

Tuesday, March 19, 2013

[T605]

**POSTER SESSION: CHONDRITES:  
ORGANIC SYNTHESIS AND SECONDARY PROCESSES  
6:00 p.m. Town Center Exhibit Area**

Gasda P. J. Ogliore R. C. Taylor G. J. **POSTER LOCATION #51**

[Addressing Background Fluorescence and Uncertainty Estimation in Raman Spectra of Insoluble Organic Carbon](#) [#1742]

We assess the accuracy and precision of the Savitzky-Golay Second Derivative fitting method to Raman spectra of IOM in comparison to previous fitting techniques.

Yesiltas M. Unger M. Sedlmair J. Hirschmugl C. J. Brusentsova T. N. et al. **POSTER LOCATION #52**

[Microspectroscopy of Meteorites: Search for Organic-Mineral Correlations](#) [#2717]

Correlations between concentrations of organic species and mineral species in meteorites have been assessed by infrared and Raman microspectroscopy.

Asaduzzaman A. M. Muralidharan K. Runge K. Zega T. J. **POSTER LOCATION #53**

[A Computational Exploration on the Attachment of Organics to Minerals: Implications for the Delivery of Organics to Meteorite Parent Bodies and the Early Earth](#) [#2884]

A quantum-chemical calculation is carried out on the adsorption of organics on mineral surfaces to investigate the delivery of organics into Earth.

Snape J. F. Morlok A. Starkey N. A. Franchi I. A. Gilmour I. **POSTER LOCATION #54**

[In-Situ NanoSIMS Measurements of Isotopic Hotspots in the CM2 Meteorite Cold Bokkeveld](#) [#1913]

In situ NanoSIMS analyses of material within Cold Bokkeveld are used to investigate the nature of isotopic hotspots in meteoritic insoluble organic matter.

Gasda P. J. Taylor G. J. **POSTER LOCATION #55**

[Effect of Aqueous Alteration on Insoluble Organic Carbon in CR Chondrites](#) [#1029]

Raman data for three CR chondrites demonstrate that initial heterogeneity disappears with degree of aqueous alteration. A new model explains the processes involved.

Chaumard N. Charon E. Rouzaud J.-N. Devouard B. **POSTER LOCATION #56**

[Maturation Grade of Organic Matter in Metamorphosed Carbonaceous Chondrites](#) [#2621]

We see two distinct and successive processes in the evolution of organic matter in metamorphosed carbonaceous chondrites: carbonization then graphitization.

Changela H. G. Cody C. D. Alexander C. M. O'D. Nittler L. R. Peeters Z. et al. **POSTER LOCATION #57**

[TEM Study of Insoluble Organic Matter in Primitive Chondrites: Unusual Textures Associated with Organic Nanoglobules](#) [#3101]

We report some unusual nanoglobule morphologies found in the insoluble organic matter from primitive chondrites.

Zaytsev M. A. Gerasimov M. V. Safonova E. N.

Ivanova M. A. Lorenz C. A. et al.

**POSTER LOCATION #58**

[Comparative Investigation of Organic Components in the Murchison \(CM2\) and Kainsaz \(CO3\) Carbonaceous Chondrites](#) [#1905]

Organics in meteorites could be synthesized in nebula and by processing on protoplanetary bodies. Synthesis in a high-temperature vapor cloud is also possible.

Hashiguchi M. Kobayashi S. Yurimoto H.

**POSTER LOCATION #59**

[Isotopically Anomalous Organic Matters in Murchison and Northwest Africa 801](#) [#1758]

We report isotopic compositions and morphology of D- and/or <sup>15</sup>N-rich organic matters from Murchison (CM2) and NWA 801 (CR2) identified by isotope imaging.

Laurent B. Roskosz M. Rémusat L. Depecker C. Vezin H. et al. **POSTER LOCATION #60**  
[Molecular and Isotopic Study of Irradiated Organic Matter Analogue](#) [#1536]

To better understand the H-isotope signature in IOM, polymer films were irradiated with electrons producing quinones groups, organic radicals, and D-H fractionation.

Le Guillou C. Bernard S. Rémusat L. Brearley A. J. Leroux H. **POSTER LOCATION #61**  
[Amorphization and D/H Fractionation of Kerogens during Experimental Electron Irradiation: Comparison with Chondritic Organic Matter](#) [#1960]

Kerogens irradiation in the TEM studied by STXM/NanoSIMS. Kinetics of electron driven D/H fractionation may be inhibited in the ISM and the protosolar nebula.

Orthous-Daunay F.-R. Gyngard F. **POSTER LOCATION #62**  
[Sulfur Isotopic Composition of HF/HCl Residues in Type 1 and 2 Carbonaceous Chondrites](#) [#2604]

We measured isotopic composition of organic relative to inorganic sulfur in several HF/HCl residues in order to investigate for aqueous alteration signatures.

Riebe M. Busemann H. Huber L. Wieler R. **POSTER LOCATION #63**  
[Primordial Noble Gases in the Unequilibrated LL3.2 Chondrite Krymka Analyzed by Closed System Step Etching](#) [#2133]

CSSE analysis of phase Q gives elemental ratios consistent with Q. Neon-isotopic ratios differ significantly from ratios for Q, indicating the presence of Ne-E or HL.

McLeod A. S. Dominguez G. Gainsforth Z. Westphal A. Keilmann F. et al. **POSTER LOCATION #65**  
[NanoFTIR for the Analysis of Planetary Materials](#) [#2643]

We present the application of scanning near-field microscopy and nanoscale broadband infrared spectroscopy to the study of chondrites and presolar grains.

Henkel T. Lyon I. C. **POSTER LOCATION #66**  
[Further Analysis of the Molecular Structure of Cometary Organic Material](#) [#2554]

Using time-of-flight secondary ion mass spectrometry to record complete mass spectra enables determination of whole molecules rather than functional groups only.