

PRINT ONLY: EARLY SOLAR SYSTEM

Canup R. M.

Moon-Forming Impacts Involving Pre-Impact Spin [#2137]

Results of SPH simulations of potential lunar-forming impacts including pre-impact spin are presented.

Makalkin A. B. Dorofeeva V. A.

Models of Saturn's Subnebula: Conditions for Titan's Formation [#2421]

The model of Saturn's subnebula is presented that takes into account the new chemical constraints obtained from the Cassini mission and Huygens probe.

Maurette M. Fortuna F. Montmerle Th.

Stability of Refractory Minerals in "T-Tauri" Ion Implanters Around Young Suns [#1869]

The accumulation of short-lived isotopes in refractory minerals irradiated by solar energetic particles near the young T-Tauri Sun was severely disturbed by concomitant ion implantation effects, ranging from ion beam "slicing" to vaporization.

Minton D. A. Malhotra R.

Evaluating the Massive Young Sun Hypothesis to Solve the Warm Young Earth Puzzle [#2375]

We calculate the time-evolution of the solar mass that solves the faint young Sun paradox. There were no unambiguous tests of this hypothesis in solar system dynamics, and required mass histories disagree with measurements from solar analogs.

Ward Wm. R.

A Streamline Model of Horseshoe Torque Saturation [#2289]

A streamline model of the saturation of the torque exerted on a planet by particles occupying its horseshoe zone is developed by tracking the phase mixing of individual streamlines due to their differing libration periods.