

Tuesday, March 24, 2009
POSTER SESSION I: UREILITE STUDIES
6:30 p.m. Town Center Exhibit Area

Trappitsch R. Cosarinsky M. Hofmann B. Leya I.

[*Noble Gas Studies of the Ureilites Kenna and Ramlath As Samah 247*](#) [#1246]

We present noble gas data on two ureilites, Kenna and RaS 247 (desert find). Our measurements indicate cosmogenic He and Ne release at low temperatures, Ar is mostly primordial. Total gas concentrations are highly variable within the samples.

Jakubowski T. Karczewska A. Kozanecki M. Gucsik A. Stanishevsky A. Mitura S.

[*Micro-Raman Spectroscopy of Diamonds from Hot Desert Ureilites*](#) [#1382]

The samples of all types of ureilites, from less shocked up to highly shocked, were examined using Raman spectroscopy and Scanning Electron Microscopy. The results show the presence of diamonds in all of our samples.

Garren M. K. Singletary S. J. Bell D. R. Busek P. R.

[*Ureilite Lithium Isotopic Composition*](#) [#1668]

Lithium abundances and isotopic compositions from three ureilites are reported. Spot analyses reveal spatial correlations between abundances and isotopic compositions with features such as cracks, grain boundaries and the ubiquitous reduced rims.

Gabriel A. D. Pack A.

[*Ureilite Vein Metal — Indigenous or Impact Material?*](#) [#2462]

Ureilite vein metal is not in chemical and isotopic equilibrium with ureilite silicate. We discuss if the vein metal can be produced by solid/liquid-fractionation in the parent body or if an outside source is necessary.

Goodrich C. A. Van Orman J. A. Domanik K. Berkley J. L.

[*Metal in Ureilites: Petrologic Characterization*](#) [#1132]

Metal and siderophile elements in ureilites appear to be inconsistent with a smelting model. We address this problem with detailed petrographic and trace element characterization of the types of metal in ureilites.

Le Guillou C. Rouzaud J. N. Remusat L. Bourot-Denise M. Jambon A.

[*Coupled Raman/TEM Study of an Ureilite Carbon Phases Compared to Shocked Graphite Analogs: Implication for Shock History and Noble Gases Carriers Evolution*](#) [#2108]

Carbons in an ureilite compared with analogs of shocked graphite suggest the presence of two diamond generation. The disordered carbon identified as a diamond coating may contain the noble gases released at low temperature in the mass spectrometer.