Tuesday, March 18, 2014 **[T203]**
REFRACTORY INCLUSIONS
8:30 a.m. Waterway Ballroom 5

Chairs: **Glenn MacPherson**
Trevor Ireland

8:30 a.m. Kööp L. * Heck P. R. Nakashima D. Kita N. T. Davis A. M.
Precise Oxygen Isotope Measurements Reveal Difference Between Single Hibonite Crystals and Spinel-Hibonite Inclusions from CM Chondrites **[#2508]**
Our oxygen-isotope measurements of 76 CAIs show a clear difference between PLACs and SHIBs. In addition, we have identified three highly fractionated CAIs.

8:45 a.m. Bodénan J.-D. * Starkey N. A. Russell S. S. Wright I. P. Franchi I. A.
Large Enrichments in ^{16}O and Evidence for Multiple Reservoirs in the Protosolar Accretion Disk in a Corundum Bearing CAI **[#2025]**
Oxygen-isotopic signatures of core and WL rim of a corundum-hibonite from ALHA 77307 reveals the presence of distinct reservoirs in the early solar system.

9:00 a.m. Simon J. I. * Matzel J. E. P. Simon S. B. Weber P. K. Grossman L. et al.
Heterogeneous Oxygen Isotopic Composition of a Complex Wark-Lovering Rim and the Margin of a Refractory Inclusion from Leoville **[#1233]**
Extreme oxygen isotopic variability measured by NanoSIMS in the Wark-Lovering rim and the margin of a pristine compact Type A inclusion from Leoville.

9:15 a.m. Jacobsen B. * Han J. M. Matzel J. E. P. Brearley A. J. Hutcheon I. D.
Oxygen Isotopes in Fine-Grained Spinel-Pyroxene and Melilite-Rich CAIs in the ALHA 77307 CO3.0 Carbonaceous Chondrite **[#2789]**
We measured oxygen isotopes in CAIs in ALHA 77307 to investigate if the objects record transport within the protoplanetary disk.

9:30 a.m. Jones R. H. * Rudraswami N. G. Ziegler K.
Primary Oxygen Isotope Distribution in Chondrules and Refractory Inclusions from CV Carbonaceous Chondrites **[#1512]**
The primary distribution of oxygen isotopes for CAIs and chondrules from CV-ox and CV-red chondrites lies along the CCAM line rather than the Y&R line.

9:45 a.m. Zhang A. C. * Ma C. Sakamoto N. Hsu W. B. Wang R. C. et al.
Mineralogy and Oxygen Isotope Compositions of a Ti-Rich Refractory Inclusion from the CH Chondrite SaU 290 **[#1230]**
A CAI (A0031) containg multiple Ti-rich minerals was found in the CH chondrite SaU 290. Mineralogy and oxygen isotope compositions of this CAI are reported.

10:00 a.m. Aléon J. * Marin-Carbonne J. McKeegan K. D. El Goresy A.
Multi-Isotope Study of the Compound Ultra-Refractory Inclusion Efremovka 101.1 Sheds Light on Complex CAI Formation Processes **[#1747]**
O, Mg, and Si isotopes in the ultrarefractory CAI E101.1 indicate coagulation and assimilation of proto-CAIs with different thermal histories in a ^{16}O-poor gas.

10:15 a.m. Nuth J. A. III * Paquette J. A.
How much Dust can be Processed by a Single Lightning Bolt in the Solar Nebula? **[#1132]**
We quantify variations in two parameters of the lightning model for oxygen isotopic fractionation: the dust evaporation coefficients and temperature of the bolt.

10:30 a.m. Ivanova M. A. * Lorenz C. A. Shuvalov V. V. Krot A. N. MacPherson G. J. et al.
Plastically-Deformed Igneous Calcium-Aluminum-Rich Inclusions from CV Carbonaceous Chondrites: Clues to a Nature of CAI Melting Events **[#2166]**
The bowl-shaped igneous CAIs from the CV chondrites were plastically deformed during a rapid transport through a low gas-pressure environment while being molten.

10:45 a.m. Ustunisik G. * Ebel D. S. Walker D. Boesenberg J. S.
Experimental Investigation of Condensation Predictions for Dust-Enriched Systems **[#1212]**
Experimental tests of predicted mineral-liquid equilibria in condensates reveal no perovskite+liq, small olivine+spinel+liq, and large melilite+liquid fields.

11:00 a.m. Tachibana S. * Takigawa A. Miyake A. Nagahara H. Ozawa K.
Condensation of Forsterite Under Controlled Protoplanetary Disk Conditions **[#1226]**
Condensation experiments in the Mg_2SiO_4-H_2-H_2O system were performed under nebular conditions. Properties of condensates and kinetics will be discussed.

11:15 a.m. Mendybaev R. A. * Richter F. M. Williams C. D. Fedkin A. V. Wadhwa M.
Evolution of Chemical and Isotopic Compositions of FUN CAIs: Experimental Modelling **[#2782]**
Results on vacuum evaporation experiments of Mg- and Si-rich CMAS melts are used to discuss evolution of chemical and isotopic compositions of FUN CAIs.

11:30 a.m. Wimpenny J. B. * Yin Q.-Z. Zipfel J. MacPherson G. Ebel D. S. et al.
Renewed Search for FUN Based on Al-Mg Systematics in CAIs with LA-MC-ICP-MS **[#2235]**
We show new Al-Mg data from a search for FUN CAIs by LA-MC-ICP-MS. We observe a wide range in stable-isotope fractionation between and within different CAIs.