

Geowissenschaftliches Kolloquium

Detrital zircon evidence for Hadean mafic crust and Eoarchean arc-like tectonic setting in the Singhbhum Craton, India

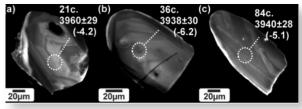
Donnerstag, 11. April 2019 - 16.15 Uhr

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The nature of the early terrestrial crust and how it evolved through time remains highly controversial. I will talk about the Hf isotope composition and trace element chemistry of Eoarchean detrital zircons from the Singhbhum Craton, eastern India. These zircons document transition to granitoid production by deeper levels of melting of meta-basalts in arc-like environments by c. 3.6 Ga. Similar transitions seen in the Jack Hills zircons and the Acasta Gneisses indicate widespread prevalence of arc-like environments in the Eoarchean.





Prof. Upadhyay did his PhD at the University of Bonn (2002-2005) and post-doc at the University of Münster (2006-2009). Since then he has been working at the Indian Institute of Technology, Kharagpur, currently as Associate Professor. He works in the fields of petrology, geochronology, and Archean/Proterozoic crustal evolution involving extensive use of LA-ICPMS in-situ isotopic techniques.

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