

International Conference on Properties and Phase Equilibria for Product and Process Design

Vancouver, Canada, May 12-16, 2019

OpenConf Peer Review & Conference Management System OpenConf Home Privacy Policy Email Chair

Edit Submission

The submission has been updated. Below is the information submitted

Abstract Title: Solubility Calculation of CO2 or H2 in Complex Polar Liquid

Author 1:

Honorific: First Name: Hideo Last Name: Nishiumi Position: Professor Emeritus Organization: Hosei University Country: Japan Email: nishi@hosei.ac.jp Telephone: 81-42-583-5956

Author 2:

Honorific: First Name: Daisuke Last Name: Kodama Dosition: associate professor Organization: Department of Chemical Biology and Applied Chemistry, College of Engineering, Nihon University Country: Japan Email: kodama.daisuke@nihon-u.ac.jp Telephone: 81-24-956-8813

Main Contact: Author 1

Alternate Contact Info: dr.n@nishilab.jp

Options:

- Fundamentals - Thermodynamics and transport properties (experiment and modelling) - Fundamentals - Phase equilibria (experiment and modelling)

Abstract: When the critical properties of a pure substance are known, it is possible to predict thermodynamic properties using the c For the calculation of mixture properties, best fitted binary interaction parameter, mij, is effective. Especially, for a system c In this work, using the developed Joback method, the critical temperature of triolein and ionic liquids which are glymes and TCMs a Hydrogen solubility in triolein has temperature dependent (mij=-1.8) in comparison with the correlated mij value -1.16 [5] as shown In conclusion, solubility of CO2 or H2 in complex polar liquids can be calculated, or sometimes predicted using an equation of sta

[1] H.Nishiumi, Fluid Phase Equidlibria, 420 (2016) 1-6 [2] JG.H.Hudson, J.C.McCoubrey, Trans, Faraday Soc., 56 (1960) 761 [3]H.Nishiumi, S.Saito, JCEJapan, 10(1977)176-180 [4]H.Nishiumi, JCEJapan 16 (1983) 449 [4]H.NISH1um1, UCEJapan 16 (1983) 449
[5]H.NISH1umi,M.Fukushima, JCEJapan 22 (1989)205-207
[6]D.Kodama, M.Kanakubo, M.Kokubo, S.Hashimoto, H.Namjo, M.Kato, Fluid Phase Equilibria, 302(2011)103-108
[7] A.Ayad, A.Nagadi, F.Mutelet, Fluid Phase Equilibria, 469(2018)48-55
[8] J.Chrastil., J Phys Chem.86 (1982) 3016-3021 Keywords: Solubility Calculation, CO2, H2, Polar Liquid

Comments:

A copy has also been emailed to the contact author. If you notice any problems or do not receive the email within 24 hours, please contact the Chair.

Powered by OpenConf[®] Copyright ©2002-2018 Zakon Group LLC