Monday, July 17, 2017
METEORITES, COMETS AND THE FATE OF THEIR ORGANIC MATTER II
4:10 p.m. Price Center Theatre

Chair: George Cooper

4:10 p.m. Rios A. C. * Cooper G.
A Prebiotic Pyruvate Reaction Network that Leads to a Continuous Production of Metabolic Compounds: Evidence from Carbonaceous Chondrites? **[#4171]**
We attempt to show that the chemistry of pyruvate leads to the sustained production of labile compounds found in carbonaceous chondrites and its implications for a proto-metabolism.

4:30 p.m. Meinert C. * Jones N. C. Hoffmann S. V. Nahon L. d'Hendecourt L. Meierhenrich U. J.
Chiral Sugar and Amino Acid Formation in Simulated Cometary Matter Inches Closer to Explaining the Emergence of Homochiral Life **[#4029]**
Simulated cometary ice experiments have indicated that circularly polarised light could be the initial source of life's handedness. We detected chiral sugars, amino acids and their molecular precursors within these interstellar achiral ice analogues.

4:50 p.m. Pizzarello S. * Yarnes C. T.
Chiral Molecules in Space and Their Likely Passage to Planetary Bodies as Recorded by Meteorites **[#4110]**
We searched Murchison meteorite extracts for propylene oxide (PO), the only chiral molecule discovered so far outside solar environments[3], and detected its possible derivative.

5:10 p.m. Chan Q. H. S. * Zolensky M. E. Kebukawa Y. Fries M. Ito M. Steele A.
Organic Matter in Extraterrestrial Water-Bearing Salt Crystals **[#4069]**
Abundant, primitive, and highly-diverse ^{15}N-rich organic compounds were detected in brine-water bearing halite crystals that were synthesized on a cryovolcanically-active asteroid.

5:25 p.m. Glavin D. P. * Aponte J. C. Blackmond D. G. Burton A. S. Dworkin J. P. Elsila J. E.
L-Amino Acid Enantiomeric Excesses in Meteorites: Formation Mechanisms and Implications for the Origin of Homochirality **[#4059]**
Large L-amino acid excesses have been discovered in carbonaceous meteorites that have experienced aqueous alteration on their parent bodies. Plausible amplification mechanisms and the implications for the origin of homochirality will be discussed.

5:40 p.m. *Session Adjourns*