



Elettra Sincrotrone Trieste

Postdoctoral Research Associate at the TwinMic beamline

Deadline: 8 January 2022

Ref: DA/21/33

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. A new generation, diffraction-limited storage ring light source denoted as Elettra 2.0 is under development. See <http://www.elettra.eu> for more information.

Beamline/Activity/Project description

The TwinMic beamline provides photons in the 400-2200 eV energy range. The beamline end-station allows users to perform high-resolution X-ray microscopy together with low-energy X-ray fluorescence and micro-XANES spectroscopies. The availability of both full-field and scanning transmission X-ray microscopy makes TwinMic a unique X-ray microscopy facility worldwide. The research projects at TwinMic include characterization of various materials at the sub-micron scale, in research fields as diverse as novel materials, nanotoxicology, food science, neuroscience and clinical medicine. Further developments are ongoing in order to offer new imaging schemes and increase the lateral and spectral resolution.

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

Job description

The successful candidate will be involved in the operation, maintenance and upgrade of the TwinMic beamline and experimental station in order to meet the requirements of a broad user community. He/she will collaborate with the TwinMic beamline staff in the ongoing in-house scientific projects and technological developments, including new imaging methods, such as ptychography, and new end-station and beamline design in view of Elettra 2.0. User support and participation in user experiments is expected.

Qualifications

A Ph.D. in Engineering, Physics, Computational Sciences or related discipline is required. The successful candidate is expected to be experienced in some of the following techniques: X-ray microscopy, Ptychography and/or X-ray Fluorescence.

Experience with Coherent Diffractive imaging and Phase Retrieval, X-ray absorption spectroscopy, X-ray instrumentation or procedures and methods for X-ray Fluorescence quantification will be considered an asset. Previous research experience at synchrotron radiation facilities, good programming skills in Python, in the use of Linux or CAD design will be considered a plus.

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.

The deadline for the submission of the application is January 8, 2022.

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 full curriculum vitae signed by the applicant (preferably using the European Curriculum Vitae Format in PDF), with the names and contact information (including electronic mail) of at least two professional references.

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

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L. 19 ottobre 1999 n. 370

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Due to the situation related to the COVID-19, the interviews will be performed through video conferencing.

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 Alessandra Gianoncelli (email: alessandra.gianoncelli@elettra.eu).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=2261>

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