

Thursday, March 22, 2018

[R625]

**POSTER SESSION II: ASTROBIOLOGY VI: ICY WORLDS, ISOTOPES, AND PLANTS****6:00 p.m. Town Center Exhibit Area**

Hadnott B. H. Hörst S. M. He C. Trainer M. G. Li X. **POSTER LOCATION #408**  
[Characterization and Detection of Hydrolyzed Titan "Tholins" for Dragonfly](#) [#1904]

Molecular analyses of tholins in water/ammonia demonstrate the potential for a mass spectrometer onboard a future landed mission to Titan to detect organics.

Truong N. Monroe A. A. Anbar A. D. Lunine J. I. **POSTER LOCATION #409**  
[Decomposition of Amino Acids in Water with Application to Enceladus and Europa](#) [#2097]

If amino acids can be detected on Enceladus or Europa, most of them should come from active production rather than primordial synthesis.

Phillips-Lander C. M. Harrold Z. R. Raymond J. **POSTER LOCATION #410**  
 Tschauner O. Hausrath E. M.  
[Snow Algae-Bacteria Co-Cultures Exhibit Patterned Growth \(Biovermiculation\) Under Fe-Limited Conditions: Implications for Biosignatures on Icy Planetary Bodies](#) [#2308]

Snow algae form biovermiculations (a biosignature of extant life) associated with Fe-oxides under Fe-limited conditions.

Phillips-Lander C. M. Harrold Z. R. Sanchez A. Sbraccia P. **POSTER LOCATION #411**  
 Garcia A. et al.  
[Snow Algae Consortia as Habitability Indicators in Icy Environments](#) [#2365]

Snow algae can be used to assess how light, temperature, and nutrient availability affect habitability of icy environments.

Heard A. W. Dauphas N. Rouxel O. J. Nie N. X. **POSTER LOCATION #412**  
[Insights into Redox Cycling on Early Earth from the Mass Fractionation Law of Iron Isotopes in Archean Sediments](#) [#2470]

We investigated redox cycling on the anoxic early Earth by measuring the iron isotope mass fractionation law in Archean sediments.

Chen C. Tissot F. L. H. Dauphas N. Bekker A. Halverson G. P. et al. **POSTER LOCATION #413**  
[<sup>238</sup>U/<sup>235</sup>U in Marine Carbonates as a Tracer of Precambrian Paleoredox Conditions](#) [#2901]

We study U concentration and isotopic composition of a large number of carbonates to place constraints on long-term variations in oceanic redox conditions.

Tomic A. T. **POSTER LOCATION #414**  
[Growing Plant\(s\) at the Habitat or/and Dedicated External Space](#) [#2305]

Probably genetic and cyber biology will come up with the solutions, but until then we still can try to grow plants in space.