

Thursday, March 21, 2013

[R721]

**POSTER SESSION: LUNAR IMPACT CRATERING:  
WHERE, WHEN, WHAT, AND HOW?  
6:00 p.m. Town Center Exhibit Area**

Ambrose W. A.

POSTER LOCATION #271

[\*Distribution and Origin of Imbrium Ejecta in the Cleomedes Quadrangle, North and Northwest Crisium Basin\*](#) [#1050]

More than 70 southeast-trending radial valleys and other ejecta features on the north and northwest margins of the Crisium Basin are Imbrian in age.

Artemieva N.

POSTER LOCATION #272

[\*Tycho Crater Ejecta\*](#) [#1413]

Tycho distal ejecta (including melt) are deposited at its antipode in the amounts resolved by remote sensing as well as on Earth in proper stratigraphic layers.

Gusakova E. N. Basilevsky A. T. Kreslavsky M. A. Karachevtseva I. P.

POSTER LOCATION #273

[\*Morphometry of Small Impact Craters in the Lunokhod 1 Study Area\*](#) [#1174]

Analyzing LROC NAC images and derived DTM diameters, depths, and maximum steepnesses of inner walls of small impact craters of the Lunokhod 1 area measured.

Lu Y. Ping J. S. Shevchenko V. V.

POSTER LOCATION #274

[\*Morphological Features of the Slope Matter in Crater Schrodinger\*](#) [#1437]

We have studied the material in the slope in the lunar crater Schrodinger with the data from LRO and Chang'e-2.

Kamata S. Sugita S. Abe Y. Ishihara Y. Harada Y. et al.

POSTER LOCATION #275

[\*Highly Degraded Early Pre-Nectarian Impact Basins: Implications for the Timing of the Magma Ocean Solidification\*](#) [#1491]

Highly degraded topographies of early pre-Nectarian impact basins suggest that the lunar interior may be partially molten around formation ages of these basins.

Xiao Z. Zeng Z. Li Z.

POSTER LOCATION #276

[\*A Relook at the Origin of Small Fractures in the Floor of Lunar Copernican-Aged Complex Craters\*](#) [#1811]

Solidification contraction may be the most plausible formation mechanism for small fractures in floors of lunar Copernican-aged complex craters.

Baker D. M. H. Head J. W. Cheek L. C. Donaldson-Hanna K. L. Pieters C. M.

POSTER LOCATION #277

[\*M<sup>3</sup> Compositional Analysis of Peak-Ring Basins on the Moon: Implications for Peak-Ring Sampling Depth\*](#) [#2734]

Hyperspectral data from M<sup>3</sup> show anorthositic signatures in the rings of peak-ring basins. We suggest that peak rings are sampling upper crustal materials.

Clayton J. Osinski G. R. Tornabene L. L. Kalynn J. D. Johnson C. L.

POSTER LOCATION #278

[\*Fresh Transitional Lunar Impact Craters\*](#) [#2345]

Mechanisms responsible for the transition from simple to transitional to complex craters on the Moon.

Kreslavsky M. A. Head J. W. Asphaug E.

POSTER LOCATION #279

[\*Unusual Dense Clusters of Impact Craters on the Moon\*](#) [#1759]

Six dense linear geologically young clusters of impact craters are distinctive from clusters of secondaries and are hypothesized to be clusters of sesquinarries.

Shirley K. A. Zanetti M. Jolliff B. van der Bogert C. H. Hiesinger H.

POSTER LOCATION #280

[\*Crater Size-Frequency Distribution Measurements and Age of the Compton-Belkovich Volcanic Complex\*](#) [#2469]

We discuss the timing of volcanic activity at the Compton-Belkovich volcanic complex using crater counts on LROC NAC and WAC images.

Ostrach L. R. Robinson M. S.

**POSTER LOCATION #281**

[Using Crater Size-Frequency Measurements to Distinguish Age Units Within Volcanic Smooth Plains — A New Approach](#) [#1086]

Areal crater density distinguished age units in Mare Imbrium without spectral data; an approach applicable to Mercury (no spectral variation in smooth plains).

Robbins S. J.

**POSTER LOCATION #282**

[Revised Lunar Cratering Chronology for Planetary Geological Histories](#) [#1619]

New lunar images and crater counts on them result in a revised cratering chronology that alters crater-based age estimates on inner solar system surfaces.

Burgess E. E. Frey H. V.

**POSTER LOCATION #283**

[Improving the N\(50\) Crater Retention Age for South Pole-Aitken Basin](#) [#1613]

A better and significantly older N(50) crater retention age for South Pole-Aitken Basin is obtained by exploring the variation in N(50) ages within the basin.

Imaeda R. Haruyama J. Ohtake M. Iwata T. Arimoto T. et al.

**POSTER LOCATION #284**

[Lunar Marius Hills Plateau Exhibiting the Early Imbrian Model Age](#) [#1503]

We classified geological units of lunar Marius Hills Plateau by using SELENE data and found the youngest unit is Early Imbrian, older than previously estimated.