

Geowissenschaftliches Kolloquium

Is the lunar impact record of the last 90 Ma recorded by ^3He in marine sediments on Earth?

Donnerstag, 8. Mai 2014 - 16.15 Uhr

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It will be a journey through planetology and includes basic principles in celestial mechanics, cosmochemistry, meteorites and impact cratering that will be combined to a line of arguments consistent with a variety of independent observations.

Here I argue that ejecta from lunar impacts contribute to the flux of extraterrestrial ^3He measured in Earth's sediments. Delivery of lunar ^3He -rich material to Earth will be discussed for the late Eocene projectile shower onto the Earth-Moon system and for the more recent 22 km sized lunar crater Giordano Bruno. Conclusion: The ~100 Ma old and ~100 km sized lunar crater Tyco, an important anchor for the lunar crater chronology, can be dated on Earth.



Dr. Jörg Fritz studied geology at the universities in Heidelberg and Kiel. During this time he worked as a scientific diver including salvage of vessels from Viking and Renaissance age. After his diploma in Micro-Paleontology he conducted doctoral studies on Martian meteorites at the Museum für Naturkunde in Berlin. Current research is on cosmogeology as told by impacts and meteorites.

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