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PhD position in Isotope Geochemistry (TV-L E13 60 %)

Investigation of the Redox Evolution of the Neoproterozoic Atmosphere and Oceans with Novel Transition Metal Isotope Tracers

The Isotope Geochemistry Group at the Eberhard Karls University of Tübingen invites applications for a research project funded by the DFG priority program SPP1833 "Building a habitable Earth". The SPP seeks to improve our understanding on how Earth became the only known habitable planet, and offers a unique environment and infrastructure for the training of early career researchers studying topics related to the evolution of the early Earth (<http://www.habitableearth.uni-koeln.de>).

We are seeking an enthusiastic and highly motivated candidate to undertake a PhD project within our international Isotope Geochemistry Group in Tübingen, Germany, commencing February 1st 2019 or shortly thereafter. The major goal of this study is to investigate the mode, size and temporal evolution of the first significant rise in atmospheric oxygen ~2.4 billion year ago during the so-called Great Oxidation Event (GOE). Samples planned to be collected during a field campaign to South Africa in 2020 and already existing samples from new continuous drill cores through the relevant Deutschland/Rooihogte and Timeball Hill formations will be investigated using major and trace element systematics as well as traditional (i.e. C-O-S) and novel ('non-traditional') isotopic tracers such as stable Se and Mo isotopes.

The project requires a wide range of geochemical analyses, all of which will be performed at the Department of Geosciences in Tübingen. The Isotope Geochemistry Group hosts a Bruker Pioneer XRF instrument for major element determinations, gas-IR-mass spectrometers (MAT DeltaPlus XL and MAT 252) for H-C-O-S stable isotope analyses and a newly upgraded solid source thermal ionization mass spectrometer (MAT 262) for radiogenic Sr and Nd isotope analyses. The heart of the Isotope Geochemistry facilities are state-of-the-art class 10 to 100 clean-room laboratories with multicollector (Thermo NeptunePlus) and quadrupole (Thermo iCAP-Qc) ICP-MS instruments for transition metal isotope and trace element analyses, respectively.

The potential candidate should have a Diploma or Master's Degree in Geosciences and provide an excellent understanding of Isotope Geochemistry. Experience in (isotope-) geochemical laboratory work and handling of mass spectrometers, such as (MC-) ICP-MS, TIMS or gas-IRMS is necessary for this ambitious project. Fluency in both spoken and written English is a prerequisite for the communication within our international work group and the publication of results in international journals. The position is limited to a term of 3 years with a possible extension of 6-9 months. Salary and benefits are commensurate with the German employee scale TV-L E13 for a 60 % position. As the University of Tübingen intends to increase the proportion of female employees in science, women are particularly encouraged to apply. In case of equal qualification and experience, physically challenged applicants are given preference.

Please send your application with detailed curriculum vitae, a copy of the Diploma/Master certificate, a one page summary of your Diploma or Master Thesis, a statement of research interests and names and contact details of two potential references to Prof. R. Schönberg (schoenberg@ifg.uni-tuebingen.de). Application reviewing starts on November 15th.