

Thursday, March 22, 2012

POSTER SESSION II: SMALL BODIES: NEAR-EARTH ASTEROIDS AND MARS MOONS

6:00 p.m. Town Center Exhibit Area

Dunn T. L. Burbine T. H.

[Mineralogies of Near Earth Asteroids](#) [#2305]

We characterize the mineralogies of four NEAs with chondrite-like infrared spectra. This is preliminary data from a larger study of ~138 NEAs with SpeX spectra that appear visually similar to ordinary chondrites.

Abell P. A. Barbee B. W. Mink R. G. Adamo D. R. Alberding C. M. Mazanek D. D. Johnson L. N. Yeomans D. K. Chodas P. W. Chamberlin A. B. Benner L. A. M. Drake B. G. Friedensen V. P.

[The Near-Earth Object Human Space Flight Accessible Targets Study \(NHATS\) List of Near-Earth Asteroids: Identifying Potential Targets for Future Exploration](#) [#2842]

The Near-Earth Object Human Space Flight Accessible Target Study (NHATS) identifies NEAs for human exploration. An updated list of NEAs identified under the NHATS criteria will be made available to the international community via a NASA website.

Bazso A.

[Lunar Effects on Close Encounters of Near Earth Asteroids](#) [#1809]

By numerical integrations we investigate the Moon's effects on close encounters of near-Earth asteroids. It is shown in two models that with the Moon more close encounters occur and these encounters result in lower minimal distances.

Vodniza A. Q. Pereira M. R.

[Study of 2003 YT1 Asteroid](#) [#1559]

The asteroid 2003 YT1 was at approximately 25 million kilometers from Earth on May 05-2011 (U.T). From our observatory, located in Pasto-Colombia, we captured several pictures during three days and we calculated the orbital elements.

Roberts J. H. Barnouin O. S. Prockter L. M. Kahn E. G. Gaskell R. W.

[Not All Ponds are Flat: A Stereophotoclinometric Analysis of Eros Topography](#) [#2450]

We investigate the topography of ponds on Eros, using a new shape model derived from stereophotoclinometric analysis. We find that a significant fraction (~75%) of ponds do not have flat floors, and evaluate hypotheses for pond formation.

McMahon J. W. Scheeres D. J.

[Inferring Small-Scale Surface Variability on Near-Earth Asteroids from Itokawa's Shape Data](#) [#1596]

Itokawa data shows significant surface slope variations at high resolutions relative to lower-resolution models. When Itokawa's statistics are applied to radar shape models, this implies significant surface roughness down to submeter resolution.

Abe M. Yada T. Fujimura A. Okada T. Ishibashi Y. Shirai K. Uesugi M. Karouji Y. Yakame S. Nakamura T. Noguchi T. Okazaki R. Mukai T. Fujimoto M. Yoshikawa M. Kawaguchi J.

[Asteroid Itokawa Sample Curation and Distribution for Initial Analyses and International AO held in the Planetary Material Sample Curation Facility of JAXA](#) [#1708]

We review how a series of curation works for the Hayabusa samples (asteroid Itokawa's materials) goes in the facility and sample distribution for initial analyses and international announces of opportunity (AO) for research.

De Gregorio B. T. Zolensky M. E. Bastien R. McCann B. Frank D. R. Warren J. L. Allen C. C.

[Developing the New Hayabusa Curation Facility at Johnson Space Center](#) [#2020]

NASA Johnson Space Center will receive 10% of the asteroid grains returned by the Hayabusa mission. We describe the development, construction, and contamination control for the new Hayabusa curation facility at JSC.

Ishibashi Y. Fujimura A. Abe M. Okada T. Yada T. Uesugi M. Karouji Y. Yakame S.
[*Design of Sample Transportation Container for the First AO Distribution of Hayabusa Samples*](#) [#2887]
We report the design and preparation of the sample transportation container for the first AO distribution of Hayabusa samples.

Gondet B. Bibring J.-P.
[*Deimos and Phobos Compared Observations by OMEGA/MEX*](#) [#2041]
The OMEGA imaging spectrometer has acquired hyperspectral images of both Phobos and Deimos. These two objects exhibit distinct spectral characteristics in the visible, which could offer clues as to their origin.

Karachevtseva I. Oberst J. Shingareva K. Konopikhin A. Nadejdina I. Zubarev A. Willner K.
Mut N. Wählisch M.
[*Global Phobos Geodatabase and GIS Analyses*](#) [#1342]
Geoanalysis of the Phobos surface has been made using GIS and a new global crater catalog. Our further activities are to analyse Phobos grooves and boulders in GIS, and to develop new control points for updates of the current Phobos shape and map models.