Tuesday, March 14, 2006
POSTER SESSION I: PLANET FORMATION AND DIFFERENTIATION
7:00 p.m. Fitness Center

Bond J. C. Lauretta D. S.
Chemical Models of the Protoplanetary Disks for Extrasolar Planetary Systems **[#1857]**
Chemical models of protoplanetary disks for three known planetary host stars are obtained using stellar spectroscopic abundances.

Scott E. R. D.
Constraints on Jupiter's Age and Formation Mechanism and the Nebula Lifetime from Chondrites and Asteroids **[#2367]**
Chondrule ages and models for the accretion and evolution of the asteroid belt require a period of 3–5 Myr after CAIs formed before Jupiter approached its current size and position. Jupiter formed by core formation — not gravitational instabilities.

Coradini A. Magni G.
Jupiter and Saturn Evolution by Gas Accretion onto a Solid Core **[#1591]**
New results are presented from the development of a complex hydrodynamic code able to model the process of Jupiter and Saturn formation, starting from a solid core able to collect the surrounding gas.

Yuki T. Abe Y.
Core Formation Condition that Satisfies the Ni Abundance and W Isotopic Ratio **[#1638]**
We investigated the core formation condition considering the multiple giant impacts. Ni abundance and W isotopic ratio are satisfied when at least half of impactor's iron equilibrates in a shallow magma ocean. The formation age ranges 30–70 Myr.

Mann U. Frost D. J. Rubie D. C. Shearer C. K. Agee C. B.
Is Silicon a Light Component in the Earth's Core? — Constraints from Liquid Metal-Liquid Silicate Partitioning of Some Lithophile Elements **[#1161]**
Metal-silicate partitioning of the lithophile elements Ta, Ga, In and Zn at 6–20 GPa and 2100°–2400°C show that they become more siderophile than Si at low oxygen fugacities. Si is therefore unlikely to be a major light element in the Earth's core.

Chabot N. L. Righter K.
Sulfur in Earth's Mantle and Its Behavior During Core Formation **[#1062]**
The sulfur content of Earth's mantle is consistent with metal-silicate equilibrium in a high pressure, high temperature magma ocean, providing constraints on the conditions of core formation as well as the contribution of a late veneer.

Campbell A. J. Danielson L. Righter K. Wang Y. Davidson G.
Oxygen Fugacity at High Pressure: Equations of State of Metal-Oxide Pairs **[#1977]**
The Re-ReO_2 oxygen fugacity buffer is precisely evaluated at high pressures, based on new equation of state data.

Malavergne V. Tarrida M. Siebert J. Combes R. Bureau H. Berthet S.
Partitioning of Trace Elements Between Silicate, Sulfide and Metal at High Pressure and High Temperature: Investigation of Dopant Influence on Partition Behavior **[#1951]**
The partition coefficients of (Cr, Mn, Fe, Co, Ni) and W between liquid metal, sulfides and silicates is investigated between 1.5 GPa–25 GPa up to 2200°C, at different oxygen fugacity and with different light elements present in the metallic phases.

Malavergne V. Jones J. Campbell A. J. Perronet M.
Pt, Au, Pd and Ru Partitioning Between Olivine and Silicate Liquid **[#1974]**
In the present study, we have tried to determine the abundances of Pt, Au, Ru and Pd in olivine and quenched silicate melt from high temperature experiments with variable redox conditions.