



PhD Program between the Freie Universität Berlin (FUB) and the China Scholarship Council (CSC)

Open PhD position at FUB for CSC scholarship candidates 2017

Please note: the PhD position is only offered to Chinese PhD candidates for application in the framework of the FUB-CSC PhD Program.

<u>Department/Institute:</u>	Department of Earth Sciences/Institute of Geological Sciences
<u>Subject area:</u>	Geochemistry
<u>Name of Supervisor:</u>	Prof. Dr. Friedhelm VON BLANCKENBURG (Mr.)
<u>Number of open PhD positions:</u>	1
<u>Type of the PhD Study:</u>	Full-time
<u>Project title:</u>	Metal stable isotopes as proxies for biogenic rock weathering

PhD Project description:

The PhD project is interdisciplinary between Geochemistry and Biology.

Metal stable isotopes (Li, Mg, Si, Fe, Sr) fractionate when rock forms soil. Minor shifts in metal isotope ratios take place a) during formation of secondary minerals; b) when plants take up these metals. These new isotope systems can be used to explore the roles of biogenic and abiogenic weathering processes. In the project you will make use either of 1) determination of isotope fractionation factors in plant or microbe growth experiments in the laboratory; or 2) in an ecosystem field study in which the biological and inorganic weathering fluxes are known.

Skills that are required for this PhD are good knowledge of metal uptake mechanisms into cells or plants, or good knowledge of rock weathering. Isotope Geochemistry education should have been extensive with a specialization in stable isotopes. Practical analytical chemical experience and/ or mass spectrometry is of advantage.

Please include in your application a statement in which way you might want to use these new approaches (relevant publications can be found on our web pages) to decipher the role of biology and inorganic mineralogical processes in metals cycling at the Earth's surface.

Language requirements:

Excellent knowledge of English in speaking, reading, and good in writing.
Certificate requirements are IELTS 6.5 or TOEFL 95 ibt

Academic requirements:

Geology, Chemistry, Biology

Information of the professor or research group leader:

The PhD will be done jointly between FU Geosciences and the GFZ German Center for Geosciences, where the laboratories and offices are located.

www.gfz-potsdam.de/en/section/earth-surface-geochemistry/

Please note:

In a first step the complete application should be submitted to the Beijing Office for evaluation by January 4th, 2017. Please don't contact the professor before. He/She will get in contact with you after having received the complete application in January.