Thursday, March 13, 2008
POSTER SESSION II: LUNAR METEORITES
6:30 p.m. Fitness Center

Korotev R. L. Irving A. J. Bunch T. E.
Keeping Up With the Lunar Meteorites — 2008 **[#1209]**
Data for and discussion about numerous new lunar meteorites.

Irving A. J. Kuehner S. M. Korotev R. L. Rumble D. III Hupe A. C.
Petrology and Bulk Composition of Large Lunar Feldspathic Leucogabbroic Breccia Northwest Africa 5000 **[#2168]**
The second largest known meteorite from the Moon is a highlands metal-bearing leucogabbroic breccia.

Snape J. F. Joy K. H. Crawford I. A. Beard A. D.
A Petrographic Study of Lunar Meteorite Northeast Africa 001 **[#1316]**
We present a petrographic study of the lunar meteorite NEA 001 — a feldspathic regolith breccia with a VLT mare basalt component.

Takeda H. Arai T. Yamaguchi A. Otsuki M. Ohtake M.
Granulitic Lithologies in Dhofar 307 Lunar Meteorite and Magnesian, Th-poor Terrane of the Northern Farside Crust **[#1574]**
Mineralogy of a magnesian granulitic clast in Dho 307 similar in mineral chemistry to the spinel troctorite clast in Dho 489 and an impact melt clast in Dho 309 is reported to help to find true magnesian anorthosites of the farside origin.

Foreman A. B. Korotev R. L. Jolliff B. L. Zeigler R. A.
Petrography and Geochemistry of Dhofar 733 — An Unusually Sodic, Feldspathic Lunar Meteorite **[#1853]**
Dhofar 733 contains An_{93} plagioclase and is approximately twice as sodic as most feldspathic lunar meteorites. Dhofar 733 derives from an unknown location in the feldspathic highlands terrane and is not paired with any other lunar meteorite to date.

O'Donnell S. P. Jolliff B. L. Zeigler R. A. Korotev R. L.
Identifying the Mafic Components in Lunar Regolith Breccia NWA 3136 **[#2507]**
We present the major clast types in this sample of the basalt regolith breccia NWA 3136. The major mafic component(s) is not represented among the major clast types and is tentatively constrained.

Fagan T. J. Hayakawa S. Kodama S. Kataoka Y. Sasamoto A.
Late-Stage Crystallization Products in NWA 773 Group Lunar Meteorites **[#1854]**
Late-stage crystallization lithologies in NWA 773 group meteorites exhibit a variety of alkali-poor and alkali-rich compositions. Variations in fractional crystallization may have combined with silicate liquid immiscibility to produce these rocks.

Greshake A. Irving A. J. Kuehner S. M. Korotev R. L. Gellissen M. Palme H.
Northwest Africa 4898: A New High-Alumina Mare Basalt from the Moon **[#1631]**
NWA 4898 is a lunar basalt with a bulk chemistry similar to Apollo 14 and Luna 16 high-alumina basalts, except that it is much more evolved [Mg/(Mg + Fe) = 0.271]. It thus appears to be a new type of high-alumina mare basalt from the Moon.

Arai T. Hawke B. R. Giguere T. A.
Antarctic Lunar Meteorites from Cryptomaria of the Moon **[#2423]**
Paired Antarctic lunar meteorites, Yamato 793169, Asuka 881757, MET 01210, and MIL 05035 (YAMM meteorites) most likely come from the Schiller-Schickard cryptomare region.

Shih C.-Y. Nyquist L. E. Reese Y. D. Bischoff A.
Sm-Nd and Rb-Sr Isotopic Studies of Meteorite Kalahari 009: An Old VLT Mare Basalt **[#2165]**
The Sm-Nd age of LVT mare basalt meteorite Kalahari 009 indicates that it formed 4.30 ± 0.05 Ga ago. Its old age and source isotopic characteristics are similar to some of the A-14 AMB. It may come from the Lomonosov-Fleming basin of the Moon.

Terada K. Sasaki Y. Oka Y. Tanabe A. Fujikawa N. Tanikawa S. Sano Y. Anand M. Taylor L. A.
Ion Microprobe U-Pb Dating of Phosphates in Lunar Basaltic Meteorites **[#1681]**
This paper will illustrate the advantages of *in situ* U-Pb of phosphate in lunar mateorites and the recent new findings such as cryptomare magmatism 4.35 G.y. ago on the Moon.

Yamaguchi A. Takeda H. Nyquist L. E. Bogard D. D. Karouji Y. Ebihara M.
Basaltic Clasts in Y-86032 Feldspathic Lunar Meteorite: Ancient Volcanism far from the Procellarum KREEP Terrane **[#1560]**
We report textures and mineralogy of basaltic and gabbroic clasts in Y-86032 to better understand the nature of ancient lunar volcanism far from the Procellarum KREEP Terrain and the central nearside.

Cohen B. A.
Lunar Meteorite Impact Melt Clasts and Lessons Learned for Lunar Surface Sampling **[#2532]**
New impact-melt clast ages in five lunar meteorites range from 1.3 to 3.7 Ga. The impact history of large areas of the Moon can be derived from statistical sampling and detailed characterization of impact-melt rocks and clasts.