

Tuesday, March 22, 2016

[T334]

POSTER SESSION I: CHONDRITES: CAIS, AOAS, AND OTHER REFRACTORIES

6:00 p.m. Town Center Exhibit Area

Kööp L. Davis A. M. Rout S. S. Villalon K. L. Heck P. R. **POSTER LOCATION #515**
[Investigations into the Formation Mechanisms of CM Hbonites at the Micro- to Nanoscale Using the SEM and TEM](#) [#2005]

We studied the petrology of a PLAC and a SHIB using SEM and TEM. The goal is to gain new insights into the formation mechanisms of these CAIs.

Kööp L. Heck P. R. Busemann H. Maden C. Wieler R. et al. **POSTER LOCATION #516**
[Enhanced Cosmogenic Neon-21 and Helium-3 in Hbonite-Rich CAIs](#) [#1689]

We report enhanced cosmogenic He-3 and Ne-21 abundances for two CM hbonites, which indicate precompaction exposure to cosmic rays.

Ivanova M. A. Shornikov S. I. Ryazantsev K. M. MacPherson G. J. **POSTER LOCATION #517**
[Model Calculations for Evaporation of Pristine CAIs Enclosed in the 3N Compound CAI from the Northwest Africa 3118 CV3 Chondrite](#) [#2315]

We present results on thermodynamic calculations of vaporization of pristine CAIs enclosed in the 3N host CAI and discuss the trends of composition changes.

Jeffcoat C. R. Kerekgyarto A. G. Lapen T. J. Righter M. Simon J. I. et al. **POSTER LOCATION #518**
[New Petrology, Mineral Chemistry, and Stable Mg Isotope Compositions of an Allende CAI: EK-459-7-2](#) [#2944]

We present petrology, mineral chemistry, and Mg isotope compositions of a Type B CAI with characteristics found in both B1 and B2 CAIs.

Mishra R. K. Simon J. I. Ross D. K. Marhas K. K. **POSTER LOCATION #519**
[CAIs in Semarkona \(LL3.0\)](#) [#2750]

Rare CAIs in the least altered, unequilibrated ordinary chondrite Semarkona (LL3.0) showing diverse morphology and mineralogy are reported.

Komatsu M. Fagan T. J. Yamaguchi A. Mikouchi T. Zolensky M. E. et al. **POSTER LOCATION #520**
[Petrology of Amoeboid Olivine Aggregates in Antarctic CR Chondrites: Comparison with Other Carbonaceous Chondrites](#) [#1906]

Petrology of AOAs and matrices of Antarctic CR chondrites suggests that they largely escaped from secondary alteration and preserve the nebular condensation conditions.

Shollenberger Q. R. Brennecka G. A. Borg L. E. **POSTER LOCATION #521**
[Clues to the Isotopic Evolution of the Solar System from Er and Yb in Allende CAIs](#) [#1964]

Er and Yb isotopic compositions of CAIs support an isotopically homogeneous reservoir for the CAI-forming region that is distinct from terrestrial standards.

Mane P. Torrano Z. A. Romaniello S. J. Brennecka G. A. Shollenberger Q. R. et al. **POSTER LOCATION #522**
[Zirconium and Chromium Isotopic Systematics of Non-Allende CAIs](#) [#2778]

We report Zr and Cr isotope systematics of Allende and non-Allende CAIs to ascertain the degree of isotopic heterogeneity in the CAI-forming region.

Mane P. Bose M. Defouilloy C. Kita N. T. MacPherson G. J. et al. **POSTER LOCATION #523**
[Formation Timescales of Wark-Lovering Rims Around Calcium-Aluminum Rich Inclusions](#) [#2560]

We report O isotopic systematics and Al-Mg chronology of CAIs and their Wark-Lovering rims and discuss the timescales of formation of Wark-Lovering rims.

Han J. Keller L. P. Brearley A. J. Danielson L. R.

POSTER LOCATION #524

[Stacking Defects in Synthetic and Meteoritic Hibonites: Implications for High-Temperature Processes in the Solar Nebula](#) [#2848]

We present TEM observations of synthetic hibonite in the CaO-Al₂O₃-MgO system to understand the origin of defect-structured hibonite found in meteorites.

Tang H. Liu M.-C. McKeegan K. D. Tissot F. L. H. Dauphas N.

POSTER LOCATION #525

[³⁶Cl-³⁶S Systematics in Curious Marie: A ²⁶Mg-Rich U-Depleted Fine-Grained CAI from Allende](#) [#2539]

We find elevated and uniform excesses in ³⁶S, similar to those for ²⁶Mg excesses in Curious Marie CAI to study its complicated multi-stage history.

Kerekgyarto A. G. Jeffcoat C. R. Lapen T. J.

Andreasen R. Righter M. et al.

POSTER LOCATION #526

[Al-Mg Isotope Study of Allende 5241](#) [#3041]

Al-Mg (radiogenic and stable) study of a well characterized CAI, Allende 5241.