



Postdoctoral Research Opportunity – ERC Starting Grant HeaT2Defects

In the unstoppable race towards device miniaturization, it becomes imperative to understand and control the effects of individual defects on the heat transport of 2D materials. In this context, we are seeking a motivated postdoctoral researcher to join an ERC Starting Grant project at the Condensed Matter Physics Center (IFIMAC), Universidad Autónoma de Madrid, Spain (<https://www.ifimac.uam.es/>).

Key Responsibilities:

- Develop bespoke instrumentation to perform Tip-Enhanced Raman Spectroscopy (TERS) characterization, integrating optical measurements with Atomic Force Microscopy (AFM).
- Collaborate with team members to address challenges in defect characterization of 2D materials.
- Contribute to high-impact publications and present findings at conferences.

Candidate Requirements:

- A PhD in Physics, Chemistry, Materials Science, or related fields.
- Hands-on experience designing, developing and assembling optical setups.
- Expertise in Raman spectroscopy, preferably Tip-Enhanced Raman Spectroscopy (TERS) or near-field spectroscopy.
- Strong problem-solving skills and motivation to tackle challenging research questions.

What We Offer:

- A full-time position for up to 3 years.
- A competitive salary aligned with national and institutional guidelines.
- A dynamic and collaborative environment within a world-class institution in a group with strong expertise in Scanning Probe Microscopy, a passion for cutting-edge science and a commitment to excellence (www.pabloares.com).

How to Apply:

Send an email to pablo.ares@uam.es including:

- A short motivation paragraph.
- CV.
- Contact information for one/two references.

Applications will be reviewed until the position is filled.