Thursday, March 16, 2006
POSTER SESSION II: PRESOLAR GRAINS
7:00 p.m. Fitness Center

Yada T. Stadermann F. J. Floss C. Zinner E. Nakamura T. Noguchi T. Lea A. S.
High Abundances of Presolar Silicates in Antarctic Micrometeorites; Implications for Their Cometary Origins **[#1470]**
The abundance of presolar silicates in Antarctic micrometeorites (AMMs) has been revised to be 50 ppm. That in one of the AMMs is 900 ppm, comparable to that in primitive interplanetary dust particles, indicating that it might be of cometary origin.

Morlok A. Köhler M. Grady M. M.
Infrared Spectroscopy of Circumstellar Dust: Signs of Differentiated Materials? **[#1519]**
Mid-infrared absorption spectra of powdered achondrites are compared with the astronomical spectra of dust around young, evolving stars, to find evidence (or not) of dust formed in collisional cascades of material from planetesimals.

Tonotani A. Kobayashi S. Nagashima K. Sakamoto N. Russell S. S. Itoh S. Yurimoto H.
Presolar Grains from Primitive Ordinary Chondrites **[#1539]**
We discovered 21 presolar silicate grains and 16 presolar carbonaceous grains from five primitive ordinary chondrites. We determined presolar grain abundance in the ordinary chondrites and discussed alteration effects for the abundances.

Le Guillou C. Rouzaud J. N. Brunet F.
Characterization of the Carbon to Diamond Transition by X-Ray Diffraction, Raman Microspectroscopy, and High Resolution Transmission Electron Microscopy (HRTEM): A Way to Better Constrain the Formation of Diamond in Space **[#1635]**
Nanodiamonds are found in carbonaceous chondrites and contain different isotopically anormous noble gases. The coupling of X-ray diffraction, Raman, and high-resolution TEM raises the importance of carbon precursors for diamond formation.

Stadermann F. J. Floss C. Lea A. S.
Using Auger Spectroscopy to Characterize Sub-Micrometer Presolar Grains In Situ: An Overview **[#1663]**
We have used the combination of NanoSIMS and Auger spectroscopy for *in situ* isotopic and elemental characterizations of presolar grains in primitive meteorites, Antarctic micrometeorites, and interplanetary dust particles.

Henkel T. Tizard J. Lyon I.
Comprehensive Analyses of Gentle Separated Presolar SiC-Grains **[#1700]**
Evidence for a coat-core structure of presolar SiC-grains was found in a comprehensive study of acid-free extracted grains. Comparison with acid-residue grains showed alterations these ones have experienced in the extraction process.

Lyon I. Tizard J. Henkel T.
Li and B in Gently Separated Pre-Solar SiC Grains, Evidence of Material from Interstellar Clouds **[#1750]**
Lithium and Boron isotope and elemental analyses have been acquired from pristine pre-solar silicon carbide grains, separated from the Murchison meteorite by a new acid-free technique. Results indicate acquisition of a rim on the grain from interstellar space.

Crowther S. A. Kehm K. Mohapatra R. K. Gilmour J. D.
Single Grain Xenon Measurements Using RELAX: First Results from Murchison Grains, IDPs and Presolar SiC **[#1942]**
We present first results from xenon analysis of individual IDPs and presolar grains yielding upper limits on gas concentrations.

Ofan A. Ahmad I. Greene J. P. Paul M. Pellin M. J. Savina M. R.
A Search for Live 244Pu in Deep-Sea Sediments: Development of an Efficient Detection Method **[#2133]**
Live Pu-244 (half-life = 81 Ma) is expected to be present in the interstellar medium from ongoing nucleosynthesis. We are developing a method for detecting extremely low levels of Pu-244 that may have accreted onto Earth from the ISM.

Amari S. Gallino R. Pignatari M.
Presolar Graphite from the Murchison Meteorite: Noble Gases Revisited **[#2409]**
Presolar graphite is the carrier of Ne-E(L). Novae have traditionally been thought a source of ^{22}Na in Ne-E(L). However, supernovae are a major source of ^{22}Na in low-density graphite grains. s-Process Kr in the grains was most likely produced in supernovae.