Position starts in June 2016.

SOLEIL is the French national synchrotron facility, located on the Saclay Plateau near Paris. It is a multi-disciplinary instrument and a research laboratory, whose mission is to run research programs using synchrotron radiation, to develop state-of-the-art instrumentation on the beamlines, and to make those available to the scientific community. SOLEIL, a unique tool for both academic research and industrial applications across a wide range of disciplines including physics, biology, chemistry etc., is used by over 5000 researchers coming from France and abroad. It is based on a state-of-the-art synchrotron source, both in terms of brilliance and stability. The facility is a “public” company employing about 500 people, founded by the CNRS and the CEA, and partner of the Paris-Saclay University.

Synchrotron SOLEIL has an opening for a post-doctoral position on the DEIMOS (Dichroism Experimental Installation for Magneto-Optical Spectroscopy) beamline. The DEIMOS beamline is devoted to absorption and dichroic measurements in the 350-2500 eV energy range. This beamline covers a large panel of scientific areas, going from hard-condensed matter (spintronic, nanostructures, …) to chemistry (molecular magnets, …) and Earth science. The beamline has been optimized for high polarisation and high beam stability which are essential in performing XMCD (X-ray Magnetic Circular Dichroism) or XLD (X-ray Linear Dichroism) measurements.

The beamline experimental set-ups have been designed to offer "extreme" sample environment: very large magnetic field (7 T), wide sample temperature range from 1000 K down to milliK range, along with in situ UHV (ultra high vacuum) sample facilities. Two end-stations are devoted to dichroic measurements: a superconductive 7 T magnet allowing very low temperatures and a 2 T electromagnet welcoming different sample holders for very different purposes (multiferroic insert, high sample temperature insert or liquid cell).

For further information please contact:
Dr. Philippe OHRESSER – Beamline responsible: philippe.ohresser@synchrotron-soleil.fr

1. Missions

As a beamline scientist within the Experimental Division, you will be part of the DEIMOS beamline team under the coordination of the beamline leader. The beamline team manages the DEIMOS beamline for user operations and you will have primary "local contact" responsibility for a portion of the scheduled user beam time. You are also expected to conduct your own research program in close interaction with the scientific team of the beamline, based on the technical and instrumental facilities available at SOLEIL and in line with the scientific program of the beamline.

You will be involved in both the instrumental and scientific program of the DEIMOS beamline. Your main scientific mission is developing an original research program using the unique capabilities of the new dilution insert developed to reach 100 mK on the sample under the beam. In addition, possibilities are offered to join existing collaborations with different European laboratories.
2. **Qualifications and Expertises**

The candidate should hold a Ph.D. or equivalent degree in Physics, Materials Science, Chemistry or a related discipline. Previous experience in a synchrotron radiation center will be greatly appreciated.

The following aspects will be considered with the greatest attention:
- Expertise in UHV *in situ* facilities (MBE, STM, electron spectroscopies, electron diffraction…).
- Proven knowledge of X-ray absorption and magnetism.
- Capability in developing complex experimental equipment.
- Demonstrated experience in organizing the activity at shared experimental facilities.
- Solid background in programming and in the writing of computational codes for the data treatment.

The candidate must be fluent in English (written and spoken). Knowledge of French is also desirable but not mandatory and lessons are offered to non-native speakers.

3. **General conditions**

The offer concerns a post-doctoral contract (2-year). The place of work will be the synchrotron SOLEIL site at Saint-Aubin (Essonne-91, France).

This position is open to people with disabilities.

Applications should include a motivation letter and Curriculum Vitae with the addresses of two referees, and should be registered directly on the SOLEIL internet web site:

http://candidature.synchrotron-soleil.fr/VotreCandidature/reference DEIMOS/ID7M

**Contact:** Human Resources  
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