

Call reference number	(2024-19)
Call name	Postdoctoral IKUR position - Detailed structural investigation of nanoparticles for advanced applications
Application Deadline	2024/12/23

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.

BCMaterials is looking for a motivated and experienced scientist to fill a POSTDOCTORAL position in Neutron Science, for the structural characterization of nanoparticles by small-angle scattering and reflectometry techniques; and also theoretical description of aggregation processes in such systems. Namely, the project aims at developing enhanced structural nanodiagnostics of magnetic colloids (particularly the study of structural instability and phase separation) and so-called multi-disciplinary approach (combining different complementary methods such as dynamic light scattering, magnetometry, electron microscopy, Atomic-Force Microscopy and X-ray diffraction) will be used within the project to solve the problems on the control of physics-chemical properties of promising magnetic and related active nanoparticle colloids. This postdoctoral position is funded by the IKUR strategy. IKUR is the strategic program promoted by the Education Department of the Basque Government to boost Scientific Research in specific strategical areas.

The postdoctoral position is framed within the research areas of Neutrons science at BCMaterials and Group of Magnetism and Magnetic Materials at UPV/EHU. The research topic for this project targets the development of advanced colloidal solutions of magnetic nanoparticles for advanced applications. The project funding will end on 05/06/2025

Skills and Requirements

PhD in Physics, Chemistry, Materials Science or related areas.
 Experience in the field, particularly in neutron scattering for structural investigations at nanoscale.
 Experience in the use of different large-scale facilities and data treatment.
 A team player who can collaborate with other research groups and lines.
 Proficiency in speaking and writing in English.
 Self-motivation and willingness to lead independent research.
 Presentation skills and ability to meet the deadline are also required.

Work Program / Duties / Responsibilities

The main task of the job is devoted to the development and characterization of smart and multifunctional nanoparticles for applications purpose. Postdoctoral research fellow will be responsible for the development of smart nanoparticles and macromolecules and its structure diagnostic, especially by small-angle neutron/X-ray scattering and Neutron Reflectometry. Large-scale facilities in Europe and worldwide will be used to perform structure and dynamics investigation of the materials.

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 (<https://www.bcmaterials.net/join-us>). Your name and email address will be required for further contact too.

Other Relevant Information

Interview will be conducted soon after the deadline. The starting date to join is as soon as possible.