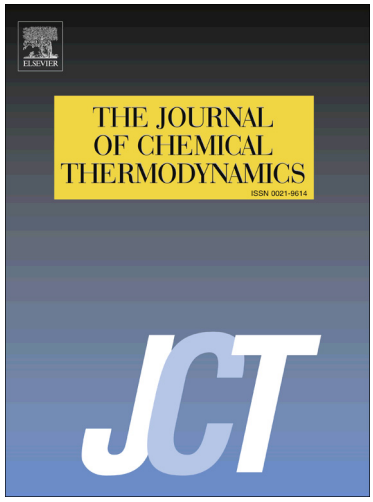

Commentary concerning "Thermodynamic properties of L-theanine in different solvents"

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Commentary concerning "Thermodynamic properties of L-theanine in different solvents"

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Abstract

Errors are discovered regarding the published equation curve-fit coefficients of Zhou and coworkers [J. Chem. Thermodynamics 105 (2017) 198–208] for mathematically describing the solubility of L-theanine in pure water and three kinds of water + organic solvent mixtures using the modified Apelblat equation and Jouyban-Acree model. The calculated values using the published equation coefficients for the two models do not correctly describe the determined solubility data as stated in the published paper. In addition, the equation parameters were re-analysed based on the reported solubility data.

Keywords: L-Theanine; Solubility; Modified Apelblat equation; Jouyban-Acree model

In a recent paper published in the Journal of Chemical Thermodynamics, Zhou and co-workers [1] reported the solubility of L-theanine in three kinds of water + organic solvent mixtures at temperatures from 278.15 K to 313.15 K determined by the equilibrium method. The authors mathematically described the variation of the measured mole fraction solubility (x_1) with