



Elettra Sincrotrone Trieste

# Postdoctoral Research Associate at IUVS beamline

Deadline: 23 December 2021

Ref: DA/21/32

## 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 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 IUVS beamline is dedicated to the study of inelastic scattering with ultraviolet radiation, in a time-space domain not accessible at present by other facilities. The incident photons that are inelastically diffused by the sample can be analysed by exploiting the two different and complementary experimental set-ups available on the beamline for UV Brillouin and UV Raman scattering, in order to probe both the acoustic and optical phonons propagating in the system. This allows us to acquire information about the structure and dynamics of the constituent matter over different length scales. An experimental set-up that enables us to perform UV Resonance Raman (UVRR) spectroscopy using synchrotron radiation in the 200-270 nm wavelength range is also available. It provides a finely tunable source for a wide range of resonant excitations in different samples, from nanostructures and strongly correlated materials to biophysical and biochemical systems. The research projects at the IUVS beamline include the characterization of dynamics of systems relevant in many scientific fields, including molecular liquids and water solutions, polymers and gels, biological macromolecules such as peptides, proteins and DNA and materials interesting for cultural heritage, catalysis and drug delivery.

For further information see <http://www.elettra.eu/elettra-beamlines/iuvs.html>.

## Job description

The successful candidate will perform research in close collaboration with the beamline team, mainly addressing subjects related to the properties of molecular liquids and water mixtures, biological macromolecules and materials interesting in the field of cultural heritage. He/she will contribute to the operation, maintenance, and optimization of the IUVS beamline instrumentation, using new emerging technologies and novel know-how to meet the requirements of a broad and expanding user community. He/she will offer high-quality support to external users. He/she will participate in existing research projects, contribute to further extension of the scientific collaborations of the beamline also through scientific dissemination activities. He/she is expected to be involved in the preparation of proposals to suitable funding agencies and will be encouraged to establish his/her own research program using the available instrumentation.

## Qualifications

A Ph.D. in Physics, Chemistry or a related discipline is required, together with very good skills in Raman and Resonance Raman scattering measurements and data analysis to study bio-systems. Knowledge and experience in synchrotron radiation instrumentation and applications, especially for UV Resonance Raman spectroscopy, is also essential. A suitable publication record in the aforementioned fields is expected.

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 productively as part of a multi-disciplinary team.

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

The deadline for the submission of the application is December 23, 2021.

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

### 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](mailto:sincrotrone.trieste.elettra@legalmail.it)  
[www.elettra.eu](http://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

*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.*

*Due to the situation related to the COVID-19 virus, 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 Barbara Rossi (email: [barbara.rossi@elettra.eu](mailto:barbara.rossi@elettra.eu)).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=2241>

**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](mailto:sincrotrone.trieste.elettra@legalmail.it)  
[www.elettra.eu](http://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