COMPRES

COnsortium for Materials Properties Research in Earth Sciences



Newsletter February 2018

Upcoming COMPRES Sponsored Workshop "Synchrotron Infrared Spectroscopy on Materials in Extreme Environments" May 22-23, 2018

Workshop Organizers: Zhenxian Liu (G. Washington Univ.) and Larry Carr (NSLS-II)

2018 NSLS-II and CFN Users Meeting

http://usersmeeting.ps.bnl.gov/default.aspx?year=2018

National Synchrotron Light Source II, Brookhaven National Laboratory, New York

NSLS-II Beamline Frontier Infrared Spectroscopy (FIS) Facility for Studies under Extreme Conditions will replace and enhance the COMPRES IR operations previously installed at the NSLS beamline U2A. The infrared beamline is among the high-priority "BDN-Beamlines Developed by NSLS-II" beamlines already funded and currently under construction at the NSLS-II. The facility will be dedicated to high-pressure infrared (IR) measurements using the diamond-anvil cell, and offer the unparalleled flux in far-IR and diffraction limited spatial



resolution performance necessary to study volatiles in challenging samples from nature requiring micrometer spatial resolution. To kick off the opening this new COMPRES facility we are offering workshop at the 2018 NSLS-II and CFN Users Meeting. Based on the current beamline construction schedule, the first synchrotron IR light will be delivered this summer following science commissioning and user operation. The deadline for submitting the general user proposals for the cycle of September-December is May 31, about one week after the Users' Meeting and this workshop. We see the workshop as a great opportunity to bring the previous users of NSLS-U2A as well as potential new users, particularly postdocs and students, together to discuss the capabilities and future high pressure IR studies at FIS. Attendees will be able to tour the new facility and receive information for writing competitive general user proposals for the coming cycle of September-December 2018. Contact Zhenxian Liu zxliu@bnl. gov for details on registration, more information on the workshop program will be announced soon.

COMPRES Annual Meeting SAVE THE DATE! August 5-8, 2018



We are pleased to announce that the 2018 COMPRES Annual Meeting will be held on August 5-8, 2018 at the Hyatt Regency Tamaya Resort, New Mexico, USA.

http://compres.us/events/annual-meeting/2018/2018-compres-annual-meeting-general-information.

Meeting Questions? Contact Beth Ha: beth3ha@unm.edu. See you in New Mexico, August 2018!

COMPRES Annual Meeting Keynote Speakers (talk titles TBA)

Anat Shahar

Staff Scientist, Geophysical Laboratory, Carnegie Institution of Washington

Anat Shahar received her B.S. and M. Eng. from Cornell University in geological engineering and geological sciences respectively. She received her Ph. D. in geochemistry from UCLA. Before becoming a staff scientist in 2009 she was a Carnegie postdoctoral fellow. Her research focuses on stable isotope geochemistry at high pressure and/or temperature. She conducts high P/T experiments and traces the isotopes to answer questions that span from the formation of the first solids in the solar system to the formation of the cores of planets.

http://anatshahar.carnegiescience.edu





Seth Root

Scientist, Dynamic Material Properties Department, Sandia National Laboratories

Seth Root earned his bachelor's and master's degrees in physics at the University of Nebraska and his doctorate in physics from the Institute of Shock Physics at Washington State University. Root joined Sandia in 2008 for the opportunity to work on the Z machine, the world's largest pulsed-power facility. His team combines theoretical and experimental methods and applies density functional theory, a method of calculating energies and pressures using quantum mechanics.

Christine McCarthy

Lamont Assistant Research Professor, Lamont-Doherty Earth Observatory, Columbia University

Christine McCarthy received her B.S. in geophysics from University of Oregon, the M.S. and Ph.D. in Geological Science from Brown University. Her research explores the way that micro-features control macro-behavior. With material properties being the constant element, her work spans a variety of time and length scales and geologic contexts: from the deep earth, to the cryosphere, to the outer solar system. https://mccarthychristine.wixsite.com/icemechanics





Thomas Prettyman

Senior Scientist, Planetary Science Institute

Tom Prettyman received his PhD in Nuclear Engineering in 1991 from North Carolina State University. He joined PSI in 2007 after 14 years as a member of the Technical Staff of Los Alamos National Laboratory. His research interests include nuclear spectroscopy data analysis applied to solar system exploration, including the Moon, Mars, Vesta and Ceres. He is interested in developing proof-of-principle for flight instrumentation.

http://www.psi.edu/about/staffpage/prettyman



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