



Elettra Sincrotrone Trieste

# BaDEIPh Postdoc Research Associate at Elettra

Deadline: 15 February 2020

Ref: DB/20/1

## 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 BaDEIPh beamline at Elettra provides photons in the energy range 4.6 - 40 eV with high flux and energy resolution, and variable linear polarization. The beamline end-station primarily performs high-resolution angle resolved photoelectron spectroscopy (ARPES) in the low photon energy regime. The availability of low energy photons (<13 eV) makes BaDEIPh unique among the other ARPES beamlines at Elettra.

The research carried out by the local group focuses on the study of the electronic structure and many-body effects in solid materials using bulk-sensitive photoemission and ARPES with high energy and high momentum resolution. These activities are performed by exploiting the capabilities presently offered by the beamline and by further developing the instrumentation in order to accomplish more challenging experimental needs. Comprehensive information on these activities can be found at: <https://www.elettra.eu/elettra-beamlines/badelph.html>

## Job description

The successful candidate will work in close collaboration with the beamline group on varied systems, including graphene and other 2D materials, devising methods to tune their electronic properties. He/she will contribute to the operation, maintenance and upgrade of the BaDEIPh beamline and experimental station, and to the definition and execution of the in-house research activities. It is expected and encouraged that the candidate collaborates with the users of the beamline in a variety of related research projects

## Qualifications

A Ph.D. in physics or related disciplines is required. In the case the Ph.D has not yet been awarded, the candidate must prove that he/she has completed the course of studies and the defense has already been scheduled. In any case, the Ph.D. title must be obtained by the end of March 2020.

A good publication record in photoemission and experience in the following fields is highly desirable: high-resolution angle-resolved photoelectron spectroscopy and/or VUV/soft-X-ray photoelectron spectroscopy, sample surface preparation and film growth, ultra-high vacuum methods, and construction of scientific equipment relevant to synchrotron beamlines.

Time management skills and ability to prioritize are expected, together with the capability to interact with staff and external collaborators, as well as to work as part of a multi-disciplinary team. Excellent oral and written communication skills in English are essential. Knowledge of data analysis software and programming skills (ideally in Igor Pro and/or LabView) will be appreciated.

The deadline for the submission of the application is February 15, 2020.

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

Applications should include full curriculum vitae, contact information (including electronic mail) of at least two references.

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We thank all applicants in advance.

For more information, please contact Luca Petaccia (email: [luca.petaccia@elettra.eu](mailto:luca.petaccia@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%2F1>

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