

Thursday, March 21, 2013
POSTER SESSION: CHONDRULES
6:00 p.m. Town Center Exhibit Area

[R704]

Zhang A. C. Itoh S. Sakamoto N. Wang R. C. Yurimoto H. **POSTER LOCATION #37**
[*Heterogeneous Oxygen Isotopic Compositions in a Sapphirine-Bearing Al-Rich Chondrule from the DaG 978 Carbonaceous Chondrite*](#) [#1449]

We report O-isotopic compositions of minerals, REE compositions of mesostasis in an Al-rich chondrule, and discuss them with O and Fe-Mg diffusion calculations.

Ustunisik G. Ebel D. S. Nekvasil H. **POSTER LOCATION #38**
[*Exploring The Role of Chlorine on the Degassing of Alkalis \(Na and K\): Implications for Chondrule Formation*](#) [#2145]

Cl-free and Cl-bearing heating/degassing experiments were conducted at <1 bar on a synthetic Al3509 chondrule melt for time intervals of 10 min, 4 hr, and 6 hr.

Gellissen M. Holzheid A. Kegler Ph. Palme H. **POSTER LOCATION #39**
[*Evaporation Experiments of Alkali Elements from Silicate Melts: Clues for Early Solar System Processes*](#) [#1987]

Evaporation of Na and K from silicate melts causes gas phase mediated alkali-element transfer between isolated samples: application to chondrule formation.

Archer G. J. Walker R. J. Bullock E. S. **POSTER LOCATION #40**
[*Highly Siderophile Element Abundances and Rhenium-Osmium Isotope Systematics of Chondritic Components*](#) [#2635]

Highly-siderophile-element abundances and Re-Os-isotope systematics were determined for Allende CAIs, chondrules, and matrix.

Russell S. S. Armytage R. Bodenan J.-D. Franchi I. A. Jeffries T. E. et al. **POSTER LOCATION #41**
[*Relationship Between CAIs and Chondrules: What we can Learn from a Chondrule-CAI Hybrid from the Allende CV3 Meteorite*](#) [#2062]

Mineralogy, petrology, O and Si isotopes are reported from a compound chondrule-CAI from the Allende CV3 meteorite.

Kita N. T. Tenner T. J. Ushikubo T. Nakashima D. Bischoff A. **POSTER LOCATION #42**
[*Primitive Chondrules in a Highly Unequilibrated Clast in NWA 753 R Chondrite*](#) [#1784]

A highly unequilibrated R3 clast from NWA 753 (R3-6) chondrite contains a variety of chondrules with Mg# of 100–67. It may correspond to subtype 3.15–3.2.

Beyersdorf-Kuis U. Tieloff M. Cartwright J. A. Bennett J. W. Ott U. **POSTER LOCATION #43**
[*Complex History of Chondrules and Matrix from CR3 Chondrites MET 00426 and MET 99177*](#) [#1999]

We have analyzed highly primitive CR3 chondrites to search for pre-irradiation effects. QUE 99177 seems the best candidate for solar nebular pre-irradiation of chondrules.

Ma C. Beckett J. R. Connolly H. C. Jr. Rossman G. R. **POSTER LOCATION #44**
[*Discovery of Meteoritic Loveringite, \$Ca\(Ti,Fe,Cr,Mg\)_2O_{38}\$, in an Allende Chondrule: Late-Stage Crystallization in a Melt Droplet*](#) [#1443]

We report the first occurrence of meteoritic loveringite, a late-stage crystallization product of a cooling chondrule melt along with zirconolite and apatite.