

CNM Workshop 1: Nanomaterials Interfaces: From Fundamentals to Applications

Thursday, April 20, Morning

- 9:00 – 9:10 Elena Rozhkova (Argonne National Laboratory)
Introduction
- 9:10 – 9:40 Nicholas Kotov (University of Michigan)
Chirality-complexity Relations for Nanostructures
- 9:40 – 10:10 Phillip Messersmith (University of California, Berkeley)
Biologically Inspired Strategies for Interfacial Control in Nanomaterials
- 10:10 – 10:40 Bozhi Tian (University of Chicago)
Non-genetic Biological Modulation: Harnessing the Power of Semiconductors at All Length Scales
- 10:40 – 11:00 Break and Networking
- 11:00 – 11:30 Mats Fahlman (Linköping University)
Interfaces in Organic Photovoltaics
- 11:30 – 12:00 Anand Jagota (Lehigh University)
Hybrids of DNA and Single-walled Carbon Nanotubes
- 12:00 – 12:30 Mircea Cotlet (Brookhaven National Laboratory)
Light-induced Interfacial Interactions in Mixed Dimensional Van der Waals Heterostructures

Friday, April 21, Morning

- 9:00 – 9:10 Richard Schaller (Argonne National Laboratory)
Introduction
- 9:10 – 9:40 Ron Naaman (Weizmann Institute)
The Chiral-induced Spin Selectivity (CISS) Effect: From Electron Transfer in Biology to Spintronics
- 9:40 – 10:10 Raffaella Buonsanti (École polytechnique fédérale de Lausanne, Switzerland)
Colloidal Nanocrystals to Advance Catalysis and Energy Technologies
- 10:10 – 10:40 Aaron Lindenberg (SLAC/Stanford University)
Ultrafast Probes of Interfacial Charge and Lattice Dynamics

10:40 – 11:00 Break and Networking

11:00 – 11:30 Gordana Dukovic (University of Colorado at Boulder)
Driving Redox Enzyme Catalysis with Photoexcited Nanocrystals

11:30 – 12:00 Tianquan Lian (Emory University)
*Structure and Dynamics at Metal Electrode/Electrolyte Interface Probed
by In Situ Electrochemical Surface Enhanced/Selective Vibrational
Spectroscopic Methods*

12:00 – 12:30 Benjamin Diroll (Argonne National Laboratory)
*Spectroscopic Measurements of Heat Transfer at Organic-inorganic
Nanoscale Interfaces*

12:30 – 12:40 Closing Remarks