Tuesday, March 19, 2013

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.  Rémuusat 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.
An Update on the Non-Mass-Dependent Isotope Fractionation Under Thermal Gradient

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

Understanding the Initial Xe Isotope Composition of the Terrestrial Atmosphere and the Compositional Variation of Meteorites

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