

Thursday, March 24, 2016
POSTER SESSION II: CHONDRITES: ORGANICS
 6:00 p.m. Town Center Exhibit Area

[R605]

Yesiltas M. Glotch T. D. *POSTER LOCATION #97*
[*Chemical Composition of Queen Alexandra Range 97008: An Organic-Rich Unequilibrated Ordinary Chondrite*](#) [#2536]

Organic-rich grains of the QUE 97008 meteorite have been studied with high spatial resolution micro-FTIR imaging spectroscopy.

Yesiltas M. Glotch T. D. Ebel D. S. *POSTER LOCATION #98*
[*Molecular Constituents of the Moss \(CO3.6\) Chondrite via Micro-Raman Spectroscopic Imaging*](#) [#2507]

Chemical composition of the Moss meteorite has been studied via high spatial resolution micro-Raman spectroscopic imaging.

Bose M. Root R. *POSTER LOCATION #99*
[*Sulfur Speciation in Murchison Using Micro-XRF and Micro-XANES*](#) [#1571]

Micro-XANES study of CM2 chondrite Murchison matrix shows the localized distribution of different oxidation states of sulfur.

Bose M. Zega T. J. Domanik K. *POSTER LOCATION #100*
[*Nitrogen and Carbonaceous Isotopic Variations in Several Carbonaceous Chondrites — A Hunt for the Carrier Phases*](#) [#1671]

Six chondrites, C-ung Bells, CM2.6 QUE 97990, CM2 Murray, CM2 Murchison, CM2 Cold Bokkeveld, and CV3 Allende were probed for C- and N-anomalous organic matter.

Hashiguchi M. Yurimoto H. *POSTER LOCATION #101*
[*Hydrogen Isotopic Compositions and Chemical Structures of Organic Materials in Northwest Africa 801 CR2 Chondrite: Implications for Metamorphism Histories of Extraterrestrial Organic Materials*](#) [#1216]

We analyzed hydrogen isotopes and Raman spectra of organic materials in NWA 801 CR2 chondrite and discuss alteration histories of the organic materials in early solar nebula.

Cao T. Nakamura-Messenger K. Berger E. L. *POSTER LOCATION #102*
 Burton A. S. Messenger S. et al.
[*Organic Analysis in Miller Range 090657 and Buckley Island 10933 CR2 Chondrites: Part 1 In-Situ Observation of Carbonaceous Material*](#) [#2427]

We present the results of the analysis of carbonaceous materials in two CR2 carbonaceous chondrites using SEM and TEM.

Burton A. S. Cao T. Nakamura-Messenger K. *POSTER LOCATION #103*
 Berger E. L. Messenger S. et al.
[*Organic Analysis in the Miller Range 090657 CR2 Chondrite: Part 2 Amino Acid Analyses*](#) [#2987]

One part of a consortium study on organic molecules in MIL 090657.

Messenger S. Nakamura-Messenger K. Elsilá J. E. *POSTER LOCATION #104*
 Berger E. L. Burton A. S. et al.
[*Organic Analysis in the Miller Range 090657 CR2 Chondrite: Part 3 C and N Isotopic Imaging*](#) [#2447]

We have identified abundant ¹⁵N-rich micrometer-scale grains within a primitive CR2 chondrite that likely predate the formation of the parent body.

Callahan M. P. *POSTER LOCATION #105*
[*Possible Relationship Between Organic Abundance and Aqueous Alteration of CM2 Carbonaceous Chondrites*](#) [#1691]

Correlations between degree of aqueous alteration and abundance of organic compounds in CM2 chondrites were examined.

Orthous-Daunay F.-R. Thissen R. Vuitton V.
Flandinet L. Moynier F. et al.

POSTER LOCATION #106

[*Toward Molecular Evidences for Presolar Processing of Chondritic Free Organic Matter*](#) [#2861]

We investigated the molecular complexity of 2500 compounds at a time and identified patterns consistent with saturated aliphatic chain growth on icy grains.

Monroe A. A. Shock E. L. Wadhwa M.

POSTER LOCATION #107

[*Meteoritic Isoleucine Epimerization in the Chronology of Asteroidal Parent Body Fluids*](#) [#2340]

L-allo-isoleucine to D-isoleucine abundance ratios and reaction kinetics exclude host fluid combinations of duration and temperature.

Battandier M. Bonal L. Quirico E. Beck P. Engrand C. et al.

POSTER LOCATION #108

[*Characterization of the Organic Matter and Hydration State of a Series of Antarctic Micrometeorites*](#) [#1475]

The IR and Raman studies of Antarctic micrometeorites in comparison to CR/CM chondrites reveal some variability in terms of their organic matter and mineralogy.

Changela H. G.

POSTER LOCATION #109

[*Objective Taxonomy of Solid Organic Material in Chondrites*](#) [#2328]

The ambiguity in identifying phases in chondritic IOM residues is addressed and an objective classification scheme for OM phases in situ is proposed.