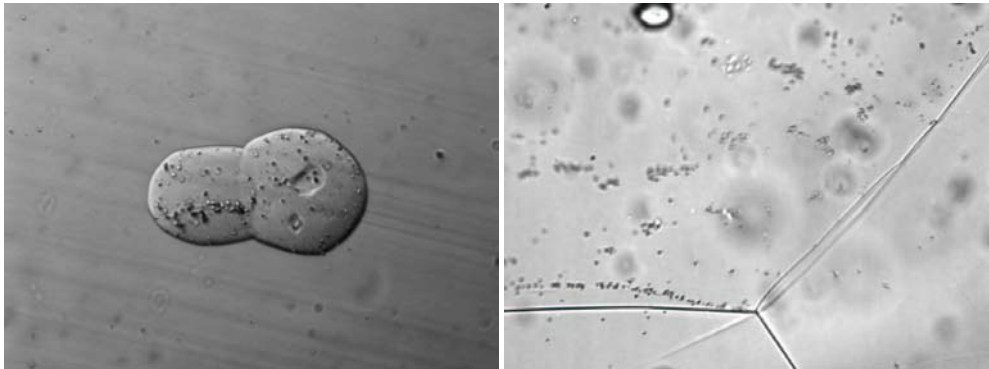


# PhD Studentship in Antarctic Ice Core Research

A **PhD position** is available in the Department of Crystallography at the Geosciences Center of the University of Göttingen (GZG). The limit of tenure is three years (initially granted for two years) and the salary corresponds to the German TVöD 13/2 scale, which amounts to approximately 12,000–14,000 € net p.a. (rates for tax and social security have been deducted; salary varies according to age and marital status). The starting date is from 1 July 2007, but no later than 1 September 2007.

The research project is performed in collaboration with the Alfred Wegener Institute for Polar and Marine Research (AWI) in Bremerhaven and is embedded into the Special DFG Research Program 1158 "Antarctic Research." The successful candidate will be concerned with the laboratory investigation of the distribution, chemistry and relaxation of microscopic inclusions in the more than 2.7 km long EPICA–DML deep ice core recently extracted from Dronning Maud Land (DML), Antarctica, within the framework of the EPICA project (European Project for Ice Coring in Antarctica). The investigation combines an automated method of optical microscopy and digital image processing/analysis called microstructure mapping ( $\mu$ SM, AWI) with an integrated micro-chemical analysis via micro-focus Raman spectrometry ( $\mu$ RS, GZG) and cryo-scanning electron microscopy coupled with energy-dispersive X-ray analysis (cryo-SEM+EDX, GZG).

The results of this investigation shall not only resolve the question about the nature of micro-inclusions and the occurrence of liquid veins but also serve as basis for a new model of diffusion in Antarctic ice. The location of work is Göttingen with occasional visits to Bremerhaven (AWI).



*Left:* Microstructure mapping view of a clathrate hydrate of air covered by microinclusions inside an Antarctic ice sample from ca. 2300 m depth. The parallel, weak lines in the image are slip bands produced by in situ deformation (image width: ca. 200  $\mu$ m). *Right:* Another micrograph of an Antarctic ice sample from ca. 2600 m depth with microinclusions at a grain boundary (seen as the dark line in the lowest part of the image). The origin of these "black dots" is not known yet. To solve this mystery is one of the objectives of this project (image width: ca. 400  $\mu$ m).

Applications of students from abroad are welcome. Eligible applicants should have a Diploma or Master of Science degree in Geosciences, Mineralogy, Physics, Chemistry or Materials Science.

For more information, please visit the following sites:

- information on the [Special DFG Research Program 1158 "Antarctic Research"](#)
- information on the [EPICA](#) project
- the German Research Foundation: [DFG](#)
- [AWI](#), Bremerhaven

The University of Göttingen is an equal opportunity employer. At equal level of qualification, candidates with disabilities are given preference. Women are encouraged to apply.

Suitably qualified candidates are invited to submit by post or e-mail (in PDF format) a letter of application and a full CV, together with the names of two academic references to (there is no application form):

Dr. Sérgio H. Faria  
GZG Abt. Kristallographie Goldschmidtstr. 1  
D-37077 Göttingen, Germany  
phone: +49 (0)551 39-12150  
fax: +49 (0)551 39-9521  
e-mail: [sh.faria@geo.uni-goettingen.de](mailto:sh.faria@geo.uni-goettingen.de)

**Closing date: 30 June 2007**