2014 AIChE Annual Meeting
Atlanta, GA
Rapid Fire Oral Presentations

Wednesday, November 19, 2014

Time	Stage 1	Stage 2	Stage 3	Stage 4
6:00pm	599aa: **Expression and Production of the Glycoprotein APA (45/47 kDa); A Mycobacterium Tuberculosis Antigen Cloned in Pichia Pastoris** Daniel Juarez-Lopez, UNAM	600a: **Direct Synthesis of Dimethyl Ether from CO_2 & CO over Bifunctional Methanol Synthesis & Silicotungstic Acid Incorporated Mesoporous Alumina Catalyst Mixtures** Timur Dogu, Middle East Technical University	604e: **Discrete-Continuous Simulations for Performance Evaluation of Sequential Batch Reactor System for Lipid Accumulation from Volatile Fatty Acids By Activated Sludge Microorganisms Following Seasonal Stochastic Variations** Dhan Lord Fortela, University of Louisiana at Lafayette	601a: **An Antibody Associated with Pre-Eclampsia Binds to an Environmental Antigen and Human Protein** Serra E. Elliott, University of California, Santa Barbara
6:05pm	599ab: **Display of Rogfp on Cell Surface Enables in Situ Quantification of Extracellular Redox Status in Biofilms** Krishnakumar Sivakumar, Nanyang Technological University	600ad: **Interpretation of Electrochemical Impedance Spectroscopy Using a Macrohomogeneous PEMFC Model** Brian P. Setzler, Georgia Institute of Technology	604f: **Use of Oxygen Uptake Rate Data to Measure the Inhibition Effect of Volatile Fatty Acids on Activated Sludge Dedicated for Lipid Production for Fuels** Bimi Shrestha, University of Louisiana at Lafayette	601aa: **Microfabricated Biopsy Punch for Minimally Invasive Dermatological Diagnostics** Andrew Tadros, Georgia Institute of Technology
6:10pm	599aq: **Production of Novel Hyaluronidase Expedites the Synthesis of Specific Hyaluronan Oligomers** Zhen Kang, Jiangnan University	600ak: **Spatially Ceria-Doped Titania Nanotubes for Photocatalytic Conversion of Carbon Dioxide to Hydrocarbon Fuel** Yakub Fam, The Hong Kong University of Science and Technology	604s: **Synthesis of $AlPO_4$-18 Membrane for Water/Acetic Acid Separation** Masahiro Seshimo, Waseda University	601ab: **Analysis of Kinetics of Elastase Inhibition VIA the M1 Form of α-1-Antitrypsin** Bryan Materi, Tennessee Technological University
6:15pm	599as: **Preparation of Anti-Diabetic Activity Peptides from Pumpkin Seeds Against Alpha-Glucosidase** Qi Ning, Jiangnan University	600al: **Non-Oxide Co ALD Catalyst for Fischer-Tropsch Synthesis** Staci A. Van Norman, University of Colorado at Boulder	604w: **Effect of Kinetic Limitations on Solar Thermochemical Hydrogen Production Efficiency** Brian D. Ehrhart, University of Colorado at Boulder	601ac: **Fibronectin Fragments Are a Significant Proportion of the Proteolysis Products of Decellularized Extracellular Matrices** Anand Ramanathan, Illinois Institute of Technology

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6:20pm	599ba: **Measuring the Mechanical Properties of Volvox by Direct Microcompression** Yang He, The University of Tulsa	600aw: **Determining the Oxygen Storage Capacity (OSC) of Ceria Materials by Oxygen Chemisorption** Andrew DAmico, Micromeritics Instrument Corp	602c: **Research on Purification Theabrowns Extracted from Liubao Tea with Macroporous Resin** Yingzi He, Guangxi Teachers Education University	601ad: **Biology Based Dose Response (BBDR) of Chemical Mixtures Using Exposomics** Dimosthenis Sarigiannis, Aristotle University of Thessaloniki
6:25pm	599bf: **Intermediate Filaments Stiffen and Immobilize the Nucleus in Adherent Cells** Srujana Neelam, University of Florida	600b: **Coke Elimination During Conversion of Biogas to Syngas by Tungsten Incorporation into Ni Based Mesoporous Alumina Synthesized by the One-Pot Route** Gulsen Dogu, Gazi University	602e: **Harvesting Energy from Agricultural Waste Fermentation Using Microbial Fuel Cells** Eduardo Ruiz Colón, University of Puerto Rico	601ag: **Microfluidic Platform for Combinatorial Screening of Chemicals in Caenorhabditis Elegans** Guillaume Aubry, Georgia Institute of Technology
6:30pm	599bi: **A High Throughput Screen for Small Molecule Inhibitors of Small RNA Signaling in Bacteria** Jordan Hall, North Carolina State University	600bc: **Controlled Synthesis of Mgal Layered Double Hydroxide Grafted TiO_2 Cuboids and Their Photocatalytic CO_2 Conversion Activity** Cunyu Zhao, University of Wisconsin-Milwaukee	602r: **Effect of Thermal Treatment on the Susceptibility to Enzymatic Hydrolysis of a Soy-Maize Protein** Cintya Geovanna Soria-Hernández, Monterrey Institute of Technology and Higher Education	601ah: **Harmful Algal Bloom (HAB)-on-a-Chip: Development of a Microfluidic Device to Characterize Algal Chemotaxis** Adam Melvin, Louisiana State University
6:35pm	599bp: **Investigation of the Effect of Electro-Chemotherapy on Tumor Cell Death Using the Thermofield® Technology** Maryam Moarefian, Tennessee Technological University	600bh: **Catalyst/Support Interactions between Pt Nanoparticles and Amorphous Silica** Christopher S. Ewing, University of Pittsburgh	602t: **Design Process to Obtain Antioxidant Compounds from Goldenberry (Physalis peruviana): Influence of Pretreatment, Extraction and Concentration Processes** Ivonne X. Cerón, Universidad del Tolima	601ak: **Staged Inertial Microfluidic Focusing for Complex Fluid Enrichment** Amy Reece, University of Wyoming
6:40pm	599br: **Suture Design to Promote Wound Healing** Stephanie Jorgensen, Tennessee Technological University	600bl: **Water-Treated Rh/γ-Al2O3 Catalyst for Methane Partial Oxidation** Xia Xu, The University of Alabama	603b: **Characterization of a Continuous Granulator** Madeline Candelaria, University of Puerto Rico	601al: **Divergence of Instantaneous Versus Long Time- and Length-Scale Adhesion Dynamics of Cells with Selectins in Fluid Flow** Susan N. Thomas, Georgia Institute of Technology

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6:45pm	599ca: **Optimization of Protein Production in Microfluidic Reactors by Material Selection, Scale, and Flow Control** Peter G. Shankles, University of Tennessee	600bq: **Synthesis of Zeolite Catalysts in the Absence of Organic Structure-Directing Agents** Matthew D. Oleksiak, University of Houston	603f: **CHO Cell Line Stability: Impact of Cell Banking** Abigail Pynn, Genentech Inc.	601am: **Impact of Milk Components on Diffusion in Intestinal Mucus** Jaclyn Lock, Northeastern University
6:50pm	599cd: **Engineering a Yeast Platform Strain for Industrial Production of Polyketides** Christopher Gowen, University of Toronto	600bu: **Controlling Zeolite Synthesis with Molecular Modifiers: A Versatile Approach to Design Catalysts** Manjesh Kumar, University of Houston	603m: **Development of a Reverse Phase HPLC Assay to Characterize a Monoclonal Antibody** Xianwen Chen, Bayer HealthCare	601at: **Imaging Distribution Profile of Spherical Drug Carriers in Physiological Blood Flow Conditions** Alexander Golinski, University of Michigan
6:55pm	599ce: **Engineering Circularly Permuted Proteins with Varying Peptide Tags Using Transposon Mutagenesis** Alicia Jones, Rice University	600bx: **Mechanism and Kinetics of Diels–Alder Reaction Between Dicyclopentadiene and 1,3-Butadiene in a High Temperature and High Pressure Continuous Tube Reactor** Xue Liu, Zhejiang University	603s: **Development of an E. coli Recombinant Protein Fermentation Process** Nitya Krishnan, Genentech	601l: **Enhancement of Capture of Antigens in Immunosensors By Tuning the Process Parameters** Dharitri Rath, Indian Institute of Technology
7:00pm	599cl: **Self-Interaction Chromatography (SIC) of Mabs: New Methods for Estimating the Dead Volume in SEC and Using Sic to Predict Mab Stability** Sarah Hedberg, Imperial College London	600c: **Numerical Simulation for Coating Process of TiN Thin Film By a Thermal CVD Method** Yuya Hatori, Ube Industries, Ltd.	603h: **Investigation of Impact of Roller Compaction Process Parameters on Critical Product Attributes** Rakesh Reddy, University College Cork	601u: **On-Demand Immobilization of C. elegans Based on Photothermal Phase Transition of Pluronics** Hyundoo Hwang, Georgia Institute of Technology
7:05pm	599m: **Quartz Crystal Microbalance Investigation of Cellulose Hydrolysis By Clostridium Thermocellum on Model Cellulose Films** Shanshan Zhou, University of Kentucky	600ca: **A Fundamental Study of the Reaction and Diffusion of Poly-Aromatic Hydrocarbons in Hierarchical Pore Structure Zeolites** David P. Gamliel, University of Connecticut	600q: **Conversion of Glucose to Levulinic Acid by Dual Solid-Acid Catalysts** Tapas Acharjee, Auburn University	601z: **A Personalized Framework for Dynamic Modelling of Chronic Lymphocytic Leukemia Disease Trajectories** Symeon Savvopoulos, Imperial College

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7:10pm	599r: **Noncovalent Ternary Dispersions of Single Wall Carbon Nanotubes for Controlled Cellular Delivery** Patrick D. Boyer, Carnegie Mellon University	600g: **Highly Crystalline Multimetallic Nanoframes with Three-Dimensional Electrocatalytic Surfaces** Yijin Kang, Argonne National Laboratory	600s: **Ab Initio Study of Solvent-Induced Frequency Shifts of 5-Hydroxymethylfurfural** Tyler R. Josephson, University of Delaware	314b: **The Mechanics of Nuclear Shaping** Yuan Li, University of Florida
7:15pm		600h: **Superficial Gas Velocity Effects on Local Time Averaged Phase Holdup in Fluidized Bed Reactor Using Gamma Ray Computed Tomography Technique** Abdelsalam Efhaima, Missouri Science &Technology	600u: **Direct Formaldehyde Production from Synthesis Gas at Room Temperature** Alimohammad Bahmanpour, Monash University	149a: **In-Cell RNA Structure Probing with Shape-Seq** Timothy Abbott, Cornell University
7:20pm		600k: **Mechanism and Reaction Kinetics for Hydrotreatment of Palm Oil for Greendiesel Production** Felipe Vélez, Universidad Nacional de Colombia	600z: **Effect of Methoxylated Groups in Sn-Beta Zeolite on Glucose Isomerization and Epimerization** Caterina Tran, Mississippi State University	
7:25pm		600l: **DFT Analysis of the Hydrothermal Stability and Lewis Acidity of Metal-Substituted Zeolites** Brian Montejo, University of Puerto Rico	600bf: **Analysis of Perovskites and Layered Perovskite Oxides as Materials for Conversion of Carbon Dioxide to Carbon Monoxide in Thermochemical Cycles** Yolanda A. Daza, University of South Florida	
7:30pm		600o: **Pd-Substituted Zinc Stannate As a New Oxygen Storage Material for CO Oxidation** Annamalai Leelavathi, Indian Institute of Science		