

Thursday, March 24, 2016
POSTER SESSION II: NASA PLANETARY SCIENCE DIVISION FACILITIES
6:00 p.m. Town Center Exhibit Area

[R601]

- Papanastassiou D. A. **POSTER LOCATION #1**
[*Facilities, Individuals, and Individuals in Facilities*](#) [#2898]
 A personal perspective on the function of facilities is presented.
- Clegg S. M. Wiens R. C. Delapp D. M. McInroy R. E. Maurice S. **POSTER LOCATION #2**
[*LIBS — Raman Research Facility at Los Alamos National Laboratory*](#) [#2985]
 LANL has a facility dedicated to the development of LIBS, Raman, and fluorescence spectroscopy.
- Hiroi T. Sasaki S. Okazaki M. Matsuoka M. Sato Y. et al. **POSTER LOCATION #3**
[*Interlaboratory Comparison Study of Visible and Near-Infrared Reflectance Spectra Using a set of Common Standard Materials*](#) [#1105]
 Four visible and near-infrared spectrometers produced consistent reflectance spectra of a common set of standard materials when their resolutions are adjusted.
- Glotch T. D. Rogers A. D. Hurowitz J. A. **POSTER LOCATION #4**
[*Spectroscopy and Geochemistry Facilities at the Stony Brook University Center for Planetary Exploration*](#) [#1922]
 Geochemistry and spectroscopy for you. All at Stony Brook.
- Maturilli A. Helbert J. **POSTER LOCATION #5**
[*The Planetary Spectroscopy Laboratory \(PSL\): Spectral Measurements of Planetary Analogues from UV to FIR*](#) [#1986]
 The Planetary Spectroscopy Laboratory (PSL) provide spectral measurements under vacuum to cover the spectral range from UV (0.2 μm) to FIR (200 μm and above).
- Dyar M. D. Breves E. A. Sklute E. C. **POSTER LOCATION #6**
[*Facilities for Mössbauer and Laser-Induced Breakdown Spectroscopy at Mount Holyoke College*](#) [#2205]
 Mount Holyoke College hosts two Investigator Facility instruments for use by planetary scientists: the Mössbauer and Laser-Induced Breakdown Spectroscopy labs.
- Sharma M. **POSTER LOCATION #7**
[*Determination of High Precision Isotope Ratios in Returned Samples Using Multi-Ion Counting*](#) [#2679]
 I suggest a facility in the U.S. where high-precision measurements of radiogenic isotopes in samples weighing a few micrograms could be routinely made.
- Young E. D. Kohl I. E. McCain K. Isa J. Rumble D. III **POSTER LOCATION #8**
[*A Novel High-Mass Resolution Gas-Source Mass Spectrometer Facility at UCLA*](#) [#2238]
 A novel high-mass-resolution gas-source mass spectrometer facility has been established at UCLA for exploring new isotope tracers for gases, ices, and rocks.
- McKeegan K. D. Harrison T. M. Liu M.-C. **POSTER LOCATION #9**
[*New Developments at the UCLA-NSF National Ion Microprobe Facility*](#) [#2872]
 The history, technical capabilities, new instrumentation, and management structure of the UCLA National Science Foundation National Ion Microprobe Facility are described.
- Dauphas N. Davis A. M. Yokochi R. Mendybaev R. A. Heck P. R. et al. **POSTER LOCATION #10**
[*C³ \(C-Cubed\): A Consortium of Instruments and Resources in Chicago for NASA-Based Research and Education*](#) [#1274]
 The C³ is a consortium of research laboratories in Chicago whose main focus is in the analysis of meteorites, returned samples, and their constituents.

Floss C. Croat T. K. Gyngard F. Oglione R. **POSTER LOCATION #11**
[The Laboratory for Space Sciences at Washington University in St. Louis](#) [#1260]

The Laboratory for Space Sciences has a long history of development of microanalytical instrumentation for advancing planetary and space science research.

Wittmann A. Convey D. Sharp T. Wadhwa M. Buseck P. et al. **POSTER LOCATION #12**
[The Electron Microprobe Laboratory at Arizona State University](#) [#3018]

ASU's Electron Microprobe Laboratory offers state-of-the-art microchemical analytical capacities for the study of planetary materials.

Cohen B. A. **POSTER LOCATION #13**
[The MSFC Noble Gas Research Laboratory \(MNGRL\): A NASA Investigator Facility](#) [#2760]

MNGRL is a NASA Investigator Facility designed to conduct noble gas analysis of planetary microsamples, including Ar-Ar dating and cosmic-ray exposure ages.

Huss G. R. Nagashima K. Thomen A. Krot A. N. **POSTER LOCATION #14**
[The W. M. Keck Cosmochemistry Laboratory at the University of Hawaii at Manoa](#) [#2786]

We discuss the operation and productivity of the W. M. Keck Cosmochemistry Laboratory and argue that continued robust funding is in NASA's long-term interest.

Agee C. B. **POSTER LOCATION #15**
[COMPRES: A Community-Based Consortium for Research on Materials Properties of Earth and Planetary Interiors](#) [#2589]

COMPRES is a community organization that operates facilities at national laboratories for research in the materials properties of Earth and planetary interiors.

Schoonen M. Hill J. Thieme J. Chu Y. Tappero R. et al. **POSTER LOCATION #16**
[Planetary Science Capabilities at National Synchrotron Light Source-II, Brookhaven National Laboratory](#) [#2951]

National Synchrotron Light Source-II provides nanoscale-resolution X-ray imaging, enabling chemical speciation and diffraction studies of planetary materials.

Brand H. E. A. Martin D. **POSTER LOCATION #17**
[The Allende Meteorite: A Case Study for All the Family?](#) [#1386]

The Allende Meteorite is probably the most studied rock in the solar system. What better sample to use to demonstrate the capabilities of a facility.

Brand H. E. A. Kimpton J. A. Gu Q. **POSTER LOCATION #18**
[Shining a Light on Planetary Processes Using Synchrotron Powder Diffraction](#) [#1121]

The powder diffraction beamline at the Australian Synchrotron is ideally suited to carrying out time resolved measurements on planetary analogue environments.

McCubbin F. M. Allton J. H. Evans C. A. Fries M. D. Nakamura-Messenger K. et al. **POSTER LOCATION #19**
[Curating NASA's Past, Present, and Future Extraterrestrial Sample Collections](#) [#2668]

The NASA Astromaterials Acquisition and Curation Office at JSC is tasked through NPD 7100.10E to be the past, present, and future home of NASA's astromaterials.

Abe M. Okada T. Yada T. Uesugi M. Karouji Y. et al. **POSTER LOCATION #20**
[Current Status and Future Prospects of JAXA's Astromaterials Science Research Group](#) [#1438]

JAXA organized Astromaterials Science Research Group as a new group in last year. We report the activity and current status of this group.

Hutzler A. Ferrière L. Smith C. L. Russell S. Aléon J. et al. **POSTER LOCATION #21**
[EURO-CARES: Project Roadmap of a European Sample Curation Facility](#) [#1937]
 EURO-CARES is a multinational project to create a roadmap for the implementation of a European Extra-terrestrial Sample Curation Facility.

Bryson K. L. Ostrowski D. R. **POSTER LOCATION #22**
[Asteroid Threat Assessment Project — Meteorite Laboratory](#) [#2657]
 The Meteorite Laboratory is part of the NASA Ames Asteroid Threat Assessment Project (ATAP). The laboratory measures the physical properties of meteorites.

Hanley J. Grundy W. Tegler S. Dillingham R. Trilling D. et al. **POSTER LOCATION #23**
[Laboratory Studies of Cryogenic Outer Solar System Materials](#) [#2421]
 NAU hosts a lab devoted to studies of astrophysical ices. Exotic ices can be measured in the lab at temperatures relevant to the coldest planetary bodies.

Mahjoub A. Choukroun M. Sotin C. Hodyss R. Barmatz M. **POSTER LOCATION #24**
[Development of a New Experimental Platform to Constrain the Chemical Composition of Titan's Lakes](#) [#1748]
 We have developed a new experimental setup to study the composition of Titan's lakes and to test the operation of compounds and instruments in such environment.

Gharib Nezhad E. Lyons J. R. Wright D. P. **POSTER LOCATION #25**
[Simulating Haze Particles in a H₂-Rich Exoplanet Atmosphere with High Temperature Discharge Experiments](#) [#2565]
 Haze particles in a H₂-rich exoplanet atmosphere are laboratory simulated using a high-temperature plasma discharge method.

Liu Y. Retherford K. D. Davis M. W. Mokashi P. S. Patrick E. L. et al. **POSTER LOCATION #26**
[The SwRI Ultraviolet Reflectance Chamber \(SwURC\): Progress Toward a Far Ultraviolet Surface Reflectance Library](#) [#2496]
 We report the status on SwRI Ultraviolet Reflectance Chamber (SwURC) designed to conduct FUV reflectance measurements of broad relevance to planetary science.

Johnson N. M. Kohler E. **POSTER LOCATION #27**
[VICI \(Venus In Situ Chamber Investigations\): A Small Venus Simulation Chamber](#) [#2267]
 A description of a small Venus simulation chamber located at NASA Goddard; available for community use.

Burr D. M. Bridges N. T. Smith J. K. Marshall J. R. **POSTER LOCATION #28**
[The Titan Wind Tunnel: Illustrating the Importance of Planetary Wind Tunnels for Understanding Aeolian Processes](#) [#2356]
 Titan Wind Tunnel data are improving our understanding of aeolian processes, while illustrating the importance of wind tunnels facilities for community use.

Swann C. Ewing R. C. **POSTER LOCATION #29**
[NASA's Planetary Aeolian Laboratory MARTian Surface Wind Tunnel](#) [#2415]
 This presentation outlines the use of the NASA's Martian Surface Wind Tunnel to better understand aeolian processes on Earth and Mars.

Malespin C. A. Johnson C. Arevalo R. Jr. Brinckerhoff W. McAdam A. C. et al. **POSTER LOCATION #30**
[Mars Environment Chambers in NASA Goddard's Planetary Environments Lab](#) [#2615]
 The Planetary Environments Lab (PEL) at NASA's GSFC is home to two Mars environment test facilities used for the SAM and MOMA instruments.

Minafra J. A. Schmidt G. Bailey B. E. **POSTER LOCATION #31**
[SSERVI Analog Regolith Simulant Testbed Facility](#) [#2365]
SSERVI manages a regolith testbed facility that leverages ~8 tons of JSC1A to test hardware and conduct research in a large simulant environment.

Parsons A. M. Bodnarik J. McClanahan T. P. Nowicki S. Schweitzer J. et al. **POSTER LOCATION #32**
[An Outdoor Gamma Ray and Neutron Instrumentation Test Facility at NASA/GSFC](#) [#2476]
This outdoor Gamma-Neutron Test (GNT) facility is specially equipped for the testing of high energy gamma ray and neutron planetary science instrumentation.

Bleacher J. E. Hamilton C. W. Glavin D. P. McAdam A. C. Eigenbrode J. L. et al. **POSTER LOCATION #33**
[NASA Goddard Instrument Field Team: A Facility Enabling Planetary Science Field Testing of New Instrument Designs](#) [#2323]
The NASA Goddard Instrument Field Team enables field testing and integration of measurement philosophies early in the instrument development cycle.

Lee P. Braham S. Fong T. Glass B. J. Hoffman S. J. et al. **POSTER LOCATION #34**
[Haughton-Mars Project Research Station \(HMPRS\), Devon Island, High Arctic: A Planetary Science and Exploration Field Research Facility](#) [#3073]
The Haughton-Mars Project Research Station on Devon Island, High Arctic, is a field research facility dedicated to supporting analog field research.

Taylor P. A. Nolan M. C. Rivera-Valentin E. G. Richardson J. E. Rodriguez-Ford L. A. et al. **POSTER LOCATION #35**
[The Arecibo Observatory Planetary Radar System](#) [#2534]
Arecibo Observatory houses the largest and most sensitive single-dish radio telescope and the most active and powerful planetary radar facility in the world.

Vodniza A. Q. **POSTER LOCATION #36**
[A Small Observatory with Big Projects](#) [#1182]
The Astronomical Observatory of the University of Nariño-Colombia was founded on March 2002. We have participated on several international meetings as speakers.

Milam S. N. Stansberry J. Sonneborn G. **POSTER LOCATION #37**
[Innovative Solar System Science with the James Webb Space Telescope](#) [#2413]
The current status of the James Webb Space Telescope as well as planetary science highlights and a mission overview will be presented.

Nelson D. M. Williams D. A. Zink A. E. **POSTER LOCATION #38**
[The Ronald Greeley Center for Planetary Studies: The NASA RPIF at Arizona State University](#) [#2125]
The Ronald Greeley Center for Planetary Studies: planetary data archive, GIS training, education outreach, and long-term goals.

Hager M. A. Spudis P. D. Bigwood D. P. Chappell L. S. Cherry S. N. **POSTER LOCATION #39**
[The LPI Regional Planetary Image Facility](#) [#1205]
LPI's Regional Planetary Image Facility provides rapid access to planetary data for the science community, educators, and public at large.

Watters T. R. Aiello R. E. Campbell B. A. O'Brien J. A. **POSTER LOCATION #40**
[The Smithsonian Regional Planetary Image Facility](#) [#1567]
The Smithsonian Regional Planetary Image Facility provides for the use and dissemination of photographs, digital images, and other data from planetary missions.

Byrne S. Schuchardt M. **POSTER LOCATION #41**
[The Space Imagery Center: A NASA Regional Planetary Image Facility](#) [#1355]

The Space Imagery Center is a NASA Regional Planetary Image Facility that provides research services, preserves a data archive, and conducts public engagement.

Portree D. S. F. Hagerty J. J. **POSTER LOCATION #42**
[The USGS Regional Planetary Information Facility: A Summary of Resources, Services, and Plans for the Future](#) [#2220]

The USGS RPIF will expand its tradition of service to the planetary science community through adoption of new practices, partnerships, and technologies.

Muller J.-P. Grindrod P. M. **POSTER LOCATION #43**
[The UCL RPIF: A Planetary Data Portal for the UK](#) [#2318]

The UK NASA RPIF Node is described including the novel RPIF-3D guest facilities for 3D mapping, visualization, and onscreen digitization of geological features.

Kline R. D. Hayes A. G. Million C. C. Proton J. Sullivan R. et al. **POSTER LOCATION #44**
[The Spacecraft Planetary Imaging Facility \(SPIF\) at Cornell University](#) [#2891]

We present an overview of services provided by the Spacecraft Planetary Imaging Facility at Cornell — Part of the Regional Planetary Image Facility Network.

Spray J. G. **POSTER LOCATION #45**
[The Canadian NASA Regional Planetary Image Facility: Impact Cratering and Shock Processes](#) [#3069]

This presentation concerns presenting the research and outreach focuses of the Canadian Regional Planetary Image Facility.

Neivert P. Schultz P. H. **POSTER LOCATION #46**
[Northeast Planetary Data Center](#) [#2952]

The Data Center provides images, data, and resources for the northeast region of the U.S. as part of the network of Regional Planetary Image Facilities.

Mouginis-Mark P. J. Peterson C. Nakamura P. Kastner E. **POSTER LOCATION #47**
[Unique Aspects of the NASA Pacific Regional Planetary Data Center](#) [#1367]

We describe Hawaii's RPIF, including new data display and video-conferencing capabilities and the concept of Hawaii as a planetary volcanology analog.

Pieth S. Jaumann R. Weiland M. Eichertopf K. **POSTER LOCATION #48**
[The NASA Regional Planetary Image Facility at the German Aerospace Center \(DLR\) in Berlin, Germany](#) [#1834]

This library of planetary photographs and maps keeps on file all the image data transmitted by many NASA and ESA space probes and makes them accessible to the public in Europe.

Schroeder J. Anderson R. C. **POSTER LOCATION #49**
[Overview of the Regional Planetary Image Facility \(RPIF\) at the Jet Propulsion Laboratory](#) [#2596]

The Jet Propulsion Laboratory (JPL) Regional Planetary Image Facility (RPIF) is chartered as a repository for all robotic spacecraft hard-copy data.

Karcz J. S. * Bowling D. Cornelison C. Parrish A. Perez A. et al. **POSTER LOCATION #50**
[The Ames Vertical Gun Range](#) [#2599]

The Ames Vertical Gun Range (AVGR) is a national facility for conducting laboratory-scale investigations of high-speed impact processes.

Williams D. A. * Smith J. K. **POSTER LOCATION #51**
[NASA Facilities Overview: Planetary Aeolian Laboratory](#) [#1524]

This invited presentation will discuss one of NASA's Planetary Science Division Facilities, the Planetary Aeolian Laboratory.

Kremic T. * Nakley L. Vento D. Balcerski J. Kulis M. et al. *POSTER LOCATION #52*
[GLENN Extreme Environments Rig \(GEER\) for Planetary Science](#) [#2146]

The presentation discusses the NASA Glenn Extreme Environment Rig (GEER) and the potential applications and benefits it offers planetary science.

Milliken R. E. * Hiroi T. Patterson W. *POSTER LOCATION #53*
[The NASA Reflectance Experiment Laboratory \(RELAB\) Facility: Past, Present, and Future](#) [#2058]

Overview of past, current, and future capabilities of RELAB instrumentation and spectral database.