

Tuesday, March 19, 2013

[T610]

POSTER SESSION: VESTA AND THE HED CONNECTION: DAWN RESULTS**6:00 p.m. Town Center Exhibit Area**

Haba M. K. Yamaguchi A. Horie K. Hidaka H. *POSTER LOCATION #109*
[*Formation Processes of Zircons in Basaltic Eucrites: Evidence from Zr/Hf Ratios and REE Abundances*](#) [#1989]

Zr/Hf ratios and REE abundances of some zircons from basaltic eucrites indicate that the zircons could have formed or recrystallized during metamorphic events.

Dhaliwal J. K. Corder C. A. Day J. M. D. Patchen A. D. Taylor L. A. *POSTER LOCATION #110*
[*Petrology of the Unbrecciated Eucrite, Cumulus Hills 04049*](#) [#2434]

CMS 04049, 27 is an equilibrated slowly-cooled eucrite with an unusual sulfide-rich mesostasis area.

Beck A. W. Viviano C. E. McCoy T. J. *POSTER LOCATION #111*
[*Limitations of Sample Size in Meteorite Thin Section and Spectroscopic Studies: Implications for the HEDs and Vesta*](#) [#3069]

Sampling error calculations for harzburgite diogenites indicate olivine abundance is best estimated with available fine-grained samples, even at low abundance.

De Sanctis M. C. Ammannito E. Frigeri A. Capaccioni F. Tosi F. et al. *POSTER LOCATION #112*
[*Mineralogical Diversity Across Vesta: Identification of Different Lithologies*](#) [#1881]

Global mapping of the distributions of HED lithologies on Vesta by Dawn's VIR imaging spectrometer provides the missing geologic context for these meteorites.

Yamashita N. Prettyman T. H. Reedy R. C. Feldman W. C. Lawrence D. J. et al. *POSTER LOCATION #113*
[*Preliminary Iron Distribution on Vesta*](#) [#3015]

A preliminary map of Fe on Vesta derived from Dawn's Gamma Ray and Neutron Detector indicates a variation in the distribution of elemental Fe.

Palomba E. Longobardo A. De Sanctis M. C. Ammannito E. Capaccioni F. et al. *POSTER LOCATION #114*
[*Calibration of Spectral Indexes Suitable for Olivine Detection on Vesta*](#) [#1922]

In order to detect olivine-rich regions on the vestan surface, spectral indexes are reviewed, calibrated and applied to the hyperspectral Dawn-VIR data.

Hoffmann M. Nathues A. *POSTER LOCATION #115*
[*Mixing and Formation of Pure Layers of Specific Minerals on Vesta*](#) [#1554]

Images by the Dawn Framing Camera have been used to identify mixing and exposure processes on Vesta. Granular flows and secondary cratering are discussed.

Reddy V. Li J.-Y. Le Corre L. Russell C. T. Scully J. E. C. et al. *POSTER LOCATION #116*
[*Vesta-HED Connection: Comparison of Dawn FC, Hubble Space Telescope, and Ground-Based Observations of Vesta*](#) [#1040]

We compared data from Dawn, HST, and groundbased telescopes of Vesta. Dawn data confirms a significant number of earlier interpretations from the ground.

Reedy R. C. Prettyman T. H. Yamashita N. *POSTER LOCATION #117*
[*Solar-Proton Fluxes During the Current Solar Cycle and Their Space Effects*](#) [#2855]

Solar-proton fluxes since 2009 at Earth and STEREO spacecraft were compiled and usually compare well with count rates in GRaND on Dawn near Vesta.

Mizzon H. Toplis M. J. Yamashita N. Prettyman T. H. Forni O. *POSTER LOCATION #118*
[*Application of Blind Source Separation to Planetary Nuclear Spectroscopy*](#) [#2975]

This study presents the application of the independent component analysis to separate chemical-element contributions to planetary gamma ray spectra.

Li J.-Y. Combe J.-P. Longobardo A. Capaccioni F. De Sanctis M. C. et al. **POSTER LOCATION #119**
[*The Photometric Properties of Vesta in Visible and Near-Infrared from Dawn VIR Instrument*](#) [#2343]
We report the photometric properties of Vesta derived from Dawn VIR instrument at 0.4–3.5 μm with the Hapke model and Minnaert model.

Palmer E. M. Heggy E. Capria M. T. Tosi F. Russell C. T. **POSTER LOCATION #120**
[*Dielectric Properties of the Surface of Asteroid Vesta from Dawn VIR Thermal Observations*](#) [#2476]
We utilize thermal inertia calculations from the Dawn mission to develop a dielectric model of the surface of asteroid Vesta.

Ruesch O. Hiesinger H. Metzler K. Kallisch J. Cloutis E. A. et al. **POSTER LOCATION #121**
[*Assessment of HED Spectral Variability: Observation Geometry and Accuracy in Retrieving Composition*](#) [#2236]
We measured vis-NIR spectra and composition of 11 HED samples. We investigated observation geometry effects and accuracy in retrieving composition from spectra.