

POSTDOCTORAL/PRE-DOCTORAL POSITIONS

UNIVERSITY AUTONOMA DE MADRID, CHEMISTRY DEPARTMENT

We are looking for a postdoctoral and/or pre-doctoral appointee to work in one of the two projects detailed below under the supervision of Dr. Antonio Picón at the Chemistry Department (<http://campusys.qui.uam.es/>) of the University Autonoma de Madrid (Spain).

Starting date: During September 2019.

Remuneration: Gross salary (before applying national income taxes) is 30.000 Euros/year at the postdoctoral level and 16.422 Euros/year at the pre-doctoral level.

Duration: One year renewable upon mutual agreement.

Research projects:

Attosecond science in two-dimensional materials.

Resolving the real-time motion of carriers amongst valence and conduction band states provides the foundation for the development of materials with novel functionality and the advancement of modern electronics. Future studies using attosecond ultrafast capabilities are essential to understand the optical response of materials in the early steps and unveil the role of electron-electron and electron-phonon scattering. The aim of this project is to develop a novel theoretical approach to understand the role of electron transport in modern two-dimensional materials via x-ray spectroscopy.

Ultrafast x-ray spectroscopy for catalysis research.

Our group has strong collaborations with experimental groups that aim at studying in-situ solar fuel photocatalysts via ultrafast x-ray absorption and emission spectroscopy at synchrotron-based facilities and X-ray free-electron lasers (XFELs). By combining experiment and theory, we aim at correlating the performance and stability of artificial photosynthetic assemblies to their geometrical structures and electronic configurations for their rational developments.

Candidate Profile:

- Postdoctoral position: PhD degree in Physics, Material Physics, Chemical Physics or related,
- Predoctoral position: BSc degree in Physics, Material Physics, Chemical Physics or related,
- Some preferences: experience in programming, or x-ray spectroscopy, or condensed-matter theory

Application:

Applicants should send his/her CV, including the names of two persons of reference, and contact information (in a single pdf file named as the candidate) to atto2d@uam.es<mailto:atto2d@uam.es>. This opening will remain open until the position is filled. Please, include the reference ATTO2D-1-PRE or ATTO2D-2-POST, as applicable, in the subject of your message and specify the project in which you are more interested.

Recommendation letters could be requested during the selection process.

Selected candidates shall be contacted for an interview.