

Tuesday, March 19, 2013

[T643]

**POSTER SESSION: PLANETS IN THE LABORATORY:
LABORATORY STUDY OF TERRESTRIAL ANALOGS
6:00 p.m. Town Center Exhibit Area**

Zhou Yuhang. Wang Alian. *POSTER LOCATION #667*
[*A Laboratory Simulation Experiment of Hydrothermal Processes on Mars*](#) [#2638]

An experiment simulates volcanic basalt reacting with acid in CO₂ atmosphere. Hydrated Ca-, Mg-, and Fe-sulfates were found as secondary mineral products.

Zhou Yuhang. Wang Alian. *POSTER LOCATION #668*
[*A Comparison of the Dehydration Processes of Al-, Fe²⁺-, and Mg-Sulfates Under Mars Relevant Pressures and Three Temperatures*](#) [#1797]

A comparison of the dehydration processes of alunogen, melanterite, and epsomite reveals the large differences in pathways and the induced structural changes.

Léveillé R. J. Cloutis E. A. Mann P. Sobron P. Lefebvre C. et al. *POSTER LOCATION #669*
[*Spectral Reflectance and Chemical Properties of Magnesium-Rich Phyllosilicates*](#) [#2939]

Mg-rich phyllosilicates may be important indicators of past habitable conditions on Mars. Spectral reflectance and LIBS characteristics of Mg-clays are described.

De Angelis S. De Sanctis M. C. Ammannito E. Di Iorio T. Carli C. et al. *POSTER LOCATION #670*
[*A VIS-NIR Laboratory Spectral Library of Terrestrial Mars Analogs: Support for the ExoMars – Ma_{Miss} Instrument*](#) [#1544]

The Ma_{Miss} (Mars Multispectral Imager for Subsurface Studies) instrument onboard the ExoMars 2018 mission will investigate the martian subsoil in the VNIR range.

Lu Yanli. Wang Alian. *POSTER LOCATION #671*
[*Stability and Phase Transition Pathways of OH-Bearing Ferric Sulfates Under the Conditions Relevant to Diurnal, Seasonal, and Obliquity Cycles on Mars*](#) [#2634]

Results from three systematic experimental investigations on OH-bearing ferric sulfates are consistent with their occurrence at the surface of Mars.

Westall F. Bost N. Loisele L. Ramboz C. Foucher F. *POSTER LOCATION #672*
[*The International Space Analogue Rock Collection \(ISAR\) for In Situ Instrument Testing: Relevance for Martian Missions*](#) [#1397]

ISAR (www.isar.cnrs-orleans.fr) contains relevant lab characterised igneous and sedimentary rocks and minerals for testing instruments for in situ Mars missions.

Brachfeld S. Cuomo D. Shah D. Petrochilos L. T. Hammer J. et al. *POSTER LOCATION #673*
[*Effects of Variable Duration Annealing on the Rock Magnetic and Remanence Properties of Synthetic Basalts: Implications for the Intensity and Stability of Crustal Magnetism*](#) [#1814]

We use synthetic basalts to investigate the magnetic properties and remanence-carrying abilities of materials likely to be present in the martian crust.

Basavaiah N. Chavan R. S. *POSTER LOCATION #674*
[*Spectral Results From Mid-IR DRIFT Analysis of Lunar Impact Crater, India*](#) [#2636]

Spectral variations with direction of impact at Lunar Impact crater, India, are documented using mid-IR diffuse reflectance spectroscopy.

Borchardt J. D. Rygalov V. Y. Bebout B. M. *POSTER LOCATION #675*
[*A Comparative Rhizosphere and Morphological Study of a Brassica rapa on JSC-1A Lunar Regolith Simulant*](#) [#2610]

Determine how plant morphology and rhizosphere geochemistry may be indicators of soil-forming processes using in situ resources from an early lunar base model.

Dropmann M. Laufer R. Herdrich G. Hyde T. W. Cook M. et al.

POSTER LOCATION #676

[Lunar Environment Simulation Capabilities at CASPER](#) [#2552]

An inductively heated plasma source in combination with additional hardware as part of a hybrid plasma simulation facility for lunar environment simulation.