



Post-doctoral research fellow for ANTARES Beamline at SOLEIL

SOLEIL

Established in south of Paris, SOLEIL is a state-of-the-art third generation synchrotron radiation center dedicated to scientific research. As a major French national installation, SOLEIL operates as a facility allowing the access to any scientist around the world on a peer review proposal system. The exceptional characteristics of SOLEIL in brilliancy, operation energy, number of insertion devices and wide spectral domain, rank this installation at the cutting edge of the international science and technological research.

ANTARES

Antares beamline (BL) designed to perform Nano Angle Resolved Photoelectron Spectroscopy (**Nano-ARPES**) has been recently successfully installed and commissioned. The BL uses linearly and circularly polarized x-rays from two undulators set up in tandem configuration installed in a long straight section of SOLEIL. Specially designed beamline optics ensures a homogeneous and coherent illumination of a set of Fresnel Zone plates able to cover a wide photon energy domain extending from 20 till 900 eV. The X-ray microscope is therefore well suited to determine the electronic band structure of micro- and nano-sized samples as well as large specimens with nanoheterogeneities by using photoemission and X-Ray absorption techniques. Moreover, the experimental setup is able to perform precise *chemical imaging* by recording core levels and their chemical shifts, keeping the same energy and spatial resolution as in Nano-ARPES experiments.

CANDIDATES

We are seeking a motivated scientist with a good background in electronic properties of solids and/or microscopy of smart materials with interesting applications, as sensors, captors and new removable energy sources. This is a **fixed term, 2 year position** with ample opportunities to conduct research on exciting projects in the field of low dimensional advanced materials (like graphene, few layers of MoSe₂ as well as oxides between others). Qualified applicants must hold a Ph.D. or equivalent in science related to the activities of the beamline (physics, chemistry or a connected discipline). Previous experience in X-ray imaging or/and other microscopies will be valued. The candidate must be fluent in English (written and spoken). A good French proficiency will be also appreciated.

GENERAL CONDITIONS

To apply, please send a letter of motivation and CV including the addresses of three referees to: asensio@synchrotron-soleil.fr, having as **deadline for applications: 30th June 2012** and the **start date: 1st September 2012**

Contact

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