Tuesday, July 28, 2015
POSTER SESSION: MICROSAMPLE ANALYSIS:
IDPS, MICROMETEORITES, STARDUST, AND HAYABUSA
5:30 p.m. Hearst Memorial Mining Building (HMMB) Floor Two

Nguyen A. N. Berger E. L. Nakamura-Messenger K. Messenger S.
Sulfur and Oxygen Isotopic Analysis of a Cosmic Symplectite from a Comet Wild 2 Stardust Terminal Particle **[#5375]**
The S isotopic composition of a cosmic symplectite in a Stardust terminal particle is found to be isotopically heavy with a large 33S-enrichment. This mass-independent fractionation likely resulted from photochemical irradiation of solar nebula gas.

White A. J. Ebel D. S. Burchell M. J.
Raman Spectroscopy of Whole Samples in Aerogel Using a Laser Scanning Confocal Microscope **[#5065]**
We have coupled a Raman Spectrometer to a Laser Scanning Confocal Microscope for the pinpointed analysis of fine material in the walls of Stardust tracks.

Croat T. K. Haas B. A. Floss C. Burchell M. J.
Compositional Determination of Surviving Material in Stardust Analog Al Foil Craters **[#5130]**
Surviving material is commonly detected in Stardust Al foil analog craters created by impact of primitive meteorite matrix, and semi-quantitative compositions can be determined that can guide subsequent FIB-TEM studies focused on refractory phases.

Yano H. Yamagishi A. Hashimoto H. Yokobori S. Kebukawa Y. Kawaguchi Y. Kobayashi K. Yabuta H. Tabata M. Higashide M. Tanpopo Project Team
Tanpopo: A New Micrometeoroid Capture and Astrobiology Exposure in LEO: Its First Year Operation and Post-Flight Plan **[#5395]**
Tanpopo conducts micrometeoroid capture with aerogels and microbe exposure for testing quasi-panspermia hypothesis at ISS since May 2015. Samples will be retrieved in 2016–18 for initial analysis at ISAS and detailed analyses at over 25 labs.

Suttle M. D. Van Ginneken M. Genge M. J.
Larkman Nunatak Micrometeorites, a Statistical Study **[#5063]**
A new micrometeorite collection recovered from Antarctic moraine at Larkman Nunatak is characterised and the statistics compared against historical collections, providing insights into the cosmic dust flux and micrometeorite preservation.

Van Ginneken M. Gattacceca J. Rochette P. Sonzogni C. Alexandre A. Genge M. J.
The Parent Body of Large Micrometeorites: An Oxygen Isotopes Approach **[#5116]**
This study focuses on oxygen isotope compositions of micrometeorites from the Atacama desert. By increasing available data and sampling in a new environment compared to other studies, we explore possible biases introduced by localized unusual events.

Starkey N. A. Franchi I. A. Salge T. Brearley A. J.
Advanced SEM-EDX and Isotope Mapping of a Refractory Grain in a Fine-Grained IDP **[#5104]**
We present high spatial resolution SEM-EDX and O isotope mapping to reveal the presence of a melilite-olivine refractory grain in a fine-grained IDP. We use this to discuss transport of material from the inner solar system and formation of comets.

Nakato A. Uesugi M. Karouji Y. Yada T. Hashiguchi M. Matsumoto T. Kumagai K. Okada T. Abe M.
A Consortium Study for Hayabusa-Returned Samples: Particles Containing Phase that Might Aqueous Alteration Products **[#5191]**
Three Hayabusa-returned particles are introduced as new consortium studies. The particles include Fe-S-Ni phase and Ca-Mg-Na phase, respectively. To maximize scientific gain from the Hayabusa-returned samples, we widely call for the proposal.

Hashiguchi M. Uesugi M. Karouji Y. Yada T. Nakato A. Matsumoto T. Kumagai K. Okada T. Abe M.
A Consortium Study for Hayabusa-Returned Samples: Silica-Containing Particle **[#5193]**
In this paper, we propose an overview and a tentative research plan for silica-containing particles that is one of the Hayabusa-returned samples, as a new consortium study.

Matsumoto T. Uesugi M. Karouji Y. Nakato A. Hashiguchi M. Yada T. Kumagai K. Okada T. Abe M.
A Consortium Study for Hayabusa Returned Samples: An Agglutinate Grain **[#5194]**
We describe a consortium particle of an agglutinate grain found in Hayabusa samples and a tentative research plan to identify its origin.

Yada T. Abe M. Uesugi M. Karouji Y. Kumagai K. Nakato A. Okada T. Hashiguchi M. Matsumoto T. Fujimoto M.
Present Status of Initial Descriptions and Distributions of Hayabusa-Returned Samples **[#5215]**
Extraterrestrial Sample Curation Team of JAXA has described >400 Itokawa particles recovered by Hayabusa spacecraft so far. We started the 3rd international announcement of opportunity from this Jan. and will distribute some of them from this Jun.

Genge M. J. Tomkins A. G.
I-Type Cosmic Spherules as Probes of the Upper Atmosphere **[#5042]**
We present new numerical modelling of I-type cosmic spherule formation and observations of modern spherules to show how the metal, wustite and magnetite content of these particles can be used to investigate the composition of the upper atmosphere.

Miura Y.
Formation of Carbon-Rich Grains in Air by Meteoritic Showers of Tke Nio and Chelyabinsk **[#5259]**
Carbon separation and concentration process can be formed at explosions of meteorite shower in air of the Nio (Japan) and Chelyabinsk (Russia) meteorites. Carbon concentration process by meteoritic explosions is an impact above terrestrial surface.