



Elettra Sincrotrone Trieste

Postdoctoral Research Associate position at the Elettra ESCAmicroscopy beamline

Deadline: 26 June 2020

Ref: DB/20/24

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 ESCAmicroscopy beamline provides photons in the 400-1200 eV energy range. The beamline hosts a zone plate-based scanning photoemission microscope (SPEM) to perform primarily spatially-resolved photoemission spectroscopy and imaging studies. Ongoing research projects include the study of the chemical, electronic and physical properties of materials on the submicron scale in different fields, including materials science and solid state physics. Recently a special cell for near-ambient pressure (NAP), spatially resolved XPS experiments has been developed and tested. Such cell extends the capabilities of the SPEM, offering unique research opportunities among synchrotron radiation facilities worldwide.

All these activities are performed by exploiting the capabilities presently offered by ESCAmicroscopy and by further developing its instrumentation in order to address the experimental needs.

See <http://www.elettra.eu/elettra-beamlines/Escamicroscopy.html> for more information.

Job description

The successful candidate will be involved in the study of the chemical and electronic properties of materials and nanostructures with spatially resolved photoemission interacting with gases and/or metallic adlayers. Examples of materials studied include multiwall carbon nanotubes, functionalized 2D materials, solid oxide fuel cells, semiconducting nanowires, transparent conductive oxides, real and model catalysts. The experiments will be performed in UHV and HV conditions and NAP environments. He/she will collaborate with the beamline staff and users in running and further developing the ESCAmicroscopy beamline and experimental station in order to accomplish the experimental program.

Qualifications

A Ph.D. in Physics, Chemistry or a related discipline is required. In case the Ph.D has not yet been awarded, the candidate must prove that he/she has completed the doctoral course of studies and that the defense has already been scheduled. In any case, the Ph.D. must be awarded by the end of July 2020.

Experience in at least three of the following techniques/methods is required: x-ray photoelectron spectroscopy and/or microscopy, near-ambient pressure XPS, characterization of solid state materials for electrochemical applications (e.g., SOFC, batteries), high or ultra-high vacuum methods for surface analysis, film growth and construction of scientific equipment relevant to synchrotron beamlines; programming skills for data acquisition and analysis would be considered an advantage.

Good time management skills and ability to prioritize are expected, together with the ability to interact with staff and facility users at all levels and to work as part of a multi-disciplinary team.

Good oral and written communication skills in English are essential.

Elettra - Sincrotrone Trieste S.C.p.A.

S.S. 14 Km 163,5 in Area Science Park
34149 Basovizza, Trieste, Italy
T. +39 040 37581
F. +39 040 938 0903

P.IVA e C.F. IT00697920320
Cap. Soc. € 47.632.663,00 i.v.
PEC: sincrotrone.trieste.elettra@legalmail.it
www.elettra.eu

Iscritta al Registro delle Imprese di Trieste
Società di interesse nazionale
ai sensi dell'art. 10, comma 4,
L. 19 ottobre 1999 n. 370





Elettra Sincrotrone Trieste

The appointment envisioned is a fixed term contract of an initial duration of 12 months. The salary will be commensurate with previous experience and qualifications of the candidate.

Applications should include full curriculum vitae, the names and contact information (including electronic mail) of possibly three references.

The deadline for the submission of the application is June 26, 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 Luca Gregoratti (email: luca.gregoratti@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%2F24>

Elettra - Sincrotrone Trieste S.C.p.A.

S.S. 14 Km 163,5 in Area Science Park
34149 Basovizza, Trieste, Italy
T. +39 040 37581
F. +39 040 938 0903

P.IVA e C.F. IT00697920320
Cap. Soc. € 47.632.663,00 i.v.
PEC: sincrotrone.trieste.elettra@legalmail.it
www.elettra.eu

Iscritta al Registro delle Imprese di Trieste
Società di interesse nazionale
ai sensi dell'art. 10, comma 4,
L. 19 ottobre 1999 n. 370

