

**Tuesday, March 13, 2007**  
**POSTER SESSION I: ORDINARY CHONDRITES**  
**6:30 p.m. Fitness Center**

Schaefer L. Fegley B. Jr.

*Trace Element Chemistry During Metamorphism on Ordinary Chondrite Parent Bodies* [#2280]

We considered trace element chemistry during metamorphism of ordinary chondritic material and calculated the first volatility sequences for trace elements in ordinary chondritic material.

Kovach H. A. Jones R. H.

*Compositional Heterogeneity of Plagioclase in Equilibrated Ordinary Chondrites* [#1307]

Plagioclase compositions in L6S3 chondrite Nazareth (e) are homogeneous in An content, but show a wide range of Ab, Or, and FeO contents. The compositional diversity does not appear to be derived from differences in chondrule mesostasis compositions.

Dunn T. L. McSween H. Y. Jr. Cressey G. Bland P. A. McCoy T. J.

*Quantification of the Mineralogy of Ordinary Chondrites Using Position Sensitive X-Ray Diffraction* [#1146]

In this study we apply position sensitive X-ray diffraction to the quantification of modal abundances in ordinary chondrites.

Weirich J. R. Swindle T. D.

*Abundance and Composition of K and Ca Bearing Minerals in Ordinary Chondrites and Their Application to Ar-Ar Dating* [#1310]

Compositionally uniform albite accounts for all K in two H chondrites studied. Two K/Ca ratios are observed in individual meteorites in Ar-Ar experiments, however, which must indicate two separate releases of Ar from albite.

Zinin P. V. Huss G. R. Sharma S. K. Krot A. N. Bonal L.

*Raman Spectroscopic Study of Roosevelt County (RC) 075 Chondrite* [#2223]

In this study we report nondestructive confocal Raman spectroscopic mapping of minerals (e.g., olivine, pyroxene, plagioclase and goethite) at sub-micron scale in thin section of RC 075 meteorites.

Gildea K. J. Burgess R. Lyon I. C. Sears D. W.

*Stable Iron Isotope Analyses of Metal Grains in Ordinary Chondrites by MC-ICP-MS* [#1782]

Stable iron isotope measurements of metal iron grains from 18 ordinary chondrites reveal a positive correlation with samples showing an enrichment of heavier isotopes with increasing oxidation state and petrographic type.

Rumble D. III Irving A. J. Kuehner S. M. Bunch T. E.

*Supra-TFL Oxygen Isotopic Compositions in Metal-poor "Ordinary" Chondrites: Samples from Unrecognized Parent Bodies* [#2230]

Several new groups of metal-poor chondrites with oxygen isotopic compositions either similar to H chondrites or closer to the TFL appear to derive from unrecognized parent bodies.

Welten K. C. Nishiizumi K. Caffee M. W.

*Terrestrial Age Survey of Antarctic Meteorites* [#2345]

We measured cosmogenic  $^{36}\text{Cl}$  in the metal phase of 150 Antarctic meteorites, revealing terrestrial ages up to 1.25 Myr. We also show that the Ni and Co concentrations in the metal phase of chondrites are useful tools to verify the initial classification.