Thursday, March 20, 2014 **[R453]**
EVOLUTION OF THE PROTOSOLAR DISK: MODELS AND METEORITES
1:30 p.m. Waterway Ballroom 5

Chairs: **Maria Schönbächler**
Hiroko Nagahara

1:30 p.m. Boss A. P. * Keiser S. A.
Short-Lived Radioisotope Injection into the Solar Nebula: First 3D Calculations of Shock Interactions with Rotating Presolar Cloud Models **[#1022]**
3D AMR hydro models show how a supernova shock can trigger the collapse of a rotating dense cloud core and inject shock wave isotopes into the solar nebula.

1:45 p.m. Gounelle M. *
Aluminium-26 in the Early Solar System: A Probability Estimate **[#2113]**
Taking into account new dynamical and cosmochemical constraints, we evaluate the probability for the solar system to be born in an environment rich in ^{26}Al.

2:00 p.m. Young E. D. *
Short-Lived Radionuclides in the Early Solar System: Not so Unusual After All **[#1258]**
Including Wolf-Rayet winds accounts for abundances of short-lived radionuclides in the early solar system with a residence time in molecular clouds of 200 m.y.

2:15 p.m. Fischer-Gödde M. * Kleine T. Burkhardt C. Dauphas N.
Origin of Nucleosynthetic Isotope Anomalies in Bulk Meteorites: Evidence from Coupled Ru and Mo Isotopes in Acid Leachates of Chondrites **[#2409]**
Correlated anomalies for Ru-Os and Mo-W in acid leachates of Murchison contrast with correlated Ru-Mo and lacking W and Os anomalies of bulk meteorites.

2:30 p.m. Fu R. R. * Lima E. A. Weiss B. P. Harrison R. J. Ebel D. S. et al.
Nebular Magnetism Recorded in the Semarkona Meteorite **[#1420]**
The Semarkona chondrite records solar nebula magnetic fields. The field intensities support weak-field mechanisms of chondrule formation.

2:45 p.m. Taillifet E. * Baillié K. Charnoz S. Aléon J.
Origin of Refractory Inclusion Diversity by Turbulent Transport in the Inner Solar Nebula **[#2086]**
We show that many types of CAIs could have formed in a single environment by thermal reprocessing in the disk due to the stochastic motion induced by turbulence.

3:00 p.m. Estrada P. R. * Cuzzi J. N.
The Influence of Evaporation Fronts on the Global Evolution of Solids and Gas in the Protoplanetary Nebula **[#2642]**
Solids migrate in / Its too hot, too hot baby / Vapor migrates out.

3:15 p.m. Yokoyama T. * Fukami Y. Nagai Y. Nakamoto T.
Volatility Control of Isotope Heterogeneity in the Early Solar System **[#2588]**
We discuss the origin of nebular isotope heterogeneity based on previously published isotope data for heavy elements in bulk meteorites and their components.

3:30 p.m. Nagahara H. * Ozawa K.
Radial Mixing in the Proto-Solar Disk and Chemical Composition of Meteorites **[#1147]**
Evolution of radial mixing in the protosolar disk was studied. Early formed planetesimals in the inner regions are rich in refractory components.

3:45 p.m. Park C. * Nagashima K. Wasserburg G. J. Papanastassiou D. A. Hutcheon I. D. et al.
Calcium and Titanium Isotopic Compositions of FUN CAIs: Implications for Their Origin **[#2656]**
We report on ion probe analyses of individual Al,Ti-diopside and hibonite grains for Ca- and Ti-isotopic compositions of eight FUN CAIs.

4:00 p.m. Mane P. * Brennecka G. A. Romaniello S. J. Wadhwa M.
Mg and U Isotopic Systematics in Allende CAIs: Implications for the Origin of Uranium Isotopic Variation in Refractory Inclusions **[#1685]**
We report mass-dependent Mg-isotopic variations in a suite of Allende CAIs to evaluate the causes of variation in uranium isotopes in these same samples.

4:15 p.m. Williams N. H. Schönbächler M. * Fehr M. A. Akram A. M. Parkinson I. J.
Different Heterogeneously Distributed Titanium Isotope Components in Solar System Materials and Mass-Dependent Titanium Isotope Variations **[#2183]**
Novel Ti double spike data reveal correlated ^{46,47,50}Ti anomalies in solar system materials and nucleosynthetic ^{47,50}Ti variations in some CAIs and chondrites.

4:30 p.m. Dauphas N. * Chen J. H. Zhang J. Papanastassiou D. A. Burkhardt C. et al.
The Earthlings that Made the Earth **[#1272]**
We have discovered widespread ^{48}Ca isotope anomalies in chondrites and achondrites that provide important constraints on the nature of Earth's building blocks.