

ON THE COVER: The images shown on the cover were taken from papers in this issue: (top left) TEM images of the SPFOE system above the cmc (a) in the absence of NaCl and (b) in the presence of 0.05 mol.kg⁻¹ NaCl (see DOI: 10.1021/je4010382). (top right) A methane molecule is encapsulated in a dodecahedral cavity of the clathrate hydrate structure. Blue spheres are the oxygen atoms of the water molecules. Hydrogen atoms are not represented, but located on the edge between two oxygen atoms (see DOI: 10.1021/je4002587). (bottom left) Experimental setup for cell potential measurements and graph of activity coefficients vs molality of 1-alkyl-3-methylimidazolium bromide ionic liquids in fructose + water mixed solvents (see DOI: 10.1021/je4005195). (bottom right) Experimental and correlated with the NRTL model VLE data for the ternary system 2-propanol + 2-methyl-1-propanol + 2-methyl-1-butanol at 101.3 kPa (see DOI: 10.1021/je400581e).

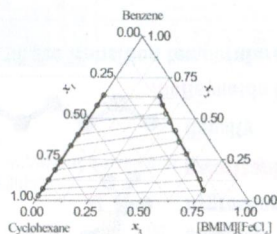
Articles

533

dx.doi.org/10.1021/je400076x

A Promising Ionic Liquid [BMIM][FeCl₄] for the Extractive Separation of Aromatic and Aliphatic Hydrocarbons

Salem A. Sakal, Ying-zhou Lu, Xiao-chuan Jiang, Chong Shen, and Chun-xi Li*



540

dx.doi.org/10.1021/je301167q

Excess Molar Properties for Binary Systems of C_nMIM-BF₄ Ionic Liquids with Alkylamines in the Temperature Range (298.15 to 318.15) K. Experimental Results and Theoretical Model Calculations

Naved I. Malek*, Sushma P. Ijardar, and Shantilal B. Oswal

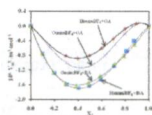


Figure 1 of 2

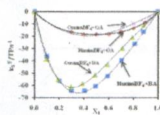
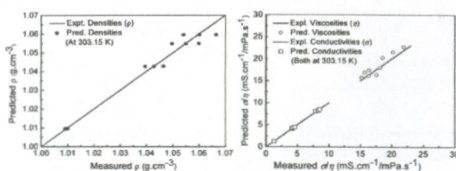


Figure 2 of 2

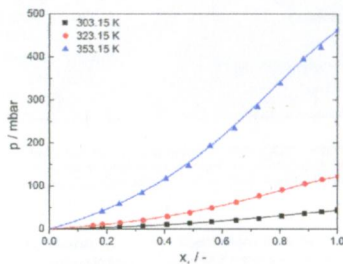
Densities, Viscosities, and Conductivities of Aqueous Solutions of Tetrabutylphosphonium Bromide and Ethyltributylphosphonium Bromide at Different Temperatures

Zhen-Yu Yang, Yu-Feng Hu,* Zhe-Yu Li,* Yu Sun, Chen-Chen Jiang, and Ji-Guang Li



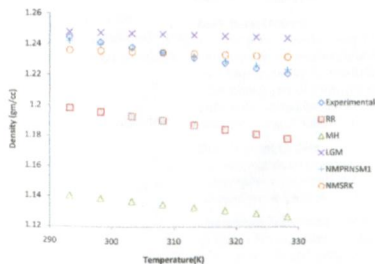
Thermophysical Properties of the Binary Mixture of Water + Diethylmethylammonium Trifluoromethanesulfonate and the Ternary Mixture of Water + Diethylmethylammonium Trifluoromethanesulfonate + Diethylmethylammonium Methanesulfonate

Nina C. Merkel,* Christiane Römich, Richard Bernewitz, Hannes Künemund, Marco Gleiß, Sven Sauer, Thomas J. S. Schubert, Gisela Guthausen, and Karlheinz Schaber

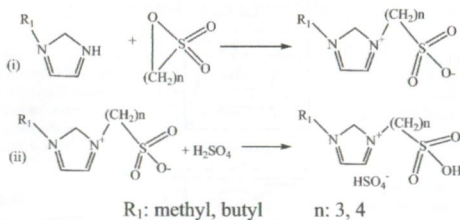


Densities of Six Commercial Ionic Liquids: Experiments and Prediction Using a Cohesion Based Cubic Equation of State

Dharamashi Rabari, Nikunj Patel, Milind Joshipura,* and Tamal Banerjee*

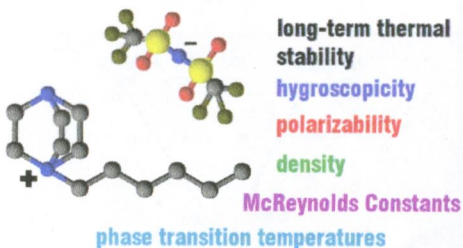


Synthesis and Thermophysical Properties of Imidazolium-Based Bronsted Acidic Ionic Liquids
 Nawshad Muhammad,* Zakaria Man, Yasir A. Elsheikh, M. Azmi Bustam, and M.I. Abdul Mutalib



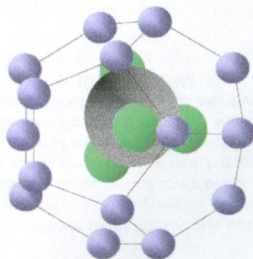
Physical and Thermophysical Properties of 1-Hexyl-1,4-diaza[2.2.2]bicyclooctanium Bis(trifluoromethylsulfonyl)imide Ionic Liquid

Łukasz Marcinkowski, Adam Kloskowski,* and Jacek Namieśnik



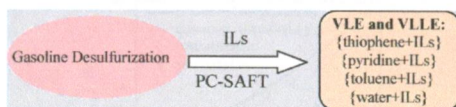
Clathrate Hydrate Equilibrium Data for the Gas Mixture of Carbon Dioxide and Nitrogen in the Presence of an Emulsion of Cyclopentane in Water

Aurélie Galfré, Matthias Kwaterski, Pedro Brântuas, Ana Cameirao, and Jean-Michel Herri*



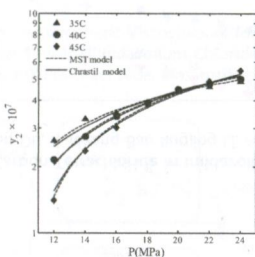
Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids

Yushu Chen, Fabrice Mutelet,* and Jean-Noël Jaubert



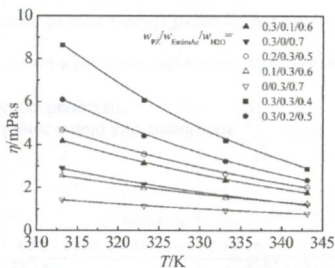
Measurement and Correlation for the Solid Solubility of Antioxidants D-Isoscorbic Acid and Calcium L-Ascorbate Dihydrate in Supercritical Carbon Dioxide

Tzu-Chi Wang* and Ping-Yen Lee



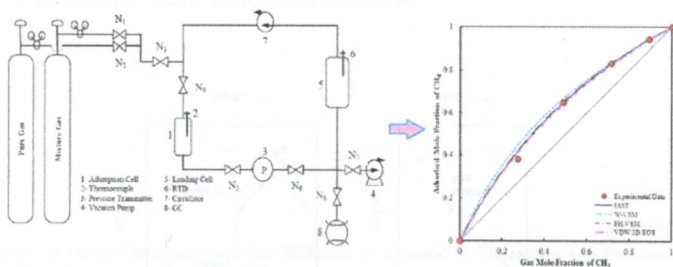
Solubilities of CO₂ in, and Densities and Viscosities of, the Piperazine + 1-Ethyl-3-methyl-imidazolium Acetate + H₂O System

Yun Li, Danxing Zheng,* Li Dong, Nan Nie, and Bin Xiong

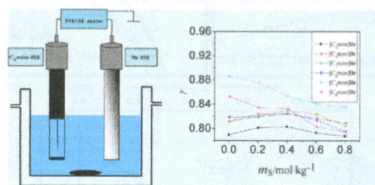


Pure and Binary Adsorption Equilibria of Methane and Nitrogen on Zeolite 5A

Ali Bakhtyari and Masoud Mofarahi*

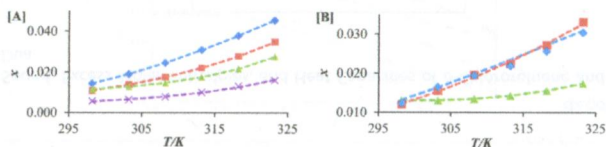
Activity Coefficients of [C_nmim]Br (n = 3 to 8) Ionic Liquids in Aqueous Fructose Solution at T = 298.15 K

Kelei Zhuo,* Hao Ren, Yujing Wei, Yujian Chen, and Jingjing Ma

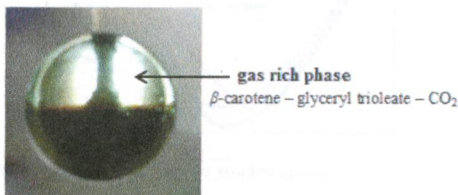


Thermodynamics of Fluconazole Solubility in Various Solvents at Different Temperatures

Kapil Bhesaniya, Kajal Nandha, and Shipra Baluja*

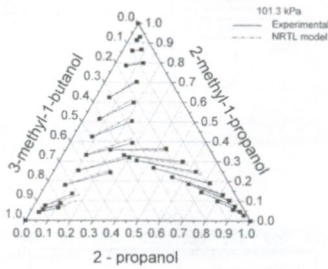
Solubility of β-Carotene and Glyceryl Trioleate Mixture in Supercritical CO₂

Darija Čör, Mojca Škerget, and Željko Knez*



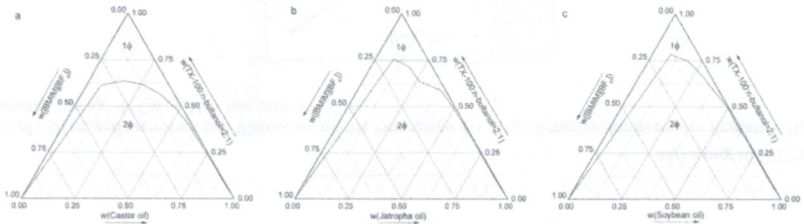
Vapor–Liquid Equilibrium of Mixtures Containing the Following Higher Alcohols: 2-Propanol, 2-Methyl-1-propanol, and 3-Methyl-1-butanol

Telma P. V. B. Dias, Luciana A. A. P. Fonseca, Maira C. Ruiz, Fabio R. M. Batista,* Eduardo A. C. Batista, and Antonio J. A. Meirelles



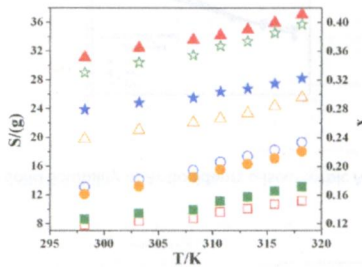
Phase Behavior of Vegetable Oil-Based Ionic Liquid Microemulsions

Aili Wang, Li Chen, Dongyu Jiang, and Zongcheng Yan*



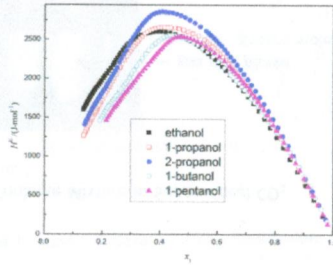
Solubilities and Thermodynamic Study of Carbon Tetrachloride in Imidazolium Ionic Liquids at Different Temperatures

Jun Zhang,* Hairui Yao, Chengxuan Li, Xigang Du, Xiaokang Bai, Jingjing Li, and Junna Liu



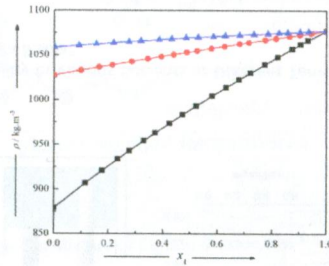
Excess Molar Enthalpies of Binary Mixtures Containing 1-Methyl-3-octyl-imidazolium Tetrafluoroborate and Alcohols at $T = 298.15$ K

Dashuang Fan, Handi Yin, Dongxing Cai, Zhencun Cui, and Weiguo Shen*



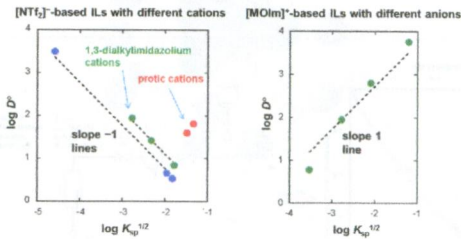
Densities, Speeds of Sound, Excess Molar Enthalpies, and Heat Capacities of *o*-Chlorotoluene and Cyclic Ether Mixtures

V. K. Sharma* and R. Dua



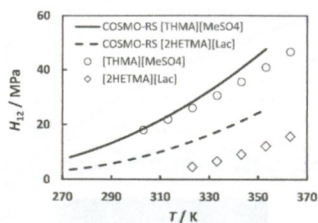
Distribution of a Monovalent Anion in Various Ionic Liquid/Water Biphasic Systems: Relationship of the Distribution Ratio of Picrate Ions with the Aqueous Solubility of Ionic Liquids

Yuta Watanabe and Shoichi Katsuta*



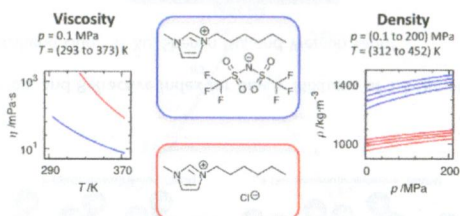
CO₂ Solubility in Biodegradable Hydroxylammonium-Based Ionic Liquids

Stepan Bazhenov, Mahinder Ramdin, Alexey Volkov, Vladimir Volkov, Thijs J. H. Vlugt, and Theo W. de Loos*

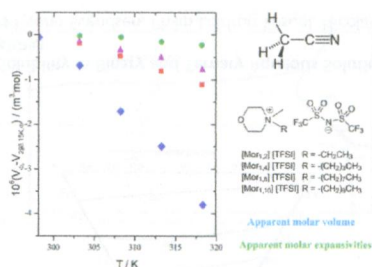


Measurement of High-Pressure Densities and Atmospheric Viscosities of Ionic Liquids: 1-Hexyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide and 1-Hexyl-3-methylimidazolium Chloride

Masayuki Iguchi, Yuya Hiraga, Yoshiyuki Sato, Taku Michael Aida, Masaru Watanabe, and Richard L. Smith Jr.*

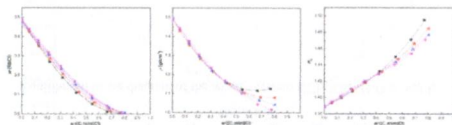
Apparent Molar Volumes and Expansivities of Ionic Liquids Based on *N*-Alkyl-*N*-methylmorpholinium Cations in Acetonitrile

Łukasz Marcinkowski, Teresa Olszewska, Adam Klosowski, and Dorota Warmińska*



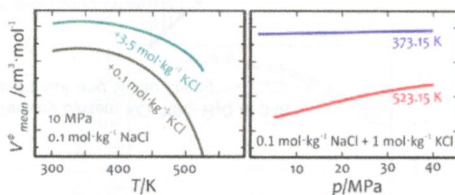
Measurements and Correlations of the Solid–Liquid Equilibrium of RbCl/CsCl + $[C_n\text{mim}]\text{Cl}$ ($n = 2, 4, 6, 8$) + H_2O Ternary Systems at $T = (288.15, 298.15, \text{ and } 308.15) \text{ K}$

Jing Tang, Shu'ni Li,* Quanguo Zhai, Yucheng Jiang, and Mancheng Hu*



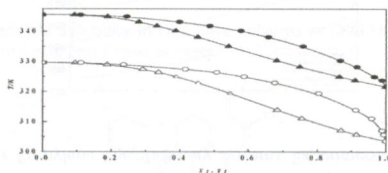
Volumetric Properties of Mixed Electrolyte Aqueous Solutions at Elevated Temperatures and Pressures. The System $\text{KCl}-\text{NaCl}-\text{H}_2\text{O}$ to 523.15 K, 40 MPa, and Ionic Strength from $(0.1 \text{ to } 5.8) \text{ mol}\cdot\text{kg}^{-1}$

Denis Zezin,* Thomas Driesner, and Carmen Sanchez-Valle



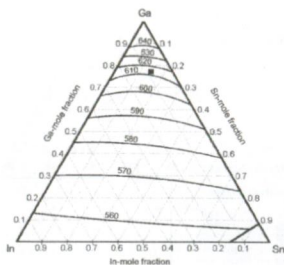
Isobaric Vapor–Liquid Equilibrium for the Binary Systems (Diethylamine + Ethanol), (Ethanol + N,N -Diethylethanolamine), and (Diethylamine + N,N -Diethylethanolamine) at $p = (80.0 \text{ and } 40.0) \text{ kPa}$

Changsheng Yang,* Ping Zhang, Zhenli Qin, Yang Feng, Hao Zeng, and Feizhong Sun



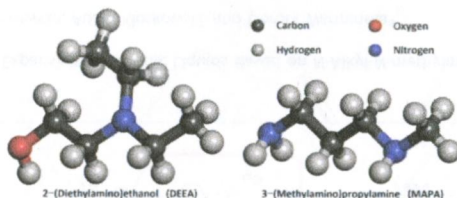
Thermophysical Properties of the Liquid Ga–In–Sn Eutectic Alloy

Yuriy Plevachuk,* Vasyi Sklyarchuk, Sven Eckert, Gunter Gerbeth, and Rada Novakovic



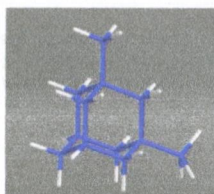
Equilibrium Total Pressure and CO₂ Solubility in Binary and Ternary Aqueous Solutions of 2-(Diethylamino)ethanol (DEEA) and 3-(Methylamino)propylamine (MAPA)

Muhammad Waseem Arshad, Hallvard Fjosne Svendsen, Philip Loldrup Fosbøl, Nicolas von Solms, and Kaj Thomsen*



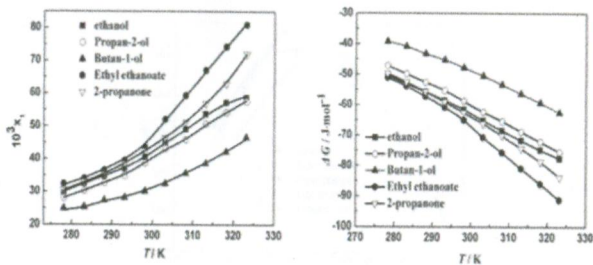
Density, Viscosity, Surface Tension, and Refractive Index for Binary Mixtures of 1,3-Dimethyladamantane with Four C₁₀ Alkanes

Xiaomei Qin, Xiaofang Cao, Yongsheng Guo,* Li Xu, Shenlin Hu, and Wenjun Fang*



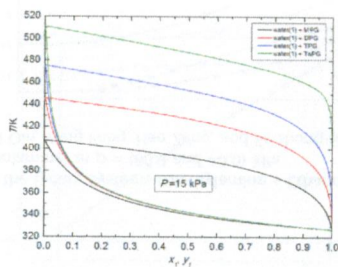
Measurement and Correlation of Solubility of Azithromycin Monohydrate in Five Pure Solvents

Xuemei Wang, Yanan Qin, Tianwei Zhang, Weiwei Tang, Boai Ma, and Junbo Gong*



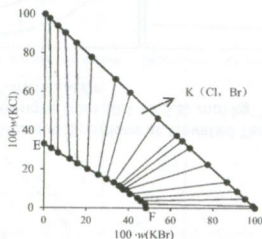
Vapor–Liquid Equilibria for Water + Propylene Glycols Binary Systems: Experimental Data and Regression

Elena M. Fendu* and Florin Oprea



Solid–Liquid Equilibria in the Ternary System KCl–KBr–H₂O at 348 K

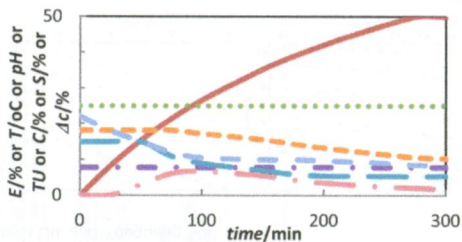
Yong-Xia Hu, Shi-Hua Sang,* Rui-Zhi Cui, and Si-Yao Zhong



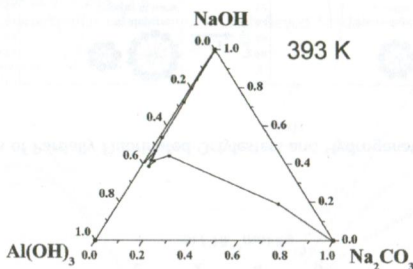
Equilibrium phase diagram of the ternary system KCl–KBr–H₂O at 348 K.

Solubility Measurement and Stability Study of Sodium Cefuroxime

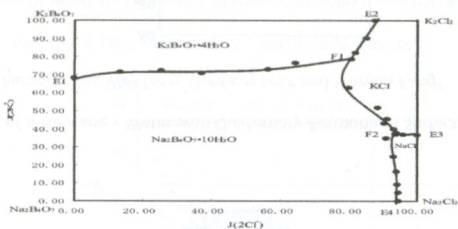
Wen J. Liu, Cai Y. Ma, Sheng X. Feng, and Xue Z. Wang*

Phase Diagram for the NaOH–Al(OH)₃–Na₂CO₃–H₂O System at 393 K

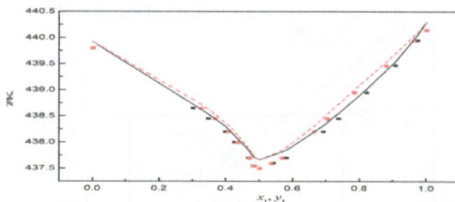
Tao Guo, Yifei Zhang,* and Yi Zhang

Equilibria in the Quaternary System Na⁺,K⁺/Cl⁻,B₄O₇²⁻–H₂O at 323 K

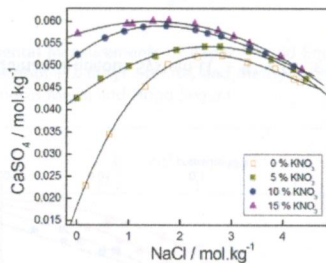
Xiao Zhang, Shi-Hua Sang,* Si-Yao Zhong, and Xiang-Po Zhao



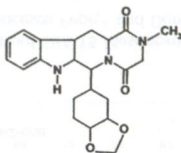
Isobaric Vapor–Liquid Equilibrium for the Binary System (Ethane-1,2-diol + Butan-1,2-diol) at (20, 30, and 40) kPa
Zhen Yang, Shuqian Xia,* Qiaoyan Shang, Fangyou Yan, and Peisheng Ma



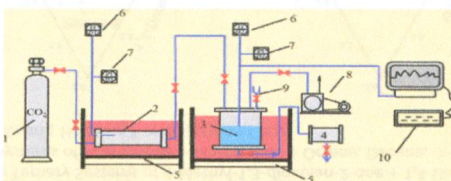
Effect of Nitrate Salts on Solubility Behavior of Calcium Sulfate Dihydrate (Gypsum) in the Aqueous Sodium Chloride System and Physicochemical Solution Properties at 308.15 K
Tushar J. Trivedi, Jignesh Shukla, and Arvind Kumar*



Measurement and Correlation of Tadalafil Solubility in Five Pure Solvents at (298.15 to 333.15) K
Mahmoud El-Badry, Nazrul Haq, Gihan Fetih, and Faiyaz Shakeel*

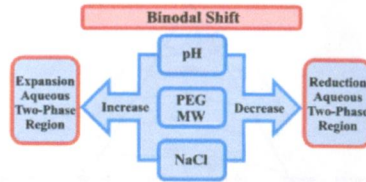


Vapor–Liquid Phase Equilibrium Data of CO₂ in Some Physical Solvents from 285.19 K to 313.26 K
Xia Gui,* Wei Wang, ChenWei Wang, Ling Zhang, Zhi Yun, and Zhg Tang*



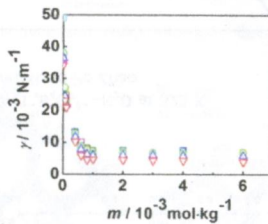
Influence of Different Phase-Forming Parameters on the Phase Diagram of Several PEG–Salt Aqueous Two-Phase Systems

Anna Glyk, Thomas Scheper, and Sascha Beutel*



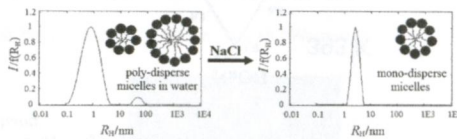
Interfacial Tensions for System of *n*-Heptane + Water with Quaternary Ammonium Surfactants and Additives of NaCl or C_4 Alcohols

Shanshan Zhang, Xiaoxing Lu, Jianzhou Wu, Wei Tong, Qunfang Lei,* and Wenjun Fang*



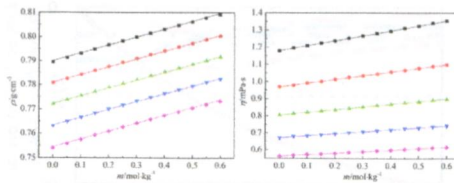
Effect of Salt on the Micellization of Partially Fluorinated Octylesters and Hydrogenated Dodecylesters in Water

Elif B. Olutaş* and M. Acımış

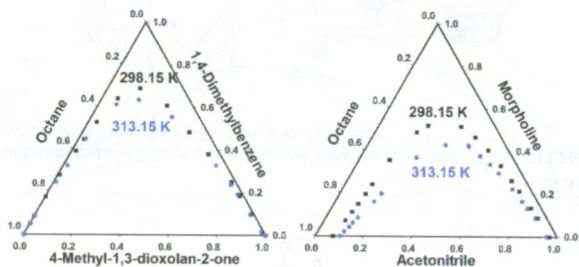


Densities and Viscosities of Diaminotoluene with Water, Ethanol, Propan-1-ol, and Butan-1-ol from (293.15 to 333.15) K

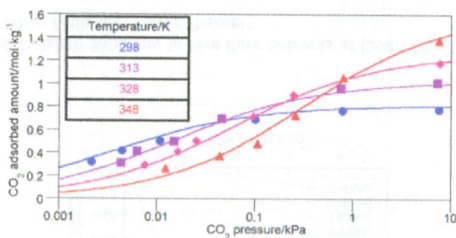
Chunying Zhu, Shuang Han, Jingru Liu, and Youguang Ma*



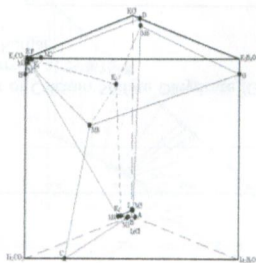
Liquid–Liquid Equilibria for the Ternary Systems of 4-Methyl-1,3-dioxolan-2-one + 1,4-Dimethylbenzene + Octane, Decane, or Dodecane and the Ternary Systems of Acetonitrile + Morpholine + Octane, Decane, or Dodecane at 313.15 K or 298.15 K
Tae Gyu Lee, Sang Young Lim, Kwang Ho Song,* and Jaehoon Choe



CO₂ Adsorption on Polyethylenimine-Functionalized SBA-15 Mesoporous Silica: Isotherms and Modeling
Nicola Gargiulo, Antonio Peluso, Paolo Aprea, Francesco Pepe,* and Domenico Caputo

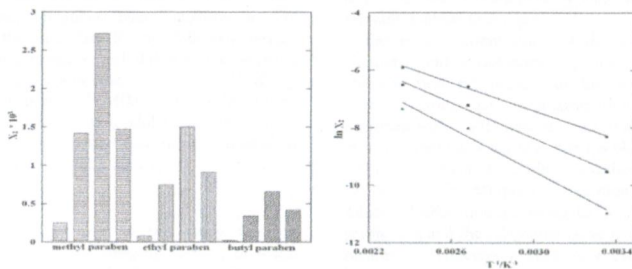


Metastable Phase Equilibrium of the Quinary Aqueous System $\text{Li}^+ + \text{K}^+ + \text{Cl}^- + \text{CO}_3^{2-} + \text{B}_4\text{O}_7^{2-} + \text{H}_2\text{O}$ at 273.15 K
Ruilin Wang and Ying Zeng*

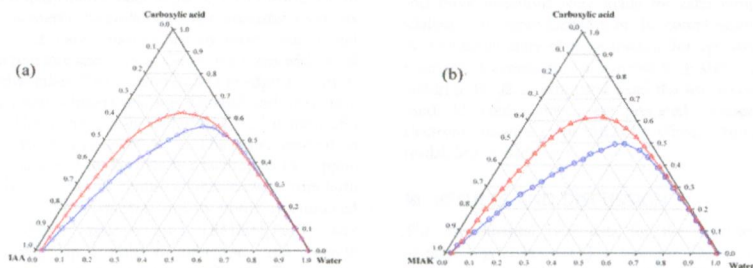


Solubility of Parabens in Subcritical Water

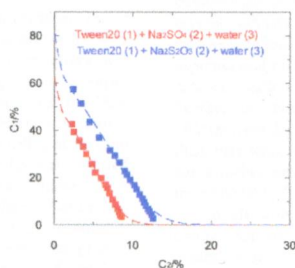
Brahmam Kapalavavi, John Ankney, Matthew Baucom, and Yu Yang*

Experimental and Correlational Study of Phase Equilibria in Aqueous Solutions of Formic and Butyric Acids with Isoamyl Acetate and Methyl Isoamyl Ketone at $T = 298.15$ K

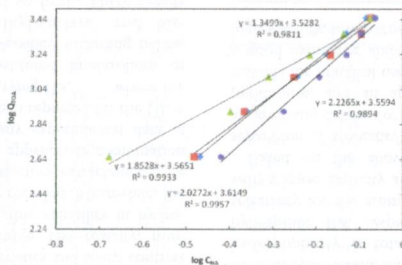
Hossein Ghanadzadeh Gilani, Ali Ghanadzadeh Gilani,* and S. Laleh Seyed Saadat

Physicochemical Characterization of Aqueous Two-Phase Systems Containing Tween20 and Sodium Salts from $T = (288.15$ to $318.15)$ K

Estrella Álvarez, Antonio Blanco, Ana Gayol, Diego Gómez-Díaz,* and José M. Navaza



Separation of Oxoethanoic Acid from Aqueous Solution by *N*-Methyl-*N,N*-dioctyloctan-1-ammonium Chloride
Nil Pehlivanoglu, Hasan Uslu,* and Ş. İsmail Kirbaşlar



Additions and Corrections

Correction to "Comments on 'Experimental Measurements of Vapor–Liquid Equilibrium Data for the Binary Systems of Methanol + 2-Butyl Acetate, 2-Butyl Alcohol + 2-Butyl Acetate, and Methyl Acetate + 2-Butyl Acetate at 101.33 kPa'"

Jaime Wisniak,* José R. Pérez-Correa, Andrés Mejía, and Hugo Segura