

Thursday, March 22, 2018
POSTER SESSION II: LUNAR VOLCANISM II
6:00 p.m. Town Center Exhibit Area

[R616]

Deitrick S. R. Lawrence S. J. **POSTER LOCATION #274**
[*Integrating Diverse Datasets to Assess Approaches for Characterizing Mare Basalts*](#) [#1057]

This study uses new LROC data to evaluate the composition of the mare basalt flows in the Marius Hills Volcanic Complex to provide new insights about the area.

Taguchi M. Morota T. Kato S. **POSTER LOCATION #275**
[*Near-Far Asymmetry of Magma Production of the Moon: Constraints from Mare Volumes Within the Farside Impact Basins*](#) [#1794]

We investigated the relation between mare volumes and crustal thickness within basins and differences between magma productions on the farside and nearside.

O'Brien H. C. Cronberger K. A. Neal C. R. **POSTER LOCATION #276**
[*A Novel Method for the Rapid Production of Crystal Size Distributions*](#) [#1534]

CSD's take forever / My method is way faster / Hey, come check it out!~A CSD Haiku~.

Welsh D. F. Jr. Neal C. R. Burney D. Cronberger K. Torcivia M. A. **POSTER LOCATION #277**
[*Investigating the Cooling Regimes of Apollo 11 Basalts*](#) [#1689]

Thin sections of Apollo 11 basalts are examined to investigate the cooling regimes of the different Apollo 11 magma types.

Fagan A. L. Udry A. Gannon J. P. **POSTER LOCATION #278**
 Cato M. J. Spring 2017 WCU Petrology Class
[*Northwest Africa 8632 — Crystal Size Distribution Variation and Potential Link to Northwest Africa 032*](#) [#2601]

Multiple participants generate statistically distinct crystal size distributions of Northwest Africa 8632, which is texturally similar to Northwest Africa 032.

Hu G-P. Bugiolacchi R. Chan K. L. Zheng Y.-C. Tsang K. T. **POSTER LOCATION #279**
[*A New Map of Thermal Variations Within Oceanus Procellarum and Mare Imbrium Using Chang'e \(CE-2\) Microwave Radiometers \(MRMs\) Data*](#) [#1824]

We produced a new map of thermal variations within Oceanus Procellarum and Mare Imbrium using Chang'e (CE-2) microwave radiometers (MRMs) Data.

Madrid M. Stopar J. **POSTER LOCATION #280**
[*The Age of Volcanism North and East of the Aristarchus Crater*](#) [#1071]

The maria northeast of Aristarchus Crater are older (3.1–3.6 Ga) than prior studies suggested and were not resurfaced by the young flows occurring southwest of the crater.

Carter L. M. Patterson G. W. Neish C. D. Thomson B. J. **POSTER LOCATION #281**
 Cahill J. T. et al.
[*Bistatic Radar Scattering and Polarization Properties of the Aristarchus and Taurus-Littrow Pyroclastic Deposits*](#) [#2461]

We will discuss bistatic radar data of large lunar pyroclastic deposits obtained using the Mini-RF instrument on LRO with the Arecibo and Goldstone radars.

Wilson L. Head J. W. **POSTER LOCATION #282**
[*Lunar Basaltic Volcanic Eruptions: Gas Release Patterns and Variations in Lava Vesicularity: 1. Lava Ponds, Shield Volcanoes, Foams, and Irregular Mare Patch \(IMP\) Morphology*](#) [#1325]

We show how low volume flux explosive lunar eruptions can form lava ponds, small shield volcanoes, vesicular volcanic foams, and irregular mare patches (IMPs).

Qiao L. Head J. W. Ling Z. Wilson L. Xiao L. et al. **POSTER LOCATION #283**
[*A Comprehensive Geological Characterization of the Ina Volcano Summit Pit Crater on the Moon: Extrusions of Waning-Stage Lava Lake Magmatic Foams Produces Anomalously Young Crater Retention Age*](#) [#1392]

Comprehensive geological characterization of the Ina feature supports its origin of waning-stage magmatic foam extrusion on a chilled lava lake crust 3.5 Ga ago.

Glaspie L. M. Gaddis L. R. Keszthelyi L. Hunter M. Laura J. et al. **POSTER LOCATION #284**
[*Alphonsus Crater: Influence of Topography on Eruption Dynamics and Mineral Distribution*](#) [#1559]

We map mineralogy of Alphonsus-R in 3-D to assess the influence of topography on pyroclastic deposit composition, volatility, and eruption/emplacement style.

Fogerty C. V. Watkins R. N. Lauber C. Jolliff B. L. **POSTER LOCATION #285**
[*Morphometric and Compositional Analysis of a Small Mound of Potentially Evolved Volcanic Material Southwest of Webb U in Mare Fecunditatis*](#) [#1486]

Description of two mounds between Webb U and the Luna 16 landing site that are associated with a small thorium enhancement. What kind of volcanic material is it?

Baum F. Zanetti M. Jolliff B. L. **POSTER LOCATION #286**
[*Improved Method for Estimating Lunar Volcanic Dome Volumes*](#) [#2442]

Describes methods of using DTMs and GIS tools to verify lunar volcanic dome extents and to measure their dimensions, volumes, and 3D surface areas.

McBride M. J. Horgan B. H. N. Lawrence S. J. **POSTER LOCATION #287**
[*Spectral Analysis of Lunar Cinder Cones in the Marius Hills Volcanic Complex*](#) [#2798]

Glassy cinder cones / They can take three shapes or hide / Seeking spectrally.

Modiriasari A. Theinat A. K. Bobet A. Melosh H. J. Dyke S. J. et al. **POSTER LOCATION #288**
[*Size and Structural Stability Assessment of Lunar Lava Tubes*](#) [#2803]

Results from analytical and numerical analyses support the data from GRAIL observations about the presence of large vacant sublunarean lava tubes.

Yokota Y. Haruyama J. Yamamoto S. Kaku T. Matsunaga T. et al. **POSTER LOCATION #289**
[*Formation Scenario of Continuous Slopes Associated with Lunar Mare Pit/Hole Structures*](#) [#1907]

Five mare holes exhibit a long slope which continue from the lunar surface to the floor of the hole. We propose a formation scenario of the slopes.

Lee P. **POSTER LOCATION #290**
[*Possible Lava Tube Skylights Near the North Pole of the Moon*](#) [#2982]

Possible lava tube skylights are identified in Philolaus Crater near the North Pole of the Moon, making them potential access points to subsurface lunar polar volatiles.