

Tuesday, March 15, 2005
POSTER SESSION I: IRON AND STONY-IRON METEORITES
7:00 p.m. Fitness Center

Grokhovsky V. I. Ustyugov V. F. Badyukov D. D. Nazarov M. A.
Dronino: An Ancient Iron Meteorite Shower in Russia [#1692]

Dronino is a huge iron meteorite shower recovered in Russia. In trace elements Dronino is anomalous. Sections show duplex structure (kamacite and martensite). This structure could be formed by reheating of initial octahedral texture.

Grokhovsky V. I. Oshtrakh M. I. Milder O. B. Semionkin V. A. Kadushnikov R. M. Glazkova S. A.
Structural Studies of Iron Meteorite Dronino [#1980]

Study of metal and sulphide nodules of meteorite Dronino was made using microhardness, digital microscopy with image analysis platform SIMAGIS, electron probe microanalysis using scanning electron microscope Philips 30XL with EDS, Mössbauer spectroscopy and X-ray powder diffraction.

Watson H. C. Watson E. B. McDonough W. F. Ash R. D.

Siderophile Element Profile Measurements in Iron Meteorites Using Laser Ablation ICP-MS [#2141]

Laser ablation ICP-MS was used to measure concentration profiles of siderophile elements Cu, Ga, Ge, Mo, Ru, Rh, Pd, Re, Os, Ir, Pt, and Au in iron meteorites. Preliminary values for equilibrium partition coefficients are also reported.

Yang J. Goldstein J. I. Scott E. R. D.

Metallographic Cooling Rate of IVA Irons Revisited [#1347]

We revisited cooling rate of IVA irons based on updated parameters and an explanation of varying cooling rate in low Ni end of the IVA has been given.

Ruzicka A. Hutson M.

Filter-Press Differentiation: A Newly-Recognized Fractionation Mechanism for Silicate Inclusions in Sombroete and Possibly in Other Iron Meteorites [#1169]

A novel crystal/liquid fractionation mechanism, which we term "filter-press differentiation", best accounts for chemical heterogeneity of silicate inclusions in the Sombroete iron meteorite. A similar process may have affected other silicated irons.

Bogard D. D. Garrison D. H. Takeda H.

Ar-Ar and I-Xe Ages of Caddo County and Thermal History of IAB Iron Meteorites [#1132]

New Ar-Ar and I-Xe ages of silicate from the Caddo County IAB iron, along with literature data on IABs, appear inconsistent and may suggest a complex parent body history.

Kalinina G. V. Kashkarov L. L. Ivliev A. I. Skripnik A. Ya.

Radiation and Shock-Thermal Parameters of Pallasites: Resulting from Different Compaction History? [#1708]

Olivine crystals from the Brenham, Eagle Station, Marjalahti and Omolon were examined by the track and thermoluminescence (TL) methods.

Tomiyama T. Huss G. R.

Minor Element Behavior of Pallasite Olivine: Understanding Pallasite Thermal History and Chronology [#2071]

We investigated chemical zoning and Mn-Cr isotopic systematics of olivine in some pallasites and discussed the possible influence of chemical diffusion on Mn-Cr dating.

Petaev M. I. Jacobsen S. B.

LA-ICP-MS Study of Trace Elements in the Chaurskij Metal [#1740]

We report new LA-ICP-MS data for 19 elements in the metal grains from the Chaurskij silicate inclusions. The metal of silicate inclusions is different from the host metal of Chaurskij as well as from metal nodules of common mesosiderites.

Emami M. H. Monsef R.

Petrological and Geochemical Consideration on the Tuserkanite Meteorite [#1241]

On June 27, 1985, a light gray meteorite with dark vein system in 5.7 kg weight fell from the sky that its landing in Esmaeel Abad. According to our studies, this sample could be derived from high fractionate rhyolite composition which is similar to lunar residual rhyolitic rocks.