

Tuesday, March 16, 2004

POSTER SESSION I: ORDINARY AND ENSTATITE CHONDRITES  
7:00 p.m. Fitness Center

Cook D. L. Humayun M. Campbell A. J.

*The Distribution of Molybdenum in the Indarch EH4 Chondrite* [#1163]

Molybdenum abundances were determined in various phases of the Indarch EH4 chondrite. Troilite was found to be an important host phase. Chalcophile behavior of Mo could explain the observed fractionation of W and Mo in enstatite chondrite metal.

Nakashima D. Nakamura T. Okazaki R.

*Cosmic-Ray Exposure Age and Heliocentric Distance of the Parent Body of E Chondrites ALH 85119 and MAC 88136* [#1467]

The parent body exposure ages and the heliocentric distances of the two E chondrites ALH 85119 and MAC 88136 were calculated on the basis of solar and cosmogenic noble gas data and the exposure model.

Guan Y. Huss G. R. Leshin L. A.

*Further Observations of  $^{60}\text{Fe}$ - $^{60}\text{Ni}$  and  $^{53}\text{Mn}$ - $^{53}\text{Cr}$  Isotopic Systems in Sulfides from Enstatite Chondrites* [#2003]

Evidence of the former presence of  $^{60}\text{Fe}$  was found in unequilibrated enstatite chondrites. We report here additional data on the complicated picture of the  $^{60}\text{Fe}$ - $^{60}\text{Ni}$  and  $^{53}\text{Mn}$ - $^{53}\text{Cr}$  systems in sulfides of enstatite chondrites.

Marsh C. A. Lauretta D. S. Domanik K. J.

*Thermal Metamorphism in L Chondrites: Implications of Percent Mean Deviation in Olivine and Pyroxene* [#2033]

We are developing a new technique to quickly and accurately measure the homogeneity of olivines and pyroxenes in a suite of L-chondrites. We are able to determine the average wt% Fe of minerals in Gold Basin (L4).

Tomiyama T. Misawa K.

*Cooling Rates and the  $^{53}\text{Mn}$ - $^{53}\text{Cr}$  Isotopic System of Yamato 86753, an Equilibrated Ordinary Chondrite* [#1785]

We performed two-pyroxene geothermometry, olivine-spinel geothermometry and metallographic cooling rate estimates on equilibrated L chondrites. Isotopic analyses of the  $^{53}\text{Mn}$ - $^{53}\text{Cr}$  system in olivines have been done on a rapidly cooled L5 chondrite.

Kim K. J. Reedy R. C.

*Production Rates of Cosmogenic Nuclides in the Knyahinya L-Chondrite* [#1359]

Cosmogenic nuclide production rates were calculated for the Knyahinya L-chondrite using MCNPX-calculated particle fluxes and existing cross sections. Effective GCR fluxes were determined. Improved calculated fluxes and cross sections are needed.

Herd R. K. Hunt P. A. Venance K. E. Killgore M. B.

*Preliminary Mineralogical Data from the Saratov (L4) Primitive Ordinary Chondrite* [#2070]

New mineralogical data from chondrules in the Saratov (L4) primitive ordinary chondrite confirm its classification. Analytical data on olivine, pyroxenes, plagioclase and spinel have been obtained by electron-microprobe analysis.

Goreva J. S. Lauretta D. S.

*Phosphate Minerals in Semarkona (LL3.0)* [#2065]

Petrographic and electron microprobe study of Ca-phosphates in chondrules, chondrule rims and matrix of Semarkona.

Knight R. D. Herd R. K. Hunt P. A.

*A Textural Comparison of Chondrules and Smelter-derived Dust: Implications Regarding Formation Conditions* [#1734]

A comparison of smelter-derived dust particles and chondrules in primitive (LL3, L4) ordinary chondrites indicates similar crystallization textures, as imaged in back-scattered-electron (BSE) and secondary-electron (SE) modes with a scanning-electron microscope (SEM).

Berlin J. Stöffler D.

*Modification of the Van Schmus & Wood Petrologic Classification for Lithic Fragments in the Chondritic Breccia Rumuruti* [#1344]

A direct application of the Van Schmus & Wood classification of petrologic types to the Rumuruti chondrite is difficult. Therefore we present some modifications in order to classify the different fragments found in the Rumuruti breccia.