

Tuesday, July 24, 2018
CARBONACEOUS CHONDRITES AND RELATED MATERIAL
 9:00 a.m. Blue Room

Chairs: Christian Vollmer
Anil Shukla

- 9:00 a.m. Matsuda N. M. * Sakamoto N. S. Tachibana S. T. Yurimoto H. Y.
[Chondrule Rim including ¹⁶O-Enriched Olivine in Carbonaceous Chondrite Northwest Africa 3118](#) [#6179]
 We present results of mineralogy, mineral chemistry, and oxygen isotopic distribution in a coarse-grained igneous rim of a chondrule in a CV_{oxA} chondrite.
- 9:15 a.m. Sanborn M. E. * Yin Q.-Z. Amelin Y. Koefoed P. Huyskens M.
[Early Differentiation of Carbonaceous Achondrite Parent Bodies: New Insights from Northwest Africa 10132](#) [#6279]
 Chronology and isotopic analysis of NWA 10132 provides new insights into the formation timescales under varying petrogenetic conditions of the NWA 10132/6704/6693 grouplet on a single, common carbonaceous achondrite parent body.
- 9:30 a.m. Zolensky M. * Fries M. Chan Q. H.-S. Kebukawa Y. Steele A. Bodnar R. J. Ito M. Nakashima D. Nakamura T. Greenwood R. Rahman Z. Le L. Ross D. K. Ziegler K. Bottke W. Martinez J.
[Outer Solar System Material in Inner Solar System Regolith Breccias](#) [#6103]
 Surviving outer solar system carbonaceous materials in ordinary chondrites and HEDs.
- 9:45 a.m. Vollmer C. * Leitner J. Kepaptsoglou D. Ramasse Q. M. Hoppe P.
[Iron Oxidation State of Amorphous Silicates and Low-Loss Electron Energy Spectroscopy of Organic Matter in the Pristine CM Chondrite Maribo](#) [#6109]
 We performed a combined NanoSIMS-TEM-UltraSTEM-EELS investigation of amorphous silicates and organic matter in the matrix of the relatively pristine CM chondrite Maribo to compare it to other similarly primitive CMs, CRs, and Acfer 094.
- 10:00 a.m. Greenwood R. C. * Franchi I. A. Alexander C. M. O'D. Zolensky M. E. Buchanan P. C.
[The Significance of Slope 1 Variation in Early Solar System Solids](#) [#6354]
 Understanding the origin of mass-independent oxygen isotopic variation in early solar system materials remains an outstanding problem in planetary sciences. Here we examine the primary significance of various slope 1 reference lines.
- 10:15 a.m. Potin S. * Beck P. Bonal L. Schmitt B. Moynier F. Quirico E. Garenne A.
[Post-Accretion History and Reflectance Spectroscopy Properties of the Mukundpura Meteorite](#) [#6072]
 We characterized the bulk mineralogy and alteration processes of the parent body of the Mukundpura CM2 chondrite using Raman spectroscopy, infrared transmission spectroscopy, thermo-gravimetry, and bidirectional reflectance spectroscopy.
- 10:30 a.m. Shukla A. D. * Ray D. Dutta A. Raychaudhuri D. Bhattacharya A.
[Preliminary Investigation of Cosmogenic Radionuclides in Mukundpura \(CM2\) Carbonaceous Chondrite](#) [#6112]
 Cosmogenic radioanuclides in the freshly fallen Mukundpura carbonaceous Chondrite (CM2) were studied to understand the behaviour of the solar and galactic cosmic rays interaction as well as in order to understand the preatmospheric size.

- 10:45 a.m. Ohnishi I. * Kadoi M. Tomeoka K.
[*Nanostructures of Matrix Olivine in the Allende CV3 Chondrite: An Investigation by Aberration Corrected Scanning Transmission Electron Microscopy*](#) [#6105]
We present here results of a mineralogical study of Fe-rich olivine in the matrix of the Allende CV3 chondrite using an aberration corrected STEM in order to provide new insight into the formation process of matrix olivine.
- 11:00 a.m. Zanetta P.-M. * Leroux H. Le Guillou C. Manda B.
[*Mineralogy of Fine Grained Rims and Inter-Chondrules Matrix in the Paris CM Chondrite*](#) [#6211]
We studied the mineralogy of the fine grained rims of Paris with a new high resolution methodology and we evidenced many differences between FGRs and adjacent matrix. FGRs are less altered and could have sampled different reservoirs in the nebula.
- 11:15 a.m. Vacher L. G. * Marrocchi Y. Villeneuve J. Verdier-Paoletti M. J. Gounelle M.
[*Collisional and Alteration History of the CM2 Boriskino*](#) [#6004]
CM2 Boriskino displays various lithologies with different degrees of alteration and deformation histories. From an isotopic survey of carbonates, we have investigated the relative timings of deformation and aqueous alteration of the CM parent body.
- 11:30 a.m. Farsang S. * Zhao X. Franchi I. A. Redfern S. A. T. Raub T. D. Grady M. M.
[*Carbonates in Cold Bokkeveld CM Chondrite: A Pre-Accretionary Origin?*](#) [#6025]
A combined petrographic, chemical, spectroscopic, and isotopic study of carbonate assemblages in Cold Bokkeveld CM chondrite.