Thursday, March 20, 2003
POSTER SESSION II
7:00 p.m. Fitness Center

Ordinary Chondrites: Who Could Ask for More?

Mohapatra R. K. Herrmann S. Ott U.
Nitrogen, Argon and Xenon in Happy Canyon E Chondrite **[#1554]**
Here we report on the analysis of a 0.68 mg sample of Happy Canyon (EL6) simultaneously for its nitrogen and noble gas isotopic compositions, as part of an ongoing study of EC.

Berlin J. Lingemann C. M. Stöffler D.
Visible and Near-infrared Reflectance Spectra of Rumuruti **[#1764]**
The meteorite Rumuruti is ideal for VNIR reflectance spectroscopy, because it is the only fall of the R chondrite group. We conducted measurements in the range of 0.5–2.5 μm for three different lithologies on raw saw-cut surfaces of Rumuruti.

Welten K. C. Nishiizumi K. Finkel R. C. Hillegonds D. J. Jull A. J. T. Schultz L.
Cosmogenic Records in 18 Ordinary Chondrites from the Dar Al Gani Region, Libya: II. Radionuclides **[#1866]**
Radionuclide measurements of 18 DaG meteorites show that most have terrestrial ages <30 kyr, whereas DaG 343 has an age of 160 kyr. Five meteorites show evidence of a large pre-atmospheric size, while DaG 908 experienced a complex exposure history.

Xie Z. Sharp T. G.
TEM Observations of Amorphized Silicate-Perovskite, Akimotoite and Ca-rich Majorite in a Shock-induced Melt Vein in the Tenham L6 Chondrite **[#1469]**
Two mineral assemblages in the melt vein of Tenham constrain crystallization pressure at ~ 25 GPa, over a period of about 20 ms. Crystallization is unlikely to have occurred during pressure release, therefore the crystallization pressure represents the equilibrium shock pressure.

Herd R. K. Hunt P. A. Venance K. E. Killgore M. B.
Comparative Textural and Mineralogical Studies of Two Primitive Ordinary Chondrites: Saratov (L4) and an Unnamed (L/LL3) from Antarctica **[#2058]**
Petrological descriptions of the Saratov (L4) fall are lacking in the scientific literature. During study of an Antarctic (L/LL3) find, Saratov has also been examined because of its grade. Both meteorites have very similar but non-identical chondrule textures and histories.

Cole K. J. Sipiera P. P.
Kilabo and Bensour: A Comparative Study of Two Recent LL6 Falls from Africa **[#1135]**
A comparative study of two recent LL6 meteorite falls, Bensour (Feb 2002) and Kilabo (July 2002) suggests a possible relationship between the two meteorites and a common parent body.

Hill D. H. Patzer A. Boynton W. V.
JaH 031: A New LL Chondrite Breccia from Oman **[#1926]**
We report on a new LL chondrite breccia from Oman: JaH 031. I contains equilibrated chondrite clasts with thick melt veins. Mineralogical, major, and trace element analyses are reported for clasts and melt veins.

Dixon E. T. Bogard D. D. Rubin A. E.
^{39}Ar-^{40}Ar Evidence for an ~4.26 Ga Impact Heating Event on the LL Parent Body **[#1108]**
Miller Range 99301 (unbrecciated, LL6) has shock grade indicators that suggest both unshocked and highly shocked conditions. ^{39}Ar-^{40}Ar chronology shows these inconsistent shock indicators are consistent with impact events, followed by partial annealing from the heat produced by impacts.

Lorenz C. Kurat G. Brandstaetter F. Nazarov M. A.
NWA 1235: A Phlogopite-bearing Enstatite Meteorite **[#1211]**
NWA 1235 achondrite was formed from an enstatite meteorite source under more oxidized conditions than enstatite meteorites. Its unique features are unusual composition of sulfides, a wide set of microinclusions and the occurrence of fluorphlogopite.

Ma P. Herzog G. F. Faestermann T. Knie K. Korschinek G. Rugel G. Wallner A. Schultz L. Johnson J. Jull A. J. T. Fink D.
Exposure Histories of Seven Ordinary Chondrites with Helium-3 Losses **[#1673]**
Among seven chondrites with He losses and $^{21}Ne < 1 \times 10^{-8}$ cm^3 STP/g, simple cosmic-ray exposure histories are likely for three (Daraj 115, Staelldalen, and Ybbsitz) but ambiguous for four (ALH 88004, Indio Rico, Markovka, and HaH 002). Daraj 115 may show SCR effects.

Leya I. Wieler R.
Production Rates and Production Rate Ratios for Cosmogenic Kr Isotopes in H-Chondrites Based on Chlorine-36/Argon-36 Ages **[#1219]**
We present the ^{81}Kr-Kr derived exposure ages for H-chondrites which were recently investigated for their ^{36}Cl-^{36}Ar ages.

Bischoff A. Zipfel J.
Mineralogy of the Neuschwanstein (EL6) Chondrite — First Results **[#1212]**
The Neuschwanstein meteorite is a new fall from Germany and fell April 6, 2002. Based on mineralogy and chemistry it is classified as an EL6 chondrite.

Zipfel J. Spettel B. Schönbeck T. Palme H. Bischoff A.
Bulk Chemistry of the Neuschwanstein (EL6) Chondrite — First Results **[#1640]**
Bulk chemical composition, including major and trace elements, of a recent enstatite chondrite fall in Neuschwanstein, Germany. Based on major and minor elements it is shown that Neuschwanstein has a bulk composition typical of EL6 chondrites but slightly higher metal contents.

Okazaki R. Huss G. R.
Oxygen Isotopic Composition of Individual Chondrules in an Enstatite Chondrite Yamato 791810 **[#1791]**
Oxygen isotopes were measured for chondrules from an EH4-chondrite to elucidate the origin of noble-gas-rich chondrules. A porphyritic pyroxene chondrule shows ^{16}O excess and internal variation, suggesting that the precursor contains ^{16}O-rich grains.