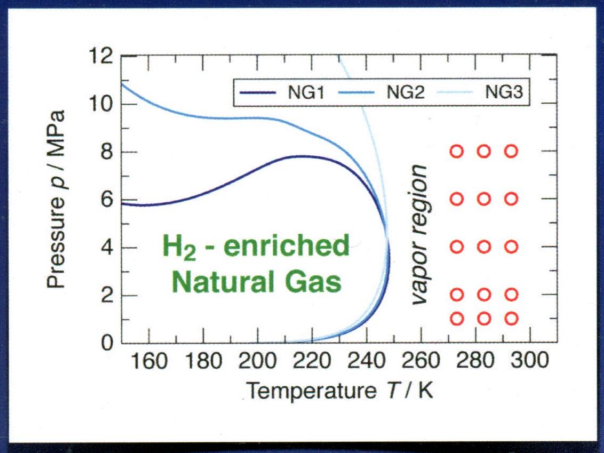
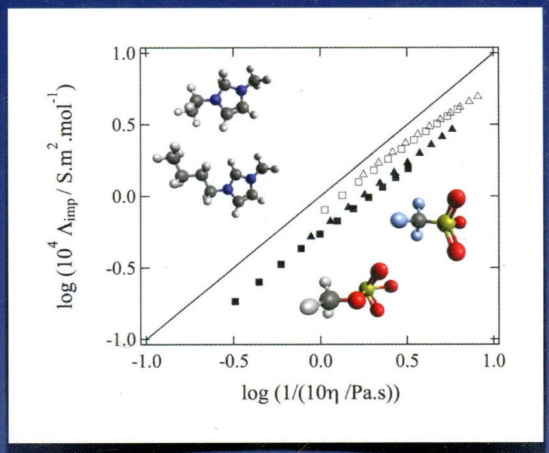
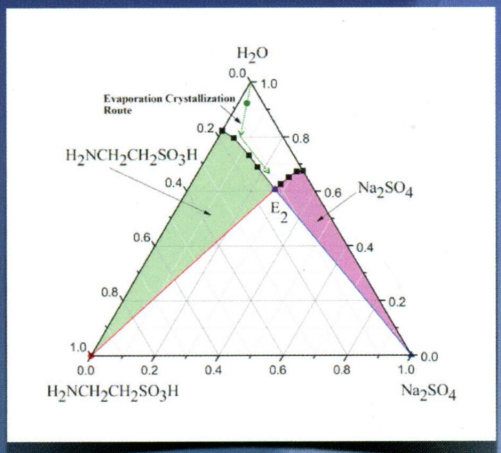
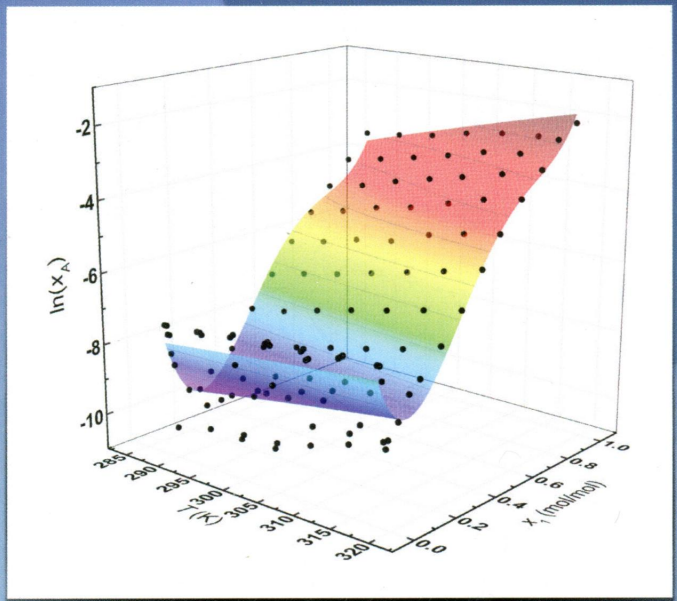
Journal of chemical&engineering data

June 2014 • Volume 59, Issue 6 • pubs.acs.org/JCED




ACS Publications
Most Trusted. Most Cited. Most Read.

www.acs.org

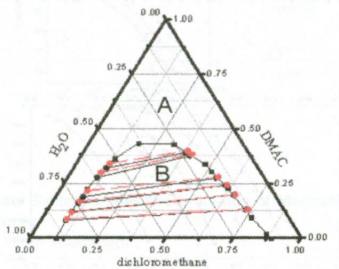
Journal of chemical & engineering data

JUNE 2014
VOLUME 59 ISSUE 6
JCEAAX 59(6) 1733−2132 (2014)
ISSN 0021-9568

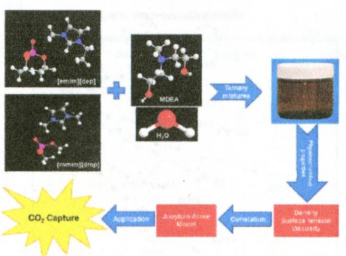

**ON THE COVER:** The images shown on the cover were taken from papers in this issue: (left top) Pressure-temperature curves depicting accurate measurements of hydrogen-enriched natural gas carried out with a two-sinker densimeter (see DOI: 10.1021/je500181v). (right top) Walden plot from 298 K to 343 K of the pure imidazolium-based ionic liquids in this study (see DOI: 10.1021/je400841s). (left bottom) Solid-liquid equilibria phase diagram of the system $Na_2SO_4$ + $H_2NCH_2CH_2SO_3H$ + $H_2O$ at $T$ = 293.15 K (see DOI: 10.1021/je5003303). (right bottom) 3D nonlinear surface plot for solubility of trehalose versus temperature at different solvent compositions (see DOI: 10.1021/je5000428).

## Articles





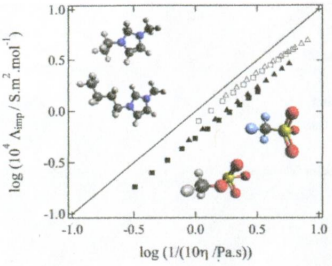


1747 dx.doi.org/10.1021/je400841s

**Transport Properties and Ionic Association in Pure Imidazolium-Based Ionic Liquids as a Function of Temperature**

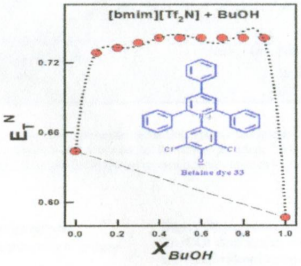
B. E. Mbondo Tsamba, S. Sarraute, M. Traïkia, and P. Husson*




1755 dx.doi.org/10.1021/je400908z

**Solvatochromic Absorbance Probe Behavior within Mixtures of the Ionic Liquid 1-Butyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide + Molecular Organic Solvents**

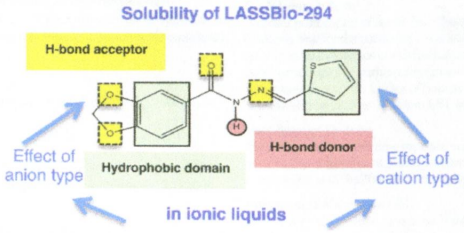
Anwar Ali,* Maroof Ali, Nisar Ahmad Malik, Sahar Uzair, and Abbul Bashar Khan




1766 dx.doi.org/10.1021/je4009624

**Solubility of a New Cardioactive Prototype Drug in Ionic Liquids**

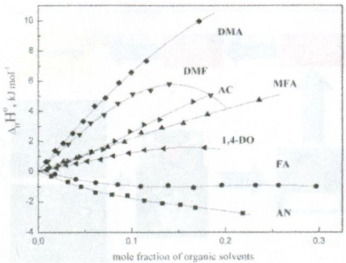
Jacqueline Resende de Azevedo, Jean-Jacques Letourneau, Fabienne Espitalier,* and Maria Inês Ré



1774 dx.doi.org/10.1021/je400966q

**Enthalpies of $\beta$-Alanine Dissolution in Some Water + Organic Mixtures at 298.15 K**

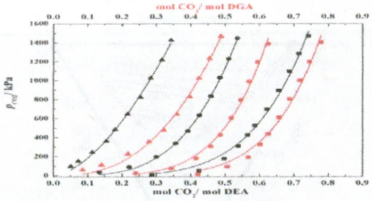
Valeriy I. Smirnov* and Valentin G. Badelin




1781 S dx.doi.org/10.1021/je400947t

**Solubility of $CO_2$ in the Mixed Solvent System of Alkanolamines and Poly(ethylene glycol) 200**

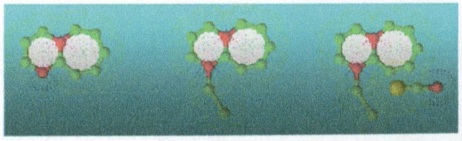
Jun Li, Lifang Chen, Yinmei Ye, and Zhiwen Qi*

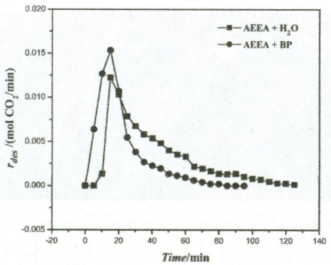



1788 S dx.doi.org/10.1021/je400991s

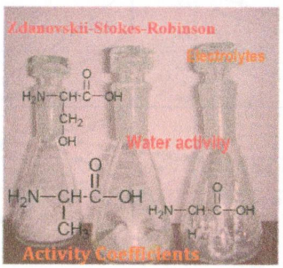
**Synthesis, Characterization, and Thermophysical Properties of 1,8-Diazobicyclo[5.4.0]undec-7-ene Based Thiocyanate Ionic Liquids**

Kallidanthiyil Chellappan Lethesh,* Syed Nasir Shah, and M. I. Abdul Mutalib

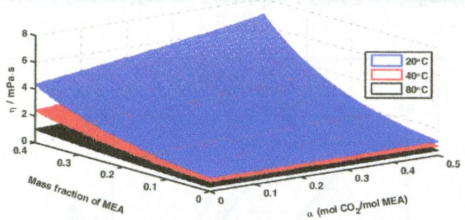






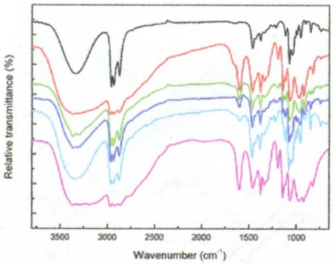


1817 (S) dx.doi.org/10.1021/je401036f

**Densities, Refractive Indices, Viscosities, and Spectroscopic Study of 1-Amino-2-propanol + 1-Butanol and + 2-Butanol Solutions at (288.15 to 333.15) K**

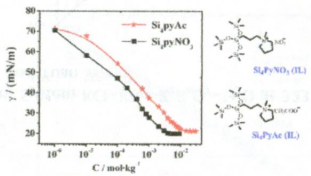
Vuk D. Spasojević, Bojan D. Djordjević, Slobodan P. Šerbanović, Ivona R. Radović, and Mirjana Lj. Kijevčanin*




1830 dx.doi.org/10.1021/je401118k

**Effect of Counterions on Micellization of Pyrrolidinium Based Silicone Ionic Liquids in Aqueous Solutions**

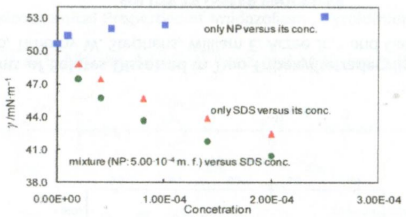
Jinglin Tan and Shengyu Feng*




1835 (S) dx.doi.org/10.1021/je401066j

**Interfacial Tension of the *n*-Hexane–Water System under the Influence of Magnetite Nanoparticles and Sodium Dodecyl Sulfate Assembly at Different Temperatures**

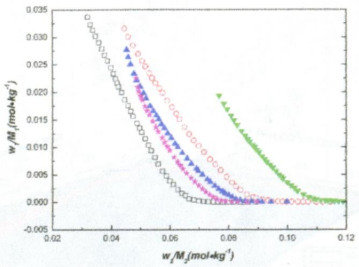
Javad Saien,* Azadeh Rezvani Pour, and Simin Asadabadi



1843 dx.doi.org/10.1021/je500009h

**Measurement and Correlation of Phase Equilibria in Aqueous Two-Phase Systems Containing Polyoxyethylene Lauryl Ether and Tartrate Salt at Different Temperatures**

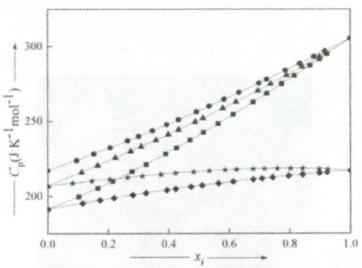
Yang Lu, Tongfan Hao, Ming Yan, Juan Han, Zhenjiang Tan,* and Yongsheng Yan*




1852 dx.doi.org/10.1021/je401098b

**Excess Heat Capacities of Binary and Ternary Mixtures Containing 1-Ethyl-3-methylimidazolium Tetrafluoroborate and Anilines**

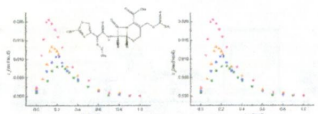
V. K. Sharma,* S. Solanki, and S. Bhagour




1865 S dx.doi.org/10.1021/je500026v

**Solubility of Cefotaxime Sodium in Ethanol + Water Mixtures under Acetic Acid Conditions**

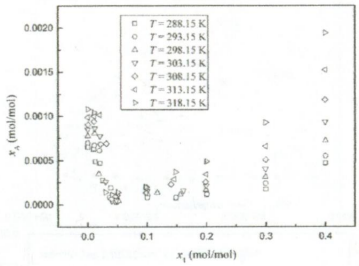
Yongheng Yin, Ying Bao,* Zhenguo Gao, Zhao Wang, Dong Liu, Hongxun Hao, and Yongli Wang



1872 dx.doi.org/10.1021/je5000428

**Solubility of Trehalose in Water + Ethanol Solvent System from (288.15 to 318.15) K**

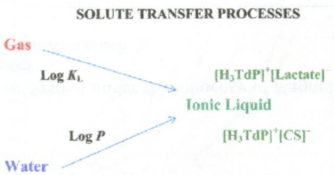
Peng Wang,* Jinxia Jiang, Xiao'an Jia, Linjie Jiang, and Suye Li




1877 S dx.doi.org/10.1021/je500050p

**Infinite Dilution Activity Coefficients of Solutes Dissolved in Two Trihexyl(tetradecyl)phosphonium Ionic Liquids**

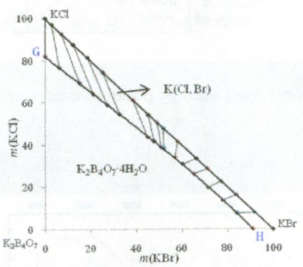
Fabrice Mutelet, Dominique Alonso, Timothy W. Stephens, William E. Acree Jr.,* and Gary A. Baker

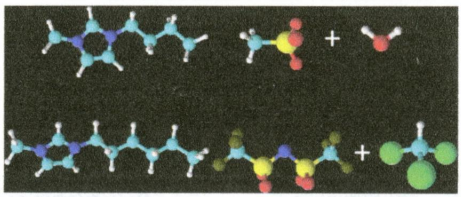



1886 dx.doi.org/10.1021/je500051e

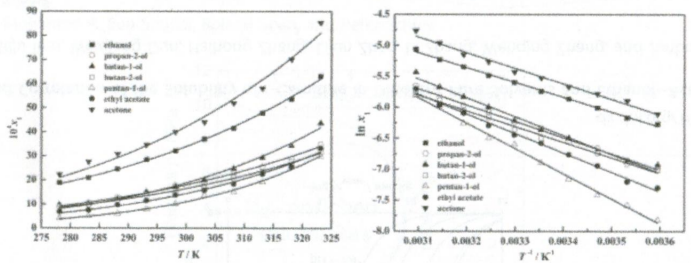
**Solid–Liquid Equilibria in the Quaternary System KCl–KBr–$K_2B_4O_7$–$H_2O$ at 323 K**

Yong-Xia Hu, Shi-Hua Sang,* Rui-Zhi Cui, and Yuan Wang

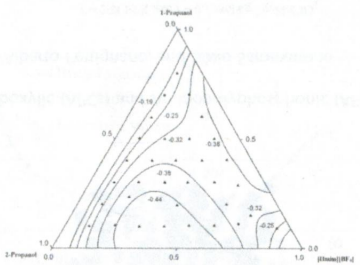


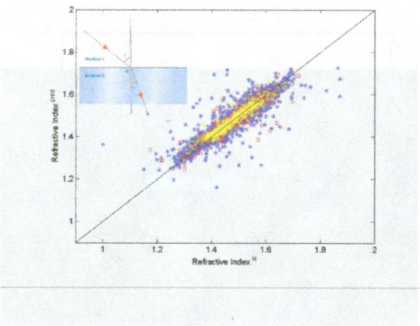




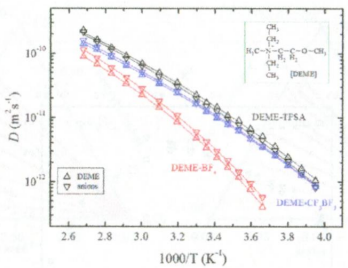




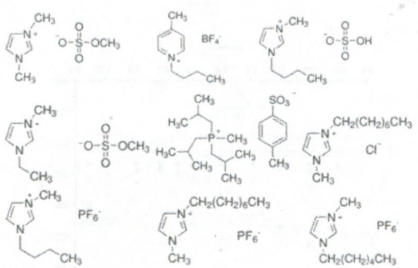



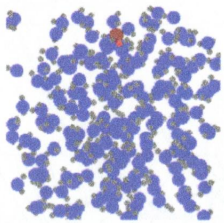




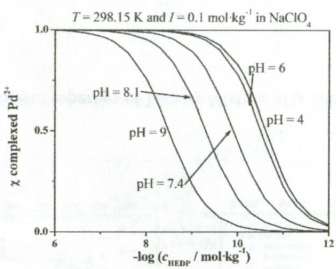





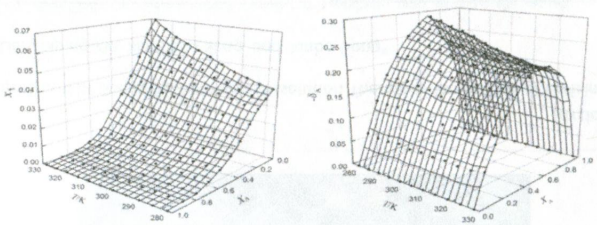









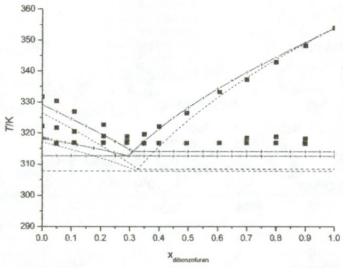


1991 dx.doi.org/10.1021/je5001389

**Phase Equilibria in the Ternary System Hexacosane + Dibenzofuran + Biphenyl: Experimental Data and Prediction with DISQUAC Model**

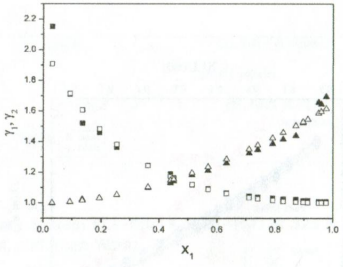
Abdelaziz Chikh Baelhadj,* Omar Dahmani, Rachid Mahmoud, Fabrice Mutelet, Mohammed Bouroukba, and Michel Dirand




1998 dx.doi.org/10.1021/je500160t

**Investigation on Isobaric Vapor–Liquid Equilibrium for Water + Acetic Acid + *sec*-Butyl Acetate**

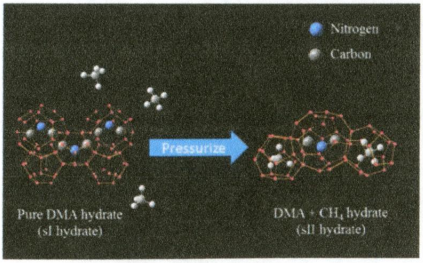
Qing Chai, Hui Wan,* Lei Wang, and Guofeng Guan*




2004 dx.doi.org/10.1021/je500167n

**Structural Transition Induced by $CH_4$ Enclathration and Cage Expansion with Large Guest Molecules Occurring in Amine Hydrate Systems**

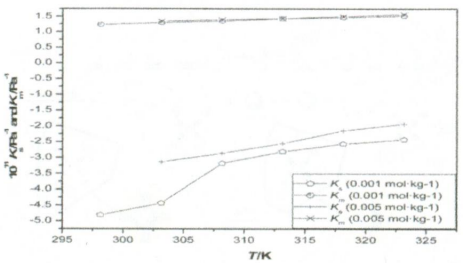
Yeobum Youn, Jiwoong Seol,* Minjun Cha, Yun-Ho Ahn, and Huen Lee*



2013 dx.doi.org/10.1021/je500173y

**Effect of Electrolyte and Temperature on Micellization Behavior of *N*-Ethyl-*N*,*N*-dimethyl-1-hexadecanaminium Bromide**

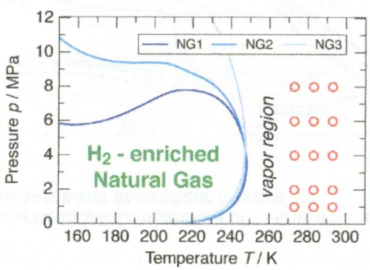
Parvaiz Ahmad Bhat,* Fayaz Ahmad Sheikh, and Haris Izhar Tantry




2021 dx.doi.org/10.1021/je500181v

**Accurate (*p*, *ρ*, *T*, *x*) Measurements of Hydrogen-Enriched Natural-Gas Mixtures at *T* = (273.15, 283.15, and 293.15) K with Pressures up to 8 MPa**

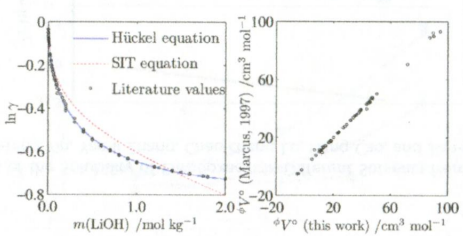
Markus Richter,* Mohamed A. Ben Souissi, Roland Span, and Peter Schley




2030 S dx.doi.org/10.1021/je500180m

**Thermodynamics of Strong Aqueous Electrolyte Solutions at *t* = 25 °C Described by the Hückel Equations**

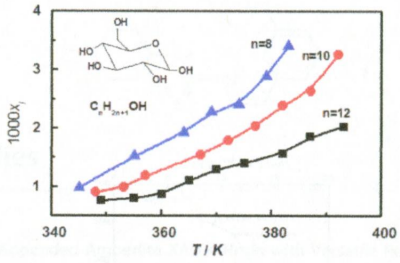
Darren Rowland* and Peter M. May



2040 S dx.doi.org/10.1021/je4011097

**Solubility Determination and Correlation of (2*R*,3*S*,4*S*,5*S*)-6-(Hydroxymethyl)-tetrahydro-2*H*-pyran-2,3,4, 5-tetraol in Fatty Alcohol**

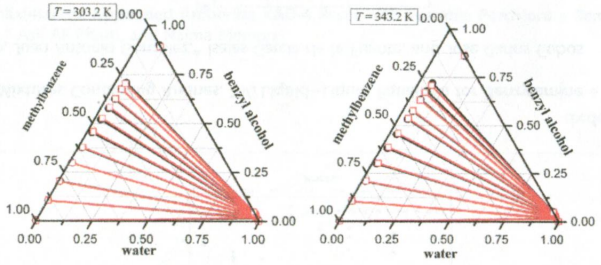
Yongzhao Zhang, Xia Guo, and Jianbing Ji*




2045 S dx.doi.org/10.1021/je500195p

**Liquid–Liquid Equilibria for the Ternary System Water + Benzyl Alcohol + Methylbenzene at (303.2 to 343.2) K**

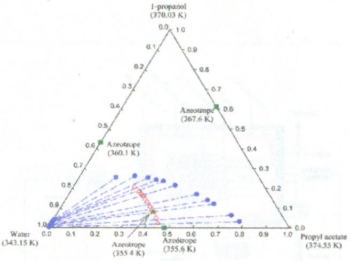
Hui Wang, Qinbo Wang,* Zhenhua Xiong, and Chuxiong Chen




2054 dx.doi.org/10.1021/je500191j

**Isobaric Vapor–Liquid–Liquid Equilibria for the Ternary Systems Ethanol + Water + Propyl Acetate and 1-Propanol + Water + Propyl acetate**

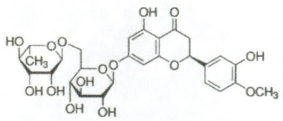
Jordi Pla-Franco, Estela Lladosa, Sonia Loras,* and Juan B. Montón



2065 dx.doi.org/10.1021/je500206w

**Solubility of Bioactive Compound Hesperidin in Six Pure Solvents at (298.15 to 333.15) K**

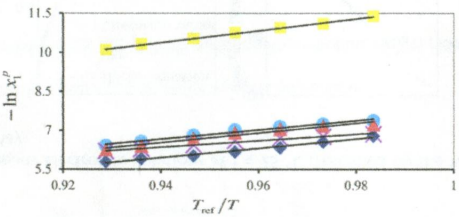
Md Khalid Anwer,* Ramadan Al-Shdefat, Shahid Jamil, Prawez Alam, Maged S. Abdel-Kader, and Faiyaz Shakeel




2070 dx.doi.org/10.1021/je5002158

**Measurement and Correlation of the Solubility of Enrofloxacin in Different Solvents from (303.15 to 321.05) K**

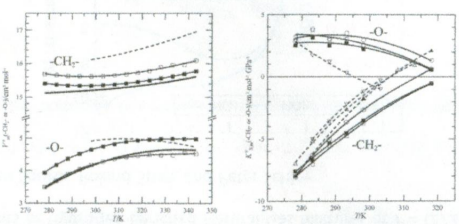
Meng-jiao Liu, Hua-lin Fu,* Dai-ping Yin, Yan-li Zhang, Chao-cheng Lu, Hang Cao, and Jian-yu Zhou




2075 dx.doi.org/10.1021/je500265v

**Partial Molar Volumes and Partial Molar Isentropic Compressions of 15-Crown-5 and 18-Crown-6 Ethers at Infinite Dilution in Water at Temperatures $T$ = (278 to 343) K and Atmospheric Pressure**

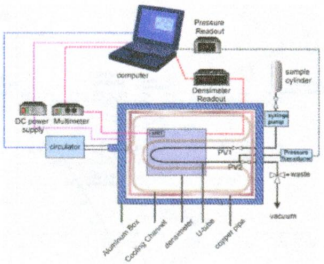
Ivan Cibulka*



2087 dx.doi.org/10.1021/je5002686

**Compressed-Liquid Density Measurements of 3-Ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-trifluoromethylhexane**

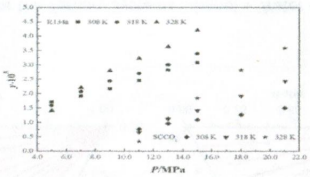
Stephanie L. Outcalt*




2095 dx.doi.org/10.1021/je5002736

**Solubility of 4-Aminosalicylic Acid in Supercritical Carbon Dioxide and Subcritical 1,1,1,2-Tetrafluoroethane**

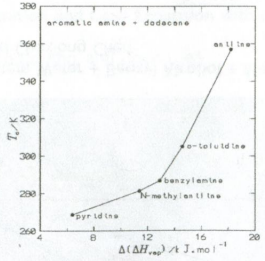
Jun-su Jin,* Xing Fan, Haifei Zhang, Yi-wei Wang, and Ze-ting Zhang




2101 dx.doi.org/10.1021/je500283s

**Thermodynamics of Mixtures Containing Amines. XV. Liquid–Liquid Equilibria for Benzylamine + $CH_3(CH_2)_nCH_3$ ($n$ = 8, 9, 10, 12, 14)**

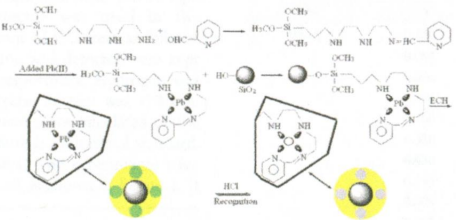
Cristina Alonso-Tristán, Juan Antonio González,* Isaías García de la Fuente, and José Carlos Cobos



2106 dx.doi.org/10.1021/je500328t

**Selective Removal of Lead(II) from Aqueous Solution by an Ion-Imprinted Silica Sorbent Functionalized with Chelating N-Donor Atoms**

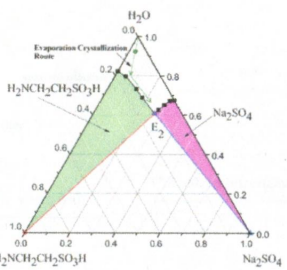
Hong-Tao Fan,* Xiao-Tong Sun, Zhi-Gang Zhang, and Wen-Xiu Li*




2115 dx.doi.org/10.1021/je5003303

**Solid–Liquid Equilibria of the $Na_2SO_4$ + $H_2NCH_2CH_2SO_3H$ + $H_2O$ System from (288.15 to 328.15) K**

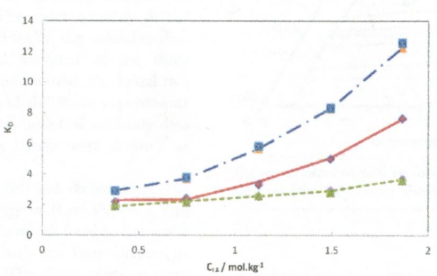
Jie Lu,* Xun Zhou, Lian-Wei Chen, Li-Juan Zhang, and Sohrab Rohani

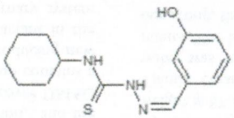



2120 dx.doi.org/10.1021/je5003362

**Distribution of Penicillin G from the Aqueous Phase to the Organic Phase Using Amberlite LA-2 Extractant in Different Diluents**

Hasan Uslu,* Seyhan Günyeli, Zeynep İlbay, and Ş. İsmail Kırbaşlar






## Comments and Replies



## Additions and Corrections



Supporting Information available via online article