

Thursday, March 21, 2013

[R703]

POSTER SESSION: IDPS AND MICROMETEORITES
6:00 p.m. Town Center Exhibit Area

Merouane S. Djouadi Z. D'Hendecourt L. **POSTER LOCATION #21**
[Relationship Between Organics and Silicates in Interplanetary Dust Particles](#) [#1981]

We present a close relationship between the length of the aliphatic chains and the silicate composition in 10 IDPs through infrared spectroscopy.

Wirick S. Flynn G. J. Sutton S. Zolensky M. E. **POSTER LOCATION #22**
[Chemical Heterogeneity of a Large Cluster CP IDP: Clues to its Formation History Using X-Ray Fluorescence Mapping and Cr and Fe XANES Spectroscopy](#) [#2327]

A large chondritic, porous IDP was analyzed using X-ray fluorescence mapping and XANES spectroscopy to determine chemical heterogeneity and oxidation states.

Joswiak D. J. Brownlee D. E. Matrajt G. **POSTER LOCATION #23**
[First Occurrence of a Probable Amoeboid Olivine Aggregate in a "Cometary" Interplanetary Dust Particle](#) [#2410]

A 10- μm grain composed of olivine + Al-Ti diopside + anorthite is the first probable amoeboid olivine aggregate (AOA) from a likely cometary cluster IDP.

Olinger C. T. Maurette M. Das J. P. Meshik A. **POSTER LOCATION #24**
[Noble Gas Contents of Unmelted Cap-Prudhomme "Giant Micrometeorites"](#) [#2278]

All noble gases are measured in 100–400 and >400- μm unmelted Antarctic micrometeorites. Significant isotopic and elemental gas variability is observed.

Ebihara M. Sekimoto S. Shirai N. Tsujimoto S. Noguchi T. et al. **POSTER LOCATION #25**
[Chemical Composition of Dust Samples \(Micrometeorites\) Recovered from Antarctic Snow](#) [#2086]

Bulk mineralogy and chemistry of four MMs from Antarctic surface snow were investigated. Their element compositions are different from MMs from Antarctic ice.

Noguchi T. Ohashi N. Tsujimoto S. Bradley J. P. Nakamura T. et al. **POSTER LOCATION #26**
[Delivery of Typical Cometary Dust to the Surface of the Earth](#) [#1380]

We identified chondritic porous micrometeorites (CP MMs) from Antarctic ice and snow. Both their texture and their mineralogy are indistinguishable from CP IDPs.

Taylor S. Lindsay F. N. Delaney J. S. Herzog G. F. **POSTER LOCATION #27**
[Micrometeorite SP-F88: Lunar or Angrite?](#) [#1517]

SP-F88 is a compositionally unique micrometeorite. It is not chondritic, nor like HED or martian meteorites, but resembles angrite and lunar highland samples.

Kohout T. Kallonen A. Suuronen J.-P. Rochette P. Hutzler A. et al. **POSTER LOCATION #28**
[Changes to Meteoroid Shape, Porosity and Internal Structure During High Velocity Atmospheric Entry](#) [#2486]

Porosity of pristine cosmic dust is variable. Increasing entry velocity causes partial melting and porosity increase followed by complete melting and compaction.

Hu Z. W. Winarski R. **POSTER LOCATION #29**
[Three-Dimensional Visualization of Porous Structure of a Cluster Interplanetary Dust Particle](#) [#2521]

X-ray 3-D nano-imaging of a whole IDP reveals a small porous world that appears to be structurally more complex and texturally richer than previously thought.

Rudraswami N. G. Shyam Prasad M. **POSTER LOCATION #30**
[Fremdlinge Type Object in a Cosmic Spherule from the Indian Ocean](#) [#1192]

The cosmic spherule AAS26-D-P15 found in the collection from deep sea sediments of Indian Ocean has the presence of nugget showing resemblance to Fremdlinge found in CAIs.

- Gondo T. Isobe H. *POSTER LOCATION #31*
[Artificial Cosmic Spherules Produced by Melting Experiments of the Powdered Allende Meteorite](#) [#1882]
We successfully reproduced artificial cosmic spherules with remarkably analogous textures to natural ones by rapid heating and cooling experiments.
- Duprat J. Dachwald B. Hilchenbach M. Engrand C. Espe C. et al. *POSTER LOCATION #32*
[The MARVIN Project: A Micrometeorite Harvester in Antarctic Snow](#) [#2031]
MARVIN is an automated drilling and melting probe dedicated to collect pristine interplanetary dust particles (micrometeorites) from central Antarctica snow.
- Bastien R. Broce S. Brown P. Burkett P. J. Campbell-Brown M. et al. *POSTER LOCATION #33*
[The 2012 Draconid Storm as Observed by the Canadian Meteor Orbit Radar and Potentially Sampled by ER-2 Aircraft](#) [#1622]
We have made an effort to capture dust from Comet Giacobini-Zinner in the stratosphere.
- Thomas E. Horányi M. Munsat T. *POSTER LOCATION #34*
[Meteorite Ablation Studies at the CCLDAS Dust Accelerator](#) [#2971]
We report on a proposed set of experiments to measure meteorite ionization coefficient and luminous efficiency at the CCLDAS dust accelerator.
- Poppe A. R. *POSTER LOCATION #35*
[Modeling Interplanetary Dust Fluxes to the Outer Planets](#) [#2384]
We report on an effort to calculate the influx of interplanetary dust grains to the outer planets using modeling and in situ dust density observations.
- Yano H. Hirai T. Okamoto C. Fujii M. Tanaka M. et al. *POSTER LOCATION #36*
[Heliocentric Variation of Cosmic Dust Flux Measured by the IKAROS-ALADDIN Between the Earth and Venus](#) [#2743]
IKAROS solar sail measured heliocentric variation of dust flux between Earth and Venus with 0.54 m² ALADDIN sensor and detected local concentrations.