Friday, March 19, 2004
CONCERNING CHONDRITES
1:30 p.m. Marina Plaza Ballroom

Chairs: J. N. Grossman
M. K. Weisberg

1:30 p.m.  Weisberg M. K. * Kimura M.
Petrology and Raman Spectroscopy of Shocked Phases in the Gujba CB Chondrite and the Shock History of the CB Parent Body [#1599]
Petrology and Raman Spectroscopy of shocked areas in Gujba reveal the first discovery of high-pressure minerals majorite (or majorite-pyrope-ss) and wadsleyite in a C chondrite. CB chondrites experienced impact events similar to those of O chondrites.

1:45 p.m.  Greenwood R. C. * Franchi I. A.  Kearsley A. T.  Alard O.
The Relationship Between CK and CV Chondrites: A Single Parent Body Source? [#1664]
The relationship between CK and CV3 chondrites is examined. Both groups may represent a single continuum and have been derived from the same parent body.

2:00 p.m.  Zolensky M. E. * Lee R.  Le L.
Samples of Asteroid Surface Ponded Deposits in Chondritic Meteorites [#1332]
We have shown that materials that likely originated in asteroid ponded deposits have survived and traveled to earth within meteorites.

2:15 p.m.  Hezel D. C. * Palme H.  Brenker F. E.
Composition and Origin of SiO2-rich Objects in Carbonaceous and Ordinary Chondrites [#1200]
SiO2-rich objects provide information about processes prior to chondrule formation. REE and major element data of these objects will be presented in order to decide, how SiO2 was enriched. Fractional condensation is the most plausible mechanism.

2:30 p.m.  Smoliar M. I. * Horan M. F.  Alexander C. M. O’D.  Walker R. J.
Re-Os Systematics and HSE Distribution in Tieschitz (H3.6): Two Isochrons for One Meteorite [#1333]
We present new Re-Os and HSE data for mineral separates of Tieschitz (H3). While metal and several types of chondrules form well-defined isochron with pristine age (4.59 Ga), the samples of white matrix and bleached chondrules give apparent age of 2.0 Ga.

2:45 p.m.  Grossman J. N. *
Loss of Chromium from Olivine During the Metamorphism of Chondrites [#1320]
Unmetamorphosed chondrites contain high levels of Cr2O3 in ferroan olivine. During metamorphism to type 3.2, Cr is lost from olivine by a complex mechanism. Histograms of Cr2O3 in olivine can be used to discriminate type 3.0–3.1–3.2 chondrites.
3:00 p.m. Heck Ph. R. * Baur H. Schmitz B. Wieler R.

*Very Short Delivery Times of Meteorites After the L-Chondrite Parent Body Break-Up 480 Myr Ago [#1492]*

Cosmic-ray exposure ages of 480 Myr old fossil meteorites constrain delivery times of meteorites from a large collision in the asteroid belt. The ages are very low and define a gradient. They are in the range predicted by dynamical models.


*The Complex Exposure History of a Very Large L/LL5 Chondrite Shower: Queen Alexandra Range 90201 [#2020]*

We report on the complex exposure history of a large Antarctic L/LL5 chondrite shower. The duration of the first-stage exposure of large chondrites on their parent body provides information on the lifetime of meter-sized boulders on asteroid surfaces.