Monday, February 27, 2017
CHONDRULE PRECURSORS:
RELATIONSHIP BETWEEN CHONDRULES, MATRIX, AND REFRACTORY INCLUSIONS
8:45 a.m. Flett Theatre

This session discusses the precursor material to chondrules and the relationship between chondrules and matrix.

Chairs: **Guy Libourel**
Rhian Jones

8:45 a.m. Russell S. S. *
Welcome and Introductions

9:00 a.m. Krot A. N. * Nagashima K. Libourel G. Miller K. E.
Multiple Mechanisms of Transient Heating Events in the Protoplanetary Disk: Evidence from Precursors of Chondrules and Igneous Ca,Al-Rich Inclusions **[#2009]**
Here we review the mineralogy, petrography, O-isotope compositions, and trace element abundances of precursors of chondrules and igneous CAIs which provide important constraints on the mechanisms of transient heating events in the protoplanetary disk.

9:30 a.m. Jacquet E. * Piani L. Weisberg M. K.
Chondrules in Enstatite Chondrites **[#2001]**
We review the properties of enstatite chondrite chondrules, including metal-sulfide nodules, and their (astro-)physical-chemical significance.

10:00 a.m. Bland P. .A. * Hezel D. C. Palme H. Bigolski J. N.
Characteristics of Primitive Chondrite Matrices and Connection to Chondrule Formation **[#2013]**
Were chondrules transported large distances to mix with matrix, or did both form in the same region? We discuss the degree to which chondrules and matrix may have sampled a common source, and how this informs models of disk formation and evolution.

10:30 a.m. BREAK

11:00 a.m. Zanda B. * Zanetta P.-M. Leroux H. Le Guillou C. Lewin É. Pont S.
Deldicque D. Hewins R. H.
The Chondritic Assemblage **[#2035]**
Complementarity between chondrules and embedding matrix would have important implications for our understanding of the protoplanetary disk. We review the existing data and suggest new accurate analyses of primitive matrices are necessary.

11:30 a.m. Hezel D. C. * Palme H. Bland P. A. Jacquet E.
The Chondrule-Matrix Complementarity **[#2007]**
Chondrules and matrix in the chondrite have different elemental compositions and ratios. Yet for some ratios, the bulk chondrite is solar. This is called complementarity. In consequence chondrules and matrix formed from the same parental reservoir.

12:00 p.m. Schönbächler M. * Bauer K. K. Fehr M. A. Chaumard N. Zanda B.
Nucleosynthetic and Mass-Dependent Titanium Isotope Variations in Individual Chondrules of Ordinary Chondrites **[#2031]**
We present evidence for nucleosynthetic Ti isotope heterogeneity between individual chondrules of ordinary chondrites difficult to reconcile with chondrule formation from molten planetesimals. Metamorphism resulted in stable Ti isotope fractionation.

12:15 p.m. Defouilloy C. * Sanborn M. E. Yamakawa A. Kita N. T. Ebel D. S. Yin Q.-Z.
Cr and O Isotope Systematics in CV/CK Chondrite Chondrules **[#2016]**
Combined *in-situ* high-precision measurements of Cr and O isotopic ratios reveal heterogeneities of compositions and the diversity of reservoirs of origin of silicate grains in CV/CK chondrite chondrules.

12:30 p.m. *Discussion on Chondrule Precursors*

1:00 p.m. LUNCH