Announcement of a workshop

We would like to draw your attention to a short course on the

Application of diffusion studies to the determination of timescales in geochemistry and petrology (diffusion chronometry / geospeedometry)

to be held at the

Institut für Geologie, Mineralogie und Geophysik
Ruhr-Universität Bochum, Germany

27-31 March 2023

and offered jointly by staffs at the Universities at Bochum and Hannover, as part of a joint Research Unit (FOR 2881) that is run by the two institutions.

Bochum is located at the heart of Europe. It is therefore very conveniently accessible by road, train and air. Düsseldorf and Dortmund are the nearest airports; Frankfurt may be reached by trains in 2 hours; Cologne-Bonn in about 1.5 hours. The surrounding region, which includes Cologne and Düsseldorf, is densely settled and boasts a world-renowned cultural infrastructure.

Content: The course is directed at petrologists, geochemists, volcanologists and planetary scientists interested in retrieving information on timescales of processes from their rocks. Such information might include the residence times of magmas in their reservoirs, the cooling- or exhumation rates of rocks, the duration of terrestrial or extra- terrestrial (e.g. parent bodies of meteorites) metamorphism, the duration of fluid flow (e.g. metasomatism by fluids / melts in the crust or mantle), and the evaluation and application of closure temperatures. Our focus will be on high temperature processes. Therefore “high temperature Thermochronometry”, “Diffusion Chronometry” or “Geospeedometry” are related keywords that may describe the course contents.

Goals and expected profile of participants: Previous experience with numerical modeling or programming is not required, but an interest in learning the rudiments of these tools is. One of the objectives of the course, however, is to demonstrate how much it is possible to accomplish without any or with very little programming. The basic information on diffusion that is required for

carrying out such calculations will be provided, but this is not a course designed to cover all aspects of diffusion in minerals and melts.

In addition to instruction via lectures, a major component of the course will be hands on training to enable participants to "do your own" modeling. Participants will be expected to bring their own laptop computers with Excel and Matlab installed on those. Knowledge of Matlab is not required – instructions will be provided during the course. All instruction and exercises will be in English.

The course material will be designed for graduate students or postdocs starting off in the fields mentioned above, but participants with all levels of experience and expertise are welcome. To maintain the hands-on nature of the course, we expect to restrict the number of participants to around **40, to be given out on a first come first serve basis**. Interested participants can express intention to register by sending an email containing a brief paragraph describing their background / reasons for wanting to participate to: ralf.dohmen@rub.de

Registration and Fees

There are NO course fees as such. However, we will charge a fee of **150 Euros** to cover expenses for refreshments during the course and for some course materials. Upon receiving an acknowledgement that a place is available; you will receive further information for official registration and payment details.

Further Information and Web: More details on course content and information on details of travel, accommodation etc. and other updates will be provided in a Short Course Webpage. We will send the address of the webpage once it is set up to registered attendees.

Enquiries on scientific aspects / course contents: Sumit Chakraborty (sumit.chakraborty@rub.de) or Ralf Dohmen (ralf.dohmen@rub.de).

Enquiries on organizational aspects: Linda Sobolewski (linda.sobolewski@rub.de), Science Program Coordinator of FOR 2881.