

Accepted Manuscript

Remarks and further analysis on “Solubility and dissolution thermodynamic properties of 1,6-Bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionamido]hexane in pure solvents and binary solvent mixtures”



Gaoquan Chen, Jiao Chen, Renjie Xu, Min Zheng, Hongkun Zhao

PII: S0167-7322(18)32882-4
DOI: doi:[10.1016/j.molliq.2018.06.067](https://doi.org/10.1016/j.molliq.2018.06.067)
Reference: MOLLIQ 9265
To appear in: *Journal of Molecular Liquids*
Received date: 2 June 2018
Accepted date: 17 June 2018

Please cite this article as: Gaoquan Chen, Jiao Chen, Renjie Xu, Min Zheng, Hongkun Zhao , Remarks and further analysis on “Solubility and dissolution thermodynamic properties of 1,6-Bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionamido]hexane in pure solvents and binary solvent mixtures”. Molliq (2018), doi:[10.1016/j.molliq.2018.06.067](https://doi.org/10.1016/j.molliq.2018.06.067)

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.

Remarks and further analysis on “Solubility and dissolution
thermodynamic properties of
1,6-Bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionamido]hexane in
pure solvents and binary solvent mixtures”

Gaoquan Chen^a, Jiao Chen^a, Renjie Xu^b, Min Zheng^a, Hongkun Zhao^{a,*}

^a College of Chemistry & Chemical Engineering, YangZhou University, YangZhou, Jiangsu 225002, People's Republic of China

^b Guangling College, Yangzhou University, YangZhou, Jiangsu 225009, 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

Errors are discovered regarding the published equation coefficients of Zhang and coworkers [J. Mol. Liq. 252 (2018) 103–111] for mathematically describing the solubility behavior of 1,6-bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propion-amido]hexane (Irganox 1098) in neat organic solvents using the NRTL model. Larger differences are found between our back-calculated data and those reported in the authors' published paper. The expression of NRTL model was corrected and the equation parameters were re-regressed. Furthermore, the preferential solvation parameters ($\delta x_{1,3}$) of Irganox 1098 in two solvent mixtures of ethyl acetate (1) + ethanol (2) and acetone (1) + ethanol (2) at 298.15 K were derived from their available solubility data using the inverse Kirkwood–Buff integrals method. In the ethyl acetate (1) + ethanol (2) mixture with the composition $0.40 < x_1 < 1$, Irganox 1098 was preferentially solvated by ethanol. However in the ethyl acetate (1) + ethanol (2)

Download English Version:

<https://daneshyari.com/en/article/7842019>

Download Persian Version:

<https://daneshyari.com/article/7842019>

[Daneshyari.com](https://daneshyari.com)