



Workshop Program (as of March 25, 2010)

**Dust and Ice: Their Roles in Astrophysical Environments**  
**The University of Georgia      March 30 - April 1, 2010**

Note: All talks and the poster session will be held in Room 322 of the Physics Bldg.

Monday March 29

5:00-7:00pm      Reception, Hill Atrium, GA Center

Tuesday March 30

8:30am - 10:00am      Registration (room 321C)

**Opening Session** (Chair: Phillip Stancil)

9:30am - 9:45am      Chuck Kutal (Assoc. Dean, Franklin College, UGA)  
Bill Dennis (Head, Physics & Astron., UGA)  
David Landau (Director, Center for Simulational Physics)  
*Opening remarks*

9:45am - 10:00am      David Schultz (Oak Ridge National Laboratory)  
*SELAC Overview*

10:00am - 11:00am      Eric Herbst (Ohio State University)  
**Plenary talk:** *Dust and Ice in Astrophysics*

11:00am - 11:15am      **Coffee break**

11:15am - 12:05pm      B-G Andersson (NASA/SOFIA)  
*The Stratospheric Observatory for Infrared Astronomy (SOFIA) Status and Science overview*

12:05pm - 2:00pm      **Lunch**

**Dust grain properties and Observations** (Chair: Gary Ferland)

2:00pm - 2:50pm      Angela Speck (University of Missouri Columbia)  
*Through The Looking Glass: A Re-analysis of Silicate Dust Spectral Features*

2:50pm - 3:40pm      Gianfranco Vidali (Syracuse University)  
*Influence of Surface Morphology of Dust Grain Analogues on H<sub>2</sub> Formation*

3:40pm - 4:00pm      **Coffee Break**

4:00pm - 4:50pm Aigen Li (University of Missouri Columbia)  
*Probing Cosmic Dust of the Early Universe through High-Redshift Gamma-Ray Bursts*

4:50pm - 5:40pm Susanna Widicus Weaver (Emory University)  
*Complex Organic Chemistry in Interstellar Ices*

Wednesday March 31

8:30am - 10:00am Registration (room 321C)

**Fundamental Surface Science** (Chair: Steve Lewis)

9:00am - 9:50am Andrew Rappe (University of Pennsylvania)  
*How do Bulk Structure and Ambient Conditions Affect Surface Composition and Structure?*

9:50am - 10:40am Carol Hirschmugl (Univ. of Wisconsin Milwaukee)  
*Surface Structure of Oxides and Micron-Scale Morphology and Chemical Identification of Heterogeneous Samples*

10:40am - 11:00am **Coffee break**

11:00am - 11:50am Michael Henderson (Pacific Northwest Nat. Lab.)  
*Water on Metal Oxides: Model Studies from an Ultrahigh Vacuum Perspective*

11:50am - 12:20pm Chad Sosolik (Clemson University)  
*Highly Charged Ion Astrophysics in the Laboratory: A New User Facility at Clemson University*

12:20pm - 12:45pm Douglas Hudgins (NASA Headquarters)  
*The Status of NASA's Laboratory Astrophysics Program*

12:45pm - 2:00pm **Lunch**

**Experiments on Grains and Clusters** (Chair: Perry Gerakines)

2:00pm - 2:50pm Ara Chutjian (NASA/Jet Propulsion Laboratory)  
*Polyatomic Molecule Formation in Superthermal Atom Collisions with Targets Adsorbed on a Dust Grain Analog*

2:50pm - 3:40pm Mike Duncan (University of Georgia)  
*TiC Nanocrystals in Post-AGB Stellar Spectra*

3:45-6:00pm **Poster session and coffee break**

Thursday April 1, 2010

8:30am - 10:00am Registration (room 321C)

**Ice Properties and Observations, PAHs** (Chair: Susanna Widicus Weaver)

- 9:00am - 9:50am Karin Oberg (Harvard-Smithsonian CfA)  
*Observations and Laboratory Simulations of Thermal Ice Evolution*
- 9:50am - 10:40am Perry Gerakines (University of Alabama)  
*Spectroscopy of Interstellar and Planetary Ice Analogs*
- 10:40am - 11:00am **Coffee break**
- 11:00am - 11:50am Thom Orlando (Georgia Institute of Technology)  
*Quantum-resolved Studies of Stimulated Processes in Complex Ice Mixtures and at Grain Surfaces*
- 11:50am - 12:40pm Els Peeters (University of Western Ontario)  
*The Spectral Characteristics of Astronomical PAHs*
- 12:40pm - 2:00pm **Lunch**

**PAHs (Part II)** (Chair: David Schultz)

- 2:00pm - 2:50pm Gary Ferland (University of Kentucky)  
*PAH Formation and Destruction in the Orion bar*
- 2:50pm - 3:40pm Gary Douberly (University of Georgia)  
*The Infrared Spectrum of Protonated Naphthalene and its Relevance for the Unidentified Infrared Bands*
- 3:40pm **Workshop Closing**