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

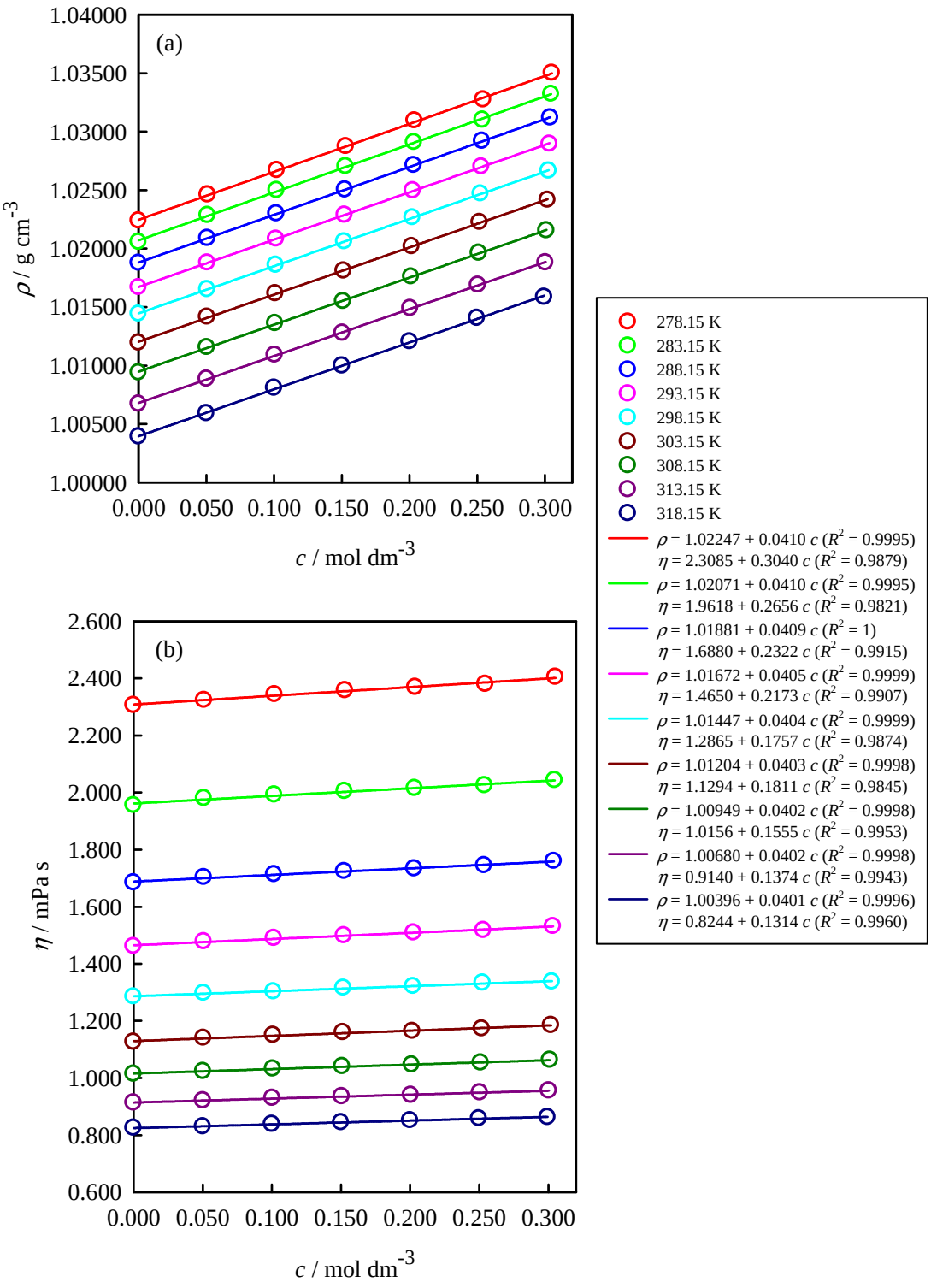

Figure S1. Density (a) and viscosity (b) as a function of NaCl molarity at different temperatures for 0.05 mole fraction of 1,4-dioxane. Circles: experimental data. Full lines: linear fit.

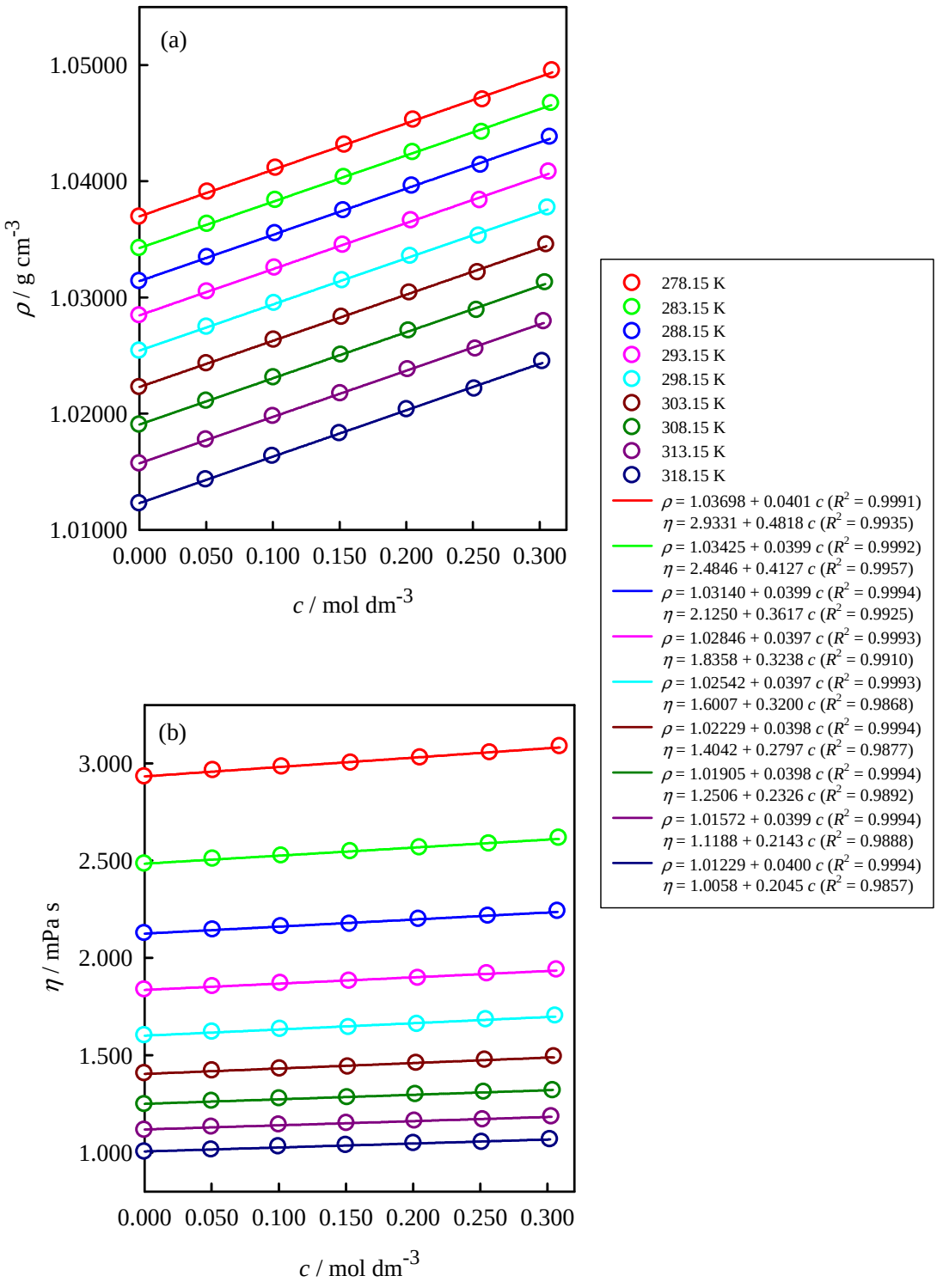

Figure S2. Density (a) and viscosity (b) as a function of NaCl molarity at different temperatures for 0.10 mole fraction of 1,4-dioxane. Circles: experimental data. Full lines: linear fit.

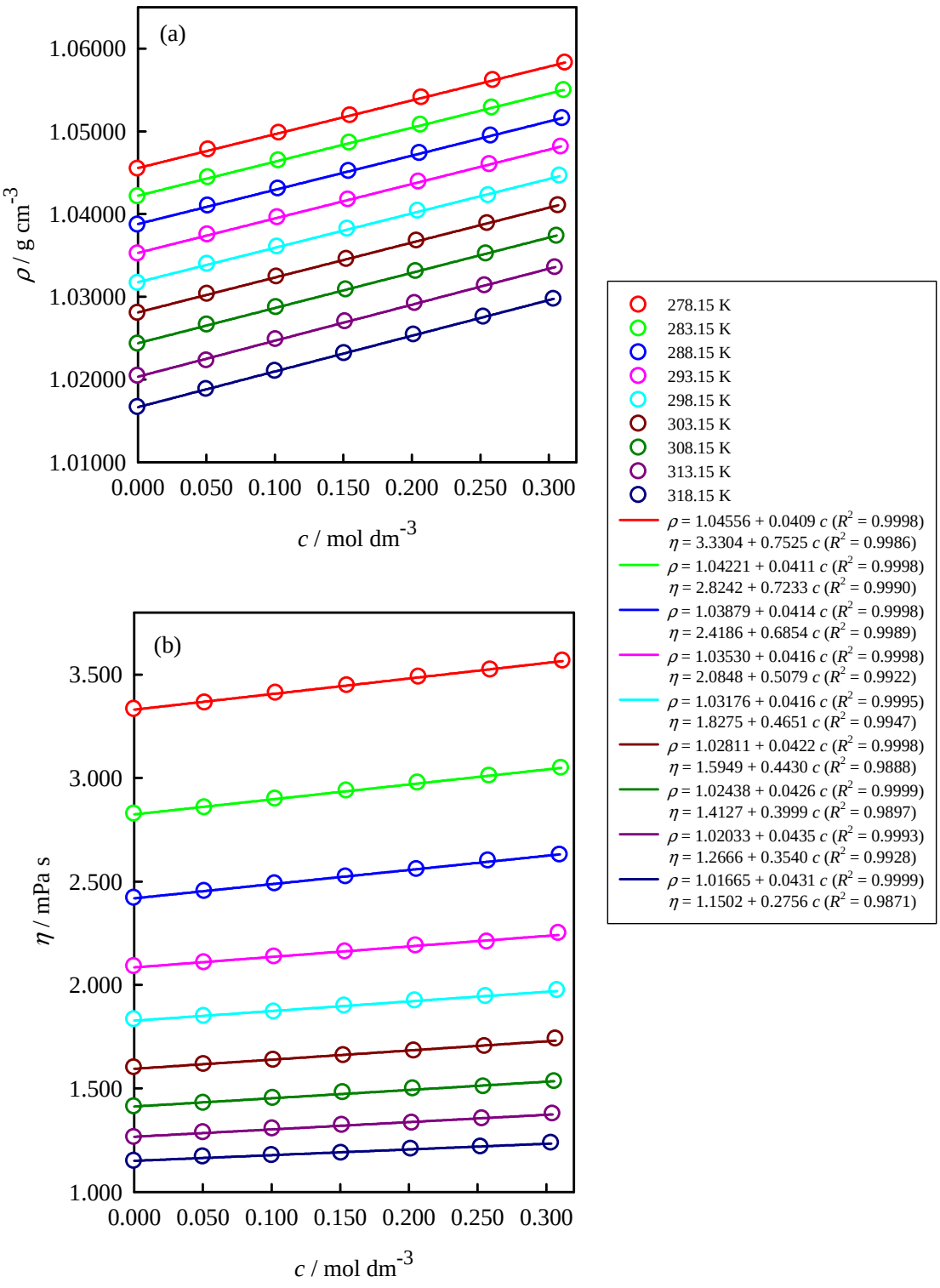

Figure S3. Density (a) and viscosity (b) as a function of NaCl molarity at different temperatures for 0.15 mole fraction of 1,4-dioxane. Circles: experimental data. Full lines: linear fit.

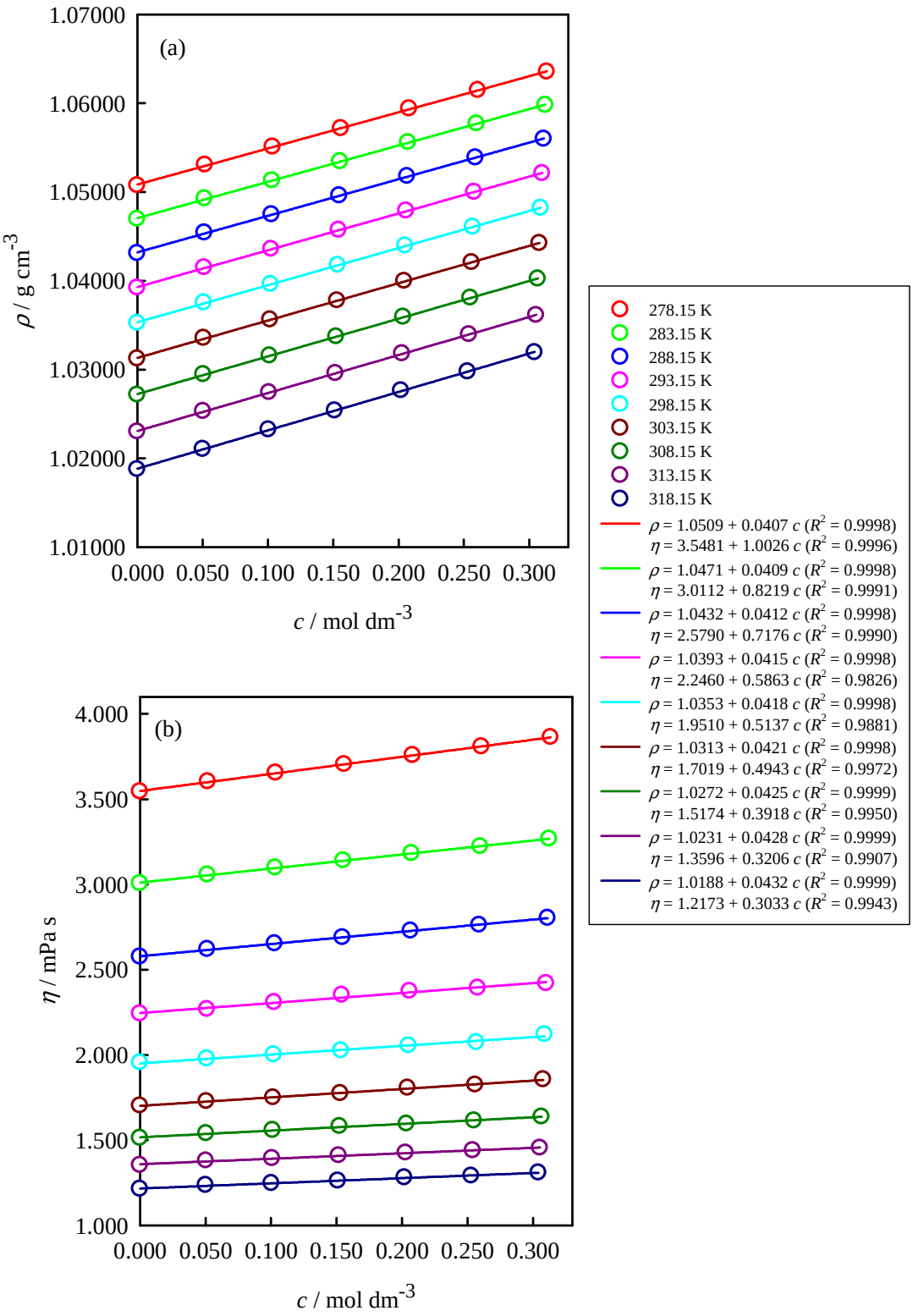

Figure S4. Density (a) and viscosity (b) as a function of NaCl molarity at different temperatures for 0.20 mole fraction of 1,4-dioxane. Circles: experimental data. Full lines: linear fit.

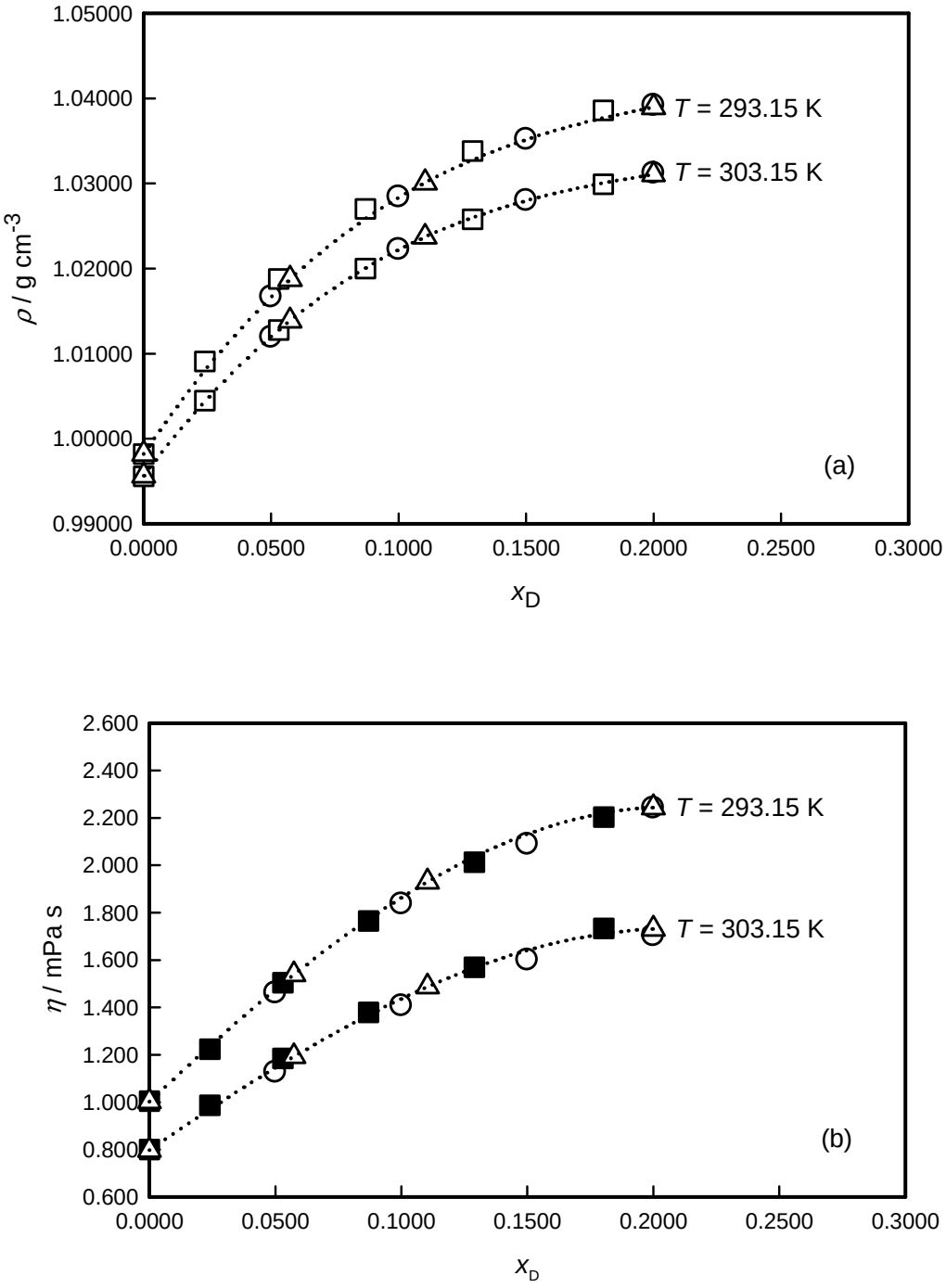

Figure S5. Measured values of density (a), and viscosity (b) of water–1,4-dioxane mixtures at two selected temperatures of 293.15 K and 303.15 K together with the data reported in literature. ○, this work; ∆, Ref. 16.; □, Ref. 27.; ■, Ref. 26. in the manuscript.