

Tuesday, March 20, 2018

[T329]

POSTER SESSION I: CHONDRITES AND THEIR COMPONENTS IV

6:00 p.m. Town Center Exhibit Area

Mane P. Wallace S. Wallace P. Domanik K. Zega T. J. **POSTER LOCATION #433**
[Electron Backscatter Diffraction Analysis of the Earliest-Formed Solids in the Solar System](#) [#2450]

EBSA analysis of a type-A CAI shows evidence of strain in melilite and spinel grains, suggesting that this CAI experienced shock deformation in nebular settings.

Mane P. Chang Y. J. Wallace P. Zega T. J. **POSTER LOCATION #434**
[Transmission Electron Microscope Analysis of High Temperature Rims Around Type-B CAIs](#) [#2851]

TEM analysis of a Type-B CAI shows complex microstructures and mineralogy.

Ramprasad T. Mane P. Zega T. J. **POSTER LOCATION #435**
[Transmission Electron Microscope Analysis of a Spinel-Perovskite Assemblage Within a Refractory Inclusion from the Northwest Africa \(NWA\) 5028 CR2 Chondrite](#) [#2900]

We probe the chemistry and crystal structures of high temperature mineral phases from a compact type-A CAI using a TEM, to understand their formation.

Zega T. J. Mane P. **POSTER LOCATION #436**
[Nanoscale Analysis of a Metal-Perovskite Assemblage in the Northwest Africa 5028 CR2 Chondrite](#) [#2991]

We have analyzed the nanoscale structure of a metal-perovskite assemblage from the NWA 5028 CR2 chondrite. It shows evidence for secondary processing on the parent body.

Ross D. K. Simon J. I. **POSTER LOCATION #437**
[Grossite and Hiconite Bearing Refractory Inclusions in the CO3.1 Chondrite Miller Range 090019](#) [#2559]

Early condensing refractory inclusions from nebular gases are abundant in the Mil 090019 CO3 chondrite. We characterize their mineralogy and bulk compositions.

Kamibayashi M. Mendybaev R. A. Richter F. M. Tachibana S. **POSTER LOCATION #438**
[Evaporation Kinetics of CAI-Like Melts in Low-Pressure Hydrogen Gas and in Vacuum: Similarities and Differences](#) [#2432]

Chemical evaporation trend of CAI-like melt in low-pressure hydrogen gas is consistent with that in vacuum except for the faster evaporation rates.

Che S. Brearley A. J. **POSTER LOCATION #439**
[The Role of Fluid in the Formation of the Iron-Alkali-Halogen Zoning Sequence in an Allende Type C CAI](#) [#2922]

The role of fluid in forming the iron-alkali-halogen zonation in an Allende type C CAI is discussed, and two possible models are proposed.

Abreu N. M. Louro M. D. Friedrich J. M. Schrader D. L. Greenwood R. C. **POSTER LOCATION #440**
[Elephant Moraine \(EET\) 83226: A Clastic, Type 2 Carbonaceous Chondrite with Affinities to the CO Chondrites](#) [#2451]

EET 83226 may be an anomalous, aqueously altered CO chondrite. EET 83226 represents a sample derived from a relatively poorly consolidated asteroidal regolith.

Lee M. R. Cohen B. E. Mark D. F. Boyce A. **POSTER LOCATION #441**
[Ephemeral Nebular Components in the Mildly Aqueously Altered CM Carbonaceous Chondrite Lewis Cliff \(LEW\) 85311](#) [#1287]

LEW 85311 is a mildly altered CM with unusual constituents including melilite-bearing CAIs, and objects made of calcite that may be a unique nebular component.

Pohl L. Britt D. T.

POSTER LOCATION #442

[Dehydration Process of Carbonaceous Chondrites](#) [#2187]

Dehydration temperature of major water-rich components of carbonaceous chondrites under atmospheric and vacuum conditions and the effect of grain size.

Mallozzi L. MacPherson G. J. Corrigan C. M. Irving A. J. Pitt D.

POSTER LOCATION #443

[Northwest Africa 8418: A CV4 Chondrite, with New Insights into Secondary Processes on the CV Parent Body](#) [#2555]

NWA 8418 is the first CV4 chondrite whose matrix and CAIs are more pervasively metamorphosed and metasomatized (incl. chlorapatite) than those in CV3s.

Lorenz C. A. Korochantseva E. V. Hopp J. Franchi I.

POSTER LOCATION #444

Humayun M. et al.

[Northwest Africa 6486. A Melt Rock from the L-Chondrite Asteroid.](#) [#2406]

NWA 6486, a K-rich L-chondrite melt rock, likely recorded two impact events, one of which corresponds to a L-chondrites parent asteroid breakup event at 470 Ma.

Hamilton V. E.

POSTER LOCATION #445

[Spectral Classification of Ungrouped Carbonaceous Chondrites I: Data Collection and Processing](#) [#1759]

Microspectroscopy on thin sections poses different data processing requirements relative to the analysis of chips or powders.

Nagao K. Choi J. Baek J. M. Park J. Herzog G. F. et al.

POSTER LOCATION #446

[Depth Profiles of Cosmogenic \$^{81}\text{Kr}\$ and Light Noble Gases in the Chelyabinsk \(LL5\) Meteoroid](#) [#2092]

Cosmogenic ^{81}Kr and light noble gas isotopes were determined for 14 fragments derived from different shielding depths from the Chelyabinsk (LL5) meteorite.