

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 19 Research Groups, 7 Technical Development and Support Units and Facilities, and 2 Research Platforms, covering different areas of nanoscience and nanotechnology.

**Job Title: Research Technician**

**Research area or group:** Advanced Electronic Materials and Devices Group

**Description of Group/Project:**

The Advanced Electronic Materials and Devices (AEMD) group focuses on the material sciences and technology aspects of novel electronic and energy materials. The group also works towards the development of technological applications based on these materials such as energy, electronics, bioelectronics and biosensing, neural interfaces, etc.

The activities cut across different scientific aspects, from the fundamentals (the physics of devices and semiconductors) to materials (growth by water-based spraying, PLD, ALD, CVD and MOCVD, surface functionalisation, advanced characterisation), through to devices (fabrication technology, nanofabrication) and applications (e.g. CO<sub>2</sub> photo-capturing filters).

**Main Tasks and responsibilities:**

The work of the candidate will be framed mainly as a part of a direct contract with a Spanish leading company which is focused on the development of filters to (photo)-capture CO<sub>2</sub> at the emission point and to characterize the nano-properties to maximize the CO<sub>2</sub> capture rate. This industrial R+D project involves the definition of oxide-based absorbents and their characterization at the company and ICN2 labs. Thus, the successful candidate will be involved in activities related to the design, fabrication, and assessment of CO<sub>2</sub> capturing technologies within industrial environments.

**Requirements:**

- **Education**

- Master in Materials Science, Nanotechnology, Engineering, Chemistry, Physics, or equivalent degrees.

- **Knowledge and experience**

- Fluent English (both spoken and written)
- Experience with ceramic (oxide-based) fabrication
- Experience with CO<sub>2</sub> absorption will be valued

- **Competencies**

- Teamwork skills

**Summary of conditions:**

- Full time work (37,5h/week)
- Contract Length: Temporary (3 months)
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.
- Support to the relocation issues.
- Life Insurance.

Estimated Incorporation date: January 2022

**How to apply:**

All applications must be made via the ICN2 website <https://jobs.icn2.cat/job-openings/342/research-technician-advanced-electronic-materials-and-devices-group> and include the following:

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

Applications will be continuously reviewed. Shortlisted candidates will be invited for interview.

**Equal opportunities:**

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