

Tuesday, March 20, 2018
**POSTER SESSION I: ENVIRONMENTAL ANALOGS IV:
 VOLCANIC PROCESSES**
 6:00 p.m. Town Center Exhibit Area

[T320]

Crandall J. R. Filiberto J. Potter-McIntyre S. L. Schwenzer S. P. **POSTER LOCATION #215**
[Magmatic Intrusions into the Sulfur-Rich Carmel Formation on the Colorado Plateau, USA: Implications for the Mars 2020 Mission](#) [#2220]
 Carmel Formation / Mars landing site analog / Ig-met-sed contact.

Wagner R. V. Rowland S. K. Robinson M. S. **POSTER LOCATION #216**
[Lunar Pits and Hawaiian Analogs](#) [#1538]
 We produced 3D models of three Hawaiian pits, and used them to test the feasibility of ideas about lunar pits' layering and wall angles.

Fan K. A. Neish C. D. Zanetti M. Kukko A. **POSTER LOCATION #217**
[An Improved Methodology for the 3-Dimensional Characterization of Surface Roughness as Applied to Lava Flows](#) [#2526]
 A novel topographic roughness analysis methodology facilitates 3-dimensional estimation of scale-dependent roughness parameters and anisotropy of lava flows.

Simurda C. M. Scheidt S. P. Crown D. A. Ramsey M. S. **POSTER LOCATION #218**
[Interpreting Subpixel Surface Roughness and Block Size Distribution to Improve Thermal Inertia Interpretations of Mars](#) [#2612]
 High spatial resolution visible data are used to interpret subpixel particle size distributions to improve thermal inertia interpretations.

Zanetti M. Neish C. D. Kukko A. Choe B.-H. Osinski G. et al. **POSTER LOCATION #219**
[Surface Roughness and Radar Scattering Properties of Volcanic Terrain: Geologic Application of Kinematic Mobile LiDAR Scanning](#) [#2361]
 Backpack LiDAR scan / Ultra-high resolution / Rough lava measured.

Ito G. Rogers A. D. Young K. E. Bleacher J. E. Edwards C. S. et al. **POSTER LOCATION #220**
[Incorporation of Portable Infrared Spectral Imaging into Planetary Geological Field Work: Analog Studies at Kilauea Volcano, Hawaii and Potrillo Volcanic Field, New Mexico](#) [#1290]
 The use of infrared spectral imaging in geological field work is assessed and its potential benefits for future planetary surface missions are discussed.

Kobayashi M. K. Kawai K. K. Sakuma H. S. Kitamura M. K. Ishimaru R. I. et al. **POSTER LOCATION #221**
[The Mineralogy of the Goshogake Mud Volcano Field, Northern Japan, and Its Implication to the Mechanism and Driving Force](#) [#1223]
 For the future astrobiological explorations on Mars, we investigated a high-temperature mud volcano in Japan in the terms of mineralogy and geology.

Komatsu G. Ishimaru R. Miyake N. Kawai K. Kobayashi M. et al. **POSTER LOCATION #222**
[*The Goshogake Mud Volcano Field, Tohoku, Northern Japan: An Acidic, High-Temperature System Related to Magmatic Volcanism*](#) [#1094]

We introduce the Goshogake mud volcano field, an acidic, high temperature system related to magmatic volcanism, which can be an excellent terrestrial analog.

Ishimaru R. Miyake N. Komatsu G. Kawai K. Kobayashi M. et al. **POSTER LOCATION #223**
[*Origins of High-Temperature Fluids in the Goshogake Mud Volcano Field, Tohoku, Northern Japan: Chemical and Isotopic Studies of Gas and Water*](#) [#1210]

We present the results of chemical and isotopic studies of gas and water at the Goshogake mud volcano field as an analog for astrobiological planetary missions.