

Solubility of acetaminophen in the ethanol and glycerol mixtures at different temperatures

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Abstract. Acetaminophen solubility in the glycerol and ethanol mixture was determined by a simple shake-flask technique at different temperatures and fitted to some mathematical models and the models' accuracy was investigated by the computation of the mean relative deviations. The densities of acetaminophen saturated mixtures were also studied by the Jouyban-Acree model. Moreover, the Gibbs and van't Hoff equations were utilized to compute apparent thermodynamic parameters of the acetaminophen dissolving.

Keywords: acetaminophen; solubility; glycerol; ethanol; binary mixture; cosolvency models.

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