

Friday, July 27, 2018
ORGANIC MATERIAL IN METEORITES
 9:00 a.m. Green Room

Chairs: Laurent Remusat
 Monica Grady

- 9:00 a.m. Quirico E. * Bonal L. Beck P. Alexander C. O' M. D. Yabuta H. Nakamura T. Nakato A. Flandinet L. Montagnac G. Schmitt-Kopplin P. Herd C. D. K.
[*Nature and Occurrence Frequency of Heating Processes in CM and C2- Ungrouped Chondrites as Revealed by Insoluble Organic Matter*](#) [#6087]
 We propose a carbon-based classification of heated C2 chondrites that reveals a high occurrence frequency of thermally processed C2 chondrites (>36%).
- 9:15 a.m. Schmitt-Kopplin Ph. * Ruf A. Hertkorn N. Hariri M. Kanawati B. Lucio M. Quirico E. Gabelica Z.
[*Thermal Stress-Marker in Meteorites; A Molecular Approach with \(Ultra\)High Resolution Organic Spectroscopy*](#) [#6281]
 We observed a complex organic chemistry in the CHNOSMg-space in the solvent soluble organic matter of meteorites. The resulted extreme richness in organic chemical diversity correlates to its thermal history.
- 9:30 a.m. Remusat L. * Vinogradoff V. Le Guillou C. Jaber M. Bernard S.
[*Hydrothermal Origin of Organic Matter Diversity in Carbonaceous Chondrites: An Experimental Approach*](#) [#6320]
 The evolution of an analogue of interstellar organic matter (HMT) under hydrothermal conditions was investigated. We observe that a single molecule leads to a huge diversity in the organic products and the formation of an insoluble macromolecule.
- 9:45 a.m. Kebukawa Y. * Misawa S. Asano S. Yoda I. Mita H. Muramatsu Y. Hamanaka S. Tobita Y. Kobayashi K.
[*Possible Effects of Gamma-Ray from Short-Lived Radioactive Nuclides on Formation of Organic Matter During Aqueous Alteration*](#) [#6221]
 We evaluate effects of gamma-ray irradiation on formation of amino acids from formaldehyde and ammonia. We show that gamma-ray could have contributed to produce more diverse suite of amino acids during alteration.
- 10:00 a.m. Grady M. M. * Farsang S. Fernandes C. D.
[*UV Spectroscopy of Extraterrestrial Materials: A Non-Invasive and Non-Destructive Method for Identification of Organic Components in Meteorites*](#) [#6315]
 We have employed UV reflectance spectroscopy to identify organic molecules in carbonaceous chondrites, for comparison with asteroidal spectra.
- 10:15 a.m. Zaitsev M. A. Gerasimov M. V. * Vasiljeva A. S. Korochantsev A. V. Ivanova M. A. Lorenz C. A.
[*On the Similarity of Volatile Organics Patterns in Meteorites and in Impact-Induced Vapor Plume*](#) [#6208]
 The origin of volatile organics in carbonaceous chondrites could be a result of synthesis during impacts in space or on parent bodies in inert vacuum-like conditions but not in dense hydrogen cloud.