

**Thursday, March 21, 2013**  
**POSTER SESSION: CHONDRITES OTHER**  
**6:00 p.m. Town Center Exhibit Area**

[R706]

Ustunisik G. Ebel D. S. Boesenberg J. S. **POSTER LOCATION #53**  
[Experimental Confirmation of Predicted Condensed Phase Assemblages in Dust-Enriched Systems](#) [#2260]

Experiments were done to test predictions of VAPORS code on constraining mineral-liquid equilibria in dust-enriched systems.

Tachibana S. Takigawa A. **POSTER LOCATION #54**  
[Condensation of Magnesium Silicates in the System of Mg<sub>2</sub>SiO<sub>4</sub>-H<sub>2</sub>O-H<sub>2</sub>: Development of Low-Pressure Infrared Furnace](#) [#1799]

We report our improvements of a low-pressure infrared furnace and experimental techniques for condensation of Mg silicates under protoplanetary disk conditions.

Nakanishi N. Yokoyama T. Usui T. **POSTER LOCATION #55**  
[Determination of Osmium Isotope Compositions in Metal Phases from CB Chondrites Using a Micro Sampling Technique](#) [#2407]

Osmium-isotopic ratio measurements to understand the origin of metal phases in CB chondrites using microsampling technique.

Okui W. Yokoyama T. **POSTER LOCATION #56**  
[Strontium Stable Isotopic Anomalies in Primitive Meteorites and Chondrules](#) [#2776]

We present Sr-isotopic data in bulk rocks and chondrules, and show that chondrules have  $\mu^{84}\text{Sr}$  values greater than the bulk of their host meteorite.

Izawa M. R. M. Craig M. A. Cloutis E. A. **POSTER LOCATION #57**  
[Spectral Variations in the Tagish Lake Carbonaceous Chondrite in the Ultraviolet, Visible, and Near-Infrared](#) [#3019]

UV-Vis-NIR reflectance spectra of diverse Tagish Lake lithologies show many possible weak spectral features that may be diagnostic of mineralogical variations.

Ali A. Jabeen I. Banerjee N. R. **POSTER LOCATION #58**  
[Advances in Triple Oxygen Isotope Analyses of Terrestrial and Extraterrestrial Samples at Western University Canada](#) [#2873]

High-precision data of triple-oxygen isotopes using CO<sub>2</sub> laser-BrF<sub>5</sub> extraction mass spectrometry is applied to define longest TFL and successful meteorite characterization.

Lee M. Y. P. Busemann H. Bischoff A. Claydon J. L. Crowther S. A. et al. **POSTER LOCATION #59**  
[The Primordially Trapped Noble Gas Component in the Rumuruti Parent Body](#) [#2681]

Correcting new experimental and literature data for additional components, we determined the primordially incorporated noble gases of the Rumuruti parent body.

Edey D. R. McCausland P. J. A. Holdsworth D. W. Flemming R. L. **POSTER LOCATION #60**  
[Extended Dynamic Range Micro-Computed Tomography of Meteorites Using a Biomedical Scanner](#) [#2693]

Using empirical data gathered from scanning a calibration phantom it is possible to reduce or remove offending artifacts from previously collected data.

Andronikov A. V. Laurretta D. S. Connolly H. C. Jr. Andronikova I. E. **POSTER LOCATION #61**  
[Determination of Trace-Element Bulk Composition of Equilibrated Ordinary Chondrite Meteorite Samples by LA-ICP-MS Using Various Reference Materials](#) [#1603]

We present results of LA-ICP-MS analyses of pellets prepared from EOC for the OSIRIS-REx program. Various reference materials were used for comparison.

Simon S. B. Sutton S. R. Grossman L.

**POSTER LOCATION #62**

[\*The Valence of Ti in Enstatite Chondrites: Not What you Might Think\*](#) [#2270]

E chondrites are dominated by reduced assemblages but they also contain FeO-bearing pyroxene and olivine, so we investigated the valence of Ti in these phases.

Srinivasan P. Simon J. I. Cuzzi J. N.

**POSTER LOCATION #63**

[\*Refractory Inclusion Size Distribution and Fabric Measured in a Large Slab of the Allende CV3 Chondrite\*](#) [#2580]

Refractory inclusion size distribution and fabric measured in a large slab of the Allende CV3 chondrite.

Stroud R. M. Bassim N. D. Scott K. Nittler L. R. Herd C. D. K.

**POSTER LOCATION #64**

[\*Development of 3D Nanoscale Analysis Methods with Focused Ion Beam Tomography and Correlative Electron Microscopy: Application to Tagish Lake Matrix\*](#) [#2548]

We are developing FIB-based methods for tomographic analysis at the 50-nm or smaller scale, to improve our understanding of matrix mineralogy.

Harrington R. Righter K.

**POSTER LOCATION #65**

[\*Carbonaceous Chondrite Thin Section Preparation\*](#) [#2206]

Carbonaceous chondrite meteorites are popular yet pose difficulties in making thin sections; a summary of NASA-JSC thin section lab approaches will be presented.

Ogliore R. C. Jilly C. E.

**POSTER LOCATION #66**

[\*Gigapixel Optical Microscopy for Meteorite Characterization\*](#) [#1023]

We describe an open-source optical microscopy system to acquire and display gigapixel micrographs of meteorite thin sections up to a few cm in size.

McBride K. M. Satterwhite C. E. Righter K.

**POSTER LOCATION #67**

[\*US Antarctic CR Chondrites: A limited Resource Providing Material for a Broad Array of Planetary Sciences\*](#) [#2325]

U.S. Antarctic CR chondrites enjoy great popularity for a broad range of disciplines in planetary science, but material is of limited quantity: Let's go get more!

Pillinger C. T. Greenwood R. C. Gibson J. M. Pillinger J. M. Gibson E. K.

**POSTER LOCATION #68**

[\*The Holbrook Meteorite — 99 Years out in the Weather\*](#) [#2883]

The Holbrook meteorite fell in 1912. Collection of samples in 1912, 1931, 1968, and 2011 demonstrates that terrestrial weathering takes place rapidly.

Meier M. M. M. Schmitz B. Lindskog A. Trappitsch R. Riebe M. et al.

**POSTER LOCATION #69**

[\*Solar Wind-Derived Helium and Neon in Sediment-Dispersed Extraterrestrial Chromite Grains from the Mid-Ordovician Lynna River Section, Russia\*](#) [#1014]

Chromite grains from Ordovician rocks are identified as fossil micrometeorites containing solar wind gases and having been exposed to GCR+SCR for 0.17 to 13 Ma.

Yokoyama T. Misawa K. Okano O. Shih C.-Y. Nyquist L. E. et al.

**POSTER LOCATION #70**

[\*K-Ca Dating of Alkali-Rich Fragments in the Y-74442 and Bhola LL-Chondritic Breccias\*](#) [#1972]

We report preliminary results of K-Ca-isotopic systematics of alkali-rich fragments in the LL-chondritic breccias, Y-74442 and Bhola.

Berlanga G. Hibbitts C. A. Takir D. Dyar M. D.

**POSTER LOCATION #71**

[\*Spectral Nature of CO<sub>2</sub> Adsorption on Meteorites\*](#) [#2904]

IR reflectance spectra of CO<sub>2</sub> adsorption onto outer main belt carbonaceous chondrite meteorites under high vacuum and cryogenic conditions.

Moyano-Camero C. E. Trigo-Rodríguez J. M. Llorca J.

**POSTER LOCATION #72**

[UV-NIR Spectra of the Most Reflective Carbonaceous Chondrite Groups: CH, CR and R](#) [#1533]

The R, CR, and CH groups of CCs exhibit high reflectivity in the UV to NIR window. The main reason for that is a progressive increase in the abundance of metal.

Beck P. Garenne A. Bonal L. Quirico E. Montes-Hernandez G. et al.

**POSTER LOCATION #73**

[Absorption Spectra \(2–25 microns\) of Carbonaceous Chondrites \(CI, CM, CV and CR\): Mineralogy and “Water” Abundance](#) [#1516]

We present transmission infrared spectra of carbonaceous chondrites, revealing information on the mineralogy, water abundance, and then parent body processes.

Granahan J. C.

**POSTER LOCATION #74**

[A Comparison of Ordinary Chondrites with 243 Ida and Dactyl](#) [#1045]

A comparison study of Galileo spacecraft asteroid 243 Ida and satellite Dactyl infrared signatures with those of ordinary chondrite meteorites.