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SUPPLEMENTARY MATERIAL TO

Solution thermodynamics of sodium pyruvate in aqueous glycine solutions at *T* 298.15–313.15 K

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TABLE S-I. Density, ρ, and viscosity, η, for different aqueous glycine solutions at *T* 298.15––313.15 K; *c*: glycine concentration in water

c / mol dm^{-3}	T /K	ρ / 10^3 kg m^{-3}	η / mPa s
0.005	298.15	0.99720	0.8973
	303.15	0.99580	0.8038
	308.15	0.99419	0.7253
	313.15	0.99231	0.6597
0.010	298.15	0.99745	0.9052
	303.15	0.99602	0.8102
	308.15	0.99459	0.7318
	313.15	0.99276	0.6671
0.015	298.15	0.99784	0.9078
	303.15	0.99644	0.8166
	308.15	0.99478	0.7288
	313.15	0.99298	0.6744
0.020	298.15	0.99813	0.9141
	303.15	0.99673	0.823
	308.15	0.99509	0.7361
	313.15	0.99326	0.6816

TABLE S-II. Molality m, density ρ, viscosity η, apparent molar volume φ_V for sodium pyruvate in different aqueous glycine solutions at *T* 298.15–318.15 K; *c*: glycine concentration in water

m / mol kg^{-1}	ρ / 10^3 kg m^{-3}	η / mPa s	$\varphi_V \times 10^6$ / m^3 mol^{-1}
Water			
T = 298.15 K			
0.0200	0.99788	0.8972	69.77
0.0360	0.99850	0.9038	70.53
0.0520	0.99910	0.9104	71.18

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TABLE S-II. Continued

m / mol kg^{-1}	ρ / 10^3 kg m^{-3}	η / mPa s	$\varphi_V \times 10^6$ / m^3 mol^{-1}
Water			
T = 298.15 K			
0.0760	1.00000	0.9173	71.68
0.0840	1.00028	0.9206	72.05
0.0999	1.00082	0.9267	72.74
T = 303.15 K			
0.0200	0.99645	0.8044	71.32
0.0359	0.99704	0.8110	72.24
0.0519	0.99762	0.8176	72.77
0.0758	0.99850	0.8260	73.04
0.0839	0.99875	0.8308	73.65
0.0998	0.99927	0.8369	74.30
T = 308.15 K			
0.0200	0.99481	0.7257	72.88
0.0359	0.99537	0.7308	73.98
0.0518	0.99592	0.7375	74.57
0.0758	0.99675	0.7474	74.96
0.0837	0.99702	0.7507	75.15
0.0996	0.99753	0.7569	75.67
T = 313.15 K			
0.0199	0.99297	0.6602	73.96
0.0358	0.99352	0.6669	74.89
0.0517	0.99407	0.6735	75.22
0.0756	0.99487	0.682	75.83
0.0836	0.99512	0.6868	76.18
0.0994	0.99564	0.6931	76.44
c = 0.005 mol dm^{-3}			
T = 298.15 K			
0.0200	0.99818	0.9035	61.26
0.0360	0.99891	0.9103	62.74
0.0520	0.99963	0.9162	63.47
0.0760	1.00071	0.9256	64.04
0.0840	1.00103	0.9289	64.63
0.0999	1.00170	0.935	65.21
T = 303.15 K			
0.0200	0.99675	0.8107	62.78
0.0360	0.99749	0.8175	63.32
0.0519	0.99818	0.8242	64.46
0.0759	0.99923	0.8343	65.12
0.0839	0.99958	0.8392	65.25
0.0998	1.00020	0.8453	66.23
T = 308.15 K			
0.0200	0.99509	0.7291	65.32
0.0359	0.99579	0.7358	65.86
0.0518	0.99646	0.7425	66.62

TABLE S-II. Continued

m / mol kg^{-1}	ρ / 10^3 kg m^{-3}	η / mPa s	$\varphi_V \times 10^6$ / m^3 mol^{-1}
	c = 0.005 mol dm^{-3}		
	T = 308.15 K		
0.0758	0.99746	0.7511	67.27
0.0837	0.99776	0.7544	67.80
0.0996	0.99835	0.7606	68.68
	T = 313.15 K		
0.0199	0.99319	0.6666	66.37
0.0358	0.99388	0.6734	66.74
0.0517	0.99453	0.6817	67.63
0.0756	0.99550	0.6903	68.38
0.0836	0.99580	0.6952	68.81
0.0994	0.99639	0.6999	69.54
	c = 0.010 mol dm^{-3}		
	T = 298.15 K		
0.0200	0.9984	0.9098	62.76
0.0360	0.99913	0.9165	63.57
0.0520	0.99984	0.9225	64.24
0.0760	1.00089	0.9318	64.96
0.0840	1.00120	0.9351	65.57
0.0999	1.00184	0.9412	66.30
	T = 303.15 K		
0.0200	0.99694	0.817	64.28
0.0360	0.99765	0.8238	64.99
0.0519	0.99835	0.8320	65.42
0.0759	0.99936	0.8421	66.31
0.0839	0.99967	0.8469	66.80
0.0998	1.00031	0.8530	67.33
	T = 308.15 K		
0.0200	0.99547	0.7387	66.32
0.0359	0.99615	0.7454	66.97
0.0518	0.99681	0.7521	67.58
0.0758	0.99780	0.7637	68.06
0.0838	0.99808	0.7678	68.74
0.0996	0.99867	0.7740	69.48
	T = 313.15 K		
0.0199	0.99362	0.6732	67.37
0.0359	0.99430	0.6800	67.57
0.0517	0.99495	0.6867	68.21
0.0756	0.99592	0.6968	68.77
0.0836	0.99617	0.7001	69.75
0.0994	0.99677	0.7080	70.23
	c = 0.015 mol dm^{-3}		
	T = 298.15 K		
0.0200	0.99876	0.9132	64.25
0.0360	0.99948	0.9199	64.67

TABLE S-II. Continued

m / mol kg^{-1}	ρ / 10^3 kg m^{-3}	η / mPa s	$\varphi_V \times 10^6$ / m^3 mol^{-1}
c = 0.015 mol dm^{-3}			
T = 298.15 K			
0.0520	1.00017	0.9258	65.38
0.0760	1.00119	0.9366	66.08
0.0840	1.00148	0.9399	66.87
0.0999	1.00210	0.9475	67.59
T = 303.15 K			
0.0200	0.99732	0.8235	66.28
0.0360	0.99801	0.8302	66.65
0.0519	0.99867	0.8376	67.34
0.0758	0.99966	0.8500	67.82
0.0839	0.99995	0.8540	68.45
0.0998	1.00052	0.8602	69.42
T = 308.15 K			
0.0200	0.99565	0.7326	66.82
0.0359	0.99633	0.7393	67.24
0.0518	0.99698	0.7460	67.96
0.0757	0.99796	0.7561	68.39
0.0838	0.99824	0.7594	69.10
0.0996	0.99882	0.7656	69.87
T = 313.15 K			
0.0199	0.99382	0.6797	68.38
0.0359	0.99448	0.6864	68.69
0.0517	0.99511	0.6931	69.36
0.0756	0.99604	0.7040	70.03
0.0836	0.99631	0.7073	70.71
0.0994	0.99690	0.7143	71.14
c = 0.020 mol dm^{-3}			
T = 298.15 K			
0.0200	0.99902	0.9195	65.74
0.0360	0.99972	0.9262	66.05
0.0520	1.00040	0.9329	66.53
0.0760	1.00136	0.9436	67.65
0.0840	1.00166	0.9477	68.12
0.1000	1.00226	0.9537	68.88
T = 303.15 K			
0.0200	0.99759	0.8298	67.28
0.0360	0.99827	0.8365	67.48
0.0519	0.99892	0.8440	68.10
0.0759	0.99988	0.8563	68.74
0.0838	1.00017	0.8604	69.23
0.0998	1.00072	0.8680	70.32
T = 308.15 K			
0.0200	0.99593	0.7390	68.32
0.0359	0.99659	0.7457	68.63

TABLE S-II. Continued

m / mol kg^{-1}	ρ / 10^3 kg m^{-3}	η / mPa s	$\varphi_V \times 10^6$ / m^3 mol^{-1}
	c = 0.020 mol dm^{-3}		
	T = 308.15 K		
0.0519	0.99723	0.7524	69.11
0.0757	0.99817	0.7625	69.71
0.0837	0.99844	0.7658	70.36
0.0996	0.99901	0.7720	71.07
	T = 313.15 K		
0.0199	0.99408	0.6861	69.38
0.0359	0.99473	0.6929	69.52
0.0518	0.99535	0.6996	70.13
0.0756	0.99627	0.7104	70.69
0.0835	0.99654	0.7137	71.25
0.0994	0.99710	0.7208	71.93