



Elettra Sincrotrone Trieste

Scientist for the MAIA (Materials Imaging and Analysis) beamline at Elettra

Deadline: 17 March 2021

Ref: DA/21/4

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 SYRMEP beamline at Elettra has been operating since more than 20 years applying advanced hard X-ray imaging techniques in the field of biomedicine, preclinical studies and materials science. In the field of material science, the main research activities include the study of bio- and geo-materials and cultural heritage applications. Innovative materials are investigated in situ and in real-time under specific environmental conditions (high temperature, controlled atmosphere, mechanical testing, etc...) or in operando. Absorption and phase-contrast X-ray microtomography are the most used techniques in the field of hard X-ray imaging at third generation synchrotron radiation sources. See <http://www.elettra.eu/elettra-beamlines/syrmep.html> for more information.

In order to meet the requests of the hard X ray imaging materials science, geosciences and cultural heritage user groups Elettra is planning an upgrade of the existing facilities and the construction of a new beamline that will be optimized to fulfil the requirements of these communities. The new beamline will operate with a super bending magnet source giving optimized performances.

Job description

The successful candidate will work closely with the beamline coordinator and the staff of the SYRMEP beamline, as well as with the staff of the Scientific Computing group at Elettra, in order to achieve the planned upgrades of the existing facilities and a reliable and efficient user operation of the new MAIA beamline.

She/he will contribute to the design, construction and optimization of the experimental stations of the MAIA beamline in order to meet the requirements the scientific users community related to material science imaging. New standardized imaging protocols will be developed to facilitate the use of the micro-CT facilities by non-expert users as well as tutorials for beamline operation, image acquisition, data reconstruction processing and analysis.

He/she will participate in the design and implementation of the technical developments of the beamline as well as in the scientific activities involving hard X-ray imaging techniques at Elettra. She/he is also expected to establish new research collaborations and to be involved in submitting proposals to suitable funding agencies.

Qualifications

A PhD in Physics, Geology, or related disciplines and a proven experience in X-ray imaging and microtomography is required. Experience in handling imaging experiments with synchrotron radiation, using absorption, phase-contrast and phase-retrieval algorithms is mandatory. Experience in the development of instrumentation related to synchrotron-based hard X-ray imaging experiments and a high-level knowledge of 3D image processing and analysis tools will be also an asset.

The candidate should possess strong personal skills to pursue collaborative research programs in a team-oriented environment and to become part of existing research collaborations.

Good time management skills and ability to prioritize are expected, together with the ability to interact with project

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

CERTIFIED
MANAGEMENT SYSTEM



UNI EN ISO 9001:2015
UNI ISO 45001:2018



Elettra Sincrotrone Trieste

partners 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 24 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 individuals who have agreed to provide references.

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

The deadline for the submission of the application is March 17, 2021.

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 Lucia Mancini (email: lucia.mancini@elettra.eu).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=1741>

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

CERTIFIED
MANAGEMENT SYSTEM



UNI EN ISO 9001:2015
UNI ISO 45001:2018