

<b>Call reference number</b>	(2024-16)
<b>Call name</b>	Pre-doctoral IKUR Neutronics position: Understanding and Modification of Electroactive Materials for Advanced Applications
<b>Application Deadline</b>	2024/12/08

<b>Introduction and main description</b>
<p>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.</p> <p>Demand on highly efficient systems for modern advanced applications is the main request from society to improve quality of our life. Different smart materials and polymer-based composites are actively being studied nowadays to tackle this problem. A suitable strategy for improving those systems rely on the inclusion of various fillers leading to composites functional tuning and an overall improvement of the performance of the composites for advanced applications. Nevertheless, there is still a lack of understanding of what is the actual mechanism that make this possible. Thus, further research is needed to clarify which of the nanofiller's characteristics (e.g. micro-porosity, composition of the initial building blocks) are key to modulate the structure of the matrix, as well as its functional performance. Structure and dynamic properties of such composites at nanoscale is key to understand the organization of their components and improve the performance.</p> <p>This pre-doctoral position is funded by the IKUR strategy, which is a strategic programme promoted by the Department of Education of the Basque Government to promote scientific research on specific strategic areas. The project funding will end on 21/03/2026.</p> <p>The research topic of the project focuses on the research areas of Smart Materials and Neutron Science.</p>

<b>Skills and Requirements</b>
<p>The candidate must have Master's degree or equivalent in Materials Science, Chemistry, Physics or related areas.</p> <p>Proficiency in speaking and writing in English.</p> <p>Capacity for teamwork in an interdisciplinary and international environment.</p> <p>Self-motivation and willingness to perform independent research.</p> <p>Creativity in problem solving. Ability and eagerness to learn new skills outside own discipline.</p> <p>Presentation skills and ability to meet the deadline are also required.</p>

### Work Program / Duties / Responsibilities

The main task of the project is dedicated to structural analysis and characterisation. Neutron scattering will be used to perform structural and dynamic research of the samples at large-scale facilities on Europe and all around the world.

### 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.