

2009 Schoenborn Graduate Research Symposium

Coffee 8:00 – 8:30 AM

Opening Remarks 8:30 – 8:35 AM

Oral Presentations 8:35 – 10:05 AM

- 8:35 AM **Kate Auernik** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/2.png>)
Life in hot acid: Base and precious metal biomobilization by extremely thermoacidophilic microorganisms
- 9:05 AM **Amit Goyal** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/3.png>)
Self-Assembly of Polar Colloid Particles: Designing Stimuli-Responsive Materials Using Computer Simulation
- 9:35 AM **Omon Herigstad**
Characterization of a hybrid particle-nonwoven membrane bio-separation medium

COFFEE BREAK 10:05 – 10:35 AM

Oral Presentations 10:35 AM – 12:05 PM

- 10:35 AM **Qing Peng**
Nanoscale Engineering Materials by Atomic Layer Deposition
- 11:05 AM **Vinayak Rastogi** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/1.png>)
Droplet engineering and its applications
- 11:35 AM **Amy VanFossen**
*Biochemical and Functional Genomics Approaches to Characterize Biomass Breakdown by the Extremely Thermophilic Bacterium *Caldicellulosiruptor saccharolyticus**

Lunch and Award Presentations 12:05 – 1PM

Shafi M. Arifuzzaman

Multi-variant polymer brushes-A new platform for understanding surface-protein interactions

Fadhel Azeez

Lithium bis(oxalato)borate (LiBOB)-based gel electrolyte for lithium-ion batteries

Erich Bain

A Microscale Patterning And Mechanistic Control In Surface-Grafted Radical Polymerization

Chris Bonin (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/3.png>).

Alginate-based Nanofibers via Electrospinning

Murat Cirit

PDGF and FGF Receptors Access the Ras/Erk Signaling Pathway With Differential Inputs Through PI3K

Charlotte Cooper

Role of *vapBC* toxin-antitoxin loci in the thermal stress response of the hyperthermophilic crenarchaeon *Sulfolobus solfataricus*

Kerri Cushing

The Enzymatic Conversion of Glycerol to Glycerol Carbonate

Laura Beth Dong

Synthesis and Characterization of Styrene-Vinylcyclohexane Copolymers Via Polystyrene Hydrogenation

Sumit Gangwal (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/2.png>).

Dielectrophoretic and electrokinetic behavior of “Janus” particles in AC electric fields

Nimesh Gera (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/1.png>).**Arif O. Gozen**

Effect of Block Length on Interfacial Structure and Segregation of Diblock Copolymers at Immiscible Polymer/Polymer Interfaces

Jeremy G. Immer

Catalytic Deoxygenation of Free Fatty Acids over Pd/C: Factors Influencing Catalyst Activity and Stability

Jessica Jenkins

Deposition of Monolayer Coatings from Particle and Live Cell Composites by Convective Sedimentation Assembly

Jairus Kleinert

Electric field-Assisted Convective Assembly of Large-Domain Colloidal Crystals

Arjun Krishnan (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/3.png>)

Morphology of biaxially stretched triblock copolymer gels using SAX

Andrew Loebli**Elizabeth Lynch**

On-Chip Self-Assembly and Electric Field Manipulation of Bioparticles and Synthetic Particles for Separation and Detection of Cells

Ravish Malik

Heteropolymers with Adjustable Monomer Sequences (HAMS) as Compatibilizers for Homopolymer Blends

Adam Melvin

Signaling Vector Analysis (SVA) of Intracellular Pathways Governing Cell Migration

Ali E. Ozcam

Modifying material surfaces by siloxane-based coatings

Anand K. Patel

Phase Behavior and Physical Properties of Biocompatible Silk Fibroin Blends

Kristen Roskov

Nanostructured Organometallic Polymer Systems Containing Poly(ferrocenylsilanes) or Magnetically-Active Nanoparticles

Christina Tang

Enzyme Immobilization on Nanofibrous Supports

Rameshwar Yadav

Cross-linked Polymer Electrolyte Membranes for Applications in PEM Fuel Cells