

Tuesday, March 19, 2013

[T602]

**POSTER SESSION: (PROTO)SOLAR NEBULA I:
COMPOSITION, EXCHANGE REACTIONS AND MIXING
6:00 p.m. Town Center Exhibit Area**

Hyodo R. Ohtsuki K. Takeda T. **POSTER LOCATION #13**
[*Evolution of Circumplanetary Particle Disks and Formation of Multiple-Satellite Systems*](#) [#1856]

We perform N-body simulations in order to see the evolution of less massive circumplanetary particle disks and see the evolution of multiple-satellite systems.

Baillié K. Charnoz S. Taillifet E. **POSTER LOCATION #14**
[*Coupling Protoplanetary Disk Thermodynamics and Geometry: Toward a more Self-Consistent Structure*](#) [#2274]

Building a new complete model of protoplanetary disks that would be dynamically, thermodynamically, and geometrically intercorrelated and self-consistent.

Simon M. N. Ciesla F. J. **POSTER LOCATION #15**
[*Dust Accretion onto Planetesimals in the Solar Nebula*](#) [#1361]

The extent to which newly formed planetesimals accrete solids remains uncertain. We created a model to determine under what conditions particles are accreted.

Taillifet E. Baillié K. Charnoz S. Aléon J. **POSTER LOCATION #16**
[*Insights on CAIs Thermal History from Turbulent Transport Simulations of Micron-Sized Precursors in the Early Solar Nebula*](#) [#2007]

Using numerical simulations we showed that turbulent transport in a thermally zoned protoplanetary disk might be at the origin of CAIs complexity and diversity.

Yang L. Ciesla F. J. Lyons J. R. **POSTER LOCATION #17**
[*The Distribution of Isotopically Heavy Water in an Evolving Solar Nebula*](#) [#1806]

We study how oxygen-isotopic anomalies inherited from the parent cloud vary as oxygen-bearing species experience isotopic exchange in an evolving solar nebula.

Djouadi Z. Merouane S. d'Hendecourt L. **POSTER LOCATION #18**
[*Gas-Silicate Interactions: The "PRONEXT" Experiment*](#) [#1990]

PRONEXT, a new experimental set-up we developed, is dedicated to the investigation of the possibility (or not) of producing molecules on the surface of silicates.

Roskosz M. Leroux H. Depecker C. Rémusat L. Laurent B. **POSTER LOCATION #19**
[*Water Uptake, Diffusion and Isotopic Signature in Amorphous Silicates in Contact with Dry Vapor at Low Partial Pressure*](#) [#1968]

Partial hydration of amorphous silicates is reported. A quick captation and a slow volume diffusion coupled to a large redistribution of H isotopes is observed.

Matsuno J. Tsuchiyama A. Koike C. Chihara H. Imai Y. et al. **POSTER LOCATION #20**
[*Structural Modification in Amorphous MgSiO₃ with Heat Treatment*](#) [#2199]

A hydrous phyllosilicate crystallized in annealing experiments of amorphous MgSiO₃ using condensate at high-temperature plasma furnace.

Sun T. Niles P. B. Socki R. A. Bao H. Liu Y.

POSTER LOCATION #21

[An Update on the Non-Mass-Dependent Isotope Fractionation Under Thermal Gradient](#) [#1700]

Non-mass-dependent isotope fractionation of gases is found in laboratory convective condition, making such effect be considerable in natural environments.

Peto M. K. Jacobsen S. B.

POSTER LOCATION #22

[Understanding the Initial Xe Isotope Composition of the Terrestrial Atmosphere and the Compositional Variation of Meteorites](#) [#3067]

The Xe composition of the initial Earth atmosphere is depleted in the heaviest nuclides. We rederive this composition in light of nucleosynthetic components.