Four Year PhD Position in Mineral Physics/Petrology

A Four Year PhD Position in Mineral Physics/Petrology is available at the Department of Lithospheric Research, University of Vienna. The position is embedded in an Austrian Science Foundation (FWF) funded, bilateral Austrian-Russian project on “Fe-Ti oxide inclusions and magnetism of oceanic gabbro”. The PhD candidate will be based at the Department of Lithospheric Research, University of Vienna and will be required to perform extended research stays at partner institutions in Slovenia and Germany.

The main task to be accomplished by the PhD candidate is the mineralogical and crystallographic characterization of Fe-Ti oxide micro inclusions, including their sub-micron scale internal microstructures, their orientation relationships to the host minerals as well as their chemical and magnetic properties. The main method of investigation will be Transmission Electron Microscopy. The preparatory characterization will be done in-house using dedicated Scanning Electron Microscopy including Electron Backscatter Diffraction as well as targeted extraction of TEM foils using Focused Ion Beam technique. The microstructural characterization at high resolution will be done using Transmission Electron Microscopy in collaboration with Prof. Dr. A. Recnik at the Jozef Stefan Institute, Ljubiana. The grain-innermost magnetic structures will be investigated using electron holography in collaboration with Prof. Dr. R. Dunin-Borkowski at the Ernst Ruska-Centre at Forschungszentrum Jülich. The PhD candidate will be trained in SEM, EBSD, FIB and TEM techniques and will work at the interface between crystal physics, petrology and geophysics.

We seek a highly motivated candidate with background in mineralogy/crystallography/petrology, or material physics. The candidate should have a genuine interest in Transmission Electron Microscopy as well as in mineralogy/petrology and crystal physics. Experience in electron microscopy, in particular, TEM-based microstructural research, will be beneficial.

The position is 30 h per week (75% position) and the salary is according to the regulations of the Austrian Science Foundation.

The position should be filled by 1st of March 2019. The University of Vienna aims to raise the proportion of female researchers and encourages well qualified female candidates to apply.

Further information is available from Prof. Dr. R. Abart, e-mail: rainer.abart@univie.ac.at.

General information about the Department of Lithospheric Research and the University of Vienna is available at: http://lithosphere.univie.ac.at/ and at http://www.univie.ac.at/

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