

Research Associate within the CHIRAX project

Deadline: 6 November 2025

Ref: DB/25/34

Background

Elettra Sincrotrone Trieste is an international multidisciplinary research center offering international users access to synchrotron and free-electron laser radiation for the characterization and processing of matter. The extremely high quality of the light sources and beamlines has set new performance records and has been producing results of great scientific and technological interest. In order to allow the laboratory to remain competitive in the next 20 years, an entirely new synchrotron radiation source - Elettra 2.0 - belonging to the new generation of storage rings (DLSR or Diffraction Limited Storage Ring) is being installed and will join the already operating free-electron source FERMI in the second half of 2026. The new source will exhibit a major increase in the brilliance and coherence fraction of the photon beams. The Elettra 2.0 optics is based on our enhanced symmetric six bend achromat structure (S6BA-E) with a 12-fold symmetry and an emittance of 200 pm-rad at 2.4 GeV. The new structure creates also straight sections in the arcs permitting the installation of additional insertion devices, thus increasing the number of beamlines. Existing beamlines are being upgraded and new beamlines constructed to take full advantage of the characteristics of Elettra 2.0. See <http://www.elettra.eu> for more information.

Beamline/Activity/Project description

The CHIRAX project (chirax.elettra.eu/) funded by the European Research Council aims at implementing steady-state and time-resolved X-ray spectroscopy of chiral molecules in solution using circular and helical dichroism. The steady-state part is carried out at synchrotrons, while the time-resolved part exploits synchrotrons, XFELs and HHG sources.

Job description

The successful candidate will work on the installation, characterization and optimization of the CHIRAX experimental apparatus in collaboration with the other members of the CHIRAX team. He/she will contribute to the research activities of the CHIRAX group, including R&D of novel instrumentation for X-ray spectroscopies and experimental campaign at synchrotrons, XFELs and HHG sources.

Qualifications

A master's degree in Physics, Physical Chemistry or related discipline with specific expertise in laser and/or X-ray spectroscopy is required. The candidate should have earned his/her Master Degree no more than 4 years ago.

A proven track record in the following areas is required:

- Liquid jets under vacuum
- X-ray optics and related instrumentation

The following qualifications will be considered as positive assets:

- Previous participation in experimental campaigns at XFELs and/or synchrotrons.
- Experience in data processing

Good oral and written communication skills in English are essential. A working knowledge of the Italian language would be desirable.

The successful candidates should possess strong personal skills favouring collaborative research programs in a team-oriented environment. Solid management skills and ability to prioritize are expected, together with the ability to interact with a multi-disciplinary team and the staff of the facility.

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. € 49.969.980,45 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

SISTEMI DI
GESTIONE CERTIFICATI



UNI EN ISO 9001:2015
UNI CEI EN ISO/IEC 27001:2022
UNI EN ISO 45001:2023
UNI CEI EN ISO 50001:2018

General information

The appointment will be a fixed-term employment contract of a 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 name and contact information (including electronic mail) of one person who have agreed to provide references.

The interviews may be held via video conferencing.

The ranking of eligible candidates resulting from this selection procedure may be used for additional appointments within the following 24 months.

Employees or former employees of Elettra Sincrotrone Trieste S.C.p.A. or temporary and staff leasing employees or former employees with working experience at the company will be excluded from the present selection procedure. 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 also be excluded from the present selection procedure, 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.

The deadline for the submission of the application is November 6, 2025.

For more information, please contact Prof. Majed Chergui (majed.chergui@elettra.eu)

We thank all applicants in advance.

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=4272>

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. € 49.969.980,45 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