## Tuesday, May 22, 2018 SESSION I 8:30 a.m. Lecture Hall

## Chair: **Christopher German**

8:30 a.m. Byrne P. K. \* Regensburger P. V. Klimczak C. Bohnenstiehl D. R. Hauck S. A.

> Dombard A. J. Hemingway D. J.

The Geology of the Rocky Interiors of Enceladus, Europa, Titan, and Ganymede [#6030]

Icy moons are intriguing, no doubt: Hot ice, oceans, and stuff that comes out. But what lies below? Just rock or Nemo? With rock mechanics we will find out.

8:50 a.m. Ely T. D. \* Shock E. L.

The Fate of Electrons in Oceanic Alteration of Mid-Ocean Ridge Basalts [#6031]

This work describes, via thermodynamic modeling, the connection between the global diversity of MORB compositions and the ability of those compositions to deliver electrons to alteration assemblages when reacted with seawater.

9:10 a.m. Rummel J. D. \*

Light in the Thermal Environments of an Ocean World: Groveling for Photons, or

*Living It Rich?* [#6033]

This paper describes the phenomenon of obligate phototrophs living in hydrothermal environments on the sea floor, and describes how to use that information to search for life on ocean worlds.

Liao Y. \* 9:30 a.m.

> Thermal Profile in Enceladus' Interior and its Compatibility with Hydrothermal Circulation [#6032] In this abstract, we propose a framework where the thermal profile in the interior of Enceladus is coupled to hydrothermal circulation.

9:50 a.m. Zolensky M. E. \* Fries M. Chan Q. Kebukawa Y. Steele A. Yurimoto Y. Itoh S.

Ito M. Bodnar R. J.

Hydrovolcanic Astromaterials in the Lab [#6041]

Examination of direct samples of early solar system water and associated solids, including organics.

10:10 a.m. Velbel M. A. \*

> Fate and Transport of Solutes in Microporous Chondritic Asteroidal Aquifers — And Cores of Ocean Worlds? [#6008]

Genetically-texturally related olivine-serpentine assemblages tell us (some of) what was in the water on the parent bod(y/ies) of CM carbonaceous chondrites, including soluble Fe and S species.

10:30 a.m. Break

11:00 a.m. DISCUSSION

12:00 p.m. Lunch

12:45 p.m. POSTER VIEWING