Measurement of Ion Activity Coefficients in Aqueous Solutions of Mixed Electrolyte with a Common Ion: $NaNO_3$ + KNO_3, NaCl + KCl and NaBr + NaCl. Eva Rodil, Alberto Arce, Grazyna Wilczek-Vera, and Juan H. Vera,* *J. Chem. Eng. Data* **2009,** *54,* 345–350.

In the above publication we reported data of individual ionic activities in aqueous solutions of mixed 1:1 electrolytes with a common ion at 298.15 K. For all three systems reported, we measured the individual activity coefficient of the common ion, and we provided the pertinent data as Supporting Information. For the $NaNO_3$ + KNO_3 and NaCl + KCl systems, we calculated the individual activity coefficients of sodium and potassium using equations and parameters available in the literature for the mean ionic activity coefficients. Although the supporting data provided and the equations and parameters reproduced in our publication are all correct, regrettably the values of the individual ionic activity coefficients of the sodium and potassium ions in the $NaNO_3$ + KNO_3 and NaCl + KCl mixtures were reported with error in Tables 2 and 3 of our publication. Corrected values of these ionic activity coefficients are given in the revised tables below. In addition, we observe here that while the presentation of Figure 4 in the text was correct, in its caption where it says "NaCl + KCl mixtures", it should read "$NaNO_3$ + KNO_3 mixtures". These corrections do not affect the results shown in the figures or the conclusions presented in the manuscript.

Table 2. (Revised) Activity Coefficients, γ, of Nitrate, Sodium, and Potassium Ions in Aqueous Mixtures of $NaNO_3$ + KNO_3 at 298.15 K as a Function of the Total Molality, m, of the Nitrate Ion at Different Cation Molal Fractions of Sodium $X_{Na^+} = [m_{Na^+}/(m_{K^+} + m_{Na^+})]$

m	$X_{Na^+} = 1$		m	$X_{Na^+} = 3/4$		
mol·kg^{-1}	$\gamma_{NO_3^-}$	γ_{Na^+}	mol·kg^{-1}	$\gamma_{NO_3^-}$	γ_{Na^+}	γ_{K^+}
0.0021	0.938	0.942	0.0021	0.948	–	–
0.0032	0.947	0.939	0.0041	0.934	–	–
0.0044	0.936	0.931	0.0061	0.922	–	–
0.0053	0.928	0.936	0.0082	0.906	–	–
0.0064	0.920	0.921	0.0103	0.895	–	–
0.0075	0.906	0.912	0.0343	0.829	–	–
0.0085	0.902	0.903	0.0740	0.774	–	–
0.0105	0.892	0.886	0.1037	0.743	–	–
0.0305	0.836	0.824	0.2023	0.673	–	–
0.0500	0.800	0.804	0.3997	0.584	0.677	0.604
0.0700	0.771	0.791	0.5972	0.528	0.651	0.571
0.0998	0.740	0.778	0.7945	0.486	0.637	0.526
0.1997	0.664	0.758	0.9920	0.447	0.634	0.500
0.2996	0.617	0.740	1.189	0.416	0.632	0.480
0.3993	0.578	0.729	1.387	0.390	0.631	0.464
0.5983	0.528	0.717	1.584	0.367	0.631	0.449
0.7976	0.484	0.710	1.781	0.347	0.630	0.432
0.9968	0.449	0.713	1.979	0.329	0.631	0.415
1.196	0.420	0.712	2.373	0.302	0.630	0.376
1.396	0.397	0.706				
1.595	0.376	0.702				
1.795	0.357	0.704				
1.994	0.342	0.706				
2.493	0.311	0.698				
σ	0.016	0.018	σ	0.014	–	–

Table 2a. (continued)

m	$X_{Na^+} = 1/2$			m	$X_{Na^+} = 1/4$		
mol·kg^{-1}	$\gamma_{NO_3^-}$	γ_{Na^+}	γ_{K^+}	mol·kg^{-1}	$\gamma_{NO_3^-}$	γ_{Na^+}	γ_{K^+}
0.0021	0.945	–	–	0.0022	0.941	–	–
0.0043	0.938	–	–	0.0044	0.938	–	–
0.0064	0.919	–	–	0.0066	0.929	–	–
0.0087	0.905	–	–	0.0087	0.896	–	–
0.0108	0.890	–	–	0.0109	0.889	–	–
0.0308	0.840	–	–	0.0350	0.831	–	–
0.0707	0.781	–	–	0.0750	0.777	–	–
0.1006	0.749	–	–	0.1047	0.746	–	–
0.2013	0.670	–	–	0.2043	0.673	–	–
0.4005	0.582	0.663	0.594	0.4021	0.579	0.650	0.585
0.5980	0.523	0.631	0.557	0.6013	0.515	0.613	0.546
0.7980	0.478	0.617	0.514	0.8003	0.466	0.604	0.508
0.9926	0.443	0.606	0.484	0.9976	0.428	0.594	0.480
1.189	0.412	0.599	0.463	1.196	0.395	0.587	0.459
1.388	0.385	0.596	0.446	1.396	0.365	0.584	0.444
1.590	0.359	0.595	0.432	1.595	0.339	0.582	0.431
1.787	0.338	0.594	0.417	1.794	0.318	0.580	0.417
1.987	0.319	0.593	0.400	1.994	0.297	0.581	0.402
2.384	0.287	0.595	0.367	2.393	0.266	0.581	0.370
σ	0.018	–	–	σ	0.015	–	–

m	$X_{Na^+} = 0$	
mol·kg^{-1}	$\gamma_{NO_3^-}$	γ_{K^+}
0.0021	0.938	–
0.0032	0.943	–
0.0042	0.938	–
0.0052	0.944	–
0.0063	0.913	–
0.0074	0.905	–
0.0084	0.900	–
0.0105	0.894	–
0.0306	0.840	–
0.0508	0.804	–
0.0710	0.775	–
0.1012	0.744	–
0.2014	0.658	0.668
0.3016	0.606	0.622
0.4021	0.564	0.589
0.6024	0.500	0.539
0.8030	0.448	0.505
0.9033	0.427	0.493
1.004	0.404	0.486
1.204	0.368	0.466
1.405	0.341	0.446
1.605	0.316	0.431
1.806	0.295	0.416
2.006	0.276	0.401
2.558	0.236	0.356
σ	0.016	–

Table 3. (Revised) Activity Coefficients, γ, of Chloride, Sodium, and Potassium Ions in Aqueous Mixtures of NaCl + KCl at 298.15 K as a Function of the Total Molality, m, of the Chloride Ion at Different Cation Molal Fractions of Sodium $X_{Na^+} = [m_{Na^+}/(m_{K^+} + m_{Na^+})]$

m	$X_{Na^+} = 3/4$				m	$X_{Na^+} = 1/2$			
mol·kg^{-1}	γ_{Cl^-}	γ_{Na^+}	γ_{K^+}	$\gamma_{K^+}{}^a$	mol·kg^{-1}	γ_{Cl^-}	γ_{Na^+}	γ_{K^+}	$\gamma_{K^+}{}^a$
0.0040	0.929	–	–	0.933	0.0041	0.933	–	–	0.934
0.0080	0.913	–	–	0.908	0.0089	0.901	–	–	0.902
0.0120	0.893	–	–	0.887	0.0119	0.890	–	–	0.889
0.0159	0.872	–	–	0.879	0.0158	0.879	–	–	0.880
0.1980	0.739	0.727	0.704	0.691	0.1998	0.750	0.712	0.691	0.722
0.4949	0.676	0.676	0.637	0.626	0.5001	0.691	0.652	0.618	0.646
0.9897	0.632	0.665	0.597	0.567	0.9705	0.653	0.627	0.570	0.584
1.386	0.614	0.673	0.584	0.544	1.370	0.635	0.628	0.556	0.547
1.980	0.605	0.700	0.575	0.513	1.970	0.621	0.649	0.550	0.519
2.970	0.607	0.776	0.581	0.487	2.971	0.620	0.704	0.553	0.492
3.961	0.634	0.867	0.594	0.474	3.972	0.658	0.751	0.549	0.476
σ	0.008	–	–	0.013	σ	0.014	–	–	0.02

Table 3a. (continued)

m / mol·kg^{-1}	$X_{Na^+} = 1/4$			
	γ_{Cl^-}	γ_{Na^+}	γ_{K^+}	$\gamma_{K^+}{}^a$
0.0040	0.935	−	−	0.934
0.0080	0.904	−	−	0.908
0.0121	0.889	−	−	0.886
0.0164	0.878	−	−	0.878
0.1978	0.758	0.700	0.682	0.736
0.4946	0.709	0.627	0.599	0.657
0.9895	0.669	0.596	0.551	0.585
1.385	0.651	0.591	0.536	0.547
1.977	0.640	0.599	0.523	0.513
2.966	0.640	0.633	0.520	0.480
3.955	0.683	0.654	0.508	0.460
σ	0.005	−	−	0.013

[a] Experimental data.

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