

Wednesday, April 26, 2017  
**SOLAR SYSTEM SITES: MARS:  
 MODERN MARS HABITABILITY II**  
 1:30 p.m. Palo Verde

**Chairs:** Carol Stoker  
 Alfred McEwen

- 1:30 p.m. Heinz J. Schirmack J. Maus D. Schulze-Makuch D. \* Wagner D. Kounaves S. P.  
[Investigation of the Formation and Habitability of Recurring Slope Lineae \(RSL\) like Environments](#) [#3111]  
 Experimental results on whether halo- and cryophilic bacteria can use environmental conditions similar to Recurrent Slope Lineae as habitat will be presented.
- 1:45 p.m. Mickol R. L. \* Kral T. A.  
[Growth by Methanobacterium Formicicum at Pressures Down to 50 mbar](#) [#3023]  
 Four methanogens were tested for their ability to actively grow (produce methane) under low pressure conditions (50 mbar, 100 mbar).
- 2:00 p.m. Bywaters K. F. \* McKay C. P. Quinn R. C.  
[Growth and Survival of Perchlorate-Reducing Bacteria in Media Containing Elevated Perchlorate Concentrations and UV-C Conditions](#) [#3616]  
 To assess possible microbial viability in contemporary Mars environments, we investigate two PRB strains under high UV-C conditions and high ClO<sub>4</sub> concentrations.
- 2:15 p.m. Stoker C. R. \* McKay C. P. Davila A. Glass B. Parro V.  
[Periodic Habitability in Northern Plains Ground Ice: The Icebreaker Life Mission Plan](#) [#3478]  
 The Icebreaker mission aims to sample martian ground ice that periodically hosts habitable conditions for life.
- 2:30 p.m. Westall F. \* Vago J. Hickman-Lewis K. Foucher F. Cavalazzi B. Gautret P. Campbell K. A.  
[The Exomars 2020 Mission: An Earth Analogue Example of the Search for Chemotrophic Biosignatures](#) [#3234]  
 The ExoMars 2020 mission has an instrument suite capable of detecting fossil traces of chemotrophic life in its geological context.
- 2:45 p.m. Davila A. F. \*  
[Deliquescence-Based Habitability and the Search for Life on Mars](#) [#3207]  
 The habitability of deliquescent substrates on Mars critically depends on chemical conditions and energy demands imposed by repeated wet/dry cycles.
- 3:00 p.m. Lau G. E. \* Trivedi C. B. Grasby S. E. Spear J. R. Templeton A. S.  
[Surface Expressions of Potentially Habitable Subsurface Environments on Mars: Sulfur Alteration Features at Borup Fiord Pass](#) [#3366]  
 Alteration features from the Arctic present low-temperature spring-derived pyrite emplacements, now appearing as gossans, and serve as habitable Mars analogs.
- 3:15 p.m. Mikucki J. A. \* Toner J. Campen R. Lyons W. B. Lee P. A. Tulaczyk S.  
 Cyer M. D. MIDGE Science Team  
[Habitability of Antarctic Subsurface Brines](#) [#3673]  
 Here we describe the microbial ecology of the Blood Falls subglacial system and how it may provide insights into potential deep subsurface ecosystems on Mars.
- 3:30 p.m. Cockell C. S. \* Schwendner P. Rettberg P. Bohmeier M. Rabbow E. Beblo-Vranesevic K. Perras A. Moissl-Eichinger C. Vannier P. Marteinson V. Monaghan E. Ehrenfreund P. Garcia-Descalzo L. Gomez F. Malki M. Amils R. Gaboyer F. Westall F. Cabezas P. Walter N.  
[The Microbiology of Anaerobic Analog Environments — The MASE Project](#) [#3158]  
 Discussion and presentation of results of the European MARS (Mars Analogs for Space Exploration).
- 3:45 p.m. *Coffee Break*