



Elettra Sincrotrone Trieste

Postdoctoral Research Associate position at the Elettra Materials Science beamline

Deadline: 30 September 2020

Ref: DB/20/29

Company description

Elettra Sincrotrone Trieste is an international multidisciplinary research center operated as a user facility, featuring a 2.0/2.4 GeV, third-generation synchrotron light source (Elettra), a new free-electron laser light source (FERMI) and a variety of support laboratories. The extremely high quality of the machines and beamlines has set new performance records and has been producing results of great scientific and technological interest. See <http://www.elettra.eu> for more information.

Beamline/Activity/Project description

The Materials Science beamline provides photons in the 22-1000 eV energy range. The end-station of the beamline hosts a high resolution photoelectron spectrometer (Specs Phoibos 150), and an array of surface science instruments: Low Energy Electron Diffraction optics, ion gun, evaporators, sample transfer system, etc. Ongoing research projects include the study of catalytic materials in UHV, electrochemical surfaces (*ex situ*), and sensor materials. A recently developed electrochemical cell allows the transfer of electrodes from the cell to UHV without passing through air and is used for studies of fuel cell, sensor and other electrodes. The user community and beamline staff have a very strong record of publishing excellent results in high profile journals.

See http://www.elettra.eu/elettra-beamlines/material_science.html for more information.

Job description

The successful candidate will be involved in the study of sensor materials to detect organic molecules such as nucleobases; amino acids and their derivatives; or glucose and urea, two key molecules in bioanalysis. Electrode materials will be prepared and characterized in vacuum or electrochemically, and analysed under UHV using synchrotron radiation. The work will be carried out in collaboration with the staff of the beamline. In addition, the successful candidate will assist users in running experiments, and contribute to the maintenance of the beamline.

Qualifications

A Ph.D. in Physics, Chemistry or a related discipline, awarded within the previous 6 years, is required. In addition, applications will be considered from candidates who have completed a doctoral course of studies and for whom the defence has been scheduled. In any case, the Ph.D. must be awarded by the end of November 2020.

Experience in at least two of the following techniques/methods is required: photoelectron spectroscopy; electrochemical or sensor development; synchrotron radiation spectroscopy; high or ultra-high vacuum methods for surface analysis. Data analysis using standard packages and some software skills are also required.

Good time management skills and ability to prioritize are expected, together with the ability to interact with staff and international users at all levels and to work as part of a multi-disciplinary team. Good oral and written communication skills in English are essential.

The appointment will be a fixed term contract with an initial duration of 12 months.

The salary will be commensurate with previous experience and qualifications of the candidate.

Applications should include a full curriculum vitae, the names and contact information (including electronic mail) of up to three persons who have agreed to provide references.

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Società di interesse nazionale
ai sensi dell'art. 10, comma 4,
L. 19 ottobre 1999 n. 370





Elettra Sincrotrone Trieste

The deadline for the submission of the application is September 30, 2020.

In accordance with the provisions of article 21 of the Italian legislative decree no. 39/2013 and in conjunction with article 53 (subsection 16ter) of Italian legislative decree no. 165/2001, employees or former employees of any Italian Public Entity who have exercised authority over Elettra Sincrotrone Trieste S.C.p.A. or have negotiated with Elettra - Sincrotrone Trieste S.C.p.A. within the last three years will be excluded from the present selection procedure.

We thank all applicants in advance.

For more information, please contact Kevin Charles Prince (email: kevin.prince@elettra.eu).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?ref=DB%2F20%2F29>

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