Tuesday, March 18, 2014 **[T252]**
SPECIAL SESSION: FLUIDS ON DIFFERENTIATED BODIES
1:30 p.m. Waterway Ballroom 4

Chairs: **Adam Sarafian**
Yang Liu

1:30 p.m. Fu R. R. * Elkins-Tanton L. T.
The Fate of Magmas in Planetesimals and the Retention of Primitive Chondritic Crusts **[#1382]**
Volatiles migrate readily on igneous planetesimals, leaving dry silicate melts that may ascend or remain at depth, depending on bulk composition.

1:45 p.m. Isa J. Warren P. H. * Rubin A. E. McKeegan K. D. Gessler N.
Fluid Deposition Products in Eucrites and Moon Rocks: A Study in Contrasts **[#2777]**
We discuss the enigmatic fluid-metasomatic melange, including Fe-metals, in the NWA 5738 eucrite, and a search for analogous stuff in ancient lunar rocks.

2:00 p.m. Hallis L. J. * Huss G. R. Nagashima K. Taylor G. J. Halldórsson S. A. et al.
Is Earth's Original D/H Ratio Preserved in the Deep Mantle? **[#1283]**
Hydrogen isotope ratios in basaltic melt inclusions from Baffin Island and Iceland indicate Earth's primordial D/H ratio survives in the deep mantle.

2:15 p.m. Bridges J. C. * Schwenzer S. P. Leveille R. Westall F. Ollila A. et al.
Fluid Composition and Mineral Reactions at Yellowknife Bay, Mars **[#1944]**
Diagenesis fluid in Sheepbed mudstone was NaK-poor, FeMg-rich, neutral-alkaline at W/R 100–1000. Amorphous material and olivine were selectively dissolved.

2:30 p.m. Liu Y. * Guan Y. McCubbin F. M. Eiler J. M. Agee C. B. et al.
The Martian Surface Water in Breccia Meteorite NWA 7034 **[#2368]**
Investigate the storage and isotope composition for martian surface water in breccia meteorite NWA 7034.

2:45 p.m. Muttik N. * Agee C. B. McCubbin F. M. McCutcheon W. A. Provencio P. P. et al.
Looking for a Source of Water in Martian Basaltic Breccia NWA 7034 **[#2783]**
Here we attempt to locate the source of water in NWA 7034 by Fourier transform infrared spectrometry (FTIR) and transmission electron microscopy (TEM).

3:00 p.m. Chojnacki M. * McEwen A. Dundas C. Mattson S. Ojha L. et al.
Geologic Context of Recurring Slope Lineae in Coprates Chasma **[#2701]**
Abundant RSL (possible water seeps) are detected among diverse geologic settings of Coprates Chasma (Mars) and provide new constraints to these unique phenomena.

3:15 p.m. Scully J. E. C. * Russell C. T. Yin A. Jaumann R. Carey E. et al.
Sub-Curvilinear Gullies Interpreted as Evidence for Transient Water Flow on Vesta **[#1796]**
Subcurvilinear gullies on Vesta in craters with pitted terrain are morphological indicators of surface transient water flow and of localized subsurface ice.

3:30 p.m. Titus T. N. * Tosi F. Li J.-Y. Capria M. T. De Sanctis M. C. et al.
Thermal Inertia Analysis of the Surface and Near-Surface of 4 Vesta **[#2802]**
Vesta's surface temperatures are compared to thermal models. Regions where H_2O ice may be stable are identified, along with areas that may be dust-free.

3:45 p.m. Combe J.-Ph. * Ammannito E. De Sanctis M.-C. Tosi F. McCord T. B. et al.
Vesta's Surface OH and H_2O Investigated Using Near-Infrared Spectroscopy **[#2170]**
Vesta global distribution of hydroxyl from near-infrared spectroscopy by the Dawn spacecraft indicates possible H_2O and several origins for OH in the northern regions.

4:00 p.m. Soderlund K. M. * Schmidt B. E. Wicht J. Blankenship D. D.
The Influence of Heterogeneous Mantle Heating on Ocean Convection at Europa **[#2054]**
We will present numerical simulations of Europa-like ocean convection that investigate the influence of heterogeneous tidal heating in the underlying mantle.

4:15 p.m. Osinski G. R. * Tornabene L. L. Sears D. W. G. Hughes S. S. Heldmann J. L.
Impact Craters as Probes of Fluids on Differentiated Bodies **[#2439]**
We use the physical and morphological properties of impact melt and ejecta deposits of impact craters to probe fluids on differentiated bodies.

4:30 p.m. Carey E. M. * Castillo-Rogez J. Scully J. E. C. Russell C. T.
Rate of Evaporation of Water Under Low-Pressure Conditions **[#2060]**
We will present experiments on the evaporation rate of liquid water, with and without the addition of particulates, under low-pressure environments.