

PRINT ONLY: OUTER SOLAR SYSTEM

Mousis O. Lunine J. I. Pasek M. Cordier D. Waite J. H. Jr. Mandt K. E. Lewis W. S. Nguyen M.-J.
[*Is Serpentinization the Source of Titan's Atmospheric Methane?*](#) [#1182]

We calculate the initial D/H ratio that must be acquired by Titan's H₂O ice to be consistent with hydrothermal reactions that may produce CH₄ in the satellite's interior. If methane derives from such reactions, then the initial D/H ratio in H₂O is lower than the SMOW value.

Starodubtseva O. M. Akimov L. A.

[*Semiannual Variations in the North-South Asymmetry of Polarized Light of Jupiter*](#) [#1018]

Results of long-term polarimetric observations of Jupiter made in Kharkiv Astronomical Observatory over a 25-year period are presented. They reveal the semiannual variations in the north-south asymmetry of polarized light of Jupiter.

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[*Particle Filtering by a Planetary Gap*](#) [#1477]

The ability of density gradients at the walls of a planetary gap to exclude particles via drag induced migration is examined. We suggest that particle diffusion and build-up at the gap edge could eventually defeat the drag barrier, enabling grain accretion by the planet.