عنوان مقاله:

New Thermodynamics Model for Solvent Activity of Aqueous Polymer Solutions

محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

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نویسندگان:

Seyed Ashkan Seyed Ashkan Zonnouri - *Department of Chemical and Petroleum Engineering,Islamic Azad University,Masjed Soleyman Branch,Masjed Soleyman,Iran*

Rahmat Sadeghi - *Department of Chemical and Petroleum Engineering,Islamic Azad University,Masjed Soleyman Branch,Masjed Soleyman,Iran*

Yasaman Shahebrahimi - *Department of Chemical and Petroleum Engineering,Islamic Azad University,Masjed Soleyman Branch,Masjed Soleyman,Iran*

خلاصه مقاله:

The objective of this work was to improve the accuracy of thermodynamics model for prediction of solvent activities in aqueous polymer solutions by considering new model with (1) chemical theory to account chemical reaction (solvation) between solute and solvent,(2) Flory-Huggins theoryfor the difference of molecular volumes, and (3) NRTL equation for the interaction between molecules.The utility of the model is demonstrated successful representation of the vapor-liquid equilibria of several aqueous polymer solution. The results are compared with those obtained fromthe models that consider physical contribution only.

کلمات کلیدی:

Aqueous Polymer Solution,Vapor-liquid Equilibria, Solvent Activities,Thermodynamics Model, Solvation

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