

Thursday, March 22, 2018
POSTER SESSION II: SMALL BODIES LABORATORY WORK
6:00 p.m. Town Center Exhibit Area

[R603]

Yant M. H. Hörst S. M. Parker A. H. Protopapa S. Nowicki K. et al. **POSTER LOCATION #45**
[*Project ESPRESSO: Optical Constants for Quantitative Spectral Analysis*](#) [#2758]

We are implementing a facility to provide the planetary community with access to measurements of optical constants for lunar and asteroid constituent materials.

Izawa M. R. M. Applin D. M. Cloutis E. A. **POSTER LOCATION #46**
[*The “Infrared-Ultraviolet Connection” in Reflectance Spectroscopy*](#) [#2930]

Interpretations of UV planetary surface spectra are improved by adapting ideas from IR spectroscopy to analogous phenomena in the UV.

Li J.-Y. Nelson R. M. Castillo-Rogez J. C. Boryta M. D. **POSTER LOCATION #47**
 Manatt K. S. et al.
[*Laboratory Measurement of the Phase Function of Natrite*](#) [#1952]

We measured the phase function of natrite with a laboratory goniometer to help interpret the photometric observations of Cerealia facula on Ceres.

Jones S. M. Heinz N. Westphal A. **POSTER LOCATION #48**
[*Effects of Hypervelocity Capture in Aerogel on the Compositions of Common Silicate Materials*](#) [#1504]

Olivine and pyroxene grains were captured in aerogel at 5–6 km/s, extracted and characterized by Raman and X-ray fluorescence to observe post-shot alterations.

Burbine T. H. Buchanan P. C. Klima R. L. Binzel R. P. **POSTER LOCATION #49**
[*Can Formulas Derived from Pyroxene and/or HED Reflectance Spectra Be Used to Determine the Mineralogies of V-Type NEAs?*](#) [#2712]

This study will test whether pyroxene and/or HED spectra of well-characterized samples can be used to determine the mineralogies of V-type near-Earth asteroids.

Ostrowski D. R. Bryson K. L. **POSTER LOCATION #50**
[*High Temperature Emissivity of Meteorites Related to Asteroid Atmospheric Entry*](#) [#2887]

Emissivity measurements of meteorites at temperatures related to atmospheric entry. Measurements in relationship to meteoroid atmospheric entry models.

Bryson K. L. Ostrowski D. R. Agrawal P. Panerai F. **POSTER LOCATION #51**
[*Micro-CT Analysis of Meteorite Flaws and Scaling for Atmospheric Entry*](#) [#2759]

Strength plays a role in determining the outcome of impact events. Our objective is to scale flaw parameters in meteorites to their parent body using micro-CT.

Nakauchi Y. Takir D. Hibbitts C. A. Stockstill-Cahill K. R. **POSTER LOCATION #52**
 Emery J. P. et al.
[*Reflectance Spectra of Carbonaceous Chondrites Measured Under Asteroid-Like Conditions: Implications for Hayabusa2's NIRS3 Instrument*](#) [#1850]

Reflectance spectra of carbonaceous chondrites were measured under asteroid environment. We found a good correlation between 2.9 μm band depth and 3 μm band area.

Park J. Nagao K. Choi J. Baek J. M. Park C. et al. **POSTER LOCATION #53**
[*Noble Gases of Enstatite Chondrites, Melt Rocks, and Aubrites*](#) [#1914]

We present noble gas analyses, Ar/Ar age dating, and radionuclides to provide information on geochronological evolution for enstatites, melt rocks, and aubrites.

Yokochi R.

POSTER LOCATION #54

[Annealing of Amorphous Water Ice at Cryogenic Temperatures](#) [#2957]

Amorphous water ice annealed at cryogenic temperatures, resulting in significant reduction of monolayer adsorption capacity based on BET analysis with Ar at 50K.

Ciarniello M. Beck P. Filacchione G. Moroz L. V. Pilorget C. et al.

POSTER LOCATION #56

[The International ISSI Team "Comet 67P/Churyumov-Gerasimenko Surface Composition as a Playground for Radiative Transfer Modeling and Laboratory Measurements"](#) [#1467]

This team effort takes advantage of remote sensing observations of comet 67P to infer its composition through radiative transfer modeling and lab measurements.

Zellner N. E. B. McCaffrey V. P. Butler J.

POSTER LOCATION #57

[Preservation and Production of Sugar Molecules During Comet Impacts](#) [#2531]

Sugars on comets. / How much GLA is there? / Fate upon impact.

Rosas Ortiz Y. M. Helbert J. Maturilli A. Lehmann M.

POSTER LOCATION #58

[A Compact Planetary Simulation Chamber for the Characterization of the Bi-Directional Reflectance of Asteroid, Cometary, and Solar System Small Bodies \(SSSB\) Analogues at Low-Temperature Environments](#) [#1883]

As a response to the current and future research ambitions of the Spectroscopy Laboratory at the German Aerospace Center towards low-T reflectance measurements.

Yanez M. D. Hodyss R. P. Cable M. L. Johnson P. V.

POSTER LOCATION #59

[Analysis of Potential Radical Chemistry on Kuiper Belt Objects](#) [#1037]

We present near infrared spectra of methyl radical in two different matrices, after prolonged photolysis, as an analogy to Kuiper Belt Objects.