Accepted Manuscript

Thermodynamic modelling of solubility and preferential solvation for ribavirin (II) in co-solvent mixtures of (methanol, n-propanol, acetonitrile or 1,4-dioxane) + water

Xinbao Li, Yang Cong, wentian Li, Pengyao Yan, Hongkun Zhao

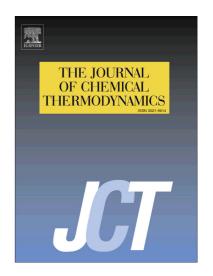
PII: S0021-9614(17)30259-8

DOI: http://dx.doi.org/10.1016/j.jct.2017.07.027

Reference: YJCHT 5145

To appear in: J. Chem. Thermodynamics

Received Date: 3 July 2017 Revised Date: 20 July 2017 Accepted Date: 23 July 2017



Please cite this article as: X. Li, Y. Cong, w. Li, P. Yan, H. Zhao, Thermodynamic modelling of solubility and preferential solvation for ribavirin (II) in co-solvent mixtures of (methanol, *n*-propanol, acetonitrile or 1,4-dioxane) + water, *J. Chem. Thermodynamics* (2017), doi: http://dx.doi.org/10.1016/j.jct.2017.07.027

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Thermodynamic modelling of solubility and preferential solvation for ribavirin (II) in co-solvent mixtures of (methanol, *n*-propanol, acetonitrile or 1,4-dioxane) + water

Xinbao Li^a, Yang Cong^b, wentian Li^a, Pengyao Yan^a, Hongkun Zhao^b

^a School of Environmental & Municipal Engineering, North China University of Water Resources and Electric Power,

ZhengZhou, He'nan 450011, People's Republic of China

^b College of Chemistry & Chemical Engineering, YangZhou University, YangZhou, Jiangsu 225002,

People's Republic of China

Corresponding author. Tel: + 86 514 87975568; Fax: + 86 514 87975244.

E-mail address: hkzhao@yzu.edu.cn (H.K. Zhao).

ABSTRACT

The equilibrium solubility of ribavirin in solvent mixtures of {methanol (1) + water (2)}, {n-propanol (1) + water (2)}, {acetonitrile (1) + water (2)} and {1,4-dioxane (1) + water (2)} was determined experimentally by using isothermal dissolution equilibrium method within the temperature range from (278.15 to 318.15) K under atmospheric pressure (101.1 kPa). At the same temperature and mass fraction of methanol (n-propanol, acetonitrile or 1,4-dioxane), the mole fraction solubility of ribavirin is greater in (methanol + water) than in the other three solvent mixtures. The

Download English Version:

https://daneshyari.com/en/article/4907281

Download Persian Version:

https://daneshyari.com/article/4907281

Daneshyari.com