

Tuesday, March 19, 2013

[T607]

POSTER SESSION: CHONDRITES: HIGH-TEMPERATURE SECONDARY PROCESSES**6:00 p.m. Town Center Exhibit Area**

Hutson M. Ruzicka A. Brown R. **POSTER LOCATION #76**
[*A Pyroxene-Enriched Shock Melt Dike in the Buck Mountains 005 \(L6\) Chondrite*](#) [#1186]

A complex pyroxenitic igneous dike in the Buck Mountains 005 (L6) chondrite was produced by a variety of shock-related processes.

Meszaros M. Ditrói-Puskás Z. Váczi T. Kereszturi Á. **POSTER LOCATION #77**
[*A New Petrological Study of Nyírábrány, an Ordinary Chondrite from Hungary*](#) [#1477]

Analyzing the Hungarian Nyírábrány meteorite, based on chemical, mineralogical, and textural features it can be classified as an L/LL4-5S2W2 ordinary chondrite.

Khan R. Shirai N. Ebihara M. **POSTER LOCATION #78**
[*Bulk Chemical Composition of R Chondrites: New Data*](#) [#2059]

We have analyzed 15 R chondrites of different petrologic types by neutron activation analysis and discuss the metamorphism in the R-chondrite parent body.

Dunlap D. R. Pewitt M. L. McSween H. Y. Taylor L. A. Doherty R. **POSTER LOCATION #79**
[*Tupelo, a New EL6 Enstatite Chondrite*](#) [#2088]

The Tupelo meteorite was found, classified, and named in 2012. Based on mineral compositions and modal abundances, it was determined to be an EL6 chondrite.

Berger E. L. Laurretta D. S. Zega T. J. Keller L. P. **POSTER LOCATION #80**
[*FIB-TEM Investigations of Fe-Ni-Sulfides in the CI Chondrites Alais and Orgueil*](#) [#1615]

We discuss the microstructures and textures of sulfide grains from Alais and Orgueil and the implications that these data have on grain formation conditions.

Lehner S. W. Nemeth P. Petaev M. I. Buseck P. R. **POSTER LOCATION #81**
[*Origin of Fine-Grained Albite in an EH3 Sulfidized Chondrite*](#) [#2500]

We report evidence that nanocrystalline albite in an Al-rich, Cl-bearing mesostasis from EH3 chondrite SAH 97072 formed as a byproduct of augite sulfidation.

Lehner S. W. Nemeth P. Petaev M. I. Buseck P. R. **POSTER LOCATION #82**
[*Pyrite in an EH3 Metal-Sulfide Nodule*](#) [#2237]

We report the occurrence of pyrite and pyrrhotite interspersed among porous silica in the core of a metal-sulfide nodule from the EH3 chondrite ALH 84170.

Lewis J. A. Jones R. H. **POSTER LOCATION #83**
[*Phosphate Mineralogy of Petrologic Type 4-6 L Ordinary Chondrites*](#) [#2722]

We compare phosphates in L chondrites with previous work on H and LL chondrites, and examine differences in metamorphic conditions between OC parent bodies.

Cuvillier P. Leroux H. Jacob D. **POSTER LOCATION #84**
[*Fe-Mg Interdiffusion Profiles in Forsterite within the Allende Matrix. Time-Temperature Constraints Deduced from a TEM Study*](#) [#1873]

To infer the origin (nebular or asteroidal) of the ferroan olivine in the Allende matrix, an analytical TEM study of forsterite with Fe-rich rim was performed.

Posner E. S. Ganguly J. Hervig R. **POSTER LOCATION #85**
[*Cr Diffusion in Spinel: Experimental Studies and Applications to Cooling Rate Recorded by Chevron Zoned Cr-Spinel in Allende and Mn-Cr Cosmochronology*](#) [#1419]

We determined Cr diffusion in spinel and applied the data to retrieve cooling rate of spinel likely to have formed by nebular condensation, and Mn-Cr chronology.

Berlin J. Käppel A. Hansen B. K. Salge T. Goran D. et al. **POSTER LOCATION #86**
[From 2D to 3D Chemical Analysis: A \$\mu\$ -XRF, EDS and EBSD Study of the Gujba CB Chondrite](#) [#2439]
 3-D chemical data of Gujba are presented, which help visualizing the magnitude of interactions between different preexisting metal particles and impact melt.

Fedkin A. V. Grossman L. Campbell A. J. Humayun M. **POSTER LOCATION #87**
[CB Chondrites Could have Formed in an Impact Plume](#) [#2309]
 Metal with similar siderophile contents to bulk compositions of zoned and unzoned CB grains condenses from a plume formed by CR metal-H chondrite impact.

Krzesinska A. Gattacceca J. Rochette P. **POSTER LOCATION #88**
[Magnetic Fabric Formation by Oblique Impact in Pultusk H Chondrite](#) [#2089]
 Oblique collision on the parent body of Pultusk allowed for non-coaxial deformation, shearing, brecciation, and formation of magnetic foliation and lineation.

Tikoo S. M. Gattacceca J. Weiss B. P. Suavet C. R. **POSTER LOCATION #89**
[Thermal Demagnetization of Shock Remanent Magnetization in Extraterrestrial Materials](#) [#2354]
 We study how the magnetic records of meteorites are affected by shock.

Bunch T. E. Wittke J. H. Irving A. J. Rumble D. III **POSTER LOCATION #90**
[Unique Polymict Breccia Northwest Africa 7531 Composed of Recrystallized LL Clasts Associated with CR Metachondrite Material: Evidence for Highly Equilibrated Ordinary Chondritic Impactors onto the CR Chondrite Parent Body](#) [#2214]
 This remarkable specimen records impact mixing of two very different highly equilibrated chondritic lithologies (presumably on the CR chondrite parent body).

Sears D. W. G. **POSTER LOCATION #91**
[The Metamorphic History of Two Major New Finds of Antarctic CO Chondrites \(DOM 08004\) and MIL 07531\) Determined from Thermoluminescence data](#) [#2333]
 TL data for two major CO chondrites were determined. Both are homogeneous low-grade CO chondrites (DOM 3.2, MIL 3.3). NTL data indicate very different orbits.

Corrigan C. M. Lunning N. G. **POSTER LOCATION #92**
[Petrogenesis of Microporphyrritic Impact Melt Clasts in Ordinary Chondrites](#) [#2615]
 In an effort to understand early solar system bombardment in the asteroid belt, we examine microporphyrritic impact melt clasts in ordinary chondrites.

Abreu N. M. Eckert J. O. Bullock E. S. **POSTER LOCATION #93**
[Mineralogical and Chemical Relationships Among Anomalous CV and CR Chondrites MET 01017, RBT 04133, and MIL 07513](#) [#2346]
 We use the mineralogy of matrices to discriminate between CV and CR group classification and discuss the relationship of anomalous CV/CRs with CV_{red} chondrites.

Bullock E. S. Lunning N. G. McCoy T. J. **POSTER LOCATION #94**
[Allende 10 B 41: Megachondrule, or Impact Melt Clast?](#) [#1646]
 Oh, "megachondrule" / We were sadly mistaken / You are impact melt.