

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 Centre of Excellence distinction for three consecutive periods (2014-2018, 2018-2022 and 2022-2026). ICN2 comprises 17 Research Groups, 7 Technical Development and Support Units and Facilities, and 2 Research Platforms, covering different areas of nanoscience and nanotechnology.

Job Title: Postdoctoral researcher in sensing and thermal properties of 2D materials

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."

"This position is co-funded by the project "MAKING NEW ELECTRONIC DEVICES FROM AMORPHOUS MATERIALS (MINERVA)"-PCI2021-122092-2A funded by MCIN/AEI /10.13039/501100011033 and the European Union NextGenerationEU/PRTR; and by the project "Monolayer and multilayer MoS₂-based sensors to evaluate noise and humidity levels on the sleep quality of the elderly" (LEONINE) supported by the Barcelona City Council."



Main Tasks and responsibilities:

The candidate will join the new team of the project MINERVA which is a new FLAG-ERA project on MAKING NEW ELECTRONIC DEVICES FROM AMORPHOUS MATERIALS. The candidate will join a dynamic team working at the leading edge of 2D materials development.

The candidate will contribute to design and development of the thermal characterization tools for 2D materials, analysis and interpretation of data, preparation manuscripts and dissemination of results at national and international meetings. The candidate will take an active part in the project, participate in the meetings and preparation of deliverables.

In addition, the candidate will join the other team of the Spanish national project LEONINE to develop the novel humidity and sound sensors using the layered materials. The candidate is responsible for the implementation and administration of the project, cooperative agreement, training students.

Requirements:

We look for a highly motivated researcher who will have a PhD in solid state Physics and postgraduate level research experience in:

- **Education:** PhD in condensed matter physics. The candidate must hold a MSc degree title in Physics, Material science or similar.
- With strong background in solid state physics, optical and mathematics. Hands-on experience in optical and sensing characterization techniques would be an asset.
- Candidates must be able to possess good command of both written and spoken English. Applicants should have good organizational skills and be able to work independently.

Summary of conditions:

- Full time work (37,5h/week)
- Contract Length: Temporary (18 months)
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.
- Relocation expenses support.
- Life Insurance.

Estimated start date: As soon as possible

How to apply:

All applications have to be made via the ICN2 website <https://jobs.icn2.cat/job-openings/473/postdoctoral-researcher-in-sensing-and-thermal-properties-of-2d-materials> and include the following:

1. A cover letter.
2. A full CV including contact details.
3. Three reference letters or referees contact details.
4. Title and abstract of the applicant PhD thesis

Closing date: 31 January 2023* (Extended)

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.