



The ESRF is a multinational research institute, situated in Grenoble, France and financed by 21 countries mostly European. It operates a powerful synchrotron X-ray source with some 30 beamlines (instruments) covering a wide range of scientific research in fields such as biology and medicine, chemistry, earth and environmental sciences, materials and surface science, and physics. The ESRF employs about 600 staff and is organized as a French *société civile*.

Within the Experiments Division, the Dynamics and Extreme Conditions Group is now seeking to recruit a:

Post-Doctoral Fellow (m/f) for the hard x-ray microscope at ID06

THE FUNCTION

A dedicated and optimized hard x-ray microscope is being implemented at the ESRF beamline ID06, which will be a hard x-ray equivalent of the Transmission Electron Microscope. Uniquely, the new instrument enables 3D mapping of domains, phases and stresses within thick polycrystalline specimens - at the 50 nm scale. The instrument is developed in close collaboration with the Danish Technical University (DTU) in Kgs. Lyngby, Denmark and the Institut National des Sciences Appliquées (INSA) in Lyon, France.

You will work with the project team on the basic principles of x-ray science involved and on applications in the field of micromechanics. Your research will focus on the use of the microscope for 3D multiscale strain and stress characterization. In addition, your task will be to advance the underlying x-ray science by developing algorithms and advanced data analysis tools.

QUALIFICATIONS AND EXPERIENCE

You must hold a Ph.D. degree in physics, mechanics, materials science, geoscience or a related field. Very good skills in instrumentation (e.g. X-ray instrumentation, 2D-detectors, sample environments) are essential. You should be skilled in computing and have a keen interest in experimental work. Good communication skills are required, as is the ability to work independently, to plan and carry out complicated tasks, and to be a part of a large, dynamic environment.

ADDITIONAL INFORMATION

The working language of the ESRF is English. Further information about the post can be obtained from Carsten Detlefs (detlefs@esrf.fr) and Henning F. Poulsen (hfpo@fysik.dtu.dk). For further information on employment terms and conditions, please refer to <http://www.esrf.fr/Jobs/Conditions>. The ESRF is an equal opportunity employer and encourages applications from disabled persons.

Contract of 18 months, renewable for a further 6 to 18-month period. Only candidates holding a Ph.D. obtained less than 3 years ago are eligible for postdoctoral positions.

If you are interested in this position, please apply on-line at this address:
<http://www.esrf.fr/Jobs>.

**Ref. 2326 - Deadline for returning application forms:
07 June 2015**