

The Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences is the national research centre for Earth sciences in Germany. With approx. 1170 employees, the GFZ is conducting interdisciplinary research on the “System Earth” and the influence of humans on the planet. As a member of the Helmholtz Association, it is part of Germany’s largest science organization.

The new GFZ Section 4.4 “**Interface-Geochemistry**” currently being built up by [Prof. Dr. Liane G. Benning](#) focuses on aspects related to kinetics and mechanisms of mineral phase formation, transformation and aggregation. For this group we invite applications for an

## Early Stage Researcher (ESR) – PhD Student Position (m/f)

Job Vacancy No. 35/44/16 D

The successful candidate will become part of the EU funded Horizon2020 Marie Curie Initial Training Network » Metal Oxide Aided Subsurface Remediation: from Invention to Injection – *MetalAid*«. This network aims to test, validate and further develop new mineral based technologies that can be used to decontaminate soils and groundwaters. The *MetalAid* network will consist of 14 interdisciplinary geochemical and mineralogical research projects that will focus on layered double hydroxide (LDH) and redox active green rust (GR) phases for use in immobilising toxic metals and degrading chlorinated compounds.

The second *MetalAid* project, which will be based at the GFZ within section 4.4, will address the following problems: **Kinetics, redox activity and transformation of GR reactants.**

### Objectives and your tasks:

- determine the changes in structure, composition, size and reactivity of various novel GR phases during contaminant reduction and derive fundamental data about the mechanisms of these reactions
- carry out *in situ* and time resolved experiments and employ various high resolution (both temporal and spatial) methods to characterize the reactions over time and also particularly the mineral end-products
- help develop a predictive model that improves our understanding of GR transformation reactions under laboratory and field conditions

### Your qualification:

- Master’s degree (or equivalent) in geosciences or inorganic chemistry
- strong mineralogical, crystal-chemical or solid state characterization focus
- experience in inorganic chemical synthesis is an asset
- willingness to work in an international interdisciplinary team, to develop novel experimental and analytical approaches

It is absolutely crucial that before application you ensure that you meet all **European Commission’s eligibility criteria** for this post which are:

- At the time of recruitment (Oct 1st, 2016), you must not have resided or worked, studied, etc. in Germany for more than 12 months in the last 3 years. Short stays, such as holidays, are not taken into account.
- You must not have done more than four years (full-time equivalent) of research since you were awarded your Master’s degree and have not yet been awarded a PhD degree.

For more specific information, please see: <http://www.gfz-potsdam.de/index.php?id=5153>

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| <b>Starting date:</b> | Oct 1 <sup>st</sup> 2016                                      |
| <b>Fixed term:</b>    | 36 months   |
| <b>Working hours:</b> | full-time (currently 39 h/week)                               |
| <b>Salary:</b>        | grant according to the Work Programme for Marie Curie Actions |
| <b>Location:</b>      | Potsdam   |

You can expect a very diverse and challenging job in an international work environment that is characterized by exciting research projects. The compatibility of work and family life is of particular concern to the GFZ. Therefore, it offers the opportunity for flexible working time and workplaces. Moreover, there is a kindergarten located on the research campus.

The GFZ is a partner with Geo.X ([www.geo-x.net](http://www.geo-x.net)), and as such it is well connected with [www.gfz-potsdam.de](http://www.gfz-potsdam.de)

other geoscience institutions in Potsdam und Berlin. Geo.X forms the largest regional cluster of geoscientific expertise in Europe and offers excellent opportunities for cooperation and development.

Your application must be in English and include the following components all assembled together into a single PDF file of less than 3 MB in size:

- (a) a full CV
- (b) a letter of motivation stating how you fit the criteria of the post
- (c) your secondary school as well as your University (BSc and MSc) certificates
- (d) the names and full addresses of 2 referees

Please submit your application by **June 15<sup>th</sup>, 2016** quoting the specific reference no. **35/44/16 D** via email to [applications@gfz-potsdam.de](mailto:applications@gfz-potsdam.de).

Equal opportunity is an inherent part of our personnel policy. Therefore we are particularly welcoming applications from qualified women. Severely disabled persons will be given preferential treatment in the case of equal qualification.

We will retain your application documents for at least three months, even if the application is not successful. They will not be returned.

If you have any questions regarding this job offer, please feel free to call Ms Albrecht at +49 (0) 331-288-28878.