

**Tuesday, March 16, 2004**  
**POSTER SESSION I: CHONDRULES AND CAIs**  
**7:00 p.m. Fitness Center**

LaBlue A. R. Laurretta D. S.

*Metallic Chondrules in NWA 1390 (H3-6): Clues to Their History from Metallic Cu* [#1939]

We describe two metallic chondrules and the occurrence of Cu to constrain their thermal histories.

Tomomura S. Nagahara H. Tachibana S. Kita N. T. Morishita Y.

*Relationship Between Bulk Chemical Composition and Formation Age of Chondrules in Bishunpur and Krymka* [#1555]

We report bulk chemical compositions of 89 chondrules from unequilibrated ordinary chondrites. The age-composition correlation suggests that the formation age of chondrules ranges from 1.4 to 2.6 Myr after CAIs with a peak at 1.9–2.0 Myr.

Greeney S. Ruzicka A.

*Relict Forsterite in Chondrules: Implications for Cooling Rates* [#1426]

Models of diffusional exchange between relict forsterite and overgrowth olivine in chondrules suggest typical cooling rates during chondrule formation of ~200–6000 K/hr under reducing conditions.

Nettles J. W. Lofgren G. E. Carlson W. D. McSween H. Y. Jr.

*An Evaluation of Quantitative Methods of Determining the Degree of Melting Experienced by a Chondrule* [#2004]

We discuss potential strengths and weaknesses of using nominal grain size and convolution index as quantitative indicators of a chondrule's extent of melting using dynamic crystallization experiments and X-ray CT data.

Pack A. Shelley J. M. G. Palme H.

*Rare Earth Element Fractionation in Chondrules* [#2062]

We report REE data from OC and CC chondrules. The fractionation indicates the presence of reduced components in the precursor material.

Lawrence S. J. Krot A. N. Scott E. R. D. Bunch T. E. Keil K.

*Mineralogy and Petrology of Chondrules in Carbonaceous Chondrite NWA 770* [#1451]

CH chondrites accreted well-mixed populations of the CR- and CB-like chondrules which recorded fractionation of normal and moderately volatile elements in the solar nebula.

Young E. D.

*Isotopic Cosmobarometry — A Synthesis of Concepts and Implications for Chondrule and CAI Formation Mechanisms* [#1300]

A synthesis of existing models for the isotopic effects of evaporation of melts in the presence of gases is used to constrain the different astrophysical environments for chondrule formation and CAI formation, respectively.

Taylor D. J. McKeegan K. D.

*Further Investigations of Minor Element Distributions in Spinels in Type B CAIs* [#1958]

We have measured minor element concentrations in spinels from type B CAIs in Efremovka and Allende. We find a correlation of V and Ti that supports previous interpretations of additional remelting and crystallization events for these objects.

Wark D. A. Chu K.-W. Hill D. H. Boynton W. V.

*Trace Element Compositions of the Sublayers Making Up W-L Rims on CAIs* [#1053]

This work describes a mathematical technique, and presents some illustrations of the output and its applications, for calculating trace element compositions of the sublayers making up W-L rims on CAIs. It uses bulk rim analyses and the thicknesses of the sublayers.