

Geowissenschaftliches Kolloquium

Getting to the bottom of Archaean Crust



Thursday, December 10, 2020, Discussion from 17:00 h

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The Archaean Eon (4.0-2.5 Ga) was a transformative period in Earth history. The early Archaean marked the first appearance of Earth's first stable crust, while the late Archaean witnessed the development, stabilization and emergence of cratons with implications for development of the atmosphere and life. However, debate still rages on the geodynamic settings of crust production, and whether different processes occurred at similar times globally. This talk will discuss recent geochemical and isotopic evidence for crust formation during the Archaean using examples from several cratons, how this empirical data can be tied in with phase equilibria modelling to constrain Archaean geodynamics, and some thoughts on how these blocks of crust assembled into cratons.



Nick Gardiner received his DPhil in isotope geochemistry and metamorphic petrology from the University of Oxford. After working in commodities trading in the City of London for a number of years, he returned to academic with postdocs in Oxford, Curtin (Perth) and Monash (Melbourne), before becoming a lecturer at the University of St Andrews. He is a geochemist and petrologist who is interested in the the magmatic processes which have shaped the evolution of Earth's lithosphere and the development of its mineral resources, with a particular focus on early Earth geodynamics.

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