	-1.43117167309327E-09	
6	2	-3.72412835318850E-13	6.32646830908435E-11	
6	3	-1.44710256563209E-14	-5.88053012113093E-13	
7	1		5.99309347889610E-13	
7	2		-2.67515239862010E-14	
7	3		2.59779994482501E-16	
T_{min}/K		298	298	298
T_{max}/K		573	573	548
std.dev[a]		0.04	0.05	0.07
w. std. dev.[b]		1.58	0.84	0.68

[a] Standard deviation/(cm^3 mol^{-1}). [b] Weighted standard deviation. [c] Experimental data from ref. (4), fits from ref. (1).
[d] Experimental data from ref. (6), fits from ref. (1).