

Wednesday, April 26, 2017
SOLAR SYSTEM SITES: MARS:
MODERN MARS HABITABILITY I
10:15 a.m. Palo Verde

Chairs: Carol Stoker
Alfred McEwen

- 10:15 a.m. Mischna M. A. *
[Insolation-Driven Recent Climate Change on Mars](#) [#3278]
A review of the means by which changes in Mars' orbital and axial orientation can regulate the presence of liquid water in Mars' recent past.
- 10:30 a.m. Dundas C. M. * McEwen A. S. Byrne S.
[Recent Mars: Wet or Dry or Icy?](#) [#3305]
Current cratering on Mars reveals widespread ground ice, but active slope processes (gullies and RSL) are consistent with little or no liquid water.
- 10:45 a.m. Ojha L. * Wray J. McEwen A. Wilhelm M. B.
[Orbital Observation of Hydrated Oxychlorine Salts on Mars: Implications for Habitability](#) [#3509]
We describe the remote detections of hydrated oxychlorine salts on the martian surface, and its implications for habitability.
- 11:00 a.m. McEwen A. S. *
[Recurring Slope Lineae \(RSL\) on Mars: Do They Indicate Habitable Environments?](#) [#3128]
RSL are interpreted as granular flows triggered by some type of water activity, so habitability seems unlikely but cannot be ruled out.
- 11:15 a.m. Rodriguez-Colon B. J. * Rivera-Valentin E. G.
[The Subsurface Biological Potential of Gale Crater, Mars Through Deliquescence](#) [#3080]
We investigate the subsurface biologic potential across MSL's traverse through deliquescence of calcium perchlorate.
- 11:30 a.m. Viola D. * McEwen A. S.
[Distribution of Near-Surface Excess Ice on Mars: Implications for Habitability](#) [#3094]
Shallow, excess ice is present in the mid-latitudes on Mars. We will discuss the modern distribution of this ice and how it relates to habitability.
- 11:45 a.m. Mustard J. F. * Tarnas J. D.
[Hydrogen Production in the Upper 15 km of Martian Crust via Serpentinization: Implications for Ancient and Modern Habitability](#) [#3426]
Quantification of H₂ produced by hydration reactions on Mars shows this as an abundant energy source for modern or ancient habitable subsurface environments.
- 12:00 p.m. Stamenković V. * Fischer W. Ward L. Mischna M. Russell M.
[Generation of Redox Gradients in Modern Mars Environments](#) [#3582]
We show results on the generation of hydrogen- and oxygen-rich environments on Mars today and in the last 20 Myr.
- 12:15 p.m. *Lunch*