

Tuesday, March 22, 2016

[T332]

POSTER SESSION I: CHONDRITES: CHONDRULES

6:00 p.m. Town Center Exhibit Area

Arakawa S. Nakamoto T. *POSTER LOCATION #494*[Compound Chondrule Formation Via Instantaneous Crystallization of Supercooled Droplets](#)[Triggered by Collisions](#) [#2029]

This model can reproduce three features: non-porphyritic texture, size ratio of primary to secondary, and the fraction of compound chondrules.

Varela M. E.

POSTER LOCATION #495[Glasses in Chondrules: Understanding the Role of Liquids During Chondrule](#)[Formation Processes](#) [#1472]

Major and trace elements in glasses of different types of chondrules are compared to understand the role of liquids (the glass precursor) during crystal growth.

Florentin L. Faure F. Tissandier L. Deloule E. Lequin D.

POSTER LOCATION #496[Heated Olivine-Hosted Glass Inclusions from Allende CV3 Meteorite: Insight on](#)[Chondrules' Origin](#) [#1863]

Glass inclusions from Allende chondrules were heated up to 1750°C. Na₂O results suggest that olivines formed in a Na-rich environment.

Jacquet E. Gounelle M. Alard O.

POSTER LOCATION #497[Enstatite Chondrite Chondrules: Condensation Versus Sulfidation](#) [#1012]

Oldhamite in enstatite chondrites may have formed by sulfidation in chondrule mesostases before expulsion rather than by condensation at high C/O ratios.

Hanna R. D. Ketcham R. A.

POSTER LOCATION #498[3D Morphology of Fine-Grained Rims in CM Murchison](#) [#2185]

Using XCT we are measuring the 3D morphology of FGRs in Murchison. Our data supports FGR formation in the nebula with later modification on the parent body.

Vollmer C. Pelka M. Leitner J. Janssen A. Hoppe P.

POSTER LOCATION #499[TEM Investigations of Amorphous Silicates in Fine-Grained Rims from Antarctic](#)[CR2 Chondrites](#) [#1933]

We investigated amorphous silicates in fine-grained rims of Antarctic CR2 chondrites by FIB-TEM. Mineralogy and texture indicate nebular formation conditions.

Budde G. Kleine T. Kruijer T. S. Burkhardt C. Metzler K.

POSTER LOCATION #500[Isotopic Complementarity of Chondrules and Matrix and the Age and Origin of Chondrules](#) [#1453]

Complementary W isotope anomalies of Allende chondrules and matrix require that both formed from a common nebular reservoir within a narrow time interval.

Yamanobe M. Nakamura T. Nakashima D.

POSTER LOCATION #501[Oxygen Isotope Ratios of Chondrules and Isolated Forsterite and Olivine Grains in the](#)[WIS91600 Carbonaceous Chondrite from D-Type Asteroid](#) [#1861]

We present a suite of data for oxygen isotope ratios of chondrules and chondrule fragments from D-type asteroids to understand that of the outer solar system.

Telus M. Huss G. R. Nagashima K. Oglione R. C. Tachibana S.

POSTER LOCATION #502[⁶⁰Fe-⁶⁰Ni Systematics of Chondrules: Constraints from In Situ Analyses](#) [#1816]

We use in situ Fe-Ni isotope analyses to constrain the upper and lower limit of the initial ⁶⁰Fe/⁵⁶Fe ratio of chondrules in unequilibrated ordinary chondrites.

Wetteland C. J. Patchen A. Sickafus K. E. McSween H. Y. Taylor L. A. *POSTER LOCATION #503*
[High-Current Proton Irradiations of Early Nebular Solids](#) [#2490]

The irradiation conditions necessary for melting a silicate mixture of olivine-pyroxene-plagioclase using high-energy protons are investigated.

Dobrica E. Le Guillou C. Brearley A. J. *POSTER LOCATION #504*
[Hydration and Oxidation of Porous Microchondrules in Semarkona](#) [#2337]

We have investigated the iron oxidation state of one porous microchondrule in Semarkona to understand if it has been modified by aqueous fluids.