

Comments on “Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + 1-Propanol at (288.15, 298.15, and 308.15) K at Normal Pressures” (Fabio Comelli, Romolo Francesconi, Adriana Bigi, and Katia Rubini, *J. Chem. Eng. Data*, 2006, 51, 1711–1716)

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Comelli et al.¹ reported the experimental heat capacities of liquid 1-propanol at atmospheric pressure in Table 4 of their paper and correlated the data using the expression:

$$C_p/\text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1} = c_0 + c_1(T/\text{K}) + c_2(T/\text{K})^2$$

Unfortunately, the reported c_2 value lacks sufficient significant figures and gives a higher standard deviation of $2.66 \text{ J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$ than that reported, resulting in approximately a $2.66 \text{ J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$ deficiency in the calculated values. The reported and corrected adjustable parameters are given in Table 1, and the experimental and calculated C_p values are given in Table 2.

Table 1. Adjustable Parameters of C_p Equation and Standard Deviation for 1-Propanol

	c_0	c_1	c_2	$\sigma(C_p)/\text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$
reported	171.54	-0.7535	0.0022	0.4
corrected	171.54	-0.7535	0.002227	0.3

Editors Note: The authors agree with this comment.

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Table 2. Comparison of Reported Correlation C_p Values with the Corrected C_p Correlation Values

T K	exp C_p $\text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$	calcd C_p $\text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$	corrected C_p $\text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$
288.15	139	137.1	139.3
293.15	142.3	139.7	142.1
298.15	144.9	142.4	144.9
303.15	148.2	145.3	147.8
308.15	151	148.3	150.8
313.15	153.7	151.3	154.0
318.15	157.1	154.5	157.3
323.15	160.1	157.8	160.6
328.15	164.5	161.2	164.1
333.15	167.8	164.7	167.7

Literature Cited

- (1) Comelli, F.; Francesconi, R.; Bigi, A.; Rubini, K. Excess molar enthalpies, molar heat capacities, densities, viscosities, and refractive indices of dimethyl sulfoxide + 1-propanol at (288.15, 298.15, and 308.15) K at normal pressures. *J. Chem. Eng. Data* **2006**, 51, 1711–1716.

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