

American Institute of Chemical Engineers

Engineering Sciences and Fundamentals

Presentations at the
2007 AIChE Annual Meeting

November 4-9, 2007
Salt Lake City, Utah, USA

Volume 1 of 2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60423-845-7

Some format issues inherent in the e-media version may also appear in this print version.

ISBN: 978-1-60423-845-7

Copyright (2007) by the American Institute of Chemical Engineers.
All rights reserved.

For permission requests, please contact the American Institute of Chemical Engineers at the address below.

American Institute of Chemical Engineers
Proceedings
Three Park Avenue
New York, NY 10016-5991
Phone: 212-591-8100

www.aiche.org

TABLE OF CONTENTS

Volume 1

The Role of Mass Transport During Self-Assembly of Nanostructured Films	1
<i>Michael P. Tate, Hugh W. Hillhouse</i>	
Eliminating the Mean-Free-Path Inconsistency in Classical Phenomenological Model of Diffusion for Fluids	3
<i>G.L. Aranovich, M.D. Donohue</i>	
Molecular Simulation of Transport in Nanopores	4
<i>Caroline Desgranges, Jerome Delhommelle</i>	
Analysis of Phonon Scattering Mechanisms and Compositional Effects in Thermal Transport Properties of Zeolite Thin Films	5
<i>Abraham Greenstein, Yeny C. Hudiono, Carine Kuete, Samuel Graham, Sankar Nair</i>	
A Dynamic Buildup Growth Model of Magnetic Particle Accumulation On Single Wires in High Gradient Magnetic Separation.....	7
<i>Fei Chen, Kenneth A. Smith, T. Alan Hatton</i>	
The Chemical Reaction - Pore Diffusion Model for Coal Char Gasification and Combustion Using the Random Pore Model.....	8
<i>Raymond C. Everson, Hein Neomagus, Rufaro Kaitano</i>	
Mass Transfer in a Viscous Bubble Column With Pulsed-Flow: the Bjerknes Effect.....	9
<i>Yogesh Waghmare, Richard G. Rice, F. Carl Knopf</i>	
Transport and Phase Transformation in Surfactant Systems.....	10
<i>Clarence A. Miller</i>	
Flow Processing and Rheology of Complex Fluid Interfaces (No abstract)	11
<i>Gerald G. Fuller</i>	
From Xps and Sims to Engineered Tissues: Bringing Surface Studies to Life(No abstract).....	12
<i>Buddy Ratner</i>	
Influence of Supercritical Carbon Dioxide on the Morphology of Modified Clays.....	13
<i>JinLing Liu, Heinrich Krump, William R. Rodgers, Paula D. Fasulo, Michael R. Thompson</i>	
Miscibility and Gelation of Syndiotactic Polystyrene in Toluene and Toluene + Carbon Dioxide Fluid Mixtures at High Pressures	21
<i>Jian Fang, Erdogan Kiran</i>	
Bone Sterilization Via Dense Gases: Importance in Orthopaedic Reconstruction Surgery.....	22
<i>Raffaella Mammucari, Leela C. Biant, Jeanette N. Pham, William Walsh, Neil R. Foster, Sydney M. Bell</i>	
Metal Particle Formation on Graphite Nanofibers in Supercritical Carbon Dioxide	23
<i>Randy Weinstein, Carol Bessel</i>	
Use of Haynes Alloy 230 for Supercritical Water Reactors	24
<i>Matthew Factor, H. Bryan Lanterman, Jonathan E. Wenzel, Sunggyu Lee</i>	
Fluid Mechanics and Reactions in Multi-Inlet Vortex Mixer Mivm and a Confined Impinging Jet Cij Mixer for Flash Nanoprecipitation.....	31
<i>Ying Liu, Chungyin Cheng, Ying Liu, Robert K. Prudhomme, Michael G. Olsen, Rodney O. Fox</i>	

Rheology of Nanoparticle/polymer Mixtures	32
<i>Amalie L. Frischknecht, John G. Curro</i>	
Shear at Soft Interfaces	33
<i>Wuge H. Briscoe, Meng Chen, Robert K. Thomas, Jacob Klein</i>	
Exploiting Soft Surfaces for Propulsion.....	41
<i>Eric Lauga</i>	
Non-Boltzmann Distribution of Polymers and Suspensions in Dissipative Systems: Cross-Stream Migration Vs. Differential Relaxation	42
<i>Todd M. Squires</i>	
Origins and Development of the Gibbs Ensemble Methodology.....	43
<i>Athanassios Z. Panagiotopoulos</i>	
Phase Equilibria of Patchy "Protein-Like" Models	44
<i>Sanat Kumar</i>	
Simulation of Phase Transitions in Coarse Grained Systems	45
<i>Juan Jose De Pablo</i>	
Beyond the Gibbs-Ensemble	46
<i>Berend Smit</i>	
Use of the Gibbs Ensemble Monte Carlo Approach for the Calculation of Gibbs Free Energies of Transfer and Henry's Law Constants	47
<i>J. Ilja Siepmann, Jake L. Rafferty, Kelly E. Anderson, Ling Zhang</i>	
Investigating the Phase Behavior of Fluids in the Vicinity of a Surface.....	48
<i>Jeffrey R. Errington</i>	
Application of Gibbs Ensemble Monte Carlo to the Calculation of Adsorption Isotherms for Toxic Materials	49
<i>Jeffrey J. Potoff, Ganesh Kamath, Nandhini Sokkalingam</i>	
Mesoscopic Canonical Ensemble	50
<i>Alexander V. Neimark</i>	
Direct Measurements of Interaction Forces between Silica and Clay Basal/edge Surfaces	51
<i>Hongying Zhao, Jacob Masliyah, Zhenghe Xu</i>	
Like-Charge Interactions Between Membrane-Coated Particles	52
<i>Esther W. Gomez, Nathan G. Clack, Jay T. Groves</i>	
Dissolution Arrest and Stability of Particle-covered (armored) Bubbles.....	53
<i>Manouk Abkarian, Anand B. Subramaniam, S.H. Kim, R. Larsen, S.M. Yang, Howard A. Stone</i>	
Colloidal Particles in Nematic Liquid Crystals: the Effects of Hydrodynamic Interactions.....	54
<i>Brian T. Gettelfinger, Juan J. De Pablo, Nicholas L. Abbott, Alejandro Daniel Rey</i>	
Stability of Polymer-grafted Nanoparticles in Semidilute and Concentrated Polymer Solutions.....	55
<i>David L. Green, Nupur Dutta</i>	
Adsorbed Polymer-Surfactant Layer Structure Probed Using Atomic Force Microscopy	56
<i>Emily Meyer, Nicholas Ainger, Neil Shaw, Raymond R. Dagastine</i>	
Probing Colloidal Interactions and Stability of a Colloid-surfactant Mixture by Means of Static Light Scattering, Surface Tension and High Turbulent Shear.....	57
<i>Alessio Zaccone, Hua Wu, Marco Lattuada, Massimo Morbidelli</i>	
High-Pressure Soret-Modified Hydrocarbon Mass Transport across Non-Isothermal Gaseous Boundary Layers	58
<i>Daniel E. Rosner, Manuel Arias-Zugasti</i>	

Enhancing Mass Transfer with Flow Over Soft Surfaces	59
<i>Abhishek Shrivastava, Satish Kumar, Edward L. Cussler</i>	
Downstream Development of Drag Reduction by Pipe Wall Injection of Concentrated Polyox into Water at Reynolds Number 55000	64
<i>Preetinder S. Virk, Aline M. Thomas, Steven R. Liu, Mary-Elizabeth Biszko</i>	
Reynolds Number Effects on Turbulent Pipe Flow and Pipe Mixing.....	65
<i>Timothy J. Dwyer, James E. Guilkey, Holly Oldroyd, Timothy A. Barber, Eric R. Pardyjak</i>	
Effective Reaction Rate and Mass Transfer for a Surface Reaction in Turbulent Flow	66
<i>Kien T. Nguyen, Dimitrios V. Papavassiliou</i>	
Bubble Size DistributionsBsd for a Bubble Column Reactor Undergoing Forced Oscillations	67
<i>Yogesh Waghmare, C. A. Dorao, H.A. Jakobsen, Richard G. Rice, F. Carl Knopf</i>	
Influence of Carbon Dioxide Concentration On the Complete Miscibility of Ionic Liquid – Organic – CO₂ Ternary Mixtures	68
<i>Eliane Kuhne, Elisa S. Calvo, Geert-Jan Witkamp, Cor J. Peters</i>	
Chemical Equilibria in "Smart" Ionic Liquids	69
<i>Ryan Hart, Cerag Dilek, Veronica Llopis Mestre, Jie Lu, Charles L. Liotta, Charles A. Eckert</i>	
Biomass-Derived Ionic Liquids Based On N-Substituted Pyrrolidinones	70
<i>Mark A. Harmer, Keith W. Hutchenson, Aaron R. Minter, Mark B. Shiflett</i>	
Nucleophilic Substitution Reactions in Ionic Liquids.....	71
<i>Jason P. Hallett, Giuseppe Ranieri, Tom Welton</i>	
Synthesis and Processing of Nanoparticles in Ionic Liquids in the Presence of Surfactants	72
<i>Yong Wang, Hong Yang</i>	
Recovery of Organic Compounds From Ionic Liquids by Anti-Solvent Crystallization With Carbon Dioxide.....	73
<i>Maaike C. Kroon, Vincent A. Toussaint, Ali Shariati, Louw J. Florusse, Jaap Van Spronsen, Geert-Jan Witkamp, Cor J. Peters</i>	
Ionic Liquid Synthesis in Conventional Solvents and Dense-Phase CO₂ Systems	74
<i>Jay Schleicher, Sylvia Nwosu, Aaron M. Scurto</i>	
Design of Ionic Liquid Systems for Green Processing and Applications.....	75
<i>Steve R. Lustig</i>	
Solubilities and Mass Transfer Coefficients of Gaseous Mixtures in Physical Solvents for CO₂ Capture Applications.....	76
<i>Yannick J. Heintz, Laurent Sehabiaque, Badie I. Morsi, Kenneth L. Jones, Henry W. Pennline</i>	
Temperature- and Pressure-Induced Morphology Control in Polymer Foaming Processes	78
<i>Leon J.M. Jacobs, Stan A.M. Hurkens, Eelco de Visser, Charalampos A. Mantelis, Maartje F. Kemmere, Thierry Meyer, Jos T.F. Keurentjes</i>	
Supercritical Carbon Dioxide Infusion of a Biodegradable Polymer with a Volatile Corrosion Inhibitor.....	79
<i>Leah A. Leavitt, Sunggyu Lee</i>	
Phase Behavior and Volumetric Properties of Poly(Epsilon Caprolactone) + Acetone +Carbon Dioxide Mixtures at High Pressures	88
<i>Kun Liu, Erdogan Kiran</i>	
A Novel Integrated Technique for Fabricating Polymeric Lab-on-a-Chip Devices with an Immobilized Enzyme	89
<i>Jeffrey L. Ellis, David L. Tomasko, Fariba Dehghani</i>	

Bulk Micronization of PET Using Compressed Liquid THF.....	90
<i>Robert M. Enick, Deepak Tapriyal, Sean Cook, Nicole Davis, Thomas Mallen, Philip Veneziano</i>	
Effects of Blend Composition and Nanoclay on Cell Structure of Microcellular-Foamed Polypropylene/polystyrene Blends	91
<i>Han-Xiong Huang, Hong-Fei Xu, Jian-Kang Wang</i>	
Simulations of Particle-Tracking Microrheology in Polymer Solutions	99
<i>Ileana C. Carpen</i>	
Structural Influence on the Drag of Fractal Aggregates	100
<i>Christian Binder, Wolfgang Peukert</i>	
Fluid-Particle Drag in Low-Reynolds-Number Flows of Binary Gas-Solid Suspensions	101
<i>Xiaolong Yin, Sankaran Sundaresan</i>	
Directed Ordering of Particle Crystal Arrays With Shear Fields	104
<i>Jason McMullan, Norman J. Wagner, Jeffrey Rimer</i>	
An O(N) Green's Function Method to Calculate Hydrodynamic Interactions of Particles in Unbounded and Confined Geometries	105
<i>Samartha G. Anekal, Juan P. Hernandez-Ortiz, Patrick T. Underhill, Michael D. Graham</i>	
Pair Hydrodynamics and Structure in Finite-Inertia Suspensions	106
<i>Pandurang M. Kulkarni, Jeffrey F. Morris</i>	
Burnett-Order Effects and Beyond in Granular Flows Driven by a Thermal Gradient	107
<i>Christine M. Hrenya, Janine E Galvin, Ricky Wildman</i>	
A Self-Similar Solution for the Tube Poiseuille Flow of a Dilute Emulsion	108
<i>Arun Ramachandran, David T. Leighton Jr.</i>	
Relating the Pressure Drop to the Concentration and Flow Fields for a Concentrated Suspension Flowing Through an Abrupt Contraction-expansion.....	109
<i>Tracey Moraczewski, Nina C. Shapley</i>	
Molecular Hydrodynamics in Dilute Suspensions Near a Solid Surface	110
<i>Swapnil Kohale, Rajesh Khare</i>	
Examining and Influencing Order in the Flow of Worm-Like Micelles through Porous Media.....	111
<i>Brian D. Figura, Robert K. Prud'homme, Phil Sullivan, John Crawshaw</i>	
Enhancing the Structure and Rheology of Self-Assembled Wormlike Micellar Networks by Nanoparticle Addition	119
<i>Matthew H. Helgeson, Florian Nettesheim, Eric W. Kaler, Norman J. Wagner</i>	
Thin to Thick at the Flick of a Switch: Photogelling in a Micellar Fluid Based on a Zwitterionic Surfactant	120
<i>Rakesh Kumar, Srinivasa R. Raghavan</i>	
Characterization of Fluorinated and Hydrocarbon Mixed Cationic/anionic Surfactant Vesicles	121
<i>Vivian A. Ojogun, Hans-Joachim Lehmler, Barbara, L Knutson</i>	
Photoresponsive Catanionic Vesicles for Non-Viral Gene Delivery	122
<i>Anne-Laure Le Ny, Yu-Chuan Liu, Jing Zhang, C. Ted Lee Jr.</i>	
Direct Imaging of Amphiphilic Solutions Using a Microfluidic Chip Integrated With Cryo-Tem.....	123
<i>Jinkee Lee, Ashish Jha, Anubhav Tripathi, Arijit Bose</i>	
Liquid Crystalline Phases in Non-Aqueous Systems	124
<i>Hiteshkumar Dave, Dan Wu, Chia-Chi Ho, Carlos Co</i>	

Fluid-Phase Self-Organization in Nanoscopic Metal Films Under Pulsed Laser Irradiation.....	125
<i>J. Trice, C. Favazza, D. G. Thomas, H. Krishna, R. Kalyanaraman, R. Sureshkumar</i>	
Linear Stability and Transient Dynamics of Non-Inertial Coating Flows Over Locally Heated Surfaces	127
<i>Naveen Tiwari, Zoltan Mester, Jeffrey M. Davis</i>	
Particle Behavior in Taylor Vortex	128
<i>Davis Yohanes Arifin, Rensheng Deng, Chi-Hwa Wang, Kenneth A. Smith</i>	
Dynamics and Stability of Volume-scavenging Systems of Capillary Droplets.....	136
<i>Paul H. Steen, Micheal J. Vogel, Henrik Van Lengerich</i>	
The Onset of Buoyancy-Driven Convection in a Horizontal Fluid Layer Heated Isothermally from below.....	137
<i>Joo H. Moon, Chang K. Choi, Tae J. Chung, Sun-Tak Hwang, E. James Davis</i>	
Flow Reversal and Cellular Patterns in Vertically Falling Liquid Films	145
<i>Nikolaos A. Malamataris, Vemuri Balakotaiah</i>	
Onset of Solitary Waves in a High Reynolds Number Falling Film Under an Electrostatic Field	146
<i>Hyo Kim, Kwang Seok Kim, Sun Young Park</i>	
Modeling of Axisymmetric Instabilities Observed During the Electrospinning of Highly-Conducting, Viscoelastic Jets.....	153
<i>Colman P. Carroll, Yong Lak Joo</i>	
Numerical Modelling of Slug Flow in Curved Tubes	154
<i>Subhashini Vashisth, Vimal Kumar, Yannick Hoarau, K. D. P. Nigam</i>	
Molecular Dynamics Investigations of the Glass and Liquid-Liquid Transitions in Polystyrene	163
<i>David Rigby, Alexander Goldberg</i>	
How Short-Range AtTRACTIONS Impact the Structural Order, Self-Diffusivity, and Viscosity of a Fluid	164
<i>William P. Krekelberg, Jeetain Mittal, Venkat Ganesan, Thomas M. Truskett</i>	
Computational Investigation of Glassy Water in Nano-Scale Confinement	165
<i>Thomas G. Lombardo, Nicolas Giovambattista, Pablo G. Debenedetti</i>	
Study of Model and Real Glass Formers in Bulk and Under Confinement - a Monte Carlo Approach	166
<i>Jayeeta Ghosh, Roland Faller</i>	
Physical Aging of Polymer Glasses: Confinement and Interfacial Effects As Measured by Fluorescence	167
<i>Rodney D. Priestley, Linda J. Broadbelt, John M. Torkelson</i>	
Glassy Dynamics During Active Deformation	168
<i>Robert A. Riggelman, Juan De Pablo</i>	
Extension of Glass Transition Model to Mixtures	169
<i>Lisa A. Brenskelle, Ben McCoy</i>	
The Amorphous Glassy State of Spray-Dried Carbohydrate: Temperature and Humidity Influence On Ageing.....	170
<i>Nicolas Descamps, Stefan Palzer</i>	
Computer Simulations of Supercooled N-Alkane Liquids.....	171
<i>Mariana Martín-Betancourt, José M. Romero-Enrique, Luis F. Rull</i>	
Using the Solvation Model to Predict the Salt Effect on Vapor-Liquid Equilibrium	172
<i>Shuzo Ohe</i>	
Phase Behavior of Ionic Fluids in Charged Disordered Media	192
<i>Ali Reza Mehrabi, Muhammad Sahimi</i>	

Determination of Chemical Potentials of Quasi-Particles in Coarse-Grained Models of Complex Fluids and Polyelectrolytes	193
<i>Alexander V. Neimark, Aleksey Vishnyakov</i>	
New Insights Into Solvation Effects, Resolves an Apparent Paradox.....	194
<i>David A. Gallagher</i>	
Thermodynamic Modeling of Hlix Part of the Iodine – Sulfur Thermocycle	195
<i>Mohamed K. Hadj-Kali, Vincent Gerbaud, Jean-Marc Borgard, Pascal Floquet, Xavier Joulia, Philippe Carles, Gilles Moutiers</i>	
Modeling the Thermodynamic Behavior of Systems Containing Charged and/or Dipolar Fluids	196
<i>M. Carolina Dos Ramos, Honggang Zhao, Clare McCabe</i>	
The Significance of Mixing Rules, Hydration and Complex Formation in the Electrolyte NRTL Model.....	197
<i>George M. Bolas, Chau-Chyun Chen, Paul I. Barton</i>	
Modeling the Interfacial Tension of Highly Concentrated Electrolyte Solutions	200
<i>Ricardo Macías-Salinas</i>	
Phase Behavior and Permeability of Lipid Bilayer Membranes in the Presence of C60 Fullerene.....	201
<i>Geoffrey D. Bothun, Yanjing Chen</i>	
Phase Transition Studies of Lipid Bilayers Under Hydrated and De-Hydrated Conditions in the Presence of Sugar Molecules	202
<i>Amadeu K. Sum, Sukit Leekumjorn</i>	
Coarse-Grain Supported Lipid Bilayers On Patterned Surfaces	203
<i>Matthew I. Hoopes, Margie Longo, Roland Faller</i>	
Cosmomic: Simulation of Bio-Membranes and Micelles With Cosmo-Rs.....	204
<i>Andreas Klamt, Michael Diedenhofen, Uwe Huniar</i>	
Phase Separated Lipid Bilayers Supported by Xerogel Substrates	205
<i>Emel I. Goksu, Barbara Nellis, Subhash H. Risbud, Marjorie L. Longo</i>	
Role of Molecular Tilt in Thermal Fluctuations of Lipid Membranes.....	206
<i>Eric R. May, Atul Narang, Dmitry I. Kopelevich</i>	
Activation Thermodynamics for Phospholipid Flip-Flop in Planar Supported Lipid Bilayers Measured by Sum-Frequency Vibrational Spectroscopy	207
<i>Timothy C. Anglin, Hao Li, John C. Conboy</i>	
Experimental and Computational Investigation of Trehalose Protection from Palmitate Induced Toxicity of HepG2 Cells	208
<i>Yifei Wu, Sukit Leekumjorn, Amadeu K. Sum, Christina Chan</i>	
Structure of Superlattice and Random Domains in Ternary Bilayer Lipid Membranes	209
<i>Mark W. Vaughn, Qing Zhu, Kelvin Cheng</i>	
DNA Condensation with Self-Assembling Peptides.....	210
<i>Vikas P. Jain, Raymond S. Tu</i>	
High Sensitivity DSDNA Separation in Nanochannels.....	221
<i>Fabio Baldessari, Juan G. Santiago</i>	
Interaction between Single-Strand DNA Oligomers Tethered to a Surface	222
<i>Mark W. Vaughn, Qing Zhu</i>	
Cooperativity Between Ionic Strength and Strand Coverage in Surface Hybridization	223
<i>Rastislav Levicky, Ping Gong, Kenneth Shepard</i>	
Atomic Force Microscopy Study of Immobilized Bacteriophage and Its Interactions With Bacteria.....	224
<i>Hitesh Handa, Stephen Guczynski, Matthew P. Jackson, Gregory Auner, Guangzhao Mao</i>	

Transferring Complementary Target DNA From Aqueous Solutions Onto Solid Surfaces by Using Affinity Microcontact Printing	225
<i>Kun-Lin Yang, Hua Tan, Shisheng Huang</i>	
Chemical Modifications of Inert Self-Assembled Monolayers With Oxygen Plasma for Biosensor Applications	226
<i>Kun-Lin Yang, Chang-Ying Xue</i>	
Transition From 2D to 3D Behavior in the Self-Assembly of Magnetorheological Fluids Confined in Thin-Slits	227
<i>Ramin Haghgoie, Patrick S. Doyle</i>	
Interfacial Colloidal Sedimentation Equilibrium Microstructures.....	228
<i>Michael A. Bevan, Richard E. Beckham</i>	
Ac Electrohydrodynamic Mobility and Dielectrophoretic Assembly of "Janus" Particles	229
<i>Orlin D. Velev, Sumit Gangwal, Olivier J. Cayre, Martin Z. Bazant</i>	
Novel Stimuli Sensitive Structures Formed by Directed Assembly of Microgels in Droplets.....	230
<i>Rhutesh K. Shah, Jinwoong Kim, David A. Weitz</i>	
Length Fractionation of Single Wall Carbon Nanotubes Using Centrifugation	231
<i>Jeffrey A. Fagan, Matthew L. Becker, Jaehun Chun, Barry J. Bauer, Erik K. Hobbie</i>	
Liquid-Core Poly(Ethylene Oxide)/silica Capsules by Direct Interfacial Reaction.....	232
<i>Dan Wu, Hiteshkumar Dave, Chia-Chi Ho, Carlos Co</i>	
Tailoring the Size, Surface Charge, and Release Properties of Biocompatible Chitosan Nanoparticles	233
<i>Mona Utne Larsen, Nina C. Shapley</i>	
Surface Functionalized Nanoparticles As Surfactants	234
<i>Marcos Borrell, Yanli Gong, L. Gary Leal</i>	
Use of Nano-Patterning to Manipulate Particle-Wall Interactions for Micron-Scale Objects in Shear Flow.....	235
<i>Ranojoy D. Duffadar, Jeffrey M. Davis, Maria M. Santore</i>	
Surfactant-Retarded and Surfactant-Enhanced Marangoni-Bénard Convection	237
<i>Ram Hanumanthu, Kathleen J. Stebe</i>	
Gravity-Induced Motion of a Deformable Drop Down an Inclined Wall.....	238
<i>Andrew J. Griggs, Alexander Z. Zinchenko, Robert H. Davis</i>	
Effect of Surfactant On Drop Dynamics in Electric Fields.....	240
<i>Petia M. Vlahovska</i>	
Thermocapillary Motion of Hybrid Drops	241
<i>Liat Rosenfeld, Olga M. Lavrenteva, Avinoam Nir</i>	
Coalescence Dynamics of a Pendent and a Sessile Drop	242
<i>Zhengjun Xue, Carlos M. Corvalan</i>	
Droplet Deposition Dynamics Inside a Microfluidic Device	243
<i>B. Steinhaus, Amy Shen, Patrick T. Spicer</i>	
Noncoalescence of Drops in an Ambient Flow: Stability of Stationary States	244
<i>Piero Santoro, Michael Loewenberg</i>	
Instability of Confined Thin Liquid Film Trilayers	245
<i>Richard D. Lenz, Satish Kumar</i>	
Effects of Salts and Ethanol on the Population and Morphology of Tri-Block Copolymer Micelles in Solution.....	246
<i>Antonia G. Denkova, Eduardo Mendes, Marc-Olivier Coppens</i>	
Solvent-Modulated Surfactant Binding On Water-Soluble Polymers (No abstract).....	247
<i>Marina Tsianou, Paschalis Alexandridis</i>	

Equilibrium Swelling and Drying Kinetics of Amphiphilic Triblock Copolymers (No abstract)	248
<i>Paschalis Alexandridis, Shushan Z. Munshi, Zhiyong Gu, Sudhakar Balijepalli</i>	
Pressure-Induced Micellization of Polystyrene-Block-Polybutadiene, Polystyrene-Block-Polyisoprene and Their Deuterated Analogs in Near Critical Propane	249
<i>W. Winoto, Sugata P. Tan, Maciej Radosz, Kunlun Hong, Jimmy Mays</i>	
Statistical Associating Fluid Theory of Compressible Solutions of Polystyrene, Polybutadiene, Polyisoprene and Their Diblock Copolymers in Propane	250
<i>Sugata P. Tan, W. Winoto, Maciej Radosz</i>	
Spotted Polymersomes Based On Lateral Phase Separation	251
<i>David A. Christian, Aiwei Tian, Tobias Baumgart, Dennis E. Discher</i>	
Lipid Phase-Separated Domains Controlled by pH	252
<i>Shrirang Karve, Gautam Gowda, Arjun Adhikari, Tamara Khaimchayev, Stavroula Sofou</i>	
Area 1a Keynote Address: the “Easy” Phases Can Still Provide Interest, Challenge, and Opportunity	253
<i>David A. Kofke</i>	
The Prediction of Hydration Free Energy of Alkanes Using All-Atom Model	254
<i>Jaejon Chang, Kyoungrim Lee</i>	
Molecular Simulation of Non-Additive Influences On the Properties of Water	255
<i>Richard J. Sadus</i>	
Inferring Transferable Intermolecular Potential Models	257
<i>J. Richard Elliott, Sinan Ucigitler, Mehmet C. Camurdan, Metin Turkay</i>	
Like-Charge Attraction of Spheres - Global Phase Diagram and Critical Scaling	258
<i>Antti-Pekka Hynninen, Athanassios Z. Panagiotopoulos</i>	
Simulations of Symmetric Tricritical Behavior: Finite-Size Scaling	259
<i>C. J. O’Keeffe, Ruichao Ren, G. Orkoulas</i>	
Pair Correlations, Excess Entropy, and the Single-particle Dynamics of Complex Fluids Within the Gaussian-core Model	260
<i>Tanuj Kumar, Jeffrey R. Errington, Jeetain Mittal, Thomas M. Truskett</i>	
How Shear Impacts the Structure and Rheology of Attractive Colloidal Systems	261
<i>William P. Krekelberg, Venkat Ganeshan, Thomas M. Truskett</i>	
Collapse of Depletion-Induced Gels in Vesicle-Polymer Mixtures	262
<i>Jiyeon Huh, Eric M. Furst, Matthew L. Lynch</i>	
Flow of Attractive Colloidal Suspensions in Microchannels	263
<i>Jacinta C. Conrad, Robert F. Shepherd, Summer K. Rhodes, Jennifer A. Lewis</i>	
Effect of pH on Flow-Induced Aggregation of Fully-Destabilized Polystyrene Latex	264
<i>Amgad Salah Moussa, Lyonel Ehrl, Miroslav Soos, Marco Lattuada, Massimo Morbidelli</i>	
1-2 Plane Flow-Sans Measurements of the Microstructure of Shear Thickening, Concentrated, Near Hard-Sphere, Colloidal Suspensions	265
<i>Norman J. Wagner, Dennis Kalman, Lionel Porcar</i>	
Probing Cooperative Motion and Activated Hops in Super-Cooled Colloidal Suspensions	266
<i>Prasad Sarangapani, Yingxi Elaine Zhu</i>	
The Osmotic Motor	267
<i>Ubaldo Cordova-Figueroa, John F. Brady</i>	
Direct Bath-Probe Interactions in Active Non-Linear Microrheology	268
<i>Eric M. Furst, Alexander Meyer</i>	
Microrheology of Nanospheres in Rod Suspensions	269
<i>Venkat Ganeshan, Victor Pryamitsyn</i>	

Effects of Particle Hardness on Shear Thickening Colloidal Suspension Rheology and Stf-composite Performance.....	270
<i>Dennis Kalman, Norman J. Wagner, Joseph Houghton</i>	
Phase Behavior and Microstructure for Colloidal Systems With Attractive/repulsive Interparticle Potentials.....	271
<i>M. D. Bybee, J. J. L. Higdon</i>	
Flow-Assisted Assembly of Multilayer Colloidal Crystal Arrays through Spin Coating.....	272
<i>Laura T. Shereda, Ronald G Larson, Michael J. Solomon</i>	
Rapid Convective Deposition of Microsphere Monolayers for Fabrication of Microlens Arrays.....	273
<i>Pisist Kumnorkaew, Yik-Khoon Ee, Nelson Tansu, James F. Gilchrist</i>	
Dielectrophoresis of Nano-Colloids in Strong Electrolytes	274
<i>Hsueh-Chia Chang, Sagnik Basuray, Hsien-Hung Wei</i>	
Simulations of a Dielectrophoretic Conveyor Belt	276
<i>David Jacqmin, Anil Kumar, Boris Khusid, Andreas Acrivos</i>	
Hydrodynamic Crystals: Collective Dynamics of Quasi-Two-Dimensional Regular Arrays of Spherical Particles in Stokes Flow Between Two Parallel Walls	277
<i>Jerzy Blawzdziewicz, Eligiusz Wajnryb</i>	
Solvatochromic Studies On the CO₂ Antisolvent Ability in Ionic Liquid/organic Mixtures	278
<i>Berlyn R. Mellein, Dr. Joan Brennecke</i>	
Influence of Water On Diffusion in Ionic Liquids: Pulsed Field Gradient NMR Study	281
<i>Amrish R. Menjoge, JaNeille K. Dixon, Joan F. Brennecke, Edward J. Maginn, Sergey Vasenkov</i>	
Phase Equilibria of Halocarbon Isomers in Room-Temperature Ionic Liquids	282
<i>Mark B. Shiflett, Akimichi Yokozeki</i>	
Physicochemical Characterization of Ionic Liquids	284
<i>Surya Sekhar Moganty, Ruth E. Baltus, Pubudu Goonetilleke, Dipankar Roy</i>	
On the Properties of Selected Non-Halogenated Ionic Liquids	285
<i>Santiago Aparicio, Rafael Alcalde, Begoña García, José M. Leal</i>	
Selection of Ionic Liquids for Extraction of Aromatics Based on Selectivity and Capacity of the Solvent at Infinite Dilution.....	286
<i>K. Z. Sumon, Esam Z. Hamad</i>	
Phase Equilibria and Mass Transport in Compressed Gas/ionic Liquid Systems	287
<i>Wei Ren, Azita Ahosseini, Aaron M. Scurto, Mark B. Shiflett, Akimichi Yokozeki</i>	
Measured Gas Solubilities, Diffusivities, and Diffusivity Correlations for Ammonium-based and Quaternary-ammonium Surfactant Derived Room Temperature Ionic Liquids	288
<i>Sarah Mixon, Ricardo Condemarin, Prem K. Kilaru, Gary A. Baker, Paul Scovazzo</i>	
Fully-Coupled Modeling of Electrokinetic Flow and Migration in Microfluidic Devices Filled with Electrolytes	289
<i>Dominik P.J. Barz, Peter Ehrhard</i>	
Taylor Dispersion in PCR in a Microchannel	290
<i>Jinkee Lee, Elejdis Kulla, Anuj Chauhan, Anubhav Tripathi</i>	
Force-Driven Transport in Slowly Varying Channels: How Slow Is Slow?	291
<i>Ehud Yariv, Nabil Laachi, Martin Kenward, Kevin D. Dorfman</i>	
Interfacial Mass Transfer From Chaotically Stirred Laminar Flows	292
<i>Corey R. Siegel, Joseph D. Kirtland, Abraham D. Stroock</i>	
Shear-Induced Migration of Suspensions in 1D, 2D, and 3D Microchannel Flows.....	293
<i>James F. Gilchrist, Changbao Gao</i>	

Interpreting Kinetics from a Microfluidic Reactor: Mass Transfer or Reaction Limited?	294
Matthew B. Kerby, Anubhav Tripathi	
DNA Identification with Symmetry-Breaking Dielectrophoretic Patterns of Genetic Bead Suspensions	295
Zachary R. Gagnon, Hsueh-Chia Chang	
The Shear Flow Processing of DNA Scaffolds for Molecular Wires	296
Christopher A. Lueth, Eric S. G. Shaqfeh	
Electrophoretic Stretching of DNA Using Microscale T-Scale Junctions	297
Patrick S. Doyle, Jing Tang	
Single-Molecule Manipulation of DNA in Extensional Flow for Target Sequence Detection	298
Rebecca Dylla-Spears, Lydia L. Sohn, Susan J. Muller	
Synthesis and Surface Modifications of Magnetic Plasmonic Nanoparticles and Nanoscale Zero Valent Iron Particles	299
Robert D. Tilton	
Shape and Composition Controls and Surface Modifications of Platinum Based Nanostructures	300
Hong Yang, Sean Maksimuk, Zhenmeng Peng, Rui Shen, Shengchun Yang	
Surface Charge, Nanoparticle Shape, and Electrical Field Effect On Thermal Conductivity of Nanofluids	301
Zhiyong Gu, Hongwei Sun, Raghu Gowda	
Self-Assembly Control of Metal Nanoparticle Synthesis in Aqueous Solutions (No abstract)	302
Cristopher L. Wirth, Toshio Sakai, Paschalis Alexandridis	
Deposition of Ru-Ni-S Nanoparticles On Carbon by Spray-Pyrolysis: Effects of Solvent and Other Processing Parameters	303
Kalyana C. Pingali, Shuguang Deng, David. a Rockstraw	
Covalent, Chemical Functionalization of 1nm Carbon Coated Cobalt Nanoparticles – Linking Nano-Magnets and Molecules	304
Robert N. Grass, Fabian M. Koehler, Evangelos K. Athanassiou, Wendelin J. Stark	
Comparison of Methods of Calculation of Mechanical Properties of Free Standing Films of Amorphous Polymers	306
Rohit Malshe	
Potential Distribution Theorem for the Polymer-Induced Interactions Between Colloidal Particles	307
Zhidong Li, Jianzhong Wu	
Molecular Dynamics of Confined Polymer Films : Structure, Dynamics and the Glass Transition	308
Vikram K. Kuppa, Gregory C. Rutledge	
Order of Magnitude Reduction in Across-the-plane Diffusion Coefficients of Dye Molecules with Confinement in Thin Polymer Films	309
Manish K. Mundra, John M. Torkelson	
Adjusting the Glass Transition Temperature of an Interfacial Polymer Layer by Tens of Degrees: Effects of Confinement and Selection of Adjoining Polymer Layers	310
Connie B. Roth, John M. Torkelson	
Correlating Solubility Parameters to Degree of Crosslink at Different Depth Profiles	312
Daniel J. Burnett, Frank Thielmann	
Homogeneous Olefin Hydroformylation by Transition Metal Complexes in CO₂-Expanded Media: Solvent Effects and Kinetics	319
Jing Fang, Debangshu Guha, Jon Tunge, Milorad P. Dudukovic, P.A. Ramachandran, Bala Subramaniam	

Kinetic Solvent Effects on Reactions in Gas-expanded Liquids	321
<i>Jackson W. Ford, Jie Lu, Charles L. Liotta, Charles A. Eckert</i>	
Effect of Molecular Interactions in Gas-expanded Liquids on Reaction and Electronic Phenomena	322
<i>John L. Gohres, Rigoberto Hernandez, Charles Liotta, Charles Eckert</i>	
Synthesis of Renewable Chemicals from Oleic Acid	323
<i>Darrell L. Sparks, Rafael Hernandez, L. Antonio Estévez, Todd French, Earl Alley</i>	
Kinetics of Reforming Ethanol Into Hydrogen in a Supercritical Water Medium	324
<i>Jonathan E. Wenzel, Alexandria Niemoeller, Michael S. Stever, Sunggyu Lee</i>	
Marginal Dispersion Stability of Polymerizations in Supercritical Carbon Dioxide - Pressure Effect and Engineering Insight Using Calorimetric Techniques-	331
<i>Charalampos A. Mantelis, Thierry Meyer</i>	
Hydrogen Storage Materials Based on N-Containing Material Systems	338
<i>Zhigang Fang, Jun Lu, Hong Yong Sohn</i>	
Stability Analysis of Doped Materials for Reversible Storage in Destabilized Metal Hydrides	355
<i>Sudhakar V. Alapati, David S. Sholl, Karl Johnson</i>	
Modeling Effects of Titanium Dopants on Hydrogen Adsorption/desorption Kinetics by Sodium Alanates	356
<i>Phani G. K. Dathara, Daniela S. Mainardi</i>	
Hydrogen Storage Properties of the Mg-Ti-H System Prepared by High-Energy-High-Pressure Reactive Milling	364
<i>Young Joon Choi, Jun Lu, Hong Yong Sohn, Zhigang Zak Fang</i>	
Computational Investigations of Hydrogen Storage in Metal-Organic Frameworks	375
<i>Houston Frost, Paul J. Dalach, Donald E. Ellis, Randall Q. Snurr</i>	
From Time-Independent Thermodynamic Measurements Towards Time-Dependent Kinetic Measurements On Hydrogen Clathrate Hydrates	376
<i>Ana Rita C. Duarte, John Zevenbergen, Cor J. Peters</i>	
Determination of H₂ Occupancy in H₂+Thf Clathrate Hydrates	377
<i>Prasad Yedlapalli, Sangyong Lee, Jae W. Lee</i>	
Ion Solvation and Its Effects on the Miscibility of Binary Polymer Blends	378
<i>Zhen-Gang Wang</i>	
Detailed Molecular Simulations of Poly(N-Isopropylacrylamide) Solutions	379
<i>Manolis Doxastakis</i>	
Fluctuation Effects in Polyelectrolyte Adsorption	380
<i>Ying Jiang, Qiang Wang</i>	
Density Functional Approach for Modeling Polymer-CO₂ Interfaces	381
<i>Manish Talreja, Isamu Kusaka, David L. Tomasko</i>	
Thermodynamic Model for CO₂ - Polymer Systems	390
<i>Anupama Kasturirangan, Amyn S. Teja</i>	
Distribution of Nanoparticles in the Lamellae of Diblock Copolymer Melts	391
<i>Jiezhu Jin, Jianzhong Wu</i>	
Ternary Phase Behavior of Liquid Polyethylene Glycol with Carbon Dioxide and Common Organic Solvents	392
<i>Megan Donaldson, Laura C. Draucker, Charles A. Eckert, Charles L. Liotta</i>	
Sorption of Organic Vapors by Copolymers Using a Thickness Shear Mode Quartz Resonator	393
<i>Anthony Richardson, Venkat R. Bhethanabotla</i>	

Effect of Sequence On Protein Stability: a Numerical Study Using Water-Explicit Lattice Models	394
<i>Bryan Patel, Pablo G. Debenedetti, Frank H. Stillinger, Peter J. Rossky</i>	
Mesoscopic Simulation Study of Lipid-Mediated Interactions between Intrinsic Membrane Proteins	395
<i>Frédéric de Meyer, Maddalena Venturoli, Marianna Yiannourakou, Luca Marsella, Berend Smit</i>	
Calcium Bridging Leading to the Dehydration of Phospholipid Head-Groups	404
<i>Jeffrey J. Potoff, Charles Manke, Zeena Kas, Bhanu P. Jena</i>	
Thermodynamics of Cell Matrix Interactions	405
<i>Muhammad H. Zaman, Tianyi Yang</i>	
Effect of Trehalose On Alzheimer's Amyloid Beta (1-40) - Membrane Interaction	406
<i>Allam S. Reddy, Aslin Izmitli, Carolina Schebor, Juan J. De Pablo</i>	
Determining the Outward-Facing Structure and Sugar Binding in Lactose Permease of e. Coli	407
<i>Jeffery Klauda, Bernard R. Brooks</i>	
Structure of Pre-Amyloid Oligomers During Photoreversible Hexamer-Dodecamer Transitions From Small-Angle Neutron Scattering	408
<i>Andrea C. Hamill, Serena Wang, C. Ted Lee Jr.</i>	
Understanding DNA Behavior Using a Multiscale Modeling / Multi-Technique Simulation Approach	409
<i>Thomas A. Knotts IV, Stephan Deublein, Juan Jose De Pablo</i>	
Ion Permeation Dynamics in Carbon Nanotubes	410
<i>Hongmei Liu, Cynthia Jameson, Sohail Murad</i>	
Transport in Nanoporous Beta and Ultrastable – Y Zeolites	411
<i>Subramanya Nayak, P. a Ramachandran, M. P Dudukovic</i>	
Effects of Sorbate Molecules on Thermal Transport in Nanoporous Materials	427
<i>Chia-Yi Chen, Dmitry I. Kopelevich</i>	
Understanding Diffusion in Nano-Porous Materials	428
<i>Berend Smit</i>	
Ion and Molecular Transport Through Surface-Modified Nanoporous Opals	429
<i>Ilya Zharov</i>	
Diffusion and Nanoscale Structure in Polyelectrolyte-Colloid Coacervates by Pulsed Field Gradient NMR	430
<i>Amrish R. Menjoge, A. Basak Kayitmazer, Paul Dubin, Sergey Vasenkov</i>	
Atomistic Simulations of Adsorption and Diffusion of Gases and Alkane Chains in Silicon Carbide Nanotubes	431
<i>Kourosh Malek, Muhammad Sahimi</i>	
Anomalous Transport in Molecularly Confined Spaces	432
<i>Suresh K. Bhatia, David Nicholson</i>	
Dynamics of Single-Stranded DNA Translocation in Nanometer Pores	433
<i>S. T. Cui</i>	
Investigation of Peptide Adsorption and Orientation on Self-assembled Monolayers Using Surface Analysis Techniques	434
<i>Julia S. Apte, Lara J. Gamble, David G. Castner</i>	
Describing Protein Adsorption Behavior Based on Electrochemical Impedance Spectroscopy	435
<i>Shanna J. Smith, Stephen P. Beaudoin</i>	
Label-Free Detection of Protein Adsorption on a Ligand Surface by UV-Visible Sum Frequency Generation Spectroscopy	436
<i>Trang T. Nguyen, John C. Conboy</i>	

Molecular Design of Superlow Fouling Materials: Fundamentals and Applications	437
<i>Shaoyi Jiang</i>	
Aqueous Protease Adsorption on and Cleavage Kinetics of an Immobilized Protein Multilayer Interface: the Role of Surfactant	438
<i>Ladan Lynn Hagar, Harvey Blanch, Clayton Radke</i>	
On the Thermodynamics of Protein Adsorption Processes.....	439
<i>Jason C. Hower, Yi He, Shaoyi Jiang</i>	
Conformation of Trpcage on Silica Surface Using Molecular Dynamics.....	440
<i>Xiaoyu Wu, Ganesan Narsimhan</i>	
Permeability of Biomimetic Hydrogel Membranes	441
<i>Kristin J. Mattern, William M. Deen</i>	
Diffusion in Colloid-polymer Mixtures: Crossover from One to Two Dimensions	442
<i>Amir Amini, Samon Tavakoli, Sibani Lisa Biswal, Marc Robert</i>	
Shear-induced Capping of L-selectin on the Neutrophil Surface During Centrifugation.....	443
<i>Dooyoung Lee, Michael R. King</i>	
Using Textured Surfaces to Separate Microcapsules.....	444
<i>O. Berk Usta, Alexander Alexeev, Anna Balazs</i>	
Spindles, Cusps and Bifurcation for Capsules in Strong Extensional Flows	445
<i>Walter R. Dodson III, Panagiotis Dimitrakopoulos</i>	
Electrohydrodynamic Aggregation and Size Segregation of Unilamellar Vesicles	446
<i>William D. Ristenpart, Sigolene Lecuyer, Olivier Vincent, Howard A. Stone</i>	
Dynamics of Artificial Cells in Electric Fields	447
<i>Petia M. Vlahovska, Ruben S. Gracia</i>	
Poroelastic-Fluid Interaction and the Prediction of Pathological Intracranial Dynamics in the Human Brain	448
<i>Brian Sweetman, Kirstin Tawse, Michalis Xenos, Andreas A. Linninger</i>	
Transmural Flow and Macromolecular Advection Into Vessel Walls in Early Atherogenesis: the Thin Intima Approximation -- How Valid Is It?	451
<i>Zhongqing Zeng, David Rumschitzki</i>	
An Encapsulation Device for Pancreatic Islet Cells	453
<i>Chu Yi Lee, Dimitri Hatziavramidis</i>	
Role of Interfacial Free Energy in the Formation of Polymer Microcapsules by Emulsification/freeze Drying.....	454
<i>Weisi Yin, Matt Yates</i>	
Porod Saks Studies of Shear-Induced Droplet Deformation in a Concentrated Immiscible Polymer Blend	455
<i>Wesley R. Burghardt, Kristin L. Brinker</i>	
Particles at the Polymer-Polymer Interfaces.....	456
<i>Prachi Thareja, Sachin Velankar</i>	
Characterization of Sodium Caseinate Stabilized Foam Formed in a Continuous Shear Mixing Apparatus	457
<i>Linda Indrawati, Ganesan Narsimhan</i>	
Phase Transitions of Nanoemulsion Induced by Ultrasound.....	458
<i>William G. Pitt, Ram Singh, Ghaleb A. Husseini, Brian Daniels, Trevor McDougal</i>	
Sans Characterization of Emulsion Film Thickness and Composition of Asphaltene-Stabilized Emulsions	466
<i>Vincent J. Verruto, Peter K. Kilpatrick</i>	

Characterizing Water/Crude Oil Emulsions with Application to Methane Hydrate Blockages Using Nuclear Magnetic Resonance	467
<i>Clint P. Aichele, Waylon House, George J. Hirasaki, Walter G. Chapman</i>	
Molecular Simulation Studies of E/M Field Effects on Ionic Liquid Systems	468
<i>Damian A. Mooney, Niall J. English</i>	
Computing the Melting Point of Ionic Liquids from Atomistic Simulations	469
<i>Saivenkataraman Jayaraman, Edward J. Maginn</i>	
Property Prediction of Ionic Liquid Solutions Using Cosmo-Rs	470
<i>Michael Diedenhofen, Andreas Klamt, Kenneth N. Marsh</i>	
Vapor-Liquid Phase Transitions in a Primitive Model of a Room Temperature Ionic Liquid	471
<i>Marianela Martín-Betancourt, José M. Romero-Enrique, Luis F. Rull</i>	
Molecular Dynamics Simulations of Ionic Liquids and Lithium Transport in Them	473
<i>Oleg Borodin, Grant D. Smith, Robert Rees</i>	
Asymmetric Framework for Modeling Liquid-Liquid Equilibrium Involving Ionic Liquids	474
<i>Luke D. Simoni, Joan F. Brennecke, Mark A. Stadtherr</i>	
Modeling Properties of Mixtures Containing Ionic Liquids: How Good Are Cubic Equations of State?	476
<i>Adolfo E. Ayala, Mark A. Stadtherr</i>	
Enthalpies of Solution and Heat Capacities of Mixtures of 1-Ethyl-3-Methylimidazolium Based Ionic Liquids and Water	478
<i>Lindsay E. Ficke, Héctor Rodríguez, Dr. Joan Brennecke</i>	
Droplet Series Generation by Alternating Current Electrical Field in Flow-Focusing Microfluidics	479
<i>Peng He, Haejune Kim, Manuel Marquez, Zhengdong Cheng</i>	
Controlling the Formation of Nanoparticle/polymer Hybrid in Microfluidic Devices	480
<i>Gautam C. Kini, Sibani Lisa Biswal, Michael S. Wong</i>	
The Effects of Polymer Molecular Weight On Filament Thinning and Breakup in Microchannels	481
<i>Paulo E. Arratia</i>	
Role of Desorption Kinetics in Surfactant-Mediated Microscale Tipstreaming	482
<i>Wingki Lee, Lynn M. Walker, Shelley L. Anna</i>	
Stability, Oscillations and Pressure Drop in Microfluidic Bubble Flows	483
<i>Cher Wah Kho, Pravien Parthiban, Suhanya Duraiswamy, Saif A. Khan</i>	
Pressure Drops for Two Phase Droplet Flow in Microfluidic Channels	484
<i>Sachin Velankar, Brian Adzima</i>	
Microfluidic Interfacial Tensiometry	485
<i>Steven D. Hudson, Jai A. Pathak, Joao T. Cabral, Samuel P. Forry</i>	
Electrically-Driven Size Separation of Giant Vesicles	486
<i>Sigolene Lecuyer, William D. Ristenpart, Olivier Vincent, Howard A. Stone</i>	
Enhancing Bioparticle Trapping at a Converging Micro-Flow with Local Coulombic Forces and Roughness-Induced Surface Currents	487
<i>Siddharth Maheshwari, Diana Hou, Yin-Ting Yeh, David T. Leighton Jr., Hsueh-Chia Chang</i>	
Waveguide Based Particle Trapping in Integrated Microfluidic Devices	489
<i>Allen H. J. Yang, David Erickson</i>	
Open Source Nanomanufacturing: Simple, Economic and Benign Processes for Nanocrystal Formation	496
<i>Vicki Colvin</i>	

Why Has Doping Been So Difficult in Colloidal Semiconductor Nanocrystals?	497
<i>David Norris</i>	
Synthesis and Monolayer Assembly of Janus Particles With Smooth and Rough Surfaces	498
<i>Ilona Kretzschmar</i>	
Fluorescent Quantum Dot-Polymer Nanocomposite Particles by Emulsification/solvent Evaporation	499
<i>Weisi Yin, Hongwei Liu, Matt Yates, H. Du, F. Jiang, L. Guo, Todd Krauss</i>	
Mechanisms in Peptide-Mediated Nanocrystal Nucleation, Growth, and Stabilization	500
<i>Scott K. Stanley, Matthew L. Becker, Eric K. Lin, Wen-li Wu</i>	
Biocompatible Surfactants for Dispersion-Based Pressurized Metered-Dose Inhalers: a Colloidal Probe Microscopy Investigation	501
<i>Libo Wu, Sandro R. P. Da Rocha</i>	
Effect of SDS On Methane Hydrate Nucleation	502
<i>Junshe Zhang, Sangyong Lee, Jae W. Lee</i>	
Hydrothermal Electrolysis of Organic Contaminants	503
<i>Asli Yuksel, Wahyu Diono, Mitsuru Sasaki, Motonobu Goto</i>	
Autothermal Non-Catalytic Reformation of Jet Fuel in a Supercritical Water Medium	510
<i>Jason W. Picou, H. Bryan Lanterman, Jonathan E. Wenzel, Sunggyu Lee</i>	
Kinetics of Binary Mixture Gas Hydrates Formation	518
<i>Sangyong Lee, Jae W. Lee, M. Ahsan Quasem</i>	
Design of Non-Fluorous, CO₂-Soluble Polymers, Hydrogen-Bonding Compounds and Dendrimers	519
<i>Deepak Tapriyal, Robert M. Erick, Yang Wang, Karl Johnson, Liu Jun, Mark . a McHugh, Jacob M. Crosthwaite, Mark C. Thies, Ik-Hyeon Paik, Andrew. D. Hamilton</i>	
H₃O⁺Cl⁻ Pair Association in Highly Compressible Aqueous Environments. Simulation Results, Modeling Conjectures, and Experiment	520
<i>Ariel A. Chialvo, J. Michael Simonson</i>	
Microphase Separation in Hydrogen-Bonding Block-Random Copolymers of Styrene and 4-Acetoxystyrene	521
<i>Jeffrey D. Quinn, Richard A. Register</i>	
Effect of Crosslinking on the Structure and Thermodynamics of Block Copolymers	525
<i>Enrique D. Gomez, Jeffrey Wilbur, Nitash P Balsara</i>	
Design of Random Copolymers with Tunable Monomer Sequence Distribution Using Discontinuous Molecular Dynamics	526
<i>Lawrence A. Strickland, Carol K. Hall</i>	
A Model for High Temperature Coil - Globule Transitions in Compressible Solvent	527
<i>David Simmons, Isaac Sanchez</i>	
A Model for Self-Assembly in Side Chain Liquid Crystalline Block Copolymers	528
<i>Manas R. Shah, Venkat Ganeshan</i>	
Thermal Control Over Domain Spacing in Supramolecular Polymers	529
<i>Edward H. Feng</i>	
A Study of Factors Affecting Enthalpies of Mixing of Polymers as Measured in Molecular Simulations	530
<i>David Rigby</i>	
Theory for the Miscibility Windows in Blends of Polypropylene and Ethylene-&alpha;Olefin Copolymers	531
<i>David T. Wu, Huimin Li, John G. Curro</i>	

Modeling and Analysis of Transport and Reaction Rates in Microfibrous Entrapped Catalysts/sorbents	532
<i>Ranjeeth R. Kalluri, Ravi Duggirala, Donald Cahela, Chris J. Roy, Bruce J. Tatarchuk</i>	
Analytic Models of the Infinite Porous Rotating Disk Electrode.....	533
<i>Roger T. Bonnecaze, Bomi Nam</i>	
Reduction of CO₂ Emissions Arising From In-Situ Combustion Processes.....	534
<i>Zhenshuo B. Liu, Kristian Jessen, Theodore Tsotsis</i>	
Transport Properties of Paper Structures From X Ray Microtomography	535
<i>Bandaru V. Ramarao, Shri Ramaswamy, Sharad Singh</i>	
Mathematical Modeling of Drug Release from Lidocaine Loaded Biodegradable Nanospheres without Film Resistance	536
<i>Ramana Susarla, Norman Loney</i>	
X-Ray Tomography for Analysis of Biological Scaffold Materials.....	544
<i>Mia Dvora, James E Henry, Karsten E Thompson, Allen H. Reed</i>	
Flow Instability Associated With Displacements Involving Wettability Alteration	545
<i>Ila Tripathi, Kishore K. Mohanty</i>	
Mixed Convection in Square Vented Enclosure Filled with a Porous Material Using the Multigrid Method.....	546
<i>Maximilian S. Mesquita, Marcelo J.S. De Lemos</i>	
Forisome: a Smart Plant Protein	554
<i>Steve Warmann, Amy Shen, William Pickard</i>	
Self-Assembled Biomimetic Multifunctional Coatings	555
<i>Peng Jiang, Nicholas Linn, Chih-Hung Sun, Bin Jiang</i>	
Biomineralization Using Self Assembled Peptide Architectures.....	556
<i>Lorraine F. Leon Gibbons, Raymond Tu</i>	
Polymer Vesicle Based Cellular Mimics	564
<i>James Silas, Jefferey Gaspard, Karym Kinnibrugh</i>	
Peel-Zone Model of Tape Peeling Based On the Gecko Adhesive System	565
<i>Noshir S. Pesika, Jacob N. Israelachvili</i>	
Covalent Immobilization of Photosystem I on a Gold Surface for Enhanced Photocurrent.....	566
<i>Christopher J. Faulkner, G. Kane Jennings, Xun Yan, David Cliffel</i>	
Selective Ester Cleavage in Phospholipids -- Towards the Development of Phosphate Functionalized Polymers	567
<i>Vijitha Mohan, Keisha B. Walters</i>	
A Study Exploring the Therapeutic Potential of Peptoid-Based Mimics of Lung Surfactant Proteins Sp-B and Sp-C.....	568
<i>Ann Czyzewski, Nathan J. Brown, Michelle T. Dohm, David M. Steinhorn, Annelise E. Barron</i>	
Utilizing X-Ray Scattering to Monitor the Competitive Adsorption of Lung Surfactant and Serum Proteins at the Air-Liquid Interface	569
<i>Patrick C. Stenger, Guohui Wu, Eva Y. Chi, Shelli L. Frey, Jaroslaw Majewski, Kristian Kjaer, Ka Yee C. Lee, Joesph A. Zasadzinski</i>	
Development of an Interfacial Rheological Model for Identification of Stable Tear Films	570
<i>Stefanie Y. Nishimura, Danielle L. Leiske, Howard A. Ketelson, Gerald G. Fuller</i>	
Compartmentalized and Multilayered DNA Loading Onto Lipid-Coated Microparticles	571
<i>Mark A. Borden, Katherine W. Ferrara</i>	
The Spatial and Temporal Membrane Morphology Evolution Induced by Sphingomyelinase Enzymatic Reaction	573
<i>Ling Chao, Alice P. Gast, T. Alan Hatton, Klavs F. Jensen</i>	

Cell Membrane Templates the Fibrillogenesis of Alzheimer's Disease Amyloid-Beta Protein	574
Eva Y. Chi, Canay Ege, Amy Winans, Jaroslaw Majewski, Kristian Kjaer, Ka Yee C. Lee	
Quantitative Control of Protein Surface Density On Supported Lipid Bilayers Using Nickel-Chelating Lipids	575
Jeffrey A. Nye, Jay T. Groves	
Polyelectrolyte Adsorption in Shear Flow with Hydrodynamic Interactions: Kinetic Theory and Brownian Dynamics Simulations	576
Nazish Hoda, Satish Kumar	
Kinetic Theory of a Confined Polymer Driven by an External Force and Pressure-Driven Flow	577
Jason E. Butler, Rahul Kekre, O. Berk Usta, Anthony J.C. Ladd	
Trapping Rate and Conformation of DNA at a Converging Stagnation Point	578
Jennifer Kreft, Yeng-Long Chen, Hsueh-Chia Chang	
Vortex Formation and Single Molecular Dynamics in a Contraction Microflow with Dilute and Concentrated DNA Solutions	579
Xin Hu, Orin L. Hemminger, Ly James Lee	
Brownian Dynamics Simulations of DNA Hairpin-Loop Kinetics	580
Martin Kenward, Kevin D. Dorfman	
DNA Relaxation Dynamics When Confined in a Nano/microfluidic Channel	581
Chih-Chen Hsieh, Anthony Balducci, Patrick S. Doyle	
Using Flow Fields to Stretch and Adhere DNA Molecules to Surfaces	582
Ronald G. Larson, Weixian Shi, Ji Hoon Kim	
Long-Chain DNA Dynamics in Array of Micro/nanostructures	583
Jingjiao Guan, Xin Hu, Ly James Lee	
Langevin Dynamics Simulations of Enzyme-Modulated DNA Translocation through a Nanopore	584
Ajay S. Panwar, Murugappan Muthukumar	
Simulation of Suspensions of Hydrodynamically Interacting Self-Propelled Particles	585
Patrick T. Underhill, Juan P. Hernandez-Ortiz, Michael D. Graham	
A Multiscale Model for the Constrained Vapor Bubble Heat Pipe	586
Arya Chatterjee, Joel, L. Plawsky, Peter C. Wayner Jr.	
Transport Limitations in Thermal Diffusion	587
Nicholas Cox, Pawel Drapala, Bruce A. Finlayson	
Transport and Reaction in Multilayered Spheres	598
Enrique Munoz, Michael S. Wong	
Mathematical Modeling of Oxygen Distribution in Cornea with Contact Lens	599
David Keyes	
Modeling Charged Aerosol Transport in Bifurcated Tubes	600
Fong Yew Leong, Chi-Hwa Wang, Kenneth A. Smith	
Modeling and Analysis of Non-Newtonian Fluid Flow in Flexible Structures	604
Nilmini S. Wijeratne, Karlene Hoo	
A Modeling Approach to Thermal Cracking in an Annular Reactor-Quencher	606
Rajeev K. Garg, Vinod K Srivastava	
Chemical Guidelines for Safety in High-Rise Buildings Based on Chemical Process Principles	612
Scott S. Watkin, Adam Mihalik, Stuart W. Churchill, James Bond Godshalk	
On Modification of Mass Transfer Theories Using Finite Speed Diffusion	619
Kal Renganathan Sharma	

A Generalized Constitutive Model for Dilute and Semi-Dilute Flexible Polymer Solutions.....	626
--	-----

Kostas D. Housiadas, Antony N. Beris

A Computationally Efficient Reduced-Order Model for Macromolecular Solutions	631
---	-----

Vidya Venkataramani, R. Sureshkumar, Bamin Khomami

Experimental Determination of the Relationship Between Fiber Orientation Distribution and Stress Growth in Start-Up of Flow for Non-Newtonian Fluids Containing Short Glass Fibers	633
---	-----

Aaron P. R. Eberle, Donald G. Baird, Peter Wapperom

Modeling of Crystallizing Polymer Melts in Nonisothermal Electrospinning	634
---	-----

Eduard Zhmayev, Yong L. Joo

Viscoelastic Fluid Flow in Three-Dimensional Square-Square Contractions.....	635
---	-----

Patrícia C. Sousa, Paulo M. Coelho, Mónica S. N. Oliveira, Manuel A. Alves

Purely Elastic Flow Instabilities in a Microfluidic Cross-Slot Geometry.....	643
---	-----

Robert J. Poole, Manuel A. Alves, Alexandre P. Afonso, Fernando T. Pinho, Paulo J. Oliveira

Volume 2

The Equilibrium Conformational Dynamics of λ -DNA in the Abel Trap	652
--	-----

Ajey K. Dambal, Eric S. G. Shaqfeh

DNA as Model Polymer for Viscoelastic Flow Analysis.....	653
---	-----

Orin L. Hemminger, Xin Hu, Shengnian Wang, Wei-Ching Liao, L. James Lee

Shear Banding in Entangled DNA Solutions.....	654
--	-----

Y. Thomas Hu, Pouyan E. Boukany, Alex Lips, Shi-Qing Wang

Direct Measurements of the Effects of Salt and Surfactant On Interaction Forces Between Colloidal Particles at the Oil-Water Interface	665
---	-----

Eric M. Furst, Bum Jun Park, John P. Pantina, Jan Vermant, Sven Reynaert

Hot-Injection Synthesis of Uniform Cdse Tetrapods Using Cationic Surfactant Ligands	666
--	-----

Subashini Asokan, Gerard O'Sullivan, Zhe Loy, Karl M. Krueger, Vicki Colvin, Michael Wong

Synthesis and Stabilization of a Viscous Solvent Colloidal System With Well-Characterized Interactions for Direct Visualization of Suspension Structure, Dynamics and Rheology	667
---	-----

Michael Kogan, Clare Dibble, Reginald E. Rogers Jr., Michael J. Solomon

Correlations Between Structural and Viscoelastic Properties of Confined Colloidal Suspensions Near a Jamming Transition	668
--	-----

Yingxi Elaine Zhu, Prasad Sarangapani

Synthesis of Hydrogel Particles in Microfluidic Device for Cell Encapsulation	669
--	-----

Peng He, Srinivasa Pullela, Manuel Marquez, Zhengdong Cheng

Polarization of Electrodes by Doped Nonpolar Media	670
---	-----

James D. Hoggard, Dennis C. Prieve, Paul Sides

Chitosan-Based Anti-Malarial Oral Drug Delivery Systems Prepared Using a Green Supercritical Impregnation Process	671
--	-----

Mara E. M. Braga, Marta S. Ribeiro, Maria H. Gil, Hélio S. R. Costa Silva, Elizabeth I. Ferreira, Herminio C. De Sousa

Subcritical Water as a Novel Fluid for Pharmaceutical Processing and Drug Delivery Formulation	673
---	-----

Adam G. Carr, Raffaella Mammucari, Neil R. Foster

Supercritical Carbon Dioxide and Sterilization of Medical-Grade Polymers	674
---	-----

Aidaris Jimenez, Michael A. Matthews

Spray and Particle Characteristics of Sas Precipitation of Poly(Methyl Methacrylate-Co-Vinyl Pyrrolidone)/ethanol Solutions.....	675
<i>Daniel L. Obrzut, Brian P. Sullivan, Andrew W. Monfort, Christopher B. Roberts, Steve R. Duke</i>	
Enantioseparation of Flurbiprofen by Supercritical Fluid Chromatography	676
<i>Wenda Chen, Arvind Rajendran</i>	
Supercritical Fluid Processing and Precipitation of Anti-Cancer Drugs With Lipid Biodegradable Polymers.....	677
<i>Maria T. Acevedo, David Suleiman</i>	
Acceleration Statistics of Inertial Particles in Turbulence	678
<i>Sathyaranayana Ayyalasomayajula, Zellman Warhaft, Lance R. Collins</i>	
Near-Transition Dynamics of Viscoelastic Turbulence and Drag Reduction in Plane Poiseuille Flow.....	679
<i>Li Xi, Wei Li, Michael D. Graham</i>	
Dynamic K-L Analysis of Turbulent Channel Flows.....	680
<i>Gaurab Samanta, Antony N. Beris, Robert A. Handler, Kostas D. Housiadas</i>	
Flow Structure Effects on Turbulent Transport for Channel and Plane Couette Flow	684
<i>Phuong M. Le, Dimitrios V. Papavassiliou</i>	
Modeling Mechanisms of Contaminant Transport and Accumulation in Water Systems	685
<i>Stephen Treado, Nicos Martys, Mark Kedzierski, Stephanie Watson, Kenneth Cole</i>	
Realizable Reynolds Stress Closures for Turbulent Flows	696
<i>Karuna S. Koppula, Andre Benard, Charles A. Petty</i>	
Large Eddy Simulations of a Confined Rectangular Turbulent Jet	697
<i>Anup G. Gokarn, Bo Kong, Francine Battaglia, Michael G. Olsen, Rodney O. Fox, James C. Hill</i>	
Adaptive Large Eddy Simulation of Subcritical Flow Past and Heat Transfer From Solid and Porous Spheres	698
<i>Anthony G. Dixon, M. Ertan Taskin, Hugh Stitt</i>	
Characteristic Length and Time Scales on Turbulent Mass Transfer across a Free Surface in Fully Developed Turbulence.....	699
<i>Ryuichi Nagaosa</i>	
Nonlinear Correlation of Electrophoretic Mobility for Rigorous Estimation of Protein Charges with Highly-Charged Condition	701
<i>Myung-Suk Chun</i>	
Engineering Photoresponsive "Smart" Materials Using Pamam Dendrimer Chemistry.....	702
<i>Joshua J. Galgano, David G. Rethwisch</i>	
Understanding the Effects of Trehalose On Dehydrated Domain-Exhibiting Supported Bilayers: an Atomic Force Microscopy and Fluorescent Microscopy Study	703
<i>Sandra V. Bennun, Roland Faller, Marjorie Longo</i>	
Self-Assembly in Anhydrous Sugar Glasses.....	704
<i>Hiteshkumar Dave, Dan Wu, Chia-Chi Ho, Carlos Co</i>	
A Confocal Microscopy Enabled Langmuir Trough for Visualizing Competitive Adsorption at the Air-Liquid Interface	705
<i>Ian C. Shieh, Patrick C. Stenger, Jason C. McHann, Joseph A. Zasadzinski</i>	
Surface Tension for Complex Fluids From the General Corresponding-States Theory	706
<i>Hong Wei Xiang</i>	

Desorption of Phenanthrene from River Sediment to Water Under Turbulent Conditions	707
<i>Zhenyao Shen, Junfeng Niu, Yumin Chen, Guoxi Lian, Jingyi Wang</i>	
New Approaches for Aminated Surfaces	708
<i>A. Anderson, W. Robert Ashurst</i>	
Rheological Measurements and Modeling of Carbon-Filled Liquid Crystal Polymer Composites.....	709
<i>Jason M. Keith, Julia A. King, Faith A. Morrison, Troy M. Tambling, Emily Kunen, Ryan C. Smith, Andy J. Cole, Peter W. Grant</i>	
Flow Transitions in Miscible Fluids of High Viscosity Contrast in a Microfluidic Expansion	710
<i>Rebecca Dylla-Spears, Joo Sung Lee, Joanne dela Cruz, Kevin Yuan, Susan J. Muller</i>	
Droplet Deformation and Motion in a Rectangular Microfluidic Channel.....	711
<i>Yechun Wang, Panagiotis Dimitrakopoulos</i>	
Pump-Probe Shadowgraphic Imaging and 2D-Flash Simulation of Femtosecond Laser Ablation of the Cmsx-4 Ni-Based Superalloy	712
<i>Mousumi Das, Joel P. McDonald, Katsuyo S. Thornton, Steven M. Yalisove, Teresa M. Pollock</i>	
Influence of Brownian Motion On Blood Platelet Flow Behavior and Adhesive Dynamics Near a Planar Wall.....	713
<i>Nipa A. Mody, Michael R. King</i>	
Dynamic Adhesion of Micron-Scale Particles in Low Reynolds Number Flow Over Nano-Patterned Surfaces	715
<i>Ranojoy D. Duffadar, Jeffrey M. Davis, Maria M. Santore</i>	
Influence of Evaporation On the Stability of a Thin Liquid Film Flowing Over a Locally-Heated Surface	716
<i>Naveen Tiwari, Jeffrey M. Davis</i>	
Microrheological Studies of Flexible Polyelectrolytes in Multivalent Salt Solution	717
<i>Jeng-Shiung Jan, Victor Breedveld</i>	
Studies on Mass Transfer with Coaxially Placed Entry Region Coils as Turbulence Promoter in Circular Conduits	718
<i>Murali mohan Vaka, Rajendra Prasad Padamata, SarveswaraRao S</i>	
Static Mixers As Heat Exchangers in Supercritical Fluid Extraction	735
<i>P. C. Simões, B. Afonso, João B. Fernandes, J. P. B. Mota</i>	
LBM Flow Simulation in the Porous Media Using Representative Elementary Volume Method	736
<i>Pil Seung Chung, Parag Jain, Hyung Min Kim, Lorenz T. Biegler, Myung S. Jhon</i>	
Puddle Formation in Large Drops Moving Through High-Viscosity Fluids: Effects of Miscibility On Hadamard-Rybaczinski Flow	740
<i>Manohar Gottapu, Pedro E. Arce, Ileana C. Carpen</i>	
Use of an Interfacial Tensiometer to Measure Response of a Model Tear Film Under Extensional Strain	741
<i>Danielle L. Leiske, Stefanie Y. Nishimura, Gerald G. Fuller</i>	
Thermal Effects On the Thin Lubricant Film in Hdd	742
<i>Dehee Kim, Myung S. Jhon</i>	
Elastic Effects on Bubbles Rising in a Square Capillary	743
<i>Scott Luczko, Nivedita R. Gupta</i>	
Phase Inversion Temperature (Pit) Method Utilized Preparation of O/w Nano-Emulsion by Microreactor System	744
<i>Jun Kubota, Aiko Kato, Tsutomu Ono</i>	

Molecular Modeling of High-Energy Materials.....	745
<i>Nandini Sokkalingam, MaryBeth Helen Ketko, Jeffrey J. Potoff</i>	
Effects of Attractive Forces On the Diffusivity Based On the Speadmd Model	746
<i>J. Richard Elliott, Zeynep N. Gerek, Neil H. Gray</i>	
Transferable Step Potentials for Nitrates, Phosphates, and Acids	748
<i>J. Richard Elliott, Amir Vahid</i>	
Lennard-Jones Repulsive Potential and Phase Equilibrium of Organic Molecules	750
<i>Damien Bernard-Brunel, Jeffrey Potoff</i>	
Evaluation of Aqueous Partial Molar Volumes From Molecular Simulations	751
<i>Ashish V. Sangwai, Hank Ashbaugh</i>	
Molecular Simulation of First Order Perturbation Theory for the Long Range Triangular-Well Potential.....	752
<i>Felix F. Betancourt-Cárdenas, Luis A. Galicia-Luna, Stanley Sandler</i>	
Perturbation Theory for the Long Range Square Well Potential.....	753
<i>Felix F. Betancourt-Cárdenas, Luis A. Galicia-Luna, Stanley Sandler</i>	
Development of All-Atom Force Field for Perfluorosulfonic Acid Ionomer Using Ab Initio Calculations	754
<i>Xiaobo Ji, Liuming Yan, Wencong Lu</i>	
Consideration of the Entropy in the Prediction of Stable Crystalline Polymorphs	764
<i>Tai Boon Tan, Nancy Cribbin, Andrew Schultz, David A. Kofke</i>	
A Computational Study of the Phase Diagram of Metals.....	765
<i>Caroline Desgranges, Jerome Delhommele</i>	
V.L.E. of Ethanol and Ethanediol From Molecular Dynamics Simulations and Voronoi Tessellations.....	766
<i>Jared T. Fern, David J. Keffer, William V. Steele</i>	
Prediction of Temperature-Dependent Properties by Correlations Based on Similarity of Molecular Structures.....	770
<i>Haim Shore, Diamanta Benson-Karhi, Neima Brauner, Mordechai Shacham</i>	
Multiflash: A Cape Open 1.1 Thermodynamics Package With Multiphase Capabilities	778
<i>Beryl Edmonds, Tony Moorwood, Richard Szczepanski, Xiaohong Zhang</i>	
Improved Property Prediction through Refinement of Contribution Factors.....	779
<i>Tariq A. Khan, David Bluck</i>	
The Development of a Group Contribution Approach with a Heteronuclear Version of the Statistical Associating Fluid Theory Saft-Gamma	806
<i>Alexandros Lympériadis, Claire S. Adjiman, George Jackson, Amparo Galindo</i>	
Developing a Group Contribution Based Saft-Vr Equation of State.....	808
<i>Yun Peng, Kimberly Goff, M. Carolina Dos Ramos, Clare McCabe</i>	
Utilization of Quantum Mechanically Determined Molecular Properties in Predictive Equations of State	809
<i>Kai Leonhard, Mahendra Sing, Van Nhu Nguyen, Klaus Lucas</i>	
Prediction of Asphaltene Precipitation from Crude Oil Using Tuned Eos by Empirical Model.....	816
<i>Bader H. Al-Busairi, Sami H. Ali, Mohamed A. Fahim</i>	
Equation of State Correlation of Vapor-Liquid-Liquid Equilibria.....	817
<i>Sabyasachi Sen</i>	
Thermodynamic Model for Solvent Deasphalting of Vacuum Residue.....	820
<i>Martha J. Parra, Wilson A. Cañas-Marin</i>	

An Eyring-Theory-Based Model to Predict Crude Oil Viscosity at Reservoir Conditions	830
<i>Ricardo Macías-Salinas, Cecilia Durán-Valencia, Simón López-Ramírez, Christian Bouchot</i>	
Extension of a Clausius - Clapeyron Model for Predicting the Dissociation Heat of Gas Hydrates	851
<i>Amir H. Mohammadi, Waheed Afzal, Dominique Richon</i>	
A Model for the Excess Gibbs Energy for Binary Solvent+Polymer Systems	854
<i>Mariana Ramos-Estrada, Gustavo A. Iglesias-Silva, Ana De Felipe-Vargas, Kenneth R. Hall</i>	
A Simple Functional Representation, Extrapolation, and Internal Consistency of Second Virial Coefficients	858
<i>Mariana Ramos-Estrada, Gustavo A. Iglesias-Silva, Ruy Téllez-Morales, Kenneth R. Hall</i>	
Configurational Probabilities for Symmetric Dimers on a Lattice: an Analytical Approximation with Exact Limits at Low and High Densities	862
<i>Yiming Chen, Gregory Aranovich, Marc Donohue</i>	
Useful Remarks to Reduce Experimental Information Required to Determine Water Content of Gas in Equilibrium with Gas Hydrate, Ice or Liquid Water	892
<i>Amir H. Mohammadi, Waheed Afzal, Dominique Richon</i>	
Metastable Cluster Intermediates in the Condensation of Charged Macromolecule Solutions	897
<i>Shelby B. Hutchens, Zhen-Gang Wang</i>	
Vapor-Liquid Equilibria for Binary Systems Consisting of Hexafluoroethane (R116) With Ethane and Propane	898
<i>D. Ramjugernath, Christophe Coquelet, Alain Valtz, Dominique Richon</i>	
Modeling and Experimentation of Polyol+Blowing Agent Systems	899
<i>Suresh Yelisetty, Donald P. Visco Jr.</i>	
Measurement and Modeling of High Pressure Vapour-Liquid Equilibrium Data for Binary Systems Consisting of Hfp and Hfpo with Toluene, CO₂, R116 and R123	900
<i>Shalendra Clinton Subramoney, Wayne Michael Nelson, P Naidoo, D Ramjugernath, Christophe Coquelet, Dominique Richon</i>	
Densities, Excess Molar Volumes, and Derived Thermodynamic Properties of the System O-Cresol (1) + M-Cresol (2) at Temperatures Between 313 to 363 K and Pressures Up to 25 Mpa	901
<i>Abel Zúñiga-Moreno, Luis A. Galicia-Luna, Sergio Alvarez-Badillo</i>	
Studies On Mass Transfer With a Methane Hydrate for Methane Gas Production	902
<i>Keiichi Ogasawara, Akihiro Yamasaki, Fumio Kiyono</i>	
Vapor–Liquid Equilibria for the CO₂ + Heptane Mixture at 314.86 K, 373.15 K, 418.11 K and Compressed Liquid Densities From 313 to 363 K Up to 25 Mpa	903
<i>Mariana Medina-Bermúdez, Luis A. Saavedra-Molina, Luis A. Galicia-Luna</i>	
Safety Evaluation for Lithium-Ion Battery: Simulation and Measurement of Thermodynamic Properties of Electrolyte Solution	904
<i>Ryo Kato, Jouichiro Matsunaga, Hiroaki Nakata, Akio Tsuboi</i>	
Compressed Liquid Densities and Excess Volumes of Water + 1-Pentanol, 2-Pentanol and Water + 1-Pentanol + 2-Pentanol Mixtures at Five Compositions Via a Vibrating Tube Densimeter Up to 363 K and 25 Mpa	905
<i>Victor H. Soto-Ruiz, Luis A. Galicia-Luna, Sergio Alvarez-Badillo, Edson Alvarez-Badillo</i>	
Hydrogen Storage Property of New Li-Al-N-H System	906
<i>Jun Lu, Zhigang Fang, Hong Yong Sohn</i>	
Hydrogen Storage Properties of the Li-Mg-N System	907
<i>Brady G. Butler, Zhigang Zak Fang</i>	
Experimental and Predicted Dynamic Viscosities of Mixed Ester Lubricants	908
<i>Luis Lugo, Xavier Canet, María J. P. Comuñas, Alfonso S. Pensado, Josefa Fernández</i>	

Measurements of Liquid Densities for the Binary System Carbon Dioxide 1 + M-Cresol 2 at Temperatures between 313 to 363 K and Pressures up to 25 Mpa	916
<i>Luis Camacho-Camacho, Abel Zúñiga-Moreno, Luis A. Galicia-Luna</i>	
Automated Density and Speed of Sound Measurements of Aviation Jet Fuels Over a Wide Range of Temperature and Pressure	917
<i>Stephanie L. Outcalt, Malte Freund, Hans-Dieter Seelig, Arno Laesecke</i>	
Colloid Transport and Retention in Porous Media in the Presence of Energy Barrier	918
<i>Marcin M. Niewiadomski, Huilian Ma, William P. Johnson</i>	
Coupling Between Diffusion and Orientation Relaxation in a Cromolyn Aqueous Solution.....	919
<i>Kirt Linegar, Adedayo Adeniran, Andrei F. Kostko, Mikhail A. Anisimov</i>	
Buoyant Plumes and Hydrodynamic Mixing Caused by Solute Gradients From Metabolizing Bacteria	920
<i>Michael R. Benoit, Robert B. Brown, Emily S. Nelson, Paul W. Todd, David M. Klaus</i>	
Measurement and Correlation of Solubilities of Salicylic Acid in Water and Cosolvent Systems Using HPLC	921
<i>Katsumi Tochigi, Hiroyuki Matsuda, Kenta Kaburagi, Kiyofumi Kurihara, Kazuo Tomono</i>	
Dynamics of Suspension of Anisometric Particles Via Stokesian Dynamics Simulation.....	928
<i>Anugrah Singh, Vivek Inder Sharma</i>	
Dispersion of Aggregates in Shear Flow.....	937
<i>Christian Binder, Wolfgang Peukert</i>	
Flow of Concentrated Suspensions in Bifurcations Measured by MRI.....	938
<i>Chunguang Xi, Nina C. Shapley</i>	
Detailed Dynamics of Suspended Particles in a Pressure-Driven Flow Through a Bio-Conduit.....	939
<i>Sukalyan Bhattacharya, Columbia Mishra</i>	
Pairing and Collective Dynamics of Particles and Deformable Drops in Parallel-Wall Channels.....	940
<i>Pieter Jan Antoon Janssen, Matthew D. Baron, Jerzy Blawdziewicz, Michael Loewenberg, Eligiusz Wajnryb</i>	
Dynamics of Topological Defects around Drops and Bubbles Rising in a Nematic Liquid Crystal	941
<i>Siddharth Khullar, Chunfeng Zhou, James J. Feng</i>	
Assessment of the Break-Up and Coalescence Kernels for the Prediction of Two Phase Bubbly Flows in Vertical Pipe	942
<i>Nandkishor K. Nere, Mahesh T. Dhotre</i>	
Ordered Structure of Interacting Bubbles in a Couette Device With Taylor Vortices	944
<i>Avinoam Nir, Leonid Byk, Roman Spivak, Olga M. Lavrenteva</i>	
Pressure Relief of Foaming Three Phase Systems	945
<i>Marco Poli, Jörg Steinbach</i>	
Designing Super-Oleophobic Surfaces With Fluoroposs.....	946
<i>Anish Tuteja, Wonjae Choi, Joseph M. Mabry, Gareth H. McKinley, Robert E. Cohen</i>	
Understanding Superspreading: an Examination of Aqueous Bulk and Interfacial Sturcture of Nonionic Surfactant Mixtures.....	947
<i>Makonnen M. Payne, Alexander Couzis, Charles Maldarelli</i>	
Dynamics of Thin Liquid Films on Surfaces with a Time-Periodic Wettability.....	948
<i>Balram Suman, Satish Kumar</i>	

"Zipping Wetting": Filling Dynamics During the Cassie Baxter – Wenzel State Transition	949
Alisia M. Peters, Christophe Pirat, Mauro Sbragaglia, Bram M. Borkent, Detlef Lohse, Rob G.H. Lammertink, Matthias Wessling	
A Monte Carlo Simulation Study On the Wetting Behavior of Water On Graphite Surface	951
Xiongce Zhao	
Complex DNA Stain and Gel Patterns From an Evaporating Drop	952
Lu Zhang, Siddharth Maheshwari, Hsueh-Chia Chang, Yingxi Elaine Zhu	
Chemical Force Microscopy and Ab Initio Calculations: a Molecular Approach for the Design of Hfa-Philes for Pressurized Metered-Dose Inhalers	954
Libo Wu, Robson P. S. Pegin, Sandro R. P. Da Rocha	
Lattice-Boltzmann Simulations of Polymer Solutions	955
Tony Ladd, Berk Usta, Jason Butler	
An Improved Multi-Component Lattice Boltzmann Method for Simulation of Gas-Liquid Flows	956
Zhao Yu, Xiaowen Shan, L. S. Fan	
Hydrodynamic Interactions in Dissipative Particle Dynamics	965
Zhigang Li, German Drazer	
Designing Simulation Software and Algorithms for Adaptive, Multiscale Simulations	966
Naveen K. Punati, James C. Sutherland	
Numerical Simulation on the Modes of Droplet Formation in Flow Focusing Microfluidics Device	968
Peng He, Haejune Kim, Dawei Luo, Zhengdong Cheng	
Self-Assembly of Droplets in a Nematic Liquid Crystal	969
Chunfeng Zhou, Pengtao Yue, James J. Feng	
A Fully-Implicit Finite Element Formulation for Plasma/transport-Reaction and Resistive Magneto-Hydrodynamic Systems	970
Roger P. Pawlowski	
Theoretical Modeling of Singlet-Oxygen Generators for Chemical Oxygen Iodine Lasers	971
Lawrence C. Musson, Roger P. Pawlowski, Judith C. Hill, Andrew Salinger	
Accurate Indirect Boundary Integral Formulation for the Simulation of Strong Shear Thinning Fluid Flow	973
Mauricio Giraldo, Henry Power, Whady F. Flórez	
Multi-Length Interfacial Dynamics in Stokes Flow Via a Three-Dimensional Fully-Implicit Interfacial Spectral Boundary Element Algorithm	974
Panagiotis Dimitrakopoulos	
Kinetic Limit of Metastability in Crystal Nucleation from Solution	975
Venkateswarlu Bhamidi, Sameer Talreja, Guangwen He, Paul J. A. Kenis, Charles F. Zukoski	
Molecular Dynamic Simulations of Polymer Crystallization at the Early Stage	976
Min-Kang Hsieh, Shiang-Tai Lin	
Modeling Polymorphic Embryos and Their Relevance to Preferential Crystallization: Extending Ecsn to Polymorphic Systems	986
Praveen Ram Menta Prasanna, Gregory D. Botsaris	
Controlling Polymorphism During the Crystallization of an Atomic Fluid	994
Jerome P. Delhommelle, Caroline Desgranges	

Stearic Acid Polymorph Development and Nucleation Using Molecular Dynamic Simulations.....	995
<i>Andrea Robben Browning, Michael F. Doherty, Glenn H. Fredrickson</i>	
Condensation of Immiscible Vapors on Single Microdroplets.....	997
<i>Asit Ray, J. L. Huckaby, Y Raja</i>	
Applying a Thermodynamic Model to Predict the Size of Surface Indentations That Affect Bubble Nucleation.....	998
<i>Brian Novak, Edward J. Maginn, Mark J. McCready</i>	
Activated Instabilities in Homogeneous Bubble and Droplet Nucleation.....	999
<i>Mark J. Uline, David S. Corti</i>	
Homogeneous Nucleation in Binary Polymer Blends.....	1001
<i>Edward H. Feng, Nitash Balsara</i>	
Application of Light Scattering Techniques for Determining Activity Coefficients From Multicomponent Droplet Evaporation.....	1002
<i>Asit Ray, HaoHua Tu</i>	
Molecular Interactions in Nonpolar+Polar Binary Mixtures: Measurements of N-Hexadecane + Butyl Benzoate	1003
<i>Arno Laesecke, Malte Freund, Eric Morrison</i>	
Solubility of Hydrocarbons in Liquid Oxygen.....	1004
<i>Deborah Houssin-Agbomson, Christophe Coquelet, Dominique Richon, Fabrice Delcorso, Philippe Arpentinier</i>	
Solubilities and Compressed Liquid Densities of Palmitic Acid in Supercritical Carbon Dioxide.....	1012
<i>Lars Brandt, Octavio Elizalde-Solis, Luis A. Galicia-Luna, Jürgen Gmehling</i>	
Solubilities of B-Carotene in Supercritical Carbon Dioxide Using an Online Static-Analytic Apparatus	1018
<i>Octavio Elizalde-Solis, Luis A. Galicia-Luna</i>	
High Pressure Phase Behaviour of Binary Systems of Carbon Dioxide, Propane and Butane With Hyperbranched Polymers	1019
<i>Theodoor W. De Loos, Eugene Straver, Vanessa Munoz, Rosa Fernandez</i>	
Phase Equilibrium Data of Mixed Carbon Dioxide and Tetrahydrofuran Clathrate Hydrate in Aqueous Electrolyte Solutions	1020
<i>Khalik M. Sabil, Cor J. Peters</i>	
Air – Water Partitioning of Volatile Organic Compounds and Greenhouse Gases in the Presence of Salts.....	1022
<i>James B. Falabella, Xin-Sheng Chai, Amyn S. Teja</i>	
On the Apparent Breakdown of Equipartition in Molecular Dynamics Ensembles Applied to Nanoscale Systems.....	1023
<i>Mark J. Uline, Daniel W. Siderius, David S. Corti</i>	
Statistical Thermodynamics of Small Systems	1025
<i>Tahir Cagin</i>	
Towards a Quantitative Theory of Ultra-Small Liquid Droplets and Vapor-Liquid Nucleation	1026
<i>Zhidong Li, Jianzhong Wu</i>	
Effect of Surface Polarity On the Contact Angle and Hydration Properties of Water	1027
<i>Nicolas Giovambattista, Pablo G. Debenedetti, Peter J. Rossky</i>	
Evaluation of Chemical Potential of Nonmagnetic Species in Magnetic Fluids.....	1028
<i>Saurabh Tejwani, Kenneth A. Smith, T. Alan Hatton</i>	
Non-Van-Der-Waals Treatment of Hydrophobic Solubilities	1029
<i>Dilip Asthagiri, Hank Ashbaugh, Michael E. Paulaitis, Lawrence R. Pratt</i>	

Solvation and Solubility of Ions in Nanopore	1030
<i>Ateeque Malani, K. G. Ayappa, Sohail Murad</i>	
Using Excess Entropy to Predict How Confinement Modifies the Single-Particle Dynamics of Pure Fluids and Mixtures.....	1031
<i>Jeetain Mittal, Jeffrey R. Errington, Vincent K. Shen, Thomas M. Truskett</i>	
Role of Surface Structure On Behavior of an Evaporating Meniscus	1032
<i>Manas Ojha, Joel L. Plawsky, Peter C. Wayner Jr.</i>	
Simulations of the Conductive Growth of a Vapor Bubble on a Heating Surface: Exploring the Mechanism of Pool Nucleate Boiling.....	1033
<i>Jinyong Bao, David Rumschitzki, Lin Huang, Thomas I. Nonn</i>	
Effects of Fluid Density Fluctuations on the Solute Transport across an Interface between Two Immiscible Fluids	1035
<i>Ashish Gupta, Anuj Chauhan, Dmitry I. Kopelevich</i>	
Effects of the Electrical Double-Layer Formation On Sorption and Transport of Ions Inside Nanopores.....	1036
<i>Chia-Hung Hou, Sotira Yiakoumi, Chengdu Liang, Sheng Dai, Costas Tsouris</i>	
Dynamics of Water and Adsorbed Ions at Oxide Surfaces: Simulation and Experimental Study.....	1037
<i>Lukas Vlcek, Eugene Mamontov, David J. Wesolowski, Peter T. Cummings</i>	
Theoretical and Experimental Analysis of Charge Transport and Associated Surface Charge Densities in Thin-Film Modified Electrodes.....	1038
<i>Chaitanya Gupta, Mark A. Shannon, Paul J. A. Kenis</i>	
Studies on Ionic Mass Transfer with Orifice-Disc Turbulence Promoter.....	1039
<i>Sarveswara Rao Sangita, Sujatha Vanapalli, Rajendra Prasad Padamata, Asha Immanuel Raju Chaduvula</i>	
Cavitation between a Moving Sphere and a Plane in near Contact Hydrodynamic Flow	1041
<i>Cynthia Heath, Shihai Feng, Alan Graham, Patrick Reardon, Joseph Day, Marc Ingber</i>	
Shear-Thinning Effect On Nonlinear Stability of an Annular Film Covered With Insoluble Surfactant.....	1042
<i>Zhengjun Xue, Nirupama Vaidya, Carlos M. Corvalan, Paul E. Sojka</i>	
Surfactant Effects on a Viscous Drop Injected Into a Viscous Medium in the Diffusion-Controlled Limit.....	1043
<i>Fang Jin, Kathleen J. Stebe</i>	
Transitional Properties of Surfaces and Films From Viscous Liquids to Elastic Solids	1044
<i>Hongbo Zeng, Jacob N. Israelachvili, Matthew Tirrell, L. Gary Leal</i>	
Experimental Studies On Lateral Expansion of a Biological Polymer Disk.....	1045
<i>Leaelaf M. Hailemariam, Amy Penner, Martin R. Okos, Osvaldo H. Campanella</i>	
A Study of Nano/microparticle Separation in Field-Flow Fractionation.....	1046
<i>Frederick R. Phelan Jr., Barry J. Bauer</i>	
Experimental Observations of Fluid Invasion in Model Porous Networks	1047
<i>Paul R. Tortora, Shelley L. Anna, Martin Ferer, Grant Bromhal, Duane H. Smith</i>	
Development of a Realistic 3D Model of Silica Monoliths for Cfd Simulations.....	1048
<i>Vivek Vasudevan, Kai-Chee Loh</i>	
Computational Fluid Dynamics Simulations of Gas Flow Through Microfibrous Materials: Analysis of Dilution of Packed Beds.....	1050
<i>Ravi Duggirala, Chris J. Roy, Ranjeeth Kalluri, Hongyun Yang, Donald Cahela, Tatarchuk Bruce</i>	
Alkanethiol Self-Assembled Monolayers On Metal Nanoparticles: a Molecular Dynamics Simulation Study.....	1051
<i>Pradip K. Ghosh, Sharon C. Glotzer</i>	

Self-Assembly of Peptides On Montmorillonite Nanoparticles	1052
<i>Hendrik Heinz, Pratyush Dayal, Lawrence F. Drummy, Rajesh R. Naik, B. L. Farmer</i>	
Coarse-Graining a Realistic Molecular Model of Linear-Dendritic Block Copolymers for the Simulation of Self-Assembly	1053
<i>Nicholas W. Suek, Gaurav Pranami, Monica H. Lamm</i>	
Modeling Convective Assembly During Colloidal Crystal Growth	1054
<i>David Gasperino, Linli Meng, David J. Norris, Jeffrey J. Derby</i>	
Molecular Structure and Interactions of Cholesterol Superlattices and Random Domains in an Unsaturated Phosphatidylcholine Bilayer Membrane	1055
<i>Mark W. Vaughn, Qing Zhu, Kelvin Cheng</i>	
Molecular Dynamics of Reverse Micelles: Simulation Time and Pre-Built Structures Considerations in the Modeling of the Aot-Water-Isooctane System	1056
<i>Victor R. Vasquez, Adam Gardner, Olivia Graeve</i>	
Monte Carlo Simulations of Binary Amphiphile Mixtures	1057
<i>Jonathan R. Davis, Athanassios Z. Panagiotopoulos</i>	
Fluorocarbon-Based Microemulsion Gels With Triblock Copolymers	1058
<i>Xiaoming Pan, Surita R. Bhatia</i>	
Sol-To-Gel Transition in Clay/nanoparticle Suspensions	1059
<i>John Y. Walz, Jason Baird</i>	
Mixed Solvent Effects on Polysaccharide Conformation	1060
<i>Eleftheria Antoniou, Marina Tsianou, Paschalis Alexandridis</i>	
Changes in Zeta Potential of Electrode Surfaces by Electric Current	1067
<i>James D. Hoggard, Paul Sides, Dennis C. Prieve</i>	
Probing Dynamic Interaction Forces in Soft Matter Systems Using Atomic Force Microscopy	1068
<i>Grant Webber, Rogerio Manica, Steven Carnie, G. W. Stevens, Franz Grieser, D.Y.C. Chan, Raymond R. Dagastine</i>	
Disjoining Pressure for Non-Uniform Thin Films	1069
<i>Bing Dai, Leal Gary, Antonio Redondo, Alan Graham</i>	
Charging of the Mica/water Interface	1070
<i>Paul Sides, Danish Faruqui, Derek Equae-Obaee</i>	
Quantitative Measurements of Colloidal Sedimentation From Microscopic Imaging and Closure-Based Density Functional Theory	1071
<i>Mingqing Lu, Richard E. Beckham, Michael A. Bevan, David M. Ford</i>	
Adsorption of Charged Dendrimers: a Brownian Dynamics Study	1072
<i>Balram Suman, Satish Kumar</i>	
Interfacial Behavior of Aqueous Polyelectrolyte Solutions in Contact With Graphene Surfaces in the Presence of Multivalent Cations	1073
<i>Ariel A. Chialvo, J. Michael Simonson</i>	
Molecular Dynamics Simulations of Surfactant and Nanoparticle Self-Assembly	1075
<i>Mingxiang Luo, Lenore L. Dai</i>	
Effect of Size and Polarizability On Ion Partitioning at the Aqueous Liquid-Vapor Interface	1076
<i>J. Ilja Siepmann, Becky L. Eggimann</i>	
Surface-Induced Morphology and Free Energy Pathway in Breakup of a Nematic Liquid Crystal Filament	1077
<i>Rajesh K. Goyal, Morton M. Denn</i>	
Interfacial Properties and Structure of Complex Fluids From Interfacial-Saft (Isaft) Density Functional Theory	1079
<i>Adam S. Bymaster, Shekhar Jain, Walter G. Chapman</i>	

Water Structure and Dynamics in Thin Interfacial Layers at the SiO₂ and Graphite Surfaces	1080
<i>Dimitrios Argyris, Alberto Striolo, David R. Cole</i>	
Crystallization Inhibition with Additives.....	1081
<i>Terry Ring, Kristin Nicole Duvall, James A. Dirksen, Nathalie Jongen</i>	
Film Climbing of Particle-Laden Interfaces	1089
<i>Sachin Velankar, Hsin-Ling Linda Cheng</i>	
Self-Assembly in the Presence of Nanoparticles at the Graphite/solution Interface	1090
<i>Ruomiao Wang, Guangzhao Mao</i>	
Corrosion Inhibition of Metals with Surfactant Coatings	1091
<i>Caroline M. Murira, Hannes C. Schniepp, Christian Punckt, Ilhan A. Aksay</i>	
A Molecular Dynamics Study of the Wetting of Heterogeneous Alkylthiol Monolayers by Nanodroplets of Water	1092
<i>Jonathan D. Halverson, Charles Maldarelli, Joel Koplik, Alexander Couzis</i>	
Adsorption of Asphaltenic Aggregates On Monolayers of Alkyl and Phenyl Silanes	1093
<i>Salomon Turgman, Jan Genzer, Peter K. Kilpatrick</i>	
Berthelot's Contribution to Applied Thermodynamics – What Can We Learn From Work Done a Century Ago?	1094
<i>Paul M. Mathias</i>	
Solvation in Mixed-Aqueous Solvents From an Equation-Of-State and Thermodynamic Cycle Approach.....	1095
<i>Prateek Shah, Christopher J. Roberts</i>	
Generalized Phase Diagram and Metastable States of Molecular Solutions.....	1097
<i>Guangwen He, Reginald B. H. Tan, Paul J. A. Kenis, Charles F. Zukoski</i>	
Calculation of Thermochemical Properties and Processes with the Constrained Free Energy Method.....	1098
<i>Pertti S. Koukkari, Rafiqul Gani, Risto Pajarre</i>	
A Dual Stability Criterion in Phase Equilibria	1099
<i>Alexander Mitsos, Paul I. Barton</i>	
Limitations of Thermodynamics Approximations in Process Simulation: a Case Study (I).....	1102
<i>Sridhya Gummadi, Michael S. Kirchner, Sabyasachi Sen</i>	
Systematic Development of New Molecular Models to Study Phase Equilibrium of Systems Containing Hydrogen Fluoride and Refrigerants.....	1109
<i>Michaela Pollock, Claire S. Adjiman, Amparo Galindo, George Jackson</i>	
Modeling the Solubility of Gases in Ionic Liquids with the Soft-Saft Equation.....	1110
<i>Jordi S. Andreu, Lourdes F. Vega</i>	
High Pressure Phase Behaviour of Binary Systems of Refrigerants and N-Alkylbenzenes	1117
<i>Cristina Bogatu, Wim Poot, Theodoor W. De Loos</i>	
Phase Equilibria and Dielectric Properties of Dimethyl-Ether CO₂ Water Mixtures.....	1118
<i>Steve J. Tallon, Wayne Eltringham, Owen Catchpole</i>	
Solubility and Binary Phase Equilibria of Chlorosilanes in Supercritical Carbon Dioxide	1119
<i>Eduardo Vyhmeister, David Suleiman, Anthony J. Muscat, L. Antonio Estévez</i>	
Solubility of Irgacure® 2959 Photoinitiator in Supercritical Carbon Dioxide: Experimental Determination and Correlation.....	1121
<i>Daniel Fernandes, Patricia Coimbra, Paula Ferreira, Maria H. Gil, Herminio C. De Sousa</i>	

Compressed Liquid Densities and Excess Volumes of CO₂+ N-Nonane and CO₂+N-Undecane Mixtures at Temperatures From 313 K to 363 K and Pressures Up to 25 Mpa.....	1123
<i>Luis P. Aguilar-Rodríguez, Antonio I. Reyes-Enríquez, Luis A. Galicia-Luna</i>	
High-Pressure Transport-'shifted' Dew-Point Temperatures for Surfaces Exposed to Hydrocarbon-Containing Vapors	1124
<i>Daniel E. Rosner, Manuel Arias-Zugasti</i>	
A Generalized Quasi-Chemical Approach for Protein-Cluster Free Energies in Dilute Solution.....	1125
<i>Teresa M. Young, Christopher J. Roberts</i>	
Stability of Natively Unfolded Proteins As a Coil/globule Transition in Charge/hydrophathy Space	1126
<i>Hank Ashbaugh</i>	
Computer Simulation of Beta-Amyloid Aggregation With an Intermediate Resolution Protein Model.....	1127
<i>Victoria Wagoner, Carol Hall</i>	
Accelerated Molecular Dynamics Simulation of Protein Folding	1128
<i>Kelly E. Becker, Kristen A. Fichthorn</i>	
Coarse Grained Molecular Dynamics Simulations of Crystalline Free-Fatty Acids	1129
<i>Kevin R. Hadley, Clare McCabe</i>	
Hofmeister Effects On Sup35 Aggregation Kinetics	1130
<i>James M. Broering, Victor Yeh, Andreas S. Bommarius</i>	
Towards Reconciling Thermodynamic and Kinetic Perspectives of Specific Hydration Sites On Protein Surfaces	1131
<i>Hamsa Priya Mohana Sundaram, Jindal K. Shah, Dilip Asthagiri, Michael E. Paulaitis</i>	
Stimuli-Responsive Surfaces From Diblock Copolymer Brushes	1132
<i>Dong Meng, Qiang Wang</i>	
Surface-Confining Living Radical Polymerizations of pH-Responsive Amino (Meth)Acrylate Brushes.....	1133
<i>Shijie Ding, Keisha B. Walters</i>	
Hyperelasticity in Ultrathin Fibrin Networks: Mechanical Characterization and Strain-Mediated Enzymatic Degradation	1134
<i>James K. Ferri, Nii O. Adjei</i>	
Mapping Phase Behavior of Ultrathin, Cross-Linked Poly(N-Isopropylacrylamide) Layers with Neutron Reflection	1135
<i>Ajay Vidyasagar, Ryan Toomey</i>	
Direct Observation of DNA Release From Dna/polypeptide Polyplexes by Atomic Force Microscopy	1143
<i>Lei Wan, Devika S. Manickam, David Oupicky, Guangzhao Mao</i>	
Stimulus-Responsive Ultrasound Contrast Agents for Molecular Imaging.....	1144
<i>Mark A. Borden, Paul Dayton, Katherine W. Ferrara</i>	
Stability and Electrochemical Response of Carboxylic Acid Terminated Self-Assembled Monolayers With Different Packing Densities	1146
<i>Gloria Olivier, Joelle Frechette</i>	
The Design of Self-Assembled Block Copolymer Nanoparticles for Cancer Therapy Using Computer Simulation.....	1147
<i>Jeff Woodhead, Carol K. Hall</i>	
Stabilization of Complex Bicontinuous Phases by Reduction of Packing Frustration in Diblock Copolymer Melts.....	1148
<i>Francisco Martínez-Veracoechea, Fernando Escobedo</i>	

Local Ordering of Tethered Nanospheres and Nanorods and the Stabilization of the Gyroid Phase.....	1149
<i>Christopher R. Iacovella, Mark A. Horsch, Aaron S. Keys, Zhenli Zhang, Sharon C. Glotzer</i>	
Polymorph Selection During the Crystallization of Charge-Stabilized Colloidal Suspensions.....	1150
<i>Caroline Desgranges, Jerome Delhommelle</i>	
Understanding the Structure and Phase Behavior of Model DNA-Linked Nanoparticles by Monte Carlo Simulations.....	1151
<i>Juan C. Araque, Athanassios Z. Panagiotopoulos, Marc A. Robert</i>	
Theoretical Investigation of Cooperative Hydrogen Bonding Networks in Cellulose I^{\pm} and II^2.....	1152
<i>Xianghong Qian</i>	
Prediction of Configuration of Membrane-Associated Peptides Through Simulated Self Assembly	1153
<i>Senthil Kandasamy, Ronald G. Larson</i>	
Multi-Scale Modeling of Dynamics of Self-Assembly and Structural Transitions in Surfactant Systems.....	1154
<i>Gunjan Mohan, Dmitry I. Kopelevich</i>	
Molecular Dynamics Simulation and Thermodynamic Modeling of the Self-Assembly of the Triterpenoids Asiatic Acid and Madecassic Acid in Aqueous Solution.....	1155
<i>Brian C. Stephenson, Arthur C. Goldsipe, Daniel Blankschtein</i>	
BEBOP a New Reactive Potential Using Bond-Energy/ Bond-Order Relationships.....	1156
<i>Sonia Tulyani, George A. Petersson, Phillip R. Westmoreland</i>	
Classical Simulation of Dithiophene With Extension of the Parameter Set to Alkyl-Substituted Dithiophene.....	1159
<i>Michael L. Hobbs, Michael L. Greenfield</i>	
Charmm All-Atom Additive Force Field for Carbohydrates.....	1160
<i>Ganesh Kamath, Olgun Guvench, Shannon Greene, Alexander D. MacKerell</i>	
Extending the Transferable Potentials for Phase Equilibria (Trappe) Force Field to Aromatic Heterocycles	1161
<i>Neeraj Rai, J. I. Siepmann</i>	
Development of Force Fields for Molecular Simulations Including Phase and Transport Properties.....	1162
<i>Aurelio Olivet, Lourdes F. Vega</i>	
Repulsive Term in the Lennard-Jones Potential and Phase Behavior of Organic Compounds	1170
<i>Damien Bernard-Brunel, Jeffrey Potoff</i>	
New Polarizable Force Field Potential Has Been Developed to Depict the Behavior of Poly (Ethylene Oxide) (Peo)/water and Poly (Propylene Oxide) (Ppo)/water Aqueous Solutions	1171
<i>Oleg Starovoytov, Oleg Borodin, Dmitry Bedrov, Grant D. Smith</i>	
Development of a Gaussian Charge Polarizable Model for Simple Ions.....	1172
<i>Peter J. Dyer, Peter T. Cummings</i>	
Investigation of Charge-Transfer Atomic Potentials Using Evolutionary Strategies and Molecular Dynamics Simulations	1173
<i>Brian C. Barnes, Lev D. Gelb</i>	
Developing Intermolecular Potential Models From Molecular Dynamics Simulation of NMR Chemical Shifts	1174
<i>Huajun Yuan, Cynthia Jameson, James Olson, Sohail Murad</i>	
Interactions and Transport of Lipids and Proteins at Gas/liquid Interfaces.....	1175
<i>Sook Heun Kim, Tze Lee Phang, Elias I. Franses</i>	

Interfacial Dynamics of Straight-Chain and Branched Hexadecanol and Eicosanol Mixtures	1176
<i>Rachel E. Kurtz, Michael F. Toney, John A. Pople, Jaroslaw Majewski, Binhua Lin, Mati Meron, Arno Lange, Gerald G. Fuller</i>	
The Role of Asphaltene Acidity/basicity in Supramolecular Assembly at the Oil-Water Interface	1177
<i>Vincent J. Verruto, Rosemary K. Le, Peter K. Kilpatrick</i>	
Apparent Microrheology of Oil-Water Interfaces by Single Particle Tracking.....	1178
<i>Jian Wu, Lenore L. Dai</i>	
Effects of Functional Group Modifications and Concentration On the Conformations and Interactions of Hybrid Silicone Polymers at Interface	1179
<i>Somil C. Mehta, Shyam Vyas, Charles Maldarelli, Ponisseril Somasundaran</i>	
Extension of Gibbs' Dividing Surface Analysis to Cavities That Intersect a Planar Surface: Calculation of the Line Tension of the Hard-Sphere Fluid.....	1180
<i>Daniel W. Siderius, David S. Corti</i>	
Divergence of Tolman's Length, a Curvature Correction to Surface Tension	1182
<i>Mikhail A. Anisimov, Heather St. Pierre</i>	
Monte Carlo Simulation of Lennard-Jones Nonionic Surfactant Adsorption at the Liquid/vapor Interface: Branched Surfactants.....	1183
<i>Andrew John Howes, Clayton J. Radke</i>	
Monomer Partition Between Surfactant Surface Aggregates and Bulk Aqueous Solution: Influence of Monomer Lyophilicity.....	1184
<i>Naga Rajesh Tummala, Alberto Striolo</i>	
Effect of Temperature On the Structure and Barrier Properties of N-Alkanethiolate Self-Assembled Monolayers On Gold.....	1185
<i>Matteo Minelli, Piyush Srivastava, Walter G. Chapman, Paul E. Laibinis</i>	
Molecular Simulation Studies of Nanoscale Friction Between Phosphorylcholine Self-Assembled Monolayer Surfaces: Correlation Between Surface Hydration and Friction	1186
<i>Yi He, Shengfu Chen, Jason C. Hower, Matthew Bernards, Shaoyi Jiang</i>	
Ionic Liquids As Novel Lubricants: Application to Nano-Electromechanical Systems	1187
<i>Oleg A. Mazyar, Angeline M. Cione, Brandon D. Booth, G. Kane Jennings, Clare McCabe</i>	
Modeling Transport and Interfacial Phenomena in a Nanowire-Based, Dye-Sensitized Solar Cell	1188
<i>Andrew Yeckel, Eray S. Aydil, Jeffrey J. Derby</i>	
Modeling of HfO₂/Ru Interfaces	1189
<i>Atashi Mukhopadhyay, Javier Fdez. Sanz, Charles Musgrave</i>	
Adsorption Isotherms and Dynamics of Adsorption for Aqueous Ctab and C12E6 Surfactants On Three Surfaces: Experimental Data and Theoretical Interpretation	1190
<i>Camille Gutig, Brian P. Grady, Alberto Striolo</i>	
Isotropic-Nematic Transition in Athermal Solutions of Rod-Coil Diblock Copolymers	1191
<i>Tao Jiang, Jianzhong Wu</i>	
Relationships Between Structure, Thermodynamics, and Dynamics of Colloid-Polymer Mixtures in Good Solvent	1192
<i>Gaurav Goel, William P. Krekelberg, Thomas M. Truskett</i>	
A Generalized Approach for Analyzing the Thermodynamics of Microstructure in Crystals	1193
<i>Sumeet Kapur, Talid R. Sinno</i>	
Effect of Other Protein on the Solubility of Hen Egg White Lysozyme	1194
<i>Chirag M. Mehta, Edward T. White, James D. Litster, Matthew T. Hardin, Abraham Lenhoff</i>	

Developing New Models to Predict Drug Properties	1206
<i>E. A. Whitebay, S. Golla, B. J. Neely, Sundararan. V. Madihally, R. L. Robinson Jr., K. A. M. Gasem</i>	
Is Divacancy in Close-Packed Hard Sphere Crystals Intrinsic Property?	1207
<i>Sang Kyu Kwak, Yenni Cahyana</i>	
Viscosity, Density and Excess Volume of Acetone + Carbon Dioxide Mixtures at High Pressures	1208
<i>Kun Liu, Erdogan Kiran</i>	
Liquid Viscosity Measurements On CO₂ Expanded Solvent Systems With a Falling Weight Viscometer Under Pressure	1209
<i>Roderick Sih, Neil R. Foster</i>	
High Pressure Viscosity of 2-Pyrrolidone, N-Methyl-2-Pyrrolidone and N-Cyclohexylpyrrolidone	1210
<i>Santiago Aparicio, Rafael Alcalde, Begoña García, José M. Leal</i>	
Pressure-Viscosity Coefficients for Polyolesters and Squalane	1211
<i>Alfonso S. Pensado, María J. P. Comuñas, Josefa Fernández</i>	
On the Properties of Ethyl Lactate + Water Mixed Solvents	1219
<i>Santiago Aparicio, Rafael Alcalde, Begoña García, Sevanne Halajian, José M. Leal</i>	
Influence of High Pressure Gases on the Solubility and Diffusion Behavior of Polymer-Solvent Systems	1220
<i>Adam T. Jones, Ronald P. Danner, J. Larry Duda</i>	
Phase Separation of Highly Non-Additive Adsorbate Mixtures in Random Matrices	1229
<i>Lloyd L. Lee, Giuseppe Pellicane</i>	
The Effect of Confinement On the Structural and Transport Properties of Model Ionic Liquids	1231
<i>Lourdes F. Vega, Carlos Rey-Castro, Jordi Faraudo</i>	
Mechanical Properties of Nanoporous Silica	1232
<i>Dan Lacks</i>	
Phase Behavior of Water in Hydrophobic Nanoscale Confinement	1233
<i>Nicolas Giovambattista, Pablo G. Debenedetti, Peter J. Rossky</i>	
Using Molecular Simulation to Explore the Phase Behavior of a Simple Model Protein Under Confinement	1234
<i>Thomas W. Rosch, Jeffrey R. Errington</i>	
Hydration Structure and Hydration Force Between Mica Surfaces in Water	1235
<i>Yongsheng Leng, Peter T. Cummings</i>	
Limits on Crystallization/melting of Water in the Pores of Mcm-41 Silica	1236
<i>G.H. Findenegg, S. Jähnert, G. Schaumann, F. Vaca Chavez, M. Schönhoff, F. Audonnet, C. Alba-Simionescu</i>	
The State of Confined Fluids: Liquid, Solid or Glass	1237
<i>K. G. Ayappa, Ratan Kishore Mishra, S. H. Krishnan</i>	
Equilibrium Crystallization of Attractive Colloids on Energetically Patterned Surfaces	1238
<i>Michael A. Bevan, Gregory E. Fernandes</i>	
Manipulation and Assembly of Colloidal Particles Into Quasicrystals Via Dielectrophoresis	1239
<i>Yingxi Elaine Zhu, Peter Hoffman, Prasad Sarangapani</i>	
Crystal Structures of Dipolar Colloids and Binary Hard- and Charged Spheres	1240
<i>Antti-Pekka Hynninen, Athanassios Z. Panagiotopoulos</i>	
Switching the Aggregation of Nanoparticles by pH Dependent Conformational Transitions of a Self-Assembled Polypeptide	1242
<i>Vinay K. Gupta, Jeung-Yeop Shim, David Walker</i>	

Cylindrical Particles at Fluid Interfaces: Controlling Orientation and Assembly	1243
<i>Eric Lewandowski, Kathleen J. Stebe, Peter C. Searson</i>	
Fabrication of High-Quality Non-Close-Packed 2D Colloid Crystals by Template-Guided Langmuir-Blodgett Particle Deposition.....	1244
<i>Jaehyun Hur, You-Yeon Won</i>	
Shear-Aligned Assembly of Colloidal Photonic Crystals	1245
<i>Peng Jiang, Chih-Hung Sun, Nicholas Linn, Srinivasan Venkatesh</i>	
Mems Sensors With Chemically Selective Coatings of Ionic Liquids.....	1246
<i>Eunhyea Chung, Nickolay Lavrik, Panos Datskos, Joanna McFarlane, Sheng Dai, Costas Tsiouris</i>	
Microchannel Gas-Liquid Interface As Hydrogen Fuel Cell and Sensor.....	1247
<i>Ilwhan Oh, Mark A. Shannon, Rich I. Masel</i>	
Relating Interfacial Vapor Void Phenomena and Fluid Actuation in Hydrophobic Microfluidic Devices Using Electrokinetic and Atomic Force Microscopy Characterization	1248
<i>Vishal Tandon, Sharath Bhagavatula, Aditya Sharma, Brian J. Kirby</i>	
Aging of Self-Assembled Monolayers for Anti-Stiction Coatings Studied by near Edge X-Ray Absorption Fine Structure	1252
<i>Robert J. Klein, Daniel Fischer, Joseph L. Lenhart</i>	
Impact of Magnesium Oxide Interlayer On Heteroepitaxial Growth of Barium Ferrite On Wide Bandgap Semiconductor 6H-Sic	1253
<i>Zhuhua Cai, Trevor L. Goodrich, Zhaohui Chen, Vince Harris, Katherine S. Ziemer</i>	
Hybrid Inorganic-Organic Microparticles for Chemical Mechanical Polishing	1254
<i>Cecil Coutinho, Subrahmanyam Mudhavarthi, Ashok Kumar, Vinay K. Gupta</i>	
Electrochemical Impedance Studies of Copper Surface Reactions During Chemical Mechanical Planarization	1257
<i>Bum Soo Kim, Stephen P. Beaudoin</i>	
In-Situ Ftir Analysis of Porous Low-K Film Repair.....	1258
<i>Eduardo Vyhmeister, David Suleiman, L. Antonio Estévez, Anthony J. Muscat</i>	
Investigating the Effect of Gold Nanoparticle Deposition Via CO₂-Expanded Liquids On Micromachine Reliability	1259
<i>Kendall M. Hurst, W. Robert Ashurst, Christopher B. Roberts</i>	
Deposition of Conformal Metal Oxide Films in Supercritical Carbon Dioxide	1260
<i>Eunyoung You, Adam O'Neil, James J. Watkins</i>	
Nanostructured Ultrathin Films Formed by Covalent Molecular Assembly in Supercritical Carbon Dioxide.....	1261
<i>Sreenivasa Reddy Puniredd, M. P. Srinivasan</i>	
The Shape Revolution: Anisotropy and Assembly of New Colloidal Building Blocks	1262
<i>Sharon C. Glotzer, Michael J. Solomon</i>	
The Roles of Shape, Roughness, and Stabilization Layers in Defining Selective Colloidal Interactions.....	1263
<i>Stephane Badaire, Vikram Singh, Cecile Cottin-Bizonne, Abraham D. Stroock</i>	
Continuous Fabrication of Anisotropic Particles by Microfluidic Processing	1264
<i>Kyung Eun Sung, Siva A. Vanapalli, Deshpreny Mukhija, Hugh McKay, Joanna Mirecki Millunchick, Mark A. Burns, Michael J. Solomon</i>	
Surface Anisotropic (Patchy) Particles by Glancing Angle Deposition Technique	1265
<i>Amar B. Pawar, Ilona Kretzschmar</i>	
A Monte Carlo Analysis of Interfacial Dynamics During the Growth of Binary Colloidal Crystals	1266
<i>Raynaldo Scarlett, Anthony Kim, John C. Crocker, Talid Sinno</i>	

Dynamics of Semiflexible Chains of Paramagnetic Particles	1267
<i>Dichuan Li, Sibani Lisa Biswal</i>	
Self-Assembly of Colloidal Molecules and Precision Clusters and Shells From Patchy Particles and Sticky Colloids	1268
<i>Sharon C. Glotzer, Ting Chen, Zhenli Zhang</i>	
Asymmetric Catalysis Using Organic/aqueous Tunable Solvents	1270
<i>Jason P. Hallett, Elizabeth M. Hill, James M. Broering, Charles L. Liotta, Charles A. Eckert, Andreas S. Bommarius</i>	
Liquid Densities and Derived Thermodynamic Properties of Cresol Isomers at Temperatures between 313 to 363 K and Pressures up to 25 Mpa.....	1271
<i>Abel Zuniga-Moreno, Luis A. Galicia-Luna</i>	
Ternary Phase Equilibria of Sclareol-Ethyl Lactate-CO₂ Mixtures for Gas Anti-Solvent Precipitation Applications in the Extraction and Isolation of Nutraceuticals	1272
<i>Xenia C. Tombokan, Remil Aguda, David Danehower, Peter K. Kilpatrick, Ruben G. Carbonell</i>	
Optimization of Essential Oil Extraction from <i>Vetiveria Zizanioides</i> Using Supercritical CO₂	1279
<i>Danh Thai Luu, Raffaella Mammucari, Truong Paul, Tam Tran, Neil Foster</i>	
Dynamic Model and Optimization of a Supercritical Fluid Extraction Process Plant.....	1280
<i>João B. Fernandes, P. C. Simões, J. P. B. Mota</i>	
Preparation of Copper-Imprinted Silica Gels Functionalized With Glycine Oligomers and Their Adsorption Properties	1281
<i>Kun-Lin Yang, Xin-Yan Bi</i>	
“Effective” Negative Surface Tension: a Property of Coated Nanoaerosols.....	1282
<i>Purnendu Chakraborty, Michael R. Zachariah</i>	
Use of the Bicontinuous L3 Phase As an Extractant in Extraction of Hydrophobic Organic Compounds From Aqueous Solutions	1283
<i>Bing-Hung Chen, Kun-Chih Hung, Cheng-Han Yang</i>	
Rhamnolipid Biosurfactant As Effective Hydrate Anti-Agglomerant	1284
<i>J. Dalton York, Abbas Firoozabadi</i>	
Effect of Particle Surface Features On Viscosity of Biomass Slurries	1285
<i>Zhuoliang Ye, Kyle W. Dunaway, Rajesh K. Dasari, R. Eric Berson</i>	
Investigating the Nanoscale Charge Mobility for Increasing the Efficiency of Photoelectrochemical Cells	1286
<i>Sudhira Pasupuleti, Gerold A. Willing</i>	
Electrochemical Impedance Spectroscopy of Proton Exchange Membrane Fuel Cells.....	1287
<i>Doug S. Aaron, Sotira Yiakoumi, Costas Tsouris</i>	
Aqueous Dispersions in Hydrofluoroalkane Propellants for the Pulmonary Delivery of Polar Drugs Including Biomolecules	1288
<i>Parthiban Selvam, Udayan Chokshi, Libo Wu, Sandro R. Da Rocha</i>	
A Coarse-Grained Study of the Surface Activity of Realistic Pulmonary Surfactant Mixtures	1289
<i>Parag S. Adhangale, Donald Gaver</i>	
Studies of Dynamic Surface Tension of Polyoxyethylene Alkylphenols at the Air-Water Interface	1290
<i>Mohammad Elias Biswas</i>	
Morphology, Collapse, and Gas Transport Resistance of Compressed Lipid/peg-Lipid Monolayers Coating Air-Filled Microbubbles	1291
<i>Monica M. Lozano, Marjorie L. Longo</i>	

Novel Approach to Determine Equilibrium Adsorption Properties From Experimental Dynamic Surface Tension Data for Nonionic Surfactants	1292
<i>Srinivas N. Moorkanikkara, Daniel Blankschtein</i>	
Prediction of Active Agents Solubilization: Potential for Drug Formulations and Bioseparation Technologies	1293
<i>Matthias Buggert, Liudmila Mokrushina, Irina Smirnova, Wolfgang Arlt</i>	
Microcontact Printing of P-Selectin Increases the Rate of Neutrophil Recruitment Under Shear Flow.....	1296
<i>Dooyoung Lee, Michael R. King</i>	

Author Index