
Student Research Seminar Schedule

Session A - Morning (FRNY G124)

- 8:30 AM – 8:50 AM **CeO₂ Supported Ni-based Catalysts Prepared by Solution Combustion Synthesis for H₂ Generation from N₂H₄·H₂O**
Wooram Kang
Dr. Arvind Varma
- 8:50 AM – 9:10 AM **Catalytic Consequences of Spatial Distribution, Mobility, and Solvation of Active Sites on Ammonia Selective Catalytic Reduction of Nitric Oxide over Cu-Zeolites**
Ishant Khurana
Dr. Fabio Ribeiro
- 9:10 AM – 9:30 AM **Density Functional Theory Studies of Atomic Layer Deposition on LiMn₂O₄ Lithium Ion Battery Cathodes**
Robert Warburton
Dr. Jeffrey Greeley
-
- 9:45 AM – 10:45 AM **Keynote Address Dr. Peter Kissinger - FRNY G140**
-
- 11:00 AM – 11:20 AM **Nature of SO₂-poisoning on ZCuOH and Z₂Cu sites in Cu-SSZ-13 during the NH₃ Selective Catalytic Reduction (SCR) of NO_x**
Arthur Shih
Dr. Fabio Ribeiro
- 11:20 AM – 11:40 AM **Pt-Co Catalysts for Alkane Dehydrogenation: Structural Effects on Selectivity**
Laryssa Goncalves Caesar
Dr. Jeffrey T. Miller
- 11:40 AM – 12:00 PM **Influence of Confining Environment Polarity on Ethanol Dehydration Catalysis by Lewis Acid Zeolites**
Jason Bates
Dr. Rajamani Gounder

Student Research Seminar Schedule

Session B - Morning (FRNY B124)

8:30 AM – 8:50 AM	Manipulating Energy Transfer between a Photoexcited Conjugated Polymer and Open-Shell Small Molecules Daniel Wilcox <i>Dr. Bryan Boudouris</i>
8:50 AM – 9:10 AM	Synthesis and Evaluation of Novel Thin-Film Solar Cell Materials: A Case Study of Cu₃AsS₄ Scott McClary <i>Dr. Rakesh Agrawal</i>
9:10 AM – 9:30 AM	Temperature Dependent Electrochemical Performance and Safety Aspects of Graphite Anodes for K-ion and Li-ion Batteries Ryan Adams <i>Dr. Arvind Varma and Dr. Vilas Pol</i>
9:45 AM – 10:45 AM	Keynote Address Dr. Peter Kissinger - FRNY G140
11:00 AM – 11:20 AM	Constant-Pattern Design Method for Separating Ternary Mixtures of Rare Earth Elements Using Ligand-Assisted Displacement Chromatography Hoon Choi <i>Dr. Nien-Hwa Linda Wang</i>
11:20 AM – 11:40 AM	Interfacial Tension and Phase Behavior of Oil-Aqueous Systems with Applications to Enhanced Oil Recovery Jaeyub Chung <i>Dr. Elias I. Franses and Dr. Bryan Boudouris</i>
11:40 AM – 12:00 PM	Approaching the Nature of Glass Transition as Probed by Dynamic Mechanical Analysis of Polymers Yelin Ni <i>Dr. James Caruthers</i>

Student Research Seminar Schedule

Session A - Afternoon (FRNY G124)

- 2:00 PM – 2:20 PM **Articular Cartilage Defect Repair with a Collagen Type I and II Blend Hydrogel in vitro and in vivo**
Claire Kilmer
Dr. Julie Liu
- 2:20 PM – 2:40 PM **Deciphering the Molecular Mechanisms Involved in the Transport of Volatile Organic Compounds in the Epicuticle of Plant Epidermal Cells**
Shaunak (Rick) Ray
Dr. John Morgan
- 2:40PM – 3:00 PM **A Modeling Framework to Individualize Hydroxyurea Based Treatment of Sickle Cell Patients**
Akancha Pandey
Dr. Doraiswami Ramkrishna
- Break*
- 3:15 PM – 3:35 PM **Structural Effect of PdZn Surfaces on CO and Propylene Adsorption**
Cory Milligan
Dr. Fabio Ribeiro
- 3:35 PM – 3:55 PM **Controlled Heteroatom Insertion into Zeolite Framework Vacancy Defects and Catalytic Consequences for Glucose Isomerization**
Juan Carlos Vega-Vila
Dr. Rajamani Gounder
- 3:55 PM – 4:15 PM **First Principles Modeling of Site Interconversion in Lewis Acid Zeolites for Ethanol Dehydration**
Brandon Bukowski
Dr. Jeffrey Greeley

Student Research Seminar Schedule

Session B - Afternoon (FRNY B124)

- 2:00 PM – 2:20 PM **Coffee Eye Effect:
the Formation of Stagnation Points during Drop
Evaporation and the Influence on Particle Deposition**
Lihui Wang
Dr. Mike Harris
- 2:20 PM – 2:40 PM **The Effect of Scale-Up on Mixing Efficiency in
Oscillatory Flow Reactors Using Principal Component
Image Analysis as a Novel Noninvasive Residence
Time Distribution Measurement Tool**
Joseph Oliva
Dr. Zoltan Nagy
- 2:40PM – 3:00 PM **Advancing Smart Manufacturing in Continuous
Processing of Oral Solid Doses**
Sudarshan Ganesh
Dr. Gintaras Reklaitis and Dr. Zoltan Nagy
- Break*
- 3:15 PM – 3:35 PM **Dropwise Additive Manufacturing for Pharmaceutical
Products utilizing non-Brownian Suspensions**
Andrew Radcliffe
Dr. Gintaras Reklaitis and Dr. Zoltan Nagy
- 3:35 PM – 3:55 PM **Process Intensification and Control in Pharmaceutical
Manufacturing**
Kanjakha Pal
Dr. Zoltan Nagy