

Tuesday, July 24, 2018
POSTER SESSION I: CARBONACEOUS CHONDRITES
 5:30 p.m. Foyer

Alexander C. M. O'D. Bowden R.

[Lewis Cliff \(LEW\) 85332 and Miller Range \(MIL\) 090001, a new Grouplet that is Distinct from the CR Chondrites?](#) [#6063]

The H, C and N abundances and isotopes in bulk LEW 85332 and MIL 090001, as well as their IOM, are similar to one another but distinct from most CRs. It is possible that these two meteorites come from a distinct parent body.

Bischoff A. Patzek M. Ebert S. Pack A. Kerraouch I. Zolensky M. E.

[A Large, Light Fragment in the Murchison \(CM\) Breccia — A Unique, Highly-Metamorphosed Chondrite as a Xenolith in a CM Chondrite](#) [#6217]

CM chondrites like Murchison are breccias typically consisting of mixtures of CM-related fragments. A light fragment earlier classified as a R chondrite clast has been identified as a unique, metamorphosed chondrite with CM affinities in O-isotopes.

Schofield P. F. King A. J. Mosselmans J. F. W. Kaulich B. Abyaneh M. Araki T. Russell S. S.

[The Settings of Aqueous Alteration in the Early Solar System: An X-Ray Spectromicroscopy Investigation of the Murchison CM2 Chondrite](#) [#6259]

We have performed a spatially resolved, multi-technique, synchrotron-based spectromicroscopy study of fine grained rims in the Murchison CM2 chondrite with a view to understanding the settings of aqueous alteration in the early solar system.

Amano K. Mogi K. Nakamura T. Matsuoka M. Furukawa Y. Okumura S.

[Spectral and Water Analysis of Experimentally Heated Tagish Lake and CR Carbonaceous Chondrites with No Effects of Adsorbed and Rehydrated Water](#) [#6309]

We performed heating experiments of Tagish Lake and LAP 04721 CR2.4 carbonaceous chondrites and subsequently measured reflectance spectra and water contents of the heated samples without being exposed to atmosphere after heating.

Dai D. Liu X. Liu S.

[Aqueous Alteration in Two CM Carbonaceous Chondrites from the Grove Mountains, Antarctica](#) [#6110]

Phyllosilicates are common in CAIs, chondrules and matrix of GRV 020025 and 050179 CM chondrites, suggesting aqueous reactions occurred in the parent body. The progress of alteration took a long time and a large scope in their meteorites parent body.

Jabeen I. Ali A. Kusakabe M.

[Trend of the Major Primary Oxygen Isotope Reservoirs in the Early Solar Nebula Inferred from Allende CV3 Meteorite](#) [#6081]

Major primary oxygen isotope reservoirs in the early solar nebula are discussed with reference to the slope-1 lines on a three oxygen isotope diagram. A new GSM line is constructed and interpreted as the mixing trend of these reservoirs.

Matsumoto M. Tsuchiyama A. Matsuno J. Nakato A. Miyake A. Ito M. Tomioka N. Kodama Y. Uesugi K. Takeuchi A. Nakano T. Vaccaro E.

[An Ultra Porous Lithology in the Primitive Carbonaceous Chondrite Acfer 094: Investigation for Pristine Planetary Materials](#) [#6100]

We investigated microtextural characteristics of a matrix in the Acfer 094 carbonaceous chondrite and found an ultra porous lithology (UPL) similar to CP-IDPs. The UPL may be one of the building blocks of carbonaceous chondrite parent bodies.

Hoffmann V. H. Schmitt-Kopplin P. Wimmer K. Hochleitner R. Kaliwoda M.

[The Mukundpura CM2 Chondrite — Mineralogical and Magnetic Signature](#) [#6060]

The main focus of our investigations on the new CM2 chondrite Mukundpura is on the mineralogy and phase composition (in comparison with known similar meteorite falls), and the magnetic classification based on magnetic susceptibility.

Valenzuela M. Aravena-Gonzalez S. Moncada D. Cannatelli C. Martínez-De Los Ríos R.

[*Study of Three CO₃ Carbonaceous Chondrites from the Atacama Desert, Chile*](#) [#6351]

Petrographic, chemical, mineralogical study of Catalina 008, El Médano 216 and Los Vientos 123 using optical and electronic microscopy, Raman and IR spectroscopy, LA-ICPMS, XRD, and the characterization of melt inclusions found in olivine crystals.

Kerraouch I. Zolensky M. E. Bischoff A. Le L. Belhaï D. Patzek M. Ebert S.

[*Mineralogical Study of a White Clast from Murchison \(CM2\): Comparison with R-Chondrites*](#) [#6363]

We characterize the mineralogy of a white clast from Murchison (CM2), which was considered as R-chondrite, and compared it with those of R-chondrites in order to test, whether this clast is a real R-chondrite or a unique recrystallized chondrite?