



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

### Open PhD position at FUB for CSC scholarship candidates 2019

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

<b><u>Department/Institute:</u></b>	Department of Earth Science/Institute of Geological Sciences
<b><u>Subject Area:</u></b>	Geochemistry
<b><u>Name of Supervisor:</u></b>	Prof. Dr. Friedhelm VON BLANCKENBURG (Mr.) Dr. Hella WITTMANN (Mrs.)
<b><u>Number of Open PhD Positions:</u></b>	1
<b><u>Type of the PhD Study:</u></b>	Full-time (4 Years)
<b><u>Project Title:</u></b>	Tracing Riverine-marine Geochemical Exchange Using the Meteoric Cosmogenic $^{10}\text{Be}/^9\text{Be}$ in the Amazon Estuary

#### PhD Project description:

The project is interdisciplinary between Geochemistry, Geomorphology, and Ocean Sciences.

You will use a new technique developed by the PI's group that is worldwide leading in this field: the ratio of the meteoric cosmogenic isotope  $^{10}\text{Be}$  (produced in the atmosphere) and the stable isotope  $^9\text{Be}$  (released by weathering) can be used to derive catchment-wide erosion and weathering rates. Using sediment and water samples from the Amazon River estuary from zero to seawater salinity, you will quantify the exchange of these particle-reactive isotopes between river water and seawater, and assess the impact of seawater admixing on changing the  $^{10}\text{Be}/^9\text{Be}$  ratio. Quantifying these effects is of importance for understanding the long-term preservation of the  $^{10}\text{Be}/^9\text{Be}$  ratio and its potential as erosion and weathering proxy in marine sedimentary archives.

Laboratory work will be done at the German Center for Geosciences GFZ. Nuclide measurements will be done externally by Accelerator Mass Spectrometry (AMS).

We are looking for candidates with very good skills in analytical geochemical laboratory techniques, and with well-developed mathematical skills.

Please include in your application an exact proposal on how you would use this new technique (relevant publications can be found on our web pages) in river-seawater mixing experiments.

#### 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:

Geochemistry, Geomorphology, Marine Geochemistry

#### Information of the professor or research group leader:

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

[www.gfz-potsdam.de/en/section/earth-surface-geochemistry/](http://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 4<sup>th</sup>, 2019. Please do not contact the professor before. He/she will get in contact with you after having received the complete application via the Beijing Office in January.

