



2015 APS/CNM Users Meeting



POSTER INDEX



Advanced Photon Source

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A-59	Rivers	Pink Beam Tomography at 13-BM-D
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Center for Nanoscale Materials

Use of the Center for Nanoscale Materials was supported by the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences, under Contract No. DE-AC02-06CH11357.

CHEMISTRY

C-1	May	X-ray Nanodiffraction Study of the Delithiation Mechanism of LiFePO_4 Single Particles
C-2	Otto	Conjugated Bridge Effects on Triplet Generation in Ladder-type Perylene Dimers

ENVIRONMENTAL SCIENCE & GEOLOGY

C-3	Coenen	Preliminary Assessment of Microstructures on Siliceous Microfossils in Subglacial Lake Whillans, West Antarctica
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C-6	Narayanan	Bond Order Potential to Capture Size-dependent Dimensionality Effects in Au Nanoclusters
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NANOSCIENCE AND NANOTECHNOLOGY

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C-22	Wei	Integrated Photonics with Single-layer MoS ₂

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C-20	Makarova	Microfabrication of All-copper Waveguides by UV-lithography
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Exemplary Student Research Program

Using the world-class facilities at Argonne's Advanced Photon Source, area high school students and their teachers explore the principles and operation of these tools and conduct research during the school year. Under the guidance of staff scientists, each team develops an achievable project based on the techniques and limitations within a specific research group, prepares and submits a research proposal, sets up the experiment, gathers and analyzes their results, draws conclusions, and prepares a final poster for the Users Meeting.

ESRP-1	Naperville Central High School	Nanoscale Elemental Fingerprinting of Historic Ink
ESRP-2	Glenbard East High School	Sequestered Elements in Tissues of Water Willow and Freshwater Mussels as a Function of Sustainable Urban Stream Ecology



ESRP-3	Maplewood Richmond Heights High School	X-ray Crystallography of IF7 and Concanavalin-A
ESRP-4	Downers South High School	The Effect of Increased Phosphorous on Metal Absorption in Lettuce
ESRP-5	Neuqua Valley High School	Understanding the Reduction Mechanisms and Structural Changes of a Lithium-rich Oxide Material Using <i>Operando</i> X-ray Absorption Spectroscopy
ESRP-6	Tinley Park High School	Determining the Suitability of Fly Ash Produced in Illinois for Use in Geopolymer Concrete
ESRP-7	Oak Lawn Community High School	Comparing Extant and Fossilized Spiders to Determine Evolutionary and Preservational Changes Using Synchrotron X-ray Tomography

