

Cosmoclimatological driver for mass extinction

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In addition to the most prevalent scenario of mantle plume-generated large igneous provinces (LIPs) for the end-Permian extinction, a new aspect of cosmoclimatology is introduced with respect to astrobiology. Galactic cosmic radiation (GCR) and solar/terrestrial responses in magnetism could have had a profound impact on Earth's climate, in particular, on extensive cloud coverage and global cooling. Other past major mass extinctions need to be tested with this new view, as star-burst events in the Milky Way Galaxy apparently coincide in timing. The study of past mass extinctions on Earth is entering a new stage with a new astrobiological perspective.

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