

2013 AIChE Annual Meeting
San Francisco, CA
Electronic Poster Presentations



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EASTMAN



Monday, November 4, 2013

Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
8:30am	76g: Using Advanced Modelling and Computation Tools in An Undergraduate Programme Eva Sorensen, University College London				
8:38am	76l: Developing An IEEE Elearning Library Course On Energy Efficiency in Industry Yousef Jalali, Lehigh University				

Monday, November 4, 2013

Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
6:20pm	219a: Process Intensification in Liquid-Liquid Extraction Enes Aksamija, Graz University	215p: Removal of Oil From Oily Waters By Chitosan Microspheres: Batch Studies Izabel C. Grem, Federal University of Rio de Janeiro	214e: A Molecular Simulation Study of Dispersants and Oil Hydrocarbons At Atmospheric Air/Salt Water Interfaces Zenghui Zhang, Louisiana State University	222ai: Numerical Simulation for Coating of Titanium Nitride Thin Film in a Tubular Reactor By a Thermal CVD Method Yuya Hatori, Yamaguchi University	222aw: Vapor Pressures of Supercooled Liquid Water in No-Man's Land Eugene Choi, Cornell University
6:28pm	219b: Mesoscale Oscillatory Baffled Reactor As a Robust Intensification Reactor for Rapid Process Development Valentine Eze, Newcastle University	215n: Life Cycle Assessment of the Gasplasma Process: An Innovative Waste Management Option Carla Tagliaferri, University College London	214g: Confinement and Adsorption of Fluids in Nanoporous Materials From Molecular Dynamics Simulations: Influence On Membrane Separation Performance Hendrik Frentrup, Imperial College London	222ae: Vapor-Liquid-Liquid Equilibrium Measurements and Modeling of Ethanethiol + Methane + Water, 1-Propanethiol + Methane + Water and 1-Butanethiol + Methane + Water Ternary Systems At 303, 335 and 365 K and Pressure Up to 9 Mpa Javeed Awan, University of the Punjab, Lahore	222bi: A Statistical Mechanically-Based Cubic Equation of State for Athermal Hard-Sphere Chains Arthur S. Gow, University of New Haven
6:36pm	219i: Sustainable and Intensified Design of a Biodiesel Production Process Daneesh Babi, Technical University of Denmark	215a: Supercritical Water Oxidation: the Next Generation Process to Incineration Bushra Al-Duri, University of Birmingham	214h: From Electrons to Engines: Kinetic Modeling of Low-Temperature Hydrocarbon Oxidation and Applications in Engine and Atmospheric Chemistry Amrit Jalan, Massachusetts Institute of Technology	222bd: Composition Dependency of the Flory-Huggins χ Parameter in Isotopic Polymer Blends Travis Russell, University of Tennessee	222b: Isothermal Vapor-Liquid Equilibria of 1-Ethyl-3-Methylimidazolium Thiocyanate + Water, + Ethanol, + 1-Propanol, Or + Acetonitrile Binary Mixtures At Several Temperatures Latifa Negadi, University of Tlemcen

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Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
6:44pm	218c: BPA Process Development Using Aspen Modeling: The “Interface” Between Technology & Operations Ahmed Youssef, SABIC		214l: Using Monte Carlo Simulations to Study Bulk and Interfacial Properties of Ionic Liquids Kaustubh S. Rane, University at Buffalo	216d: Single-Molecule Observations of Protein-Protein Interactions At the Solid-Liquid Interface Blake B. Langdon, University of Colorado at Boulder	222ae: Estimation of Normal Boiling Point, Critical Properties, and Lennard-Jones Parameters for Polycyclic Aromatic Hydrocarbons and Fullerenes Christopher Pope, Santa Cruz
6:52pm	220m: Streamlining the Harvest of Algae and Conversion of Algal Lipid Chin-Chieh Lin, University of Utah			216e: Synergistic Effects of Polymers and Nanoparticles On Colloidal Stability Shunxi Ji, Virginia Tech	222ap: Molecular Interactions and the Response to Nanoscale Broken Symmetries Rick Remsing, University of Maryland, College Park
7:00pm				216x: Assembly of Two-Directionally Percolated Particle Networks Using Orthogonal Electric and Magnetic Fields Bhuvnesh Bharti, North Carolina State University	222ak: Relevant Phase Equilibria for the Hydroformylation of Long Chain Olefins Philipp Schrader, Berlin Institute of Technology
7:08pm					222v: Simulating Nanoscale Thermal Transport in Nanoscale Systems Sesha Hari Vemuri, Carnegie Mellon University
7:16pm					222ax: Isolating the Non-Polar Contributions to the Intermolecular Potential for Water Deepti Ballal, Rice University
7:24pm					222au: Development and Evaluation of the Simple Models of Aqueous Electrolytes Lukas Vıcek, Oak Ridge National Laboratory
7:32pm					222ah: Comprehensive Thermophysical Model Development for CO2 Pipeline Transport Ioannis Economou, Texas A&M University at Qatar

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Tuesday, November 5, 2013

Poster Session: Building a Career In The Chemical Industry

Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
8:30am	267a: An Industry Career in Process Development: Leveraging Chemical Engineering Training Joseph Powell, Shell Projects & Technology	267b: Career Development: It Ain't a Random Walk Jonathan Worstell, Worstell and Worstell, Consultants	267c: Opportunities for Career Development From Technical Adjacencies William Hollar, SABIC	267d: Chance Favors the Prepared Mind Michael Hill, Columbia University	

Tuesday, November 5, 2013

Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
6:20pm	398i: Investigation of Multiphase Multicomponent Aerosol Spray From Pmdis Through Commercial Spacers Saurabh Sarkar, University of Connecticut	396j: An Experimental and Modeling Study of Membrane for Syngas Purification Varun Vakharia, The Ohio State University	393f: Development of Adsorptive Membranes for Targeted Protein Binding Heather Chenette, Clemson University	397af: Synthesis and Characterization of Maghemite Nanobricks Suvajeet Dutttagupta, IIT Bombay	397av: Rate-Limiting Nutrient Delivery System for Microbial Enhanced Oil Recovery Weiwei Li, University of Kansas
6:28pm	398ab: "Radically" New Deposition of Co Particles Staci A. Van Norman, University of Colorado at Boulder	396aa: New Insights On Carbon Dioxide and Methane Transport in Carbon Molecular Sieve Membranes From Diffusion NMR Studies Robert Mueller, University of Florida	394a: Sublimation Mechanism for Small Molecule Organic Semiconductors Yi Zhang, University of Minnesota	397d: Organized Self-Assembly of Janus Catalytic Nanomotors Wei Gao, University of California, San Diego	397bc: Assessing the Potential Permeability and Salt Rejection of Membranes Incorporating Carbon Nanotubes Ben Corry, The Australian National University
6:36pm	398w: Surface Characterization of the Interaction Between Fly Ash Particles and Mercury Ji-Eun Jung, Stanford University		394c: Effect of Surface Energy Evolution On Particle Nucleation Under Gas Anti-Solvent Precipitation Conditions Daniel Rosner, Yale University	397g: Simulation of Worm Like Micelle Assisted Assembly of Linear Nanostructures Advait Chhatre, IIT Mumbai	397b: Polydispersity Control In the Liquid Phase Synthesis of Amphipathic, Self-Assembling Polypeptides Matthew Kubilius, City College of New York
6:44pm	398k: Mechanically-Alloyed Al-Ti Powders With Customized Particle Sizes Yasmine Aly, New Jersey Institute of Technology			397ao: Solar Hydrogen Production From Metal Sulfide (ZnS-CuS-CdS) Photocatalysts Eunpyo Hong, University of Seoul	397z: Interactive Forces Between SDS-Suspended Single-Wall Carbon Nanotubes and Agarose Gels Justin Clar, University of Florida

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Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
6:52pm				397l: Sulphur-Infiltrated 3D Porous Carbon Microsphere Nanoarchitecture for High Energy Lithium-Sulphur Batteries Cunyu Zhao, University of Wisconsin, Milwaukee	397j: Molten Droplet Synthesis of CdSe Hollow Nanoparticles Sravani Gullapalli, Rice University
7:00pm				397ab: Layer-By-Layer Synthesis of Polymeric Carriers for Drug Delivery Aaron Anselmo, University of California, Santa Barbara	397ae: Application of Core-Shell Titania-ITO Nanowires in DSSCs Luping Li, University of Florida
7:08pm				397ax: Electrostatic Coating Poly-L-Lysine and Chitosan On the Perfluorocarbon Emulsion and the Conformation Analysis of Coating Materials Chun-Jen Wu, University of Utah	397i: Effect of Salts With Different Cations On the Stability of Self-Assembled Two Component Nanoparticle System Yan Gao, University of Kansas
7:16pm				397c: Effect of Molecular Architecture On the Morphology and Properties of Bio-Nanostructured Soft Materials Evan Koufos, Rutgers University	397be: Hierarchical FeOx@SiO2-ZnO Koosh Ball Nanostructure With Tunable Magnetic Core, Fluorescent Nanowire Shell and Enhanced Photocatalytic Property Zheng Ren, University of Connecticut
7:24pm				397al: Effect of Nanoparticles On the Viscoelastic Properties of Poly(acrylamide) Hydrogels Josergio Zaragoza, Santa Clara University	397a: Fundamental Studies on the Origin of Reduced Graphene Oxide Enhancements in Energy Storage Applications James Radich, University of Notre Dame

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Wednesday, November 6, 2013

Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
6:20pm	583cg: Catalytic Hydrodeoxygenation of Guaiacol Danni Gao, Purdue University	583bx: Conversion of Supercritical Bioethanol Into Hydrocarbons Over HZSM-5 Zeolite Kayla Vanous, University of Washington	582bk: Characterization and Engineering of Acyltransferase Domains in the Pursuit of Novel Polyketide Therapeutics Briana Dunn, Stanford University	585i: L-Lactic Acid Production With Simultaneous Saccharification and Fermentation of Xylo-Oligosaccharides Waste Residue By Rhizopus Oryzae Li Zhang, Nanjing Forestry University	587aj: Hybrid Thermochemical Processing of Biomass and Natural Gas in a Solar-Electric Reactor Aaron W. Palumbo, University of Colorado at Boulder
6:28pm	583ch: Pd Catalyzed Oxidation of Glycerol: Effect of Different Supports Ashutosh Namdeo, IIT Bombay	583t: Stability of Mixing-Limited Patterns in Homogenous Autocatalytic Reactions Tanmoy Sanyal, IIT Kharagpur	582q: Potential of Thermophilic Bioprocessing of Lignocellulosic Biomass for Generation of Biofuels Amoldeep S. Kainth, South Dakota School of Mines and Technology	585j: Comprehensive Evaluation of Two Genome-Wide Metabolic Network Models On Scheffersomyces Stipitis Andrew Damiani, Auburn University	587al: Fouling Rates of Model Carbohydrate Solutions and Their Interaction Effects Ravi K. Challa, University of Illinois at Urbana-Champaign
6:36pm	583fs: Correlations Between Catalytic and Magnetic Response in Titania-Supported Gold Ming Yang, Tufts University	583fu: Potential for Flared and Stranded Gtl Systems Staci A. Van Norman, University of Colorado at Boulder	582cf: A Flow-Cytometry Method for Optimizing Transformation Conditions in Bacteria Ben Woolston, Massachusetts Institute of Technology	585l: High-Cell Density Fermentation With An Acid-Tolerant Strain Of Propionibacterium Acidipropionici For Propionic Acid Production Ying Jin, Ohio State University	587ao: Pyrolysis Decomposition Analysis of Wastewater Derived Microalgae Via TGA-FTIR Griffin W. Roberts, University of Kansas
6:44pm	583eq: Pd-Based Bimetallic Core-Shell Catalysts for Direct Formic Acid Fuel Cells Shuozhen Hu, Washington State University	583bv: Effect of Confinement in Nanopores of Carbon On Reaction Kinetics, Catalyst Activity and Selectivity Maryam Peer, Pennsylvania State University	582cu: Engineering Enzymes With Nanostructures Jun Ge, Tsinghua University	584ae: Improved Antitumor Efficacy of Doxorubicin By Lipid Vesicles Integrating Tunable Targeting With Interstitial and Intracellular Release Stavroula Sofou, Rutgers University	587az: The Role of Hydrodynamics and Radiation Transport During Light-Limited Growth of Microalgae in a Taylor Vortex Photobioreactor: Quantitative Analysis Using Computational Fluid Dynamics Coupled With Radiation Transport Simulations Bo Kong, Iowa State University

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Time	Kiosk 1	Kiosk 2	Kiosk 3	Kiosk 4	Kiosk 5
6:52pm	583er: Kinetics Studies for Ammonia Electro-Oxidation On Pt Deposited Electrodes Luis A. Diaz, Ohio University	583j: Flow Regimes and Particle Residence Time Distribution in Horizontal and Vertical Gas-Liquid-Solid Slurry Taylor Flow Anne K. Liedtke, Laboratoire de Génie des Procédés Catalytiques	582bn: Fermentation of Agrobacterium Tumefaciens for Large-Scale Transient Expression of Recombinant Proteins In Plants Ingrid Leth, University of California, Davis	584ai: Computational Model to Predict the Effect of Lipids On Pharmacokinetic Profiles in Vivo Lauren Speciner, Northeastern University	587u: Mechanistic Studies On Char Formation From the Fast Pyrolysis of Lignin Oliver Jan, University of Washington
7:00pm	583bf: Effects of Cs-Exchanged Heteropolyacid (CsxH3-xPW12O40) On the Hydrocracking of Extra-Heavy Oil Hee-Jun Eom, Korea University	583p: The Effect of Particle Size Distribution On Trickle-Bed Reactor Hydrodynamics Gregory S. Honda, Purdue University	582ac: Application of Multivariate Analysis of Metabolic Models for Predictability of Cell Culture Performance and Quality Attributes; An Industry Prospective Nicole Migliore, Janssen Pharmaceutical Companies	584c: Quantitative Analysis of Contact Inhibition of Locomotion During Fibrillar-Like Migration Daniel Milano, Northeastern University	587m: A Granulation Based Biomass Supply Logistics System for a Modern Biorefinery Sudhagar Mani, University of Georgia
7:08pm	581ai: Catalytic Deoxygenation Mechanisms: Using Electronic Structure Calculations to Understand Decarboxylation Over Transition-Metal Catalysts Benjamin Johnson, Brown University	583gd: Novel Approaches To Optimize The Synthesis Of Mass-Transport Limited Zeolite Catalysts Manjesh Kumar, University of Houston	582al: Supercooling: A Viable Non-Freezing Preservation Method of Hepatocytes O. Berk Usta, Massachusetts General Hospital	584z: Robust In Silico Disease Classification Via Disease- and Procedure-Independent Optimization Models Using Quantitative MS1 Data From High-Throughput Proteomics Yannis A. Guzman, Princeton University	586e: Control Strategy Development for QbD Submission Candice Wong, Eli Lilly and Company
7:16pm	116f: DFT Study On Redox-Active Trinuclear Copper(II) Complex Christian Arroyo-Torres, University of Puerto Rico, Mayagüez	583di: Application of Reengineered Feedstock for Coal Combustion Emission Control Sheng Chu, University of Massachusetts, Amherst	582a: Activation of Plant Anticancer Compounds By the Gut Microbiota Andrew Klein, Stanford University		
7:24pm	583b: Novel Core-Shell Nanostructures for Selective Hydrogen Combustion in Hydrocarbon Streams Alan Derk, University of California, Santa Barbara	583fy: Simplex and Model Based Self-Optimization With In-Situ-FTIR Analytics Steffen Heddrich, RWTH Aachen University	582de: Stabilization of Vaccines in Silk Jeney Zhang, Tufts University		
7:32pm	583fl: Enhanced Performance of Ni and Pt Catalysts Synthesized By Atomic Layer Deposition Troy D. Gould, University of Colorado at Boulder	583w: Using Reaction Mechanism Generator (RMG) to Build Detailed Kinetic Model of Biofuels Fariba Seyedzadeh Khanshan, Northeastern University			