

New England Catalysis Society

Spring Meeting 2017

University of Connecticut

Meeting Location

341 Mansfield Road, Storrs, CT 06269

Building Name: Monteith, Room 104

Parking: South Garage Area

More information on the location and parking can be found on our website:

<http://www.necatalysis.org/meetings.html>

Agenda

8:30 Coffee & pastries, nametag pick up

09:00 Welcome / Introduction to the Spring 2017 NECS Meeting

Morning Session

09:05 Satish Kumar Iyemperumal and N. Aaron Deskins, “Cu/TiO₂ photocatalysts for CO₂ reduction to useful fuels” Worcester Polytechnic Institute

9:25 David Gamliel and Julia A. Valla, “Mesoporous Nickel Incorporated USY Zeolites for Hydrodeoxygenation of Lignin-derived Pyrolysis Oil Model Compounds”, University of Connecticut

9:45 Hoyoung D. Park, Mircea Dinca, and Yuriy Roman-Leshkov, “Heterogeneous Epoxide Carbonylation by Cooperative Ion-Pair Catalysis in Co(CO)₄–Incorporated Cr-MIL-101”, Massachusetts Institute of Technology

10:05 Hong Je Cho, Limin Ren, Vivek Vattipalli, Yu-Hao Yeh, Nicholas Gould, Bingjun Xu, Raymond J. Gorte, Raul Lobo, Paul J. Dauenhauer, Michael Tsapatsis and Wei Fan, “Renewable p-xylene from 2,5-dimethyl furan and ethylene using phosphorus-containing zeolite catalysts”, University of Massachusetts Amherst

10:25 Chunxiang Zhu and George M. Bollas, “Intensified and selective Fischer-Tropsch Synthesis”, University of Connecticut

10:45 Break /dues payment

11:15 Maksim Tyufekchiev, Michael T. Timko, Marion Emmert, Pu Duan and Klaus Schmidt-Rohr, Sergio Granados-Focil, “Limitations of Chloride Based Bifunctional Polymer Solid Acid Catalysts for Cellulose Hydrolysis”, Worcester Polytechnic Institute

11:35 Sanjubala Sahoo, Steven L. Suib, and S. Pamir Alpay, “Reactivity of graphene-supported single transition metal atom (Cr, Mn, Fe and Co) catalysts”, University of Connecticut

11:55 Jin-Hao Jhang, Chao Zhou, Gregory S. Hutchings, Omur E. Dagdeviren, Udo D. Schwarz, Eric I. Altman, “Atomic View of Acid Zeolite Chemistry: Surface Chemistry Studies on 2D Silicate Materials”, Yale University

12:15 Lunch/Poster session

Afternoon Session

1:30 Travis J. Omasta, Xiong Peng, Yufeng Zhang, and William E. Mustain, “Approaching 2 W·cm⁻² AEMFCs through Electrode Engineering and Controlling the Cell Water Content and Balance”, University of Connecticut

1:50 Raymond Gasper, Ashwin Ramasubramaniam, “Behavior of the Methanol Decomposition Reaction on defective graphene supported Pt₁₃: a DFT study”, University of Massachusetts Amherst

2:10 Lida M. Namin, N. Aaron Deskins, “Determination of Iridium Bimetallic Alloy Properties from Electronic Structure Calculations”, Worcester Polytechnic Institute

2:30 Aaron Garg, Maria Milina, Madelyn Ball, Daniela Zanchet, Sean T. Hunt, James A. Dumesic, and Yuriy Román-Leshkov, “Transition Metal Nitride Core-Noble Metal Shell Nanoparticles as Highly CO Tolerant Catalysts”, Massachusetts Institute of Technology

2:50 Poster Session/ Coffee and veggies/fruits

4:00 Keynote: Dr Rajamani Gounder,

Larry and Virginia Faith Assistant Professor of Chemical Engineering, Charles D. Davidson School of Chemical Engineering, Purdue University

“Mobilizing single atoms to form multinuclear copper sites dynamically during NO_x selective catalytic reduction with ammonia in Cu-zeolites”

Poster Session

Meredith Allen, Thomas J Schwartz and William Gramlich, “Functionalization of 5-Hydroxymethylfurfural by Selective Etherification”, University of Maine

Xiaoduo Qi, Vivek Vattipalli, Paul Dauenhauer and Wei Fan, “Understanding diffusion pathway of cyclohexane through nanoscale MFI zeolite”, University of Massachusetts Amherst

Xiong Peng, Travis J. Omasta, William A. Rigdon, Lianqin Wang, John R. Varcoe and William E. Mustain, “Catalyst and Electrode Advances for High Performing PEM and AEM Fuel Cells”, University of Connecticut

Vivek Vattipalli and Wei Fan, “Direct fluoride-free synthesis of pure silica zeolites”, University of Massachusetts Amherst

Sanket Sabnis, Vijesh Tanna, Chao Li, Jiabin Zhu, Vivek Vattipalli, Stephen Nonnenmann, Henning Winter and Wei Fan, “Exfoliation of 2-dimensional zeolites in liquid polybutadienes”, University of Massachusetts Amherst

Alex R Maag, Alex D. Paulsen, Ted J. Amundsen, Paul E. Yelvington, Geoffrey Tompsett and Michael T. Timko, “Model Hydrothermal Liquefaction Chemistries using CeZrOx Catalyst”, Worcester Polytechnic Institute

Bryan E. Sharkey and Friederike C. Jentoft, “Solid Catalysts for the Deoxydehydration of Biomass-Derived Polyols to Olefins”, University of Massachusetts Amherst

Koushik Ponnuru, Jinesh C. Manayil, Hong Je Cho, Amin Osatiashtiani, Karen Wilson, Wei Fan and Friederike C. Jentoft, “Solid Catalysts for Regioselective Aldol Condensations”, University of Massachusetts Amherst

Kevin X. Lee, George Tsilomelekis, Julia A. Valla, “Selective Removal of Refractory Sulfur Compounds from Hydrocarbon Fuels using Bimetallic Mesoporous Y Zeolites”, University of Connecticut