

Thursday, March 24, 2016 [R621]
POSTER SESSION II: PLANETARY VOLCANISM: LAVA FLOWS “LAVA” YOU
6:00 p.m. Town Center Exhibit Area

Sori M. M. Hamilton C. W. Lev E. Scheidt S. **POSTER LOCATION #301**
[*Numerical Modeling of Lava Flow Behavior on Earth and Mars: A Multi-Layer Rheological Approach*](#) [#2909]

We conduct FEM simulations of basaltic flows in an effort to understand the similarities and differences between lava flow behavior on Earth versus Mars.

Sehlke A. Whittington A. G. **POSTER LOCATION #302**
[*The Viscosity of Tholeiitic Planetary Melts: A Configurational Entropy Model*](#) [#1957]

We are presenting a new viscosity model for planetary tholeiitic melts.

Fagents S. A. Baloga S. M. Glaze L. S. **POSTER LOCATION #303**
[*Influences of Topography on Lava Cooling and Flow Dynamics: Application to Mars Lava Flows*](#) [#2802]

We demonstrate that topographic variability enhances lava flow cooling, producing recognizable rheologic and morphologic consequences for flow development.

Venzke A. C. Zimbelman J. R. **POSTER LOCATION #304**
[*Mapping Inflated Lava Flows in CTX Images Near Elysium Mons, Mars*](#) [#1486]

A continuation of previous research to find more inflated flows in the Elysium Mons region on Mars using CTX images.

Healy B. F. Zimbelman J. R. **POSTER LOCATION #305**
[*Mapping and Studying Inflated Lava Flows in Mars' Tharsis Region*](#) [#1613]

Three inflated lava flows on Mars are mapped and analyzed. The age and slope of each flow are calculated, and unexpected lava tube features are discovered.

Simurda C. M. Ramsey M. S. Crown D. A. **POSTER LOCATION #306**
[*Surface Characteristics of the Daedalia Planum Lava Flow Field Derived from Thermophysical and Geological Mapping*](#) [#2594]

The Daedalia Planum lava flow field contains thermal inertia and temperature variations revealing that individual flows respond differently to diurnal heating.

Cushing G. E. Dundas C. M. Keszthelyi L. P. **POSTER LOCATION #307**
[*Mapping a High-Flux Flood Lava in South Kasei Valles*](#) [#2920]

We have mapped and characterized a 2300-km well-preserved, high-flux, turbulent, platy-ridged martian flood lava through the southern arm of Kasei Valles.

Zanetti M. Neish C. Choe B. H. Heldmann J. L. SSERVI FINESSE Team **POSTER LOCATION #308**
[*Mapping Fresh Lava Flows with Multi-Wavelength Radar Imagery in Support of Planetary Analogue Studies*](#) [#2429]

Lava flows at Craters of the Moon National Park are mapped with AIRSAR L-Band and RADARSAT-2 C-band imagery showing surface roughness differs with wavelength.

Mallonee H. C. Kobs Nawotniak S. E. Hughes S. S.
Neish C. Downs M. et al.

POSTER LOCATION #309

[Basalt Lava Flow Texture Identification at Different Data Resolutions](#) [#2403]

This study examines the roughness (3D:2D surface area ratio) of lava flow types at different scales, suggesting data resolution limits for planetary studies.

Schaefer E. I. Neish C. D. Sori M. M. Hamilton C. W.

POSTER LOCATION #310

[Mandelbrot's Inferno: Exploring the Fractality of Lava Flow Margins in Iceland and Hawaii](#) [#2831]

We explore the potential to infer fine-scale information, like lava flow type and surface roughness, from the fractal margins of lava flows in orbital imagery.