

The Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences is the national research centre for Earth sciences in Germany. With approx. 1280 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.

Within the framework of the DFG-funded Research Unit FOR 2125 "Structures, properties, and reactions of carbonates at high temperatures and pressures" Section 4.3 "Chemistry and Physics of Earth Materials" invites applications for a

Research Position "*P-T* phase diagrams of carbonate solid solutions: experiments and calculations"

Reference No. 0387

The DFG research unit FOR 2125 is a collaboration of scientists from the Universities of Frankfurt am Main, Potsdam, Dortmund, Bayreuth, Cologne and Freiberg, the GFZ German Research Centre for Geosciences in Potsdam, and the European X-ray Free Electron Laser (XFEL) in Schenefeld. The research unit consists of eight sub-projects and the research is focused on carbonates at high pressures and temperatures (<http://www.goethe-university-frankfurt.de/48626215/for2125>). We are looking for a highly motivated candidate for sub-project 2 "Structural, electronic and thermodynamic properties of carbonates at high pressures and temperatures by *in-situ* spectroscopy and atomic-scale calculations", which is a joint project between GFZ Potsdam (PIs Dr. Ilias Efthimiopoulos, Prof. Dr. Monika Koch-Müller) and University of Cologne (PI Prof. Dr. Sandro Jahn)

Your responsibilities:

- synthesis and characterization of specific carbonate solid solutions using well-established recipes
- determination of the pressure and temperature phase diagrams of carbonate solid solution systems *in-situ* using vibrational spectroscopy in combination with diamond anvil cells. Portions of this work will be conducted at the IRIS beamline of the BESSY II synchrotron facility.
- atomic-scale simulations of the structural, vibrational, and thermodynamic properties of carbonate solid solutions using both electronic structure methods and classical force fields
- publication of the obtained scientific results in peer-reviewed international journals

Your qualifications:

- Master's degree (or equivalent) in geosciences, physics, chemistry or any relevant field
- experience in experimental and/or theoretical mineralogy, condensed matter physics or solid state chemistry

Starting date:	1 st April 2018
Fixed term:	3 years
Working hours:	part-time 66 % (currently 25.74 h/week)
Salary:	The pay scale grouping will be into pay group 13 provided that all tariff related, professional and personal requirements are met (for the first 18 month TVöD-Bund (Tarifgebiet Ost) and for the second 18 months TV-L).
Location:	Potsdam and Cologne (18 months each)

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), and as such it is well connected with other geoscience institutions in Potsdam and Berlin. Geo.X forms the largest regional cluster of geoscientific expertise in Europe and offers excellent opportunities for cooperation and development.

Please submit your application by **15th February 2018** quoting the reference no. **0387** via email to applications@gfz-potsdam.de. Please combine your application documents (letter of motivation, CV and certificates) into a single PDF file with a size of up to 3 megabytes.

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.

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