

Tuesday, March 20, 2012

**POSTER SESSION I: LUNAR REMOTE SENSING:  
THE LUNAR CRUST THROUGH DIVERSE REMOTE SENSING TECHNIQUES  
6:00 p.m. Town Center Exhibit Area**

Wilson J. K. Spence H. E. Case A. W. Blake J. B. Golightly M. J. Kasper J. Looper M. D.  
Mazur J. E. Schwadron N. Townsend L. W. Zeitlin C.

[First Cosmic Ray Albedo Proton Map of the Moon](#) [#2373]

We have used the CRaTER instrument on LRO to make a cosmic-ray albedo proton map of the Moon. We find no obvious albedo features corresponding to regional differences in elemental composition of the regolith, such as between maria and highlands.

Case A. W. Kasper J. C. Spence H. E. Golightly M. J. Schwadron N. E. Blake J. B. Looper M.  
Mazur J. E. Townsend L. W. Zeitlin C. J.

[An Unidentified Lunar Cosmic Ray Signal that Depends on Altitude and Solar Zenith Angle](#) [#2479]

Using the CRaTER instrument, an unidentified lunar cosmic ray signal is investigated. This signal shows a dependence on altitude and on the orientation of the detectors with respect to the Sun. This signal may be caused by solar X-ray photons.

Yamashita N. Reedy R. C. Hareyama M. Kobayashi M. Hasebe N. Nagaoka H. Karouji Y.  
Kobayashi S. d'Uston C. Gasnault O. Forni O. Kim K. J. Hamara D. K.

Kaguya Gamma Ray Spectrometer Team

[Peaks in Kaguya Gamma-Ray Spectra and Gamma Rays Used to Get Elemental Abundances](#) [#1283]

The Kaguya gamma-ray spectrum near peaks used for elemental abundances (K, Th, U, Fe, Si, Ca, Mg, Ti, and Al) in the Moon are described. Most are easy to analyze.

McClanahan T. P. Mitrofanov I. G. Boynton W. V. Chin G. Livengood T. Starr R. D. Evans L. G.  
Neumann G. Mazarico E. Smith D. E. LEND Team LOLA Team

[Estimation of Orbital Neutron Detector Spatial Resolution by Systematic Shifting of Differential Topographic Masks](#) [#2302]

We present a method and preliminary results related to estimating the spatial resolution of orbital neutron detectors by systematically convolving epithermal neutron maps with differential topographic masks.

Hagerty J. J. Lawrence D. J. Cahill J. T. S. Klima R. L. Gillis-Davis J. J.

[Analysis of Global Lunar Iron Abundances: A Systematic Comparison of Lunar Prospector and Clementine Data](#) [#1933]

Analyses of Lunar Prospector and Clementine global iron maps show significant differences between these datasets for specific portions of the lunar surface. We use forward modeling of gamma ray data to investigate discrepant regions of interest.