

Monday, July 23, 2018
PARENT BODY PROCESSES
3:30 p.m. Green Room

Chairs: Steven Simon
Wladimir Neumann

- 3:30 p.m. Bonal L. * Gattacceca J. Garenne A. Eschrig J.
[Water and Heat: New Constraints on the Parent Body Evolution of CV Chondrites](#) [#6153]
 We combined several analytical techniques (Raman and IR spectroscopy, TGA, optical microscopy, and magnetic measurements) on a series of 26 CV chondrites (18 Antarctic and 8 non-Antarctic) to bring new constraints on their post-accretion history.
- 3:45 p.m. Yesiltas M. * Young J. Glotch T. D.
[Investigation of Carbon in the Allan Hills A77278 Meteorite](#) [#6152]
 Carbon in the Allan Hills A77278 meteorite has been studied via micro-Raman imaging spectroscopy to deduce thermal and chemical processes that the parent asteroid underwent.
- 4:00 p.m. Simon S. B. * Sutton S. R. Brearley A. J.
[Response of Cr and Ti Valences in Chondrule Olivine to the Onset of Metamorphism in Ordinary Chondrites](#) [#6173]
 Neither the valence of Cr in olivine nor the phases that Cr redistributes into with the onset of metamorphism are known. We report initial results for Cr and Ti valences in olivine in low-grade chondrites NWA 7731 (L3.0) and GRO 95544 (L3.2).
- 4:15 p.m. Kimura M. * Weisberg M. K. Takaki A. Imae N.
[An Almahata Sitta EL3 Clast: A Unique Thermal History](#) [#6051]
 We compare the results of an Almahata Sitta EL3 clast with and other enstatite chondrites, and discuss the unique thermal history of this clast, especially on the parent body.
- 4:30 p.m. Neumann W. O. * Henke S. Breuer D. Gail H.-P. Trierloff M. Schwarz W.
 Hopp J. Spohn T.
[Deriving the Key Properties of the Acapulcoite-Lodranite Parent Body with Numerical Models](#) [#6207]
 We calculate the thermal and structural evolution of the parent body of the acapulcoites and lodranites and fit the thermo-chronological data. Our models provide estimates of the key properties of the parent body, such as its size and formation time.
- 4:45 p.m. Starchenko S. V. *
[Planetary Magnetism: Observations and Convection](#) [#6080]
 I investigate/estimate relations between the observed/absent own magnetic field and the internal magneto-convection/convection properties in the Earth, all the solar system planets, Moon and Ganymede nowadays, in the past and in the future.
- 5:00 p.m. Humayun M. * Yang S. Hewins R. H. Zanda B.
[Germanium Geochemistry of Martian Orthopyroxenes](#) [#6062]
 We present new Ge abundances for orthopyroxenes from ALH 84001 and NWA 7533, and show that the low observed abundance of Ge implies that these plutonic rocks either had a volcanic origin or suffered an even more complex fate.