

THERMODYNAMICS AND CHEMICAL

己二酸在几种有机溶剂中溶解度的测定与关联

樊丽华<sup>a</sup>, 马培生<sup>a</sup>, 相政乐<sup>a</sup>

<sup>a</sup> School of Chemical Engineering, Tianjin University, Tianjin 300072, China

<sup>b</sup> College of Chemical Engineering and Biological Technology, Hebei Polytechnic University, Tangshan 063009, China

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**摘要** Using a laser detecting system, solubility data were measured for adipic acid dissolved in six pure solvents, namely, cyclohexanone, cyclohexanol, acetic acid, N,N-dimethylformamide, N,N-dimethylacetamide, and dimethylsulfoxide at the temperature range from 293.15K to 353.15K. All these data were regressed by NRTL, Wilson, and the modified Wilson models. For the study of six, NRTL, and the modified Wilson models were found to provide an accurate mathematical representation of the experimental results, with overall average absolute relative deviations between measured and calculated values as 1.74%, 2.06%, and 3.06%, respectively. The results showed that the model is the most suitable for description of the solid-liquid equilibrium containing adipic acid.

**关键词** [solid-liquid equilibrium](#), [solubility](#), [adipic acid](#), [modeling](#)

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Measurement and correlation for solubility of adipic acid in several solvents

FAN, Lihua<sup>a,b</sup>, MA, Peisheng<sup>a</sup>, XIANG, Zhengle<sup>a</sup>

<sup>a</sup> School of Chemical Engineering, Tianjin University, Tianjin 300072, China

<sup>b</sup> College of Chemical Engineering and Biological Technology, Hebei Polytechnic University, Tangshan 063009, China

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**Abstract** Using a laser detecting system, solubility data were measured for adipic acid dissolved in six pure solvents, namely, cyclohexanone, cyclohexanol, acetic acid, N,N-dimethylformamide, N,N-dimethylacetamide, and dimethylsulfoxide at the temperature range from 293.15K to 353.15K. All these data were regressed by NRTL, Wilson, and the modified Wilson models. For the study of six, NRTL, and the modified Wilson models were found to provide an accurate mathematical representation of the experimental results, with overall average absolute relative deviations between measured and calculated values as 1.74%, 2.06%, and 3.06%, respectively. The results showed that the model is the most suitable for description of the solid-liquid equilibrium containing adipic acid.

**Key words** [solid-liquid equilibrium](#), [solubility](#), [adipic acid](#), [modeling](#)

通讯作者:

樊丽华

作者个人主页: [樊丽华<sup>a</sup>](#), [马培生<sup>a</sup>](#), [相政乐<sup>a</sup>](#)

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