

PRINT-ONLY: EARLY SOLAR SYSTEM EVOLUTION

Asphaug E. Agnor C. Williams Q.

Tidal Forces as Drivers of Collisional Evolution [#2393]

At large scales, where the impact timescale is comparable to the gravitational timescale, planetary collisions can be dominated by unloading, torques and tides instead of shock.

Dauphas N.

Uranium-Thorium Cosmochronology [#1126]

Using the U/Th ratios measured in meteorites and low metallicity halo stars, the U/Th production ratio and the radiometric age of the Milky Way are estimated to be 0.571 (+0.037/-0.031) and 14.5 (+2.8/-2.2) Gy, respectively.

Leya I. Schönbächler M. Wiechert U. Halliday A. N.

Titanium Isotopic Composition of Solar System Objects [#1338]

We present the Ti isotopic composition for lunar whole rock samples and mineral separates and for terrestrial basalts measured via high resolution MC-ICPMS.

Marzari F. Scholl H. Tricarico P.

Stability of the 3:1 Resonance Locking in the 55 Cancri Planetary System [#1289]

The most crowded extrasolar planetary system discovered so far is the one around 55 Cancri with four planets. We applied Laskar's frequency map analysis which yields a quantitative measure for the stability of the system.

Sahijpal S. Soni P.

Planetary Differentiation of Accreting Planetesimals with ^{26}Al and ^{60}Fe as the Heat Sources [#1296]

Detailed numerical simulations involving linear accretional growth and planetary differentiation of planetesimals with ^{26}Al and ^{60}Fe as the heat sources have been attempted.

Ustinova G. K.

Phenomenological Excitation Functions of Xe Isotopes with Protons on Nuclei of Cs, La and Ce [#1021]

Using an elaborated phenomenological approach, the Xe isotope excitation functions on Cs, La and Ce are determined. The Xe isotope relations turned out to be strongly dependent on the proton energy, and practically independent of the target nuclei.

Vityazev A. V. Pechernikova G. V. Bashkirov A. G.

"Missing Xenon" Problem and Climate of the Early Earth [#1719]

The proposed solution for the problem of Xe deficit on the Earth and Mars is based on the fact of its enrichment in comparison to other noble gases in gas hydrates and models of impact erosion at final stage of the planet formation.