

**Discovery, synthesis and development of emerging materials and the role of the APS-U
September 27 & 28, 2018**

Agenda

Thursday, September 27, 2018 - APS Building 402, Room E1100 & E1200

- 9:00 – 9:10 Stephen Streiffer, APS Director
Welcome remarks
- 9:10 – 9:30 Dean Haeffner, Advanced Photon Source Upgrade Project
APS-U Beamline Upgrades
- 9:30 – 10:00 Joshua Goldberger, Ohio State University
Discovery and Design of Layered and Two-dimensional Materials
- 10:00 – 10:30 John Mitchell, Argonne National Laboratory
The future of material synthesis at ANL
- 10:30 – 10:45 ***Break***
- 10:45 – 11:15 Eric Toberer, Colorado School of Mines
How advances in growth and computation are changing the practice of science and the potential for APS to play a strong role
- 11:15 – 11:45 Tyrel McQueen, John Hopkins University
Developing a Unified Chemical Understanding of Reactivity for Materials Discovery
- 11:45 – 13:30 Working Lunch & Discussion for Report preparation – Ercan Alp
- 13:30 – 14:00 Uwe Kortshagen, University of Minnesota
Hyperdoped silicon nanocrystals via synchrotron X-ray scattering
- 14:00 – 14:30 Brian Stephenson, Argonne National Laboratory
In situ synchrotron X-ray studies of materials synthesis: issues and opportunities
- 14:30 – 15:00 Steve Heald, Argonne National Laboratory
Sector 25: two new beamlines for spectroscopy.
- 15:00 – 15:30 ***Break***
- 15:30 – 16:00 Hemamala Karunadasa, Stanford University
Tuning halide double perovskites to absorb sunlight
- 16:00 – 17:00 Discussion

Friday, September 28, 2018 - APS Building 402, Room E100 & E1200

- 9:00 – 9:30 Hugh Simons, Technical University of Denmark
X-Ray Microscopy in Material Synthesis
- 9:30 – 10:00 Daniel Haskel, Advanced Photon Source
Opportunities for polarization-dependent spectroscopy and scattering at APS-U
- 10:00-10:30 Susan Lattner, Florida State University
Insights into the nature of flux reactions using in-situ diffraction studies
- 10:30 – 10:45 ***Break***
- 10:45 – 11:15 Uta Ruett, Argonne National Laboratory
High-energy X-rays for Structural Analysis during Synthesis from Local to Long Range Order
- 11:15 – 11:45 Chris Benmore, Argonne National Laboratory
Prospects for high energy x-ray research on liquids & glasses
- 11:45 – 12:15 Wenli Bi, UIUC/Argonne National Laboratory
Nuclear Resonant Scattering studies of magnetism, spin and valence transition in Eu and Dy compounds under pressure
- 12:15 – 13:45 Working Lunch & Report preparation
- 13:45 – 15:00 Discussion and report writing
- 15:00 Adjourn