



RESEARCH SUPPORT TECHNICIAN – ENTREPRENEUR RESEARCHER (TRANSWIN) - NANOSTRUCTURED FUNCTIONAL MATERIALS GROUP

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 Centre 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 SUPPORT TECHNICIAN

Research area or group: Nanostructured Functional Materials group

Description of Group

Nanostructured Functional Materials (**Nanosfun**) Group (www.nanosfun.com) is a group of ICN2 and focuses its research on molecular materials at the nanoscale. The nanostructuring confers properties not possible otherwise. The group works in two main research lines: nanomaterials for biomedical applications (e.g. Parkinson treatment) and **chromogenic and emissive materials for energy efficient devices**. The group is also strongly active in technology transfer and R&D projects with private companies.

Description of research project

Project: Producte

The project belongs to the project call **Producte**, funded by AGAUR 2021 PROD 00190 (Generalitat de Catalunya), in collaboration with UAB. It is about the development of new photo/thermo/electro-responsive responsive materials that turn from transparent to opaque upon external stimuli. These materials will be used in smart windows, to modulate the sunlight energy inside building

This contract is part of the project 2021 PROD 00190 under the framework of "Ajuts Industria del Coneixement. Producte" program with the support of the Department of Research and Universities from the Generalitat de Catalunya.

This project is a great opportunity to do science for practical applications, and trains the researcher to get experience on both applied research and scientific entrepreneurship, both useful for the future career development in the private sector.

Main Tasks and responsibilities:

The project involves these main areas:

- Preparation of photothermal nanoparticles
- Synthesis and optimization of solid lipid nanoparticles.
- Preparation of films.
- Development of electroheaters
- Scaling up processes for nanoparticles and films formation
- Characterization of morphological and optical properties of the materials obtained.
- Attendance of courses of entrepreneurship

The hired person will be mainly focused on

- Lab work to develop the project.
- Preparation of reports and presentations to show the latest results.
- attendance of courses of entrepreneurship.
- contact companies related to the smart windows sectors or materials manufacturing

Requirements:

- **Education:**
 - Degree in Chemistry, Nanoscience and Nanotechnology, Chemical Engineering, Materials science and similar.
- **Professional Experience:**
 - Experience in lab work and research in organic micro/nanomaterials.
- **Competences required:**
 - Having worked with emulsions and nanoparticles synthesis would also be helpful.
 - Good spoken English would be appreciated as well.
 - Good attitude in working in a team, motivation and ability to overcome scientific challenges.

Summary of conditions:

- Full time work (37,5h/week)
- Contract Length: 16 months
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.

- Support to the relocation issues.
- Life Insurance.

Estimated Incorporation date: December 2022

How to apply

All applications must be made via the ICN2 website <https://jobs.icn2.cat/job-openings/454/research-support-technician-transwin-nanostructured-functional-materials-group> 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: 25 November 2022