

Tuesday, July 18, 2017
THE ENVIRONMENTAL CONTEXT AND EARLY LIFE ON EARTH
11:00 a.m. Price Center Theatre

Chair: David DesMarais

- 11:00 a.m. Westall F. * Hickman-Lewis K. Cavalazzi B. Gautret P. Campbell K. A. Breheret J. Foucher F. Hinman N. Sorieul S.
[*A Hydrothermal Setting for Early Life*](#) [#4125]
Ubiquitous contemporaneous hydrothermal activity and input from the macroscopic to elemental scale into the early Earth environment suggests that its microbial inhabitants must have been at least mesophilic, if not thermophilic.
- 11:30 p.m. Arrhenius G. * Pérez-Montaña S. H. van Zuilen M. A. Misra A. Lepland A. Daraio C.
[*Earliest Life on Earth*](#) [#4217]
The carbon from decaying organic matter forms as the rhombohedral type of graphite. This form also occurs in the 3.8 Gyr old Isua rock and may be taken as evidence of life or conversion of hexagonal graphite under tectonic stress.
- 12:00p.m. Bassez M. P.
[*Geobiotropy: The Evolution of Rocks in Symbiosis with Prebiotic Chemistry*](#) [#4045]
In their interaction with water, minerals inside rocks transform with production of elements and small molecules which intervene in prebiotic syntheses. This chemical evolution between the world of rocks and the world of life is called geobiotropy.
- 12:30 p.m. *Lunch*