

Thursday, March 21, 2013

[R708]

POSTER SESSION: ANALYSIS OF ITOKOWA SAMPLES

6:00 p.m. Town Center Exhibit Area

Meier M. M. M. Alwmark C. Bajt S. Böttger U. Busemann H. et al. **POSTER LOCATION #89**

[*The Mass, Morphology, and Internal Structures of Three Particles from the Hayabusa Sample Return Mission, Analyzed with Synchrotron Radiation X-Ray Tomographic Microscopy*](#) [#1937]

Synchrotron X-ray tomographic microscopy of three particles brought back by Hayabusa, calculation of precise masses from volume and density of constituent minerals.

Böttger U. Alwmark C. Bajt S. Busemann H. Gilmour J. D. et al. **POSTER LOCATION #90**

[*Raman Microscopy of Hayabusa Particle RA-QD02-0051*](#) [#2092]

Raman measurements are performed on Hayabusa sample RA-QD02-0051 to identify the mineral phases of the particle. It consists of olivine, pyroxene, and feldspar.

Nagao K. Okazaki R. Miura Y. Osawa T. Gilmour J. D. et al. **POSTER LOCATION #91**

[*Noble Gas Analysis of Two Hayabusa Samples as the First International A/O Investigation: A Progress Report*](#) [#1976]

Noble gases of two Hayabusa samples show solar noble gas signature, which certify them originated from the surface of asteroid Itokawa.

Noguchi T. Hicks L. J. Bridges J. C. Gurman S. J. Kimura M. **POSTER LOCATION #92**

[*Comparing Asteroid Itokawa Samples to the Tuxtuac LL5 Chondrite with X-Ray Absorption Spectroscopy*](#) [#1147]

We measured XAS of four allocated Itokawa grains at the diamond light source to discuss the redox states experienced by Itokawa grains and LL chondrites.

Thompson M. S. Zega T. J. **POSTER LOCATION #93**

[*Microstructural and Chemical Analysis of Soils from Itokawa: Evidence for Space Weathering*](#) [#2593]

We report on space weathering characteristics of Itokawa soils through microstructural and chemical analyses using the transmission electron microscope.

Nakashima D. Kita N. T. Ushikubo T. Noguchi T. Nakamura T. et al. **POSTER LOCATION #94**

[*Oxygen Three-Isotope Ratios of Silicate Particles Returned from Asteroid Itokawa by the Hayabusa Spacecraft: A Strong Link to Equilibrated LL Chondrites*](#) [#1360]

Oxygen three-isotope ratios of six silicate particles returned from asteroid Itokawa are similar to equilibrated LL chondrites, especially LL6 chondrites.