

The mission of the Catalan Institute of Nanoscience and Nanotechnology (ICN2) is to achieve the highest level of scientific and technological excellence in Nanoscience and Nanotechnology. Its research lines focus on the newly-discovered physical and chemical properties that arise from the behaviour of matter at the nanoscale. ICN2 has been awarded with the Severo Ochoa Center of Excellence distinction for three consecutive periods (2014-2018 and 2018-2022 and 2023-2026). ICN2 comprises 20 Research Groups, 7 Technical Development and Support Units and Facilities, and 2 Research Platforms, covering different areas of nanoscience and nanotechnology.

### **Job Title: Research support technician in nanofabrication and nanoscale thermal transport**

**Research area or group:** Phononic and Photonic Nanostructures Group

**Description of Group/Project:** The Phononic and Photonic Nanostructure Group (<https://www.icn2-p2n.eu/>) carries out research in the general area of nanophononics, which includes nano-scale thermal transport, phononic crystals, thermoelectricity, acousto-metamaterials, topological bosonics and NEOMs. The group is 14-strong and additionally involves several undergraduate project and visiting students.

'Phonon engineering in precisely assembled atomically thin layers (PETITE)' aims at development of advanced 2D materials with enhanced elastic and thermal anisotropy via phonon engineering, by controlling the precise arrangement of atomic layers and their relative angle and interface quality.

"This contract is part of the project PCI2023-143399 funded by MCIN/AEI/10.13039/501100011033 and by the European Union"



**Main Tasks and responsibilities:** The candidate will be involved in the international (Europe-Japan) PETIE project on thermal transport in 2D materials. **We are offering the possibility of research internship in Japan for highly motivated applicants.**

The main tasks involve:

- To develop nanofabrication methods for free-standing, large-area 2D materials (mechanical exfoliation and dry transfer)
- To study nanoscale transport in suspended and supported 2D materials

### **Requirements:**

- **Education:** MSc in Physics, Nanoscience or similar
- **Knowledge and experience:** Knowledge of experimental techniques for nanofabrication for 2D materials. Knowledge of optical characterization techniques, such as Raman spectroscopy will be a plus.

- **Personal Competences:** Excellent organizational and time-management skills, including the ability to deliver timely and high-quality outputs. Ability to demonstrate scientific writing and communication skills in English. Ability to work independently, use own initiative, where appropriate, and be proactive in approach to work. Ability to work with highly qualified professionals with international backgrounds.

#### **Summary of conditions:**

- Full time work (37,5h/week)
- Contract Length: 1.5 years
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.
- Support to the relocation issues.
- Life Insurance.

Estimated Incorporation date: as soon as possible

#### **How to apply:**

All applications must be made via the ICN2 website <https://jobs.icn2.cat/job-openings/524/research-support-technician-in-nanofabrication-and-nanoscale-thermal-transport> and include the following:

1. A cover letter.
2. A full CV including contact details.
3. 2 Reference letters or referee contacts.

Deadline for applications: 31/03/2024

#### **Equal opportunities:**

ICN2 is an equal opportunity employer committed to diversity and inclusion of people with disabilities.

ICN2 is following the procedure for contract of people with disabilities according with article 59 of the Royal Decree 1/2015, of 30 of October.