

Tuesday, July 28, 2015

POSTER SESSION: PETROLOGY AND GEOCHEMISTRY OF LUNAR ROCKS

5:30 p.m. Hearst Memorial Mining Building (HMMB) Floor Three

Roller G.

[*A Nuclear Production Ratio Th/U = 0.96 from Lunar and Terrestrial Rocks: Implications for Future Lunar Sample Return Missions*](#) [#5041]

Based upon findings from lunar rocks, a preliminary nuclear production ratio of ≈ 1 is suggested for element pairs Th/U, Pu/U, Re/Os, Ir/Os and Au/Ir. Hence, the moon could become an astrophysical reference as to r-process isotope and element ratios.

Korotev R. L.

[*In the Feldspathic Highlands of the Moon, High MgO/FeO Equals High Olivine Abundance*](#) [#5078]

Highlands of the Moon / MgO to FeO / Olivine goes up.

Muftakhetdinova R. F. Grokhovsky V. I. Yakovlev G. A.

[*Structure and Composition of Shock Remelting Lunar Metallic Particles*](#) [#5292]

In this work we investigated structure and composition of shock re-melting lunar metallic particles.

Park J. Nyquist L. E. Herzog G. F. Turrin B. D. Lindsay F. N. Delaney J. S. Swisher C. C. III
Shih C.-Y. Yamaguchi A. Shirai N. Ebihara M. Nagao K.

[*⁴⁰Ar/³⁹Ar Ages for Lunar Meteorites MIL 090034, MIL 090036, and MIL 090070 and Excess ⁴⁰Ar in MIL 090036*](#) [#5237]

Young ages of ~ 3500 – 3540 Ma of MIL 090034, MIL 090036 and MIL 090070 for each breccia probably date the time of breccia assembly. The regolith breccia MIL 090036 contains excess ⁴⁰Ar implanted from the lunar atmosphere.