

**PRINT ONLY: EXOBIOLOGY: FROM WORLDS WE KNOW TO OTHER STARS**

Keszthelyi Zs.

[Effect of Impact Angle on the Off-Set of Outer vs. Nested Crater for Concentric Impact Structures in Layered Targets: A Tool to Determine Direction of Impact](#) [#1095]

The abstract discusses the astrobiology potential of the jovian moon, Europa. Surface features were investigated, especially focusing on possibly uprising material from the putative ocean. Pressure calculation was done for the ocean.

Schuerger A. C. Ming D. W. Golden D. C.

[Low Biotoxicities of Analog Soils Suggest that the Surface of Mars May Be Habitable for Terrestrial Microorganisms](#) [#1507]

Bacillus subtilis and Enterococcus faecalis were exposed to six Mars analog soils under martian conditions. Only high-salt soils were observed to be moderately biotoxic to both species, suggesting regolith may be habitable to terrestrial microorganisms.

Schuerger A. C. Moores J. E. Clausen C. Barlow N. G. Britt D. T.

[A Proposed UV/CH<sub>4</sub> Linked Model for the Global Methane Budget on Mars](#) [#1911]

The UV/CH<sub>4</sub> model for Mars is now supported by four studies that demonstrate the evolution of CH<sub>4</sub> from UV-irradiated organics under simulated martian conditions. The UV/CH<sub>4</sub> model predicts a global average up to 11 ppbv from accreted IDP organics.

Swain R. K. Behera D. Sahoo P. K. Swain S. K. Sasmal A.

[Lunar Gene Bank for Endangered Species](#) [#1084]

In the face of failure of conservation programs, a Gene Bank in the lunar PSR, preferably the Shoemaker crater incorporating natural cryopreservation will provide permanent preservation of germplasms to protect endangered species from extinction.