Corrections

Vapor−Liquid Equilibria of Ammonia + Water + Potassium Hydroxide and Ammonia + Water + Sodium Hydroxide Solutions at Temperatures from (293.15 to 353.15) K . Daniel Salavera, Shrirang K. Chaudhari, Xavier Esteve, and Alberto Coronas*, *J. Chem. Eng. Data* **2005**, *50*, 471−476.

Pages 472−474. Table 2, Table 5, and Table 6 contained some typographical errors. Table 3 contained some incorrect values. The correct tables are all given here.

Table 2. Coefficients of Equation 3 for NH_3 + H_2O System

coefficient	value	coefficient	value
A_0	1.648×10^{1}	B_0	-43.845×10^{2}
A_1	6.832×10^{-2}	B_1	1.277×10^{1}
A_2	-3.472×10^{-3}	B_2	8.180×10^{-1}
A_3	3.617×10^{-5}	B_3	-9.950×10^{-3}

Table 3. Experimental Vapor Pressure Data for NH_3 + H_2O + KOH

wNH$_3$ / % mass	wKOH / % mass	p / kPa	wNH$_3$ / % mass	wKOH / % mass	p / kPa	wNH$_3$ / % mass	wKOH / % mass	p / kPa	wNH$_3$ / % mass	wKOH / % mass	p / kPa
		T = 293.15 K						T = 333.15 K			
10.063	4.047	16.0	34.368	12.195	170.6	10.055	4.047	85.4	34.019	12.264	635.2
19.985	3.941	39.7	39.218	12.072	224.7	19.915	3.945	187.7	38.939	12.131	815.0
30.480	3.966	94.5	9.880	16.082	25.5	30.363	3.973	385.6	9.871	16.084	126.9
34.838	3.980	126.4	19.899	15.947	70.0	34.556	3.998	490.8	19.875	15.953	303.0
39.733	3.920	172.3	29.907	15.975	147.1	39.504	3.936	641.5	29.752	16.014	569.5
10.034	8.031	18.5	34.848	15.988	196.0	10.033	8.032	96.6	34.454	16.093	720.4
19.858	8.022	47.7	38.965	16.047	253.6	19.779	8.032	218.2	38.667	16.131	904.0
30.288	7.980	112.1	9.822	19.926	29.5	30.159	7.995	439.9	9.813	19.929	144.8
34.597	8.194	149.0	19.774	19.999	81.5	34.278	8.237	566.6	19.751	20.006	344.7
39.474	7.990	201.0	29.711	20.034	171.9	39.223	8.024	723.8	29.546	20.086	642.5
9.974	12.012	22.5	34.603	20.152	223.0	9.974	12.012	109.2	34.181	20.295	800.0
19.732	12.019	58.3	38.715	19.982	285.0	19.642	12.035	258.6	38.400	20.093	994.5
30.098	11.988	126.7				29.954	12.015	503.9			
		T = 303.15 K						T = 343.15 K			
10.062	4.047	25.5	34.311	12.207	247.0	10.051	4.047	121.0	33.883	12.291	832.8
19.974	3.942	61.0	39.168	12.083	325.7	19.886	3.947	260.0	38.838	12.152	1058.0
30.460	3.967	139.8	9.879	16.082	40.2	30.318	3.976	517.0	9.868	16.085	176.5
34.789	3.983	184.7	19.895	15.948	105.5	34.446	4.005	650.2	19.867	15.955	408.8
39.692	3.923	249.0	29.883	15.982	215.7	39.419	3.941	840.9	29.692	16.029	752.8
10.034	8.031	29.9	34.787	16.007	283.9	10.033	8.032	136.6	34.300	16.133	940.0
19.846	8.024	72.6	38.916	16.063	365.3	19.746	8.035	299.3	38.556	16.161	1169.8
30.267	7.982	161.2	9.821	19.926	47.3	30.110	8.002	587.1	9.809	19.930	199.9
34.543	8.202	216.0	19.771	20.001	122.3	34.155	8.253	744.8	19.744	20.008	456.0
39.431	7.996	284.2	29.690	20.043	249.2	39.129	8.037	944.5	29.482	20.106	843.1
9.974	12.012	34.0	34.546	20.179	324.0	9.974	12.012	153.2	34.009	20.351	1044.1
19.719	12.021	87.6	38.673	20.003	406.6	19.604	12.041	353.6	38.279	20.134	1285.1
30.075	11.993	186.9				29.901	12.025	665.8			
		T = 313.15 K						T = 353.15 K			
10.060	4.047	39.4	34.230	12.222	346.0	10.048	4.048	169.0	33.730	12.322	1071.0
19.959	3.943	91.3	39.103	12.096	452.9	19.852	3.949	352.7	38.721	12.177	1357.0
30.434	3.969	200.0	9.876	16.083	60.6	30.266	3.979	680.6	9.864	16.086	241.0
34.727	3.987	261.6	19.889	15.950	153.3	34.320	4.014	845.4	19.859	15.957	542.8
39.640	3.926	350.0	29.844	15.991	306.0	39.324	3.948	1081.0	29.627	16.045	976.0
10.033	8.032	45.6	34.690	16.030	396.0	10.034	8.032	189.3	34.129	16.179	1201.5
19.828	8.026	107.4	38.842	16.081	506.2	19.709	8.040	403.0	38.434	16.196	1489.0
30.239	7.986	229.3	9.818	19.927	70.7	30.054	8.009	768.0	9.806	19.931	271.0
34.469	8.211	307.0	19.764	20.002	177.4	34.016	8.272	960.4	19.736	20.011	613.5
39.373	8.003	397.3	29.645	20.055	348.3	39.026	8.052	1210.0	29.413	20.128	1086.0
9.973	12.012	51.7	34.425	20.212	455.0	9.975	12.011	211.2	33.806	20.419	1350.5
19.698	12.025	129.3	38.586	20.027	559.4	19.562	12.049	470.5	38.149	20.179	1630.0
30.041	11.999	267.0				29.841	12.036	865.8			
		T = 323.15 K									
10.057	4.047	58.3	34.131	12.241	474.3						
19.939	3.944	132.4	39.026	12.112	613.8						
30.401	3.971	281.0	9.874	16.084	88.9						
34.648	3.992	363.0	19.882	15.951	218.8						
39.577	3.931	479.3	29.800	16.002	423.0						
10.033	8.032	66.9	34.578	16.059	541.3						
19.805	8.028	154.8	38.760	16.104	682.6						
30.201	7.990	321.9	9.816	19.928	102.2						
34.380	8.223	421.4	19.758	20.004	249.7						
39.303	8.013	542.3	29.598	20.069	478.5						
9.973	12.012	76.1	34.318	20.247	600.0						
19.671	12.029	185.2	38.498	20.058	754.4						
30.000	12.006	371.3									

Table 5. Coefficients of Equation 5 for $NH_3 + H_2O + KOH$ System

coefficient	value	coefficient	value
a_{00}	1.594×10^{1}	b_{00}	-4.106×10^{3}
a_{01}	1.303×10^{-1}	b_{01}	-5.351×10^{1}
a_{02}	-4.018×10^{-3}	b_{02}	1.878×10^{0}
a_{10}	6.296×10^{-2}	b_{10}	1.991×10^{-1}
a_{11}	-7.283×10^{-3}	b_{11}	5.437×10^{0}
a_{12}	-7.633×10^{-5}	b_{12}	-4.441×10^{-2}
a_{20}	-1.865×10^{-3}	b_{20}	8.730×10^{-1}
a_{21}	-8.022×10^{-5}	b_{21}	-8.592×10^{-2}
a_{22}	2.035×10^{-5}	b_{22}	-4.331×10^{-3}
a_{30}	6.813×10^{-6}	b_{30}	-7.607×10^{-3}
a_{31}	4.713×10^{-6}	b_{31}	-2.839×10^{-4}
a_{32}	-4.085×10^{-7}	b_{32}	1.086×10^{-4}

Table 6. Coefficients of Equation 5 for NH_3+H_2O+NaOH System

coefficient	value	coefficient	value
a_{00}	1.724×10^{1}	b_{00}	-4.699×10^{3}
a_{01}	-2.368×10^{-1}	b_{01}	1.052×10^{2}
a_{02}	9.744×10^{-3}	b_{02}	-3.960×10^{0}
a_{10}	4.500×10^{-2}	b_{10}	2.480×10^{1}
a_{11}	5.399×10^{-3}	b_{11}	-2.779×10^{0}
a_{12}	-4.571×10^{-4}	b_{12}	2.282×10^{-1}
a_{20}	-4.469×10^{-3}	b_{20}	1.064×10^{0}
a_{21}	2.311×10^{-4}	b_{21}	-4.678×10^{-2}
a_{22}	3.082×10^{-7}	b_{22}	-2.752×10^{-3}
a_{30}	6.574×10^{-5}	b_{30}	-1.979×10^{-2}
a_{31}	-6.004×10^{-6}	b_{31}	1.705×10^{-3}
a_{32}	1.381×10^{-7}	b_{32}	-1.908×10^{-5}

JE050480F

10.1021/je050480f
Published on Web 12/02/2005

Effects of High CO_2 Molality on the Carbon Dioxide Equilibrium of Seawater, Chi Shing Wong,* Pavel Ya. Tishchenko, and Wm. Keith Johnson, *J. Chem. Eng. Data* **2005**, *50*, 822−831.

Page 827. Equations 46 and 48 contain errors. The correct equations are as follows:

$$(\lambda_{CO_2,Na} + \lambda_{CO_2,HCO_3})/\mathrm{kg\cdot mol^{-1}} = 1.2674 - 273.414\ \mathrm{K}/T \quad (46)$$

and

$$(\lambda_{CO_2,Na} + \lambda_{CO_2,Cl})/\mathrm{kg\cdot mol^{-1}} = -2.1246 + 355.666\ \mathrm{K}/T + 3.475 \times 10^{-3} T/\mathrm{K} \quad (48)$$

JE060013D

10.1021/je060013d
Published on Web 02/03/2006

Solublity of N_2O in and Density, Viscosity, and Surface Tension of Aqueous Piperazine Solutions. Peter W. Derks, Kees J. Hogendoorn, and Geert F. Versteeg*, *J. Chem. Eng. Data* **2005**, *50*, 1947−1950.

The density, viscosity, and gas solubility data of Cullinane[1] given in Figures 2, 3, and 4 in our paper were assumed to be a function of concentration when in fact the values in the thesis were reported as molalities. Using the corrected compositions, it is concluded that the densities and viscosities determined in our paper agree well with those reported by Cullinane.[1] They are compared in new Figures 2, 3, and 4 provided here. The references in the figures are those given in our original paper.

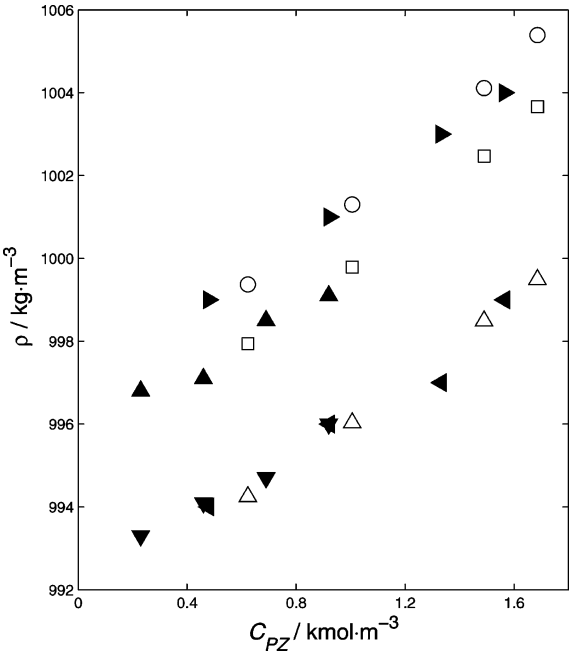

Figure 2. Density of aqueous piperazine solutions (ρ) as a function of PZ concentration. At 298.15 K: ○, this work; "solid triangle pointing right", Cullinane.[15] At 303.15 K: □, this work; ▲, Sun et al.[5] At 313.15 K: △, this work; ▼, Sun et al.;[5] "solid triangle pointing left", Cullinane.[15]

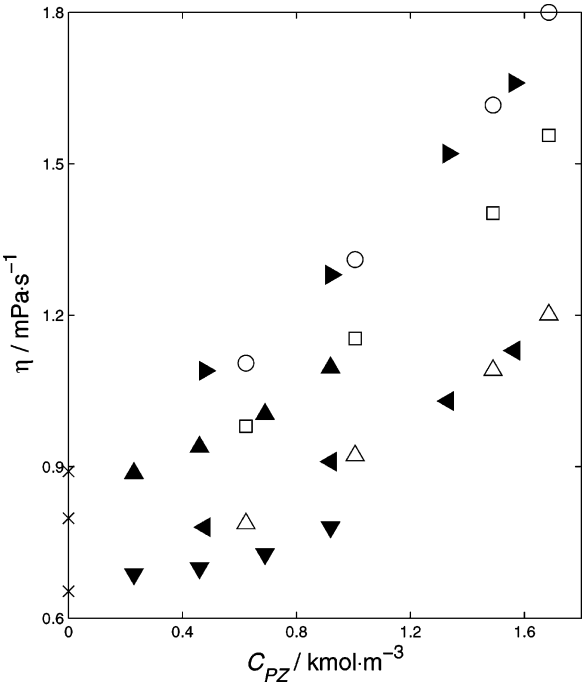

Figure 3. Viscosity of aqueous piperazine solutions (η) as a function of PZ concentration. At 298.15 K: ○, this work; "solid triangle pointing right", Cullinane.[15] At 303.15 K: □, this work; ▲, Sun et al.[5] At 313.15 K: △, this work; ▼, Sun et al.;[5] "solid triangle pointing left", Cullinane;[15] ×, pure water viscosity data at (298.15, 303.15, and 313.15) K.[16]

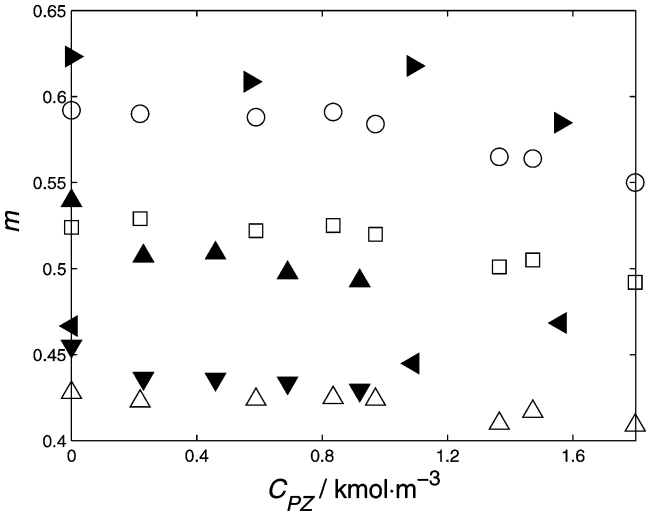

Figure 4. Solubility of N_2O, as the distribution coefficient (m) in aqueous piperazine solutions as a function of PZ concentration. At 298.15 K: ○, this work; "solid triangle pointing right", Cullinane.[15] At 303.15 K: □, this work; ▲, Sun et al.[5] At 313.15 K: △, this work; ▼, Sun et al.;[5] "solid triangle pointing left", Cullinane.[15]

Acknowledgment

We thank George Goff and Gary Rochelle, University of Texas, for pointing out this misinterpretation.

Literature Cited

(1) Cullinane, J. T. Thermodynamics and Kinetics of Aqueous Piperazine with Potassium Carbonate for Carbon Dioxide Absorption. Ph.D. Dissertation, University of Texas, Austin, 2005.

JE0504616

10.1021/je0504616
Published on Web 11/16/2005