

Call reference number	(2025-15)
Call name	IKUR Neutrionics – Screen4Sens Predoctoral position on materials for printing technologies
Application Deadline	2025/05/28

Introduction and main description

BCMaterials, Basque Center for Materials, Applications and Nanostructures, is an autonomous research center launched in June 2012 by Ikerbasque, the Basque Foundation for Science and the University of the Basque Country (UPV/EHU) as a research center for Materials, Applications and Nanostructures. The center is included in the BERC's (Basque Excellence Research Centers) network and its mission is to generate knowledge on the new generation of materials, turning this knowledge into (multi)functional solutions and devices for the benefit of society.

We are looking for a predoctoral researcher with a background in Physics, Chemistry, Materials Engineering or related areas with experience in materials processing and characterization. Experience in printing technologies and in the characterization of electrical, mechanical and thermal properties of materials will be valued.

The position will be in collaboration with the University of the Basque Country (UPV/EHU) and the MPC (Materials Physics Center).

The position is funded under the IKUR Neutronic – Project: Screen4Sens -Development of smart and multifunctional inks for screen-printable sensor prototypes and applications for a sustainable digitalization. The ideal starting date is 01/07/2025. The project funding will end on 31/12/2026.

Skills and Requirements

-Bacherlor's Degree or Master in Physics, Chemistry, Engineering, Materials Science, Nanoscience and Nanotechnology or related areas.

- -Experience in materials processing and characterization.
- -Experience in nanocomposite materials design and processing.
- -Experience with additive manufacturing technologies will be valued.
- -Excellent writing and presentation skills.

Work Program / Duties / Responsibilities

The IKUR Neutrionics – Screen4Sens project involved the development of materials for sensing technologies, including piezoresistive, piezoelectric, magnetic, and gas-sensitive sensors. Sensing materials will be developed based in bio-based polymers with metal-organic frameworks, ionic liquids, magnetic nanoparticles, and carbon-based nanoparticles. The project involves, materials selection, processing by solvent based techniques, preparation of inks for screen printing and the evaluation of processed materials and printed sensors. The





Work Program / Duties / Responsibilities

candidate will also analyse data, participate in results interpretation with the PI and collaborators, elaborate written and oral reports of the results.

Application Procedure

Apply by submitting a motivation letter and a CV (in English) using the "Contact" button at the corresponding offer, at the "Join Us" area on BCMaterials' portal (<u>https://www.bcmaterials.net/join-us</u>).

Your name and email address will be required for furher contact too.

Other Relevant Information

We provide a highly stimulating environment with state-of-the-art infrastructures, and unique professional career development opportunities. We offer and promote a diverse and inclusive environment and welcomes applicants regardless of age, disability, gender, nationality, ethnicity, religion, sexual orientation or gender identity.

