

Viscosity *B*-Coefficient for Sodium Chloride in Aqueous Mixtures of 1,4-Dioxane at Different Temperatures[#]

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[#]**Dedicated to Prof. Dr. Jože Koller on the occasion of his 70th birthday**

Supporting Information:

Table S1. Parameters used in Eq. (4) in aqueous mixtures of 1,4-dioxane at different temperatures.

Input data in Eq. (4)	$x_D = 0.05$	$x_D = 0.10$	$x_D = 0.15$	$x_D = 0.20$
$T = 278.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	21.56	16.33	14.04	12.35
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	32.15	23.84	20.26	17.59
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	53.71	40.17	34.30	29.94
ε_r	68.388	54.584	44.575	35.395
$T = 283.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	25.14	19.15	16.47	14.49
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	37.20	27.76	23.60	20.49
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	62.34	46.91	40.07	34.98
ε_r	66.644	53.181	43.382	34.370
$T = 288.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	28.98	22.21	19.13	16.83
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	42.55	31.95	27.20	23.62
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	71.53	54.16	46.33	40.45
ε_r	64.955	51.659	42.088	33.322
$T = 298.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	37.41	29.02	25.07	22.07
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	54.11	41.14	35.13	30.54
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	91.52	70.16	60.20	52.61
ε_r	61.759	48.921	39.774	31.425
$T = 303.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	41.99	32.75	28.33	24.97
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	60.26	46.08	39.41	34.28
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	102.25	78.83	67.74	59.25
ε_r	60.181	47.626	38.720	30.596
$T = 308.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	46.77	36.69	31.80	28.05
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	66.63	51.24	43.91	38.23
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	113.40	87.93	75.71	66.28
ε_r	58.673	46.359	37.658	29.730
$T = 313.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	51.55	40.63	35.27	31.13
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	73.00	56.40	48.41	42.18
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	124.55	97.03	83.68	73.31
ε_r	57.165	45.092	36.596	28.864
$T = 318.15$ K				
$\lambda_+^\infty / \text{S cm}^2 \text{mol}^{-1}$	56.33	44.57	38.74	34.21
$\lambda_-^\infty / \text{S cm}^2 \text{mol}^{-1}$	79.37	61.56	52.91	46.13
$\Lambda^\infty / \text{S cm}^2 \text{mol}^{-1}$	135.70	106.13	91.65	80.34
ε_r	55.657	43.825	35.534	27.998

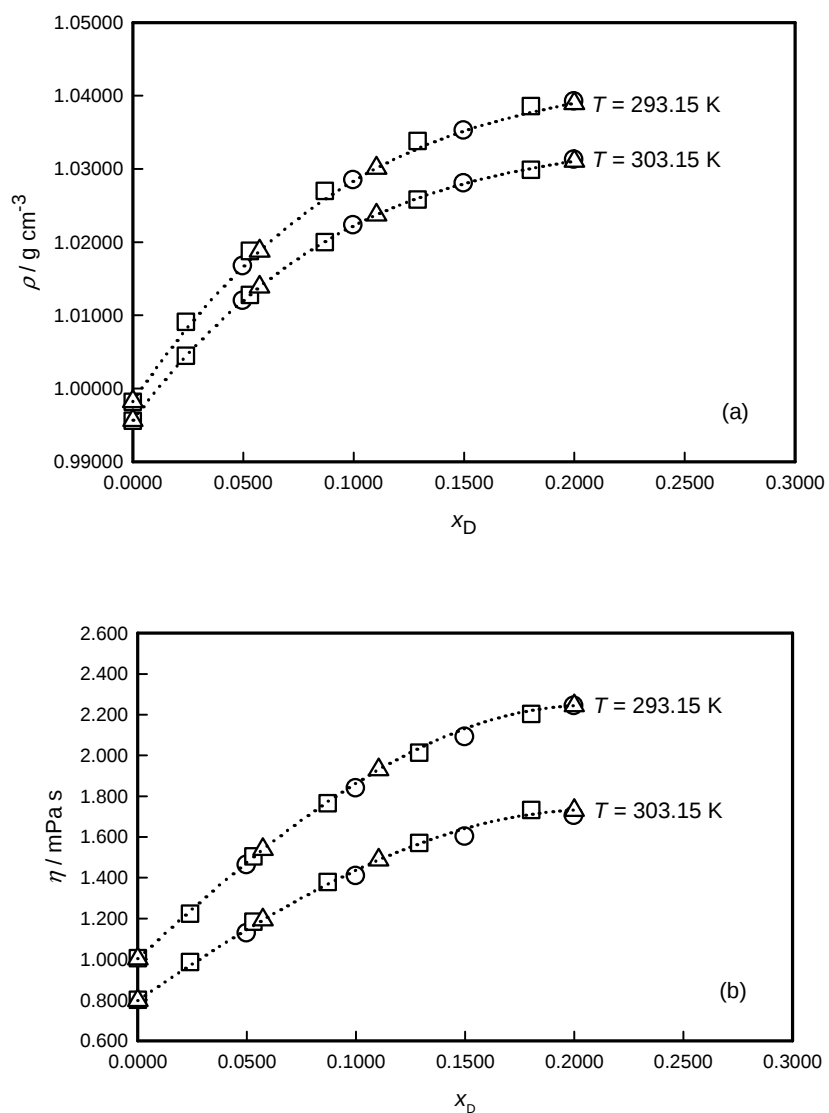


Figure S1. Measured values of density (a), and viscosity (b) of water–1,4-dioxane mixtures at two selected temperatures of 293.15 K and 303.15 K together with the data reported in literature. $\circ$, this work; Δ , Ref. 16.; $\square$, (a) from Ref. 23.; $\square$, (b) from Ref. 22 in the manuscript.

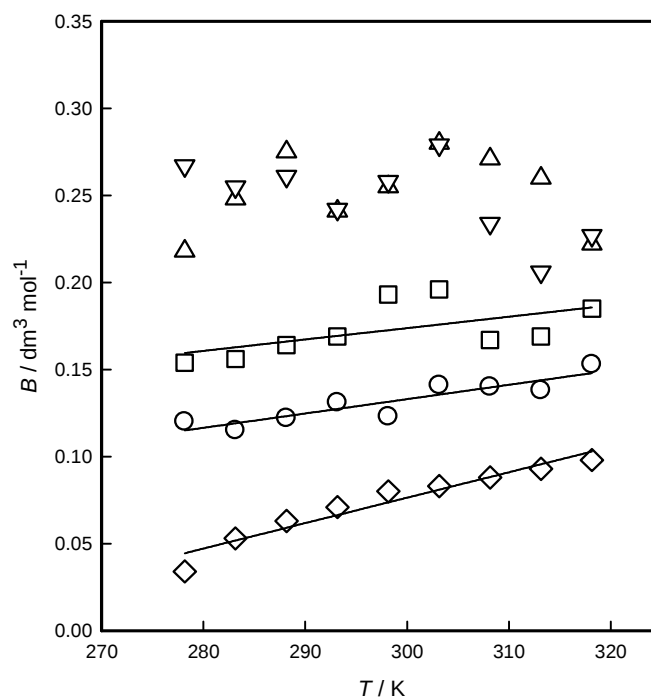


Figure S2. Temperature dependence of the viscosity B -coefficients for NaCl in water–1,4-dioxane mixtures. Points: $x_D = 0.00$ ($\diamond$) (Ref. 2. in the manuscript), $x_D = 0.05$ ($\circ$), $x_D = 0.10$ ($\square$), $x_D = 0.15$ (Δ), and $x_D = 0.20$ (∇). Lines are linear fits; from their slopes dB/dT values are determined at $x_D = 0.05$ and $x_D = 0.10$. Polynomial fits for $x_D = 0.15$ and 0.20 were not carried out due to the scattering of the values.