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.  

Characterization and Detection of Hydrolyzed Titan “Tholins” for Dragonfly
POSTER LOCATION #408
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.  

Decomposition of Amino Acids in Water with Application to Enceladus and Europa
POSTER LOCATION #409
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.  

Snow Algae-Bacteria Co-Cultures Exhibit Patterned Growth (Biovermiculation) Under Fe-Limited Conditions: Implications for Biosignatures on Icy Planetary Bodies
POSTER LOCATION #410
Snow algae form biovermiculations (a biosignature of extant life) associated with Fe-oxides under Fe-limited conditions.


Snow Algae Consortia as Habitability Indicators in Icy Environments
POSTER LOCATION #411
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.  

Insights into Redox Cycling on Early Earth from the Mass Fractionation Law of Iron Isotopes in Archean Sediments
POSTER LOCATION #412
We investigated redox cycling on the anoxic early Earth by measuring the iron isotope mass fractionation law in Archean sediments.


$^{238}U/^{235}U$ in Marine Carbonates as a Tracer of Precambrian Paleoredox Conditions
POSTER LOCATION #413
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.  

Growing Plant(s) at the Habitat or/and Dedicated External Space
POSTER LOCATION #414
Probably genetic and cyber biology will come up with the solutions, but until then we still can try to grow plants in space.