

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 behavior of matter at the nanoscale. ICN2 has been awarded with the Severo Ochoa Center of Excellence distinction for two consecutive periods (2014-2018 and 2018-2022). ICN2 comprises 18 Research Groups, 7 Technical Development and Support Units and Facilities, and 2 Research Platforms, covering different areas of nanoscience and nanotechnology.

Job Title: Senior Researcher

Research area or group: Atomic Manipulation and Spectroscopy Group

Description of Group/Project:

The AMS group focus on the atomic-scale engineering of the quantum properties of novel nanomaterials. At the nanoscale, the properties of materials are dominated by quantum effects and interfacial phenomena, which impose strong limitations on the control and reproducibility of device performances, but also open up avenues for engineering new physical properties. Our aim is to understand and control quantum phenomena with atomic precision by chemical and structural manipulation, nanostructuring and interfacing materials that are identified as strategic in the roadmap for new technologies (hybrid metal-organic heterostructures, graphene-based 2D materials, topological insulators...).

Main Tasks and responsibilities:

The scientific research will focus on the study of optoelectronic properties of covalent 2D nanoarchitectures. It is expected that the candidate brings to the group expertise on complementary techniques for the study of electron-photon interaction at the atomic scale. The candidate will also contribute in the overall managing of scientific activities of the SPM labs, including the supervision of students and postdoctoral researches.

Requirements:

- **Education:** PhD in Physics
- **Knowledge and professional experience:**
 - At least 5 years of postdoctoral experience
 - Experience on surface science, on-surface synthesis, molecules and carbon-based 2D materials on- surfaces.
 - Expertise on:
 - Scanning probe microscopy
 - Ultra-high vacuum instrumentation
 - The combination of photonic phenomena with atomic scale spatial resolution.
 - Fluent in English

Summary of conditions:

- Full time work (37,5h/week)
- Contract Type: Permanent
- Location: Bellaterra (Barcelona)
- Life Insurance.

Estimated Incorporation date: September 1st 2021

How to apply:

All applications must be made via the ICN2 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: January 23rd

Equal opportunities:

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