

Monday, April 24, 2017
POSTER SESSION II:
SOLAR SYSTEM SITES: MARS:
MODERN MARS HABITABILITY
8:00 p.m. Main Hall

Rivera-Valentin E. G. Rodriguez Colon B. J. Chevrier V. F. Soto A.

[*Insights into the Global, Subsurface Biologic Potential of Mars: Deliquescence at Contradistinct Latitudes*](#) [#3079]

We investigate the potential for special and uncertain regions at the Phoenix and Mars Science Laboratory sites through deliquescence of calcium perchlorate.

Stevens A. H. Cockell C. S.

[*Investigating the Microbial Potential of Gale Crater, Mars*](#) [#3110]

We investigated whether the environment of the Gale Crater mudstones was habitable and what type of microbial community might have inhabited them.

Silver M. Mora S. Ivey M. Chevrier V.

[*An Experimental Assessment on the Effects of Variations in Sulfate Concentrations on Sulfate Reducing Bacteria in Simulated Martian Conditions*](#) [#3019]

An assessment on the reaction of three different extremophiles to optimal growth conditions supplemented with varying concentrations of simulated Mars sulfates.

Catling D. C.

[*Chlorate Salts and the Potential for Liquid Water on Mars*](#) [#3645]

Chlorate salts have a strong affinity for water, and could form liquid water on present-day Mars. This implies potentially habitable conditions.

Chuang J. R. Mickol R. L. Kral T. A.

[*Freeze Tolerances of four Non-Psychrophilic Methanogens*](#) [#3197]

Four species of methanogens were subjected to three freezing temperatures in order to assess the freezing tolerances of the methanogens.

Plumley M. P. Mickol R. L. Kral T. A.

[*Heat Tolerance of Methanosarcina barkeri and Survival Below the Surface of Mars*](#) [#3222]

Methanosarcina barkeri was subjected to boiling temperatures for various time intervals in order to assess the heat tolerance of this methanogen.

Smith M. V. Mickol R. L. Kral T. A.

[*Survival of cells on Mars: Exposing Methanogens to Magnesium Perchlorate*](#) [#3230]

Methanothermobacter wolfeii, Methanosarcina barkeri, Methanobacterium formicum, and Methanococcus marisaludis were desiccated and subjected to magnesium perchlorate for one hour and tested for methane over time in order to assess methanogen growth.

Farris H. N. Davila A.

[*Calcium Perchlorate Brine Formation in the Atacama Desert, Chile and Implications for Liquid Water at the Surface of Mars*](#) [#3483]

We detect deliquescence-driven calcium perchlorate brine formation in the Atacama Desert at conditions relevant to the surface of Mars.

Núñez P. G. Green-Tripp D. E. Vázquez R.

[*Survival of Fungal Spores and Pollen Under Some Mars Conditions*](#) [#3671]

A study of surviving of fungi spores and pollen grains, under the environmental conditions of Mars, has been done in the lab. Results of such studies are showed.