

Tuesday, March 19, 2013

[T625]

POSTER SESSION: VOLCANISM ON VENUS, MOON, AND IO
6:00 p.m. Town Center Exhibit Area

Airey M. W. Mather T. A. Pyle D. M. Glaze L. S. Ghail R. C. **POSTER LOCATION #341**
[Modelling Styles of Volcanism on Venus](#) [#1282]

Conduit flow and subaerial plume buoyancy models are combined to model venusian volcanism under a range of conditions. Results are described using case studies.

Plescia J. B. **POSTER LOCATION #342**
[Plains Volcanism on the Lunar Mare](#) [#2487]

Areas of the mare are characterized by small-volume, low-relief shield volcanoes that represent the terminal stages of mare volcanism.

Lu Y. Ping J. S. Shevchenko V. V. **POSTER LOCATION #343**
[Volcanic Activity of the Mare Moscoviense and Schrödinger Basin](#) [#1452]

We used data from the Chang'e-1 and LRO for researching volcanic activity of the Mare Moscoviense and Schrödinger basins.

Enns A. C. Robinson M. S. **POSTER LOCATION #344**
[Basaltic Layers Exposed in Lunar Mare Craters](#) [#2751]

We searched for layered basaltic deposits in lunar craters and found they are thin (6–25 m) relative to previous measurements of lunar basaltic flows.

Trang D. Gillis-Davis J. J. Cahill J. T. S. Thomson B. J. Hawke B. R. et al. **POSTER LOCATION #345**
[Characterization of Localized and Regional Lunar Pyroclastic Deposits for Compositional and Block Population](#) [#2694]

We are developing a rock abundance model based upon Mini-RF and Diviner as well as a compositional map to identify volcanic vents in lunar pyroclastic deposits.

Gaither T. Gaddis L. R. Hare T. M. Garland A. **POSTER LOCATION #346**
[Geologic Analysis of the Orientale Annular Pyroclastic Deposit](#) [#2125]

A geologic analysis of the Orientale annular pyroclastic deposit using new, high-spatial resolution imaging data and derived topographic products.

Shank E. M. Klima R. L. Dyar M. D. **POSTER LOCATION #347**
[Characterizing Pyroxene Cooling Rate Using Reflectance Spectra](#) [#2371]

We perform heating experiments on orthopyroxenes of different composition to calibrate the determination of site occupancy using infrared reflectance spectra.

Whitten J. L. Head J. W. **POSTER LOCATION #348**
[Ancient Lunar Mare Volcanism: Identification, Distribution, and Composition of Cryptomare Deposits](#) [#1247]

Lunar cryptomaria are mapped using mainly Moon Mineralogy Mapper data to understand the total area and distribution of mare basalts.

Mills R. D. Ross D. K. Simon J. I. Irving A. J. **POSTER LOCATION #349**
[A Thorough Search for Elusive Lunar Granophyres](#) [#1796]

Imaging of large sections of multiple lunar meteorites reveals that granophyres are quite rare. However, granophyre clasts make up ~1% of Dhofar 1442.

Decker M. C. Smith J. H. Radebaugh J. Christiansen E. H. Williams D. A. **POSTER LOCATION #350**
[Formation of Patareae on Io: Geologic Mapping and Experimental Models](#) [#2699]

We explore constraints on the formation of volcanic features on Io called patareae by comparing experimental models with our geologic map of Tupan Patera.

Bunte M. K. Lin Y. Saripalli S. Bell J. F. III Greeley R.

POSTER LOCATION #351

[Intelligent Detection of Large Scale Volcanism During a Spacecraft Flyby: Examples from Flybys of Io](#) [#2519]

We demonstrate autonomous detection of Io's volcanic plumes and explore constraints on detecting similar features in future outer solar system missions.

Veeder G. J. Davies A. G. Matson D. L. Johnson T. V.

POSTER LOCATION #352

[New Faint Thermal Sources on Io](#) [#1320]

We identify four new hot spots on Io. An infrared ratio technique applied to Galileo NIMS data is shown to be sensitive to faint thermal sources.

Tovar D. Sanchez J. J.

POSTER LOCATION #353

[Super-Eruptions on Io. A Classification Based in Earth's Analogues](#) [#2599]

We suggest a classification of super-eruptions on Io based in the same methodology used for these events on Earth.