

The Ruhr-Universität Bochum – Faculty of Geosciences (Institute for Geology, Mineralogy and Geophysics) invites applications for a DFG funded (3 years)

**Ph.D. studentship – “Rates and mechanisms of element transfer during mineral reactions in the presence of a fluid phase”**

in the area of experimental petrology/geochemistry to preferentially start June 1<sup>st</sup>.

The general topic of this PhD project is the link between the zoning of trace elements and isotopes in minerals, different reaction mechanisms and time scales. More specifically we shall investigate processes occurring during mineral reactions in the carbonate system as in crustal rocks most of the mass transport is related to mineral reactions. Experiments will be carried out to systematically studying element and isotope exchange between co-existing mineral pairs in the presence of a fluid. The final goal is to develop a numerical model that predicts the reaction mechanism and the spatial composition of elements and isotopes during mineral reactions occurring along a given dynamic history of carbonate rocks.

We are seeking for a creative individual with a diploma or M.Sc. degree in geology, mineralogy or chemistry. Experimental skills, experience in geochemical analytical methods (e.g. EMPA, SIMS, RBS), basic knowledge in numerical modeling and a solid background in chemistry are advantages. Good language skills in English are required. Salary is 50% E13 of the collective labour agreement of the German States (TVL).

Requests and applications including a motivation letter, CV, the title and abstract of Master Thesis as well as the names and email addresses of at least two potential referees should be submitted as a single pdf file by email to **Jun.-Prof. Dr. Thomas Müller** ([thomas.mueller-1@rub.de](mailto:thomas.mueller-1@rub.de)) and **Dr. Ralf Dohmen** ([ralf.dohmen@rub.de](mailto:ralf.dohmen@rub.de)) by **March 31<sup>st</sup>, 2012**.

The Ruhr-Universität Bochum (RUB) is one of Germany's leading **research universities**. The University draws its strengths from both the diversity and the proximity of scientific and engineering disciplines on a single, coherent campus. This highly **dynamic setting** enables students and researchers to work across traditional boundaries of academic subjects and faculties. The RUB is a **vital institution** in the Ruhr area, which has been selected as European Capital of Culture for the year 2010.

The Ruhr-Universität Bochum (RUB) is an equal opportunity employer. Further information on the Institute and the petrology group can be found at <http://www.rub.de/gmg>.