

Wednesday, March 23, 2016  
(IS THERE) LIFE ON MARS?

[W451]

## MARTIAN EXOBIOLGY TOOLS, ANALOGS, AND ENVIRONMENTS

1:30 p.m. Waterway Ballroom 1

**Chairs:** Caroline Freissinet  
Lindsay Hays

- 1:30 p.m. Johnson S. S. \* Goerlitz D. Benison K. C. Mormile M. R. Ming D. W.  
[Early Acidification of Mars and the Potential Implications for Biology](#) [#2068]  
Acid salt lakes in the Yilgarn Craton not only suggest an alternate view of climate history on Mars but also have important implications for astrobiology.
- 1:45 p.m. Bywaters K. F. \* Quinn R. C.  
[Perchlorate Reducing Bacteria: Evaluating the Potential for Growth Utilizing Nutrient Sources Identified on Mars](#) [#2946]  
Evaluation of the potential for perchlorate reducing bacteria in media containing phosphate and different combinations of nitrogen and carbon sources.
- 2:00 p.m. Freissinet C. \* Glavin D. P. Buch A. Szopa C. Summons R. E. et al.  
[First Detection of Non-Chlorinated Organic Molecules Indigenous to a Martian Sample](#) [#2568]  
We detected low-temperature release chlorinated organics and high-temperature release non-chlorinated organics in the Cumberland sample on Mars.
- 2:15 p.m. Rodriguez-Colon B. J. \* Rivera-Valentin E. G.  
[Investigating the Biological Potential of Gale Crater's Subsurface](#) [#2026]  
We use the criterion for special regions to assess the biologic potential of Gale's subsurface by investigating aqueous solutions resulting from deliquescence.
- 2:30 p.m. Dequaire T. \* Meslin P. Y. Jaber M. Rapin W. Cousin A. et al.  
[Search for Organic Matter at Mars with LIBS and Reflectance Complementary Measurements of the ChemCam Instrument Onboard the Curiosity Rover](#) [#1364]  
ChemCam onboard Curiosity performs analyses in LIBS and reflectance spectroscopy. This work investigates these techniques to search for organic matter on Mars.
- 2:45 p.m. Millan M. \* Szopa C. Buch A. Belmahdi I. Coll P. et al.  
[Effect of the Presence of Chlorates and Perchlorates on the Pyrolysis of Organic Compounds: Implications for Measurements Done with the Sam Experiment Onboard the Curiosity Rover](#) [#1418]  
Study of the effect of oxychlorine phases on the pyrolysis of organic matter to help the data interpretation of the SAM experiment onboard the Curiosity rover.
- 3:00 p.m. Morrison M. Buch A. \* Szopa C. Glavin D. P. Freissinet C. et al.  
[Search for Organic Material on Mars with the Thermochemolysis Derivatization Technique Onboard the MOMA Experiment](#) [#2159]  
Using in situ thermochemolysis analysis to search for organic material on Mars.