Tuesday, March 21, 2017 [T328]
POSTER SESSION I: CAIS, ISOTOPES, AND EARLY PROCESSES
6:00 p.m. Town Center Exhibit Area

Mane P. Wallace S. Zega T. J. Wadhwa M. Wallace P. M. ***POSTER LOCATION #417***
Electron Back-Scattered Diffraction Analysis of a Refractory Inclusion and Its Wark-Lovering Rims **[#2968]**
We report electron backscattered diffraction analysis of a CAI and its Wark-Lovering rim to determine their microstructures and formation mechanisms.

Komatsu M. Fagan T. J. Yamaguchi A. Mikouchi T.
Yasutake M. et al. ***POSTER LOCATION #418***
Ultra-Refractory Calcium-Aluminum-Rich Inclusion in an AOA in CR Chondrite Yamato-793261 **[#2009]**
We report the petrology of an AOA in Y-793261 that preserves evidence of condensation at unusually high temperature combined with low-T interaction with gas.

Shollenberger Q. R. Brennecka G. A. Schuth S. Weyer S. ***POSTER LOCATION #419***
Iron Isotope Systematics of Refractory Inclusions and the Search for the Source of Nucleosynthetic Anomalies **[#1867]**
We report Fe, Sr, and Ti isotope systematics of magnetic separates from a CAI to better understand the source of nucleosynthetic anomalies.

Sanborn M. E. Yin Q.-Z. Schmitz B. ***POSTER LOCATION #420***
Chromium Isotopic Composition of Chromium-Containing Spinels from Allende: Estimates of Initial ε^{53}Cr and ε^{54}Cr Composition of their Source Reservoir **[#1653]**
We report the Cr isotopic composition of transparent Cr-containing AlMg-spinels isolated from Allende and the implications for their source reservoir.

Render J. Brennecka G. A. Wang S.-J. Wasylenki L. E. ***POSTER LOCATION #421***
Ni Isotope Systematics of Refractory Inclusions **[#1388]**
We present nucleosynthetic and mass-dependent Ni isotope variations for a variety of CAI samples.

Bodénan J.-D. Hoppe P. ***POSTER LOCATION #422***
^{16}O-Poor Grossite In Refractory Inclusions from Pristine CO_3.0 Chondrites **[#1338]**
Primitive chondrites / ^{16}O-poor grossite grains / Intriguing results.

Zega T. J. Manga V. Domanik K. Howe J. Muralidharan K. ***POSTER LOCATION #423***
Nanoscale Analysis of Perovskite Grains from Allende and Axtell Meteorites **[#3033]**
We present results on an TEM study of pervoskite grains from CAIs in type-3 chondrites.

Mishra R. K. Marhas K. K. Trieloff M. ***POSTER LOCATION #424***
Petrography and Mineralogy of a Hibonite-Pyroxene Spherule in Allan Hills 77307 (CO3.03) **[#1423]**
A rare kind of refractory inclusion, hibonite-pyroxene spherule, in Allan Hills 77307 (CO3.03) shows pristine characteristics allowing constraint on the genesis.

Chakraborty S. Jackson T. L. Rude B. Ahmed M. Thiemens M. H. ***POSTER LOCATION #425***
Sulfur Isotopic Fractionation in VUV Photodissociation of Sulfur Dioxide: Implications for Meteorite Data **[#2208]**
Quadruple sulfur isotopes in elemental sulfur is measured, produced from VUV photodissociation of SO_2. The meteorite data will be discussed in this context.

Kawasaki N. Yurimoto H. ***POSTER LOCATION #426***
Al-Mg Systematics of Nebular Condensates in the Efremovka CV3 Chondrite **[#1091]**
Initial ^{26}Al/^{27}Al values for nebular condensates in the CV3 chondrites ranged from ~5.3 to ~4.5 × 10^{-5}, corresponding to a formation age spread of ~0.2 Myr.

Hayakawa A. Fukuda K. Iizuka T. Hiyagon H. ***POSTER LOCATION #427***
High Precision Magnesium Isotopic Measurements for CV Chondrite CAIs and LL3.15 Chondrite Chondrules **[#1923]**
We have developed high precision magnesium isotope measurements using MC-ICPMS and applied it to Al-Mg measurements of ordinary chondrite chondrules.

Simon S. B. Krot A. N. Nagashima K. ***POSTER LOCATION #428***
Oxygen and Magnesium Isotopic Compositions of Grossite-Bearing Inclusions in DOM 08004 (CO3.1) and DOM 08006 (CO3.0) Chondrites **[#1083]**
Grossite-bearing CAIs in DOM 08004 (CO3.1) have isotopically heterogeneous O-isotope compositions and bi-modal initial $^{26}Al/^{27}Al$ ratio, $<7 \times 10^{-7}$ and $\sim 4.5 \times 10^{-5}$.

Ivanova M. A. Shornikov S. I. Ryazantsev K. P. Yakovlev O. I. ***POSTER LOCATION #429***
Model Calculations for Evaporation of AOA and CAI Melts: Implications for the Bulk CAIs Compositions of CV3 and CH-CB Chondrites **[#1363]**
Here we present results on thermodynamic calculations of evaporation of refractory objects 5aN and 52E from CV3 chondrites and discuss their bulk compositions.

Kobayashi K. Yamamoto D. Tachibana S. ***POSTER LOCATION #430***
Water Vapor Pressure Dependence of Crystallization of Amorphous Enstatite **[#1921]**
Crystallization experiments on amorphous enstatite show that water vapor reduces the activation energy of crystallization by cutting atomic bonds in amorphous.

Kööp L. Davis A. M. ***POSTER LOCATION #431***
Quantitative Processing of X-Ray Maps: A Presentation of Mapping Artifacts, Solutions, and Applications to Meteorites **[#2136]**
We present a quantitative processing routine for X-ray maps. By applying it to maps of CAIs, we show mapping artifacts and their solutions.

Righter K. Pando K. A. Butterworth A. L. Gainsforth Z.
Jilly-Rehak C. E. et al. ***POSTER LOCATION #432***
Synthesis of Ti Oxides at Reducing Conditions: Implications for Beamline Standards and Cosmochemistry **[#2415]**
Synthesis experiments at reducing conditions have yielded Ti-bearing oxides and $MgAl_2O_4$ that may be used as standards for various micro-analytical techniques.

Libourel G. Michel P. Delbo M. Ganino C. Recio-Blanco A. et al. ***POSTER LOCATION #433***
Search for Primitive Matter in the Solar System **[#2280]**
We show that neither the age of an object, nor its mineralogy, is discriminant enough for revealing its primitiveness in the solar system.

Che S. Brearley A. J. ***POSTER LOCATION #434***
Textural Evidence for a FoB-Like Precursor and a Multiple Evolution History of an Allende Forsterite-Bearing Type C CAI **[#2414]**
We report observations on an Allende forsterite-bearing Type C CAI 04. A FoB-like precursor and a multistage melting history are inferred.