

Company Description

BCMaterials, Basque Center on 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.

Information

 Deadline: 2022-05-25
 Category: Business
 Province: Bizkaia

 Country: Basque Country
 City: Leioa

Company

BCMaterials



Main functions, requisites & benefits

Main functions

BCMaterials is searching for motivated and experienced Postdoctoral Researcher for two-year research and development in Si anode materials and solid state electrolytes for lithium ion battery applications. Novel Si anode materials should be designed to mitigate the issue of severe structural degradation and instability of the solid-electrolyte interphase (SEI) caused by substantial volumetric fluctuations during (de)lithiation. Novel solid-state electrolytes should be designed to have high ionic conductivity at room temperature and high electrochemical stability when contacting with Li metal and high voltage cathode materials.

Work program / Duties / Responsibilities

1. Anode materials design, fabrication and characterisation, including Si and Si-C formation.
2. Integration of novel anode into batteries and test their electrochemical properties and analyse the structure change during (de)lithiation.
3. Solid state electrolytes will be developed, and optimized
4. Evaluation of the thermal, mechanical, electrical and electrochemical properties of the materials
5. Integration of solid-state electrolyte into batteries with Lithium metal as anode and high voltage electrode as cathode.

Requisites

- PhD in Materials Processing Science or related areas
- Demonstrated experience in the field, particularly like nano Si and Si-C formations.
- Strong background in the experimental research.
- Experience in the use of different facilities and data treatment.
- A team player who can collaborate with other research groups.

