POSTDOCTORAL POSITION: SMALL ANGLE X-RAY SCATTERING FOR THE DEVELOPMENT OF MICROSTRUCTURALLY OPTIMIZED CARBONS FOR NA-ION BATTERIES

CIC energiGUNE (CICe) is a young energy research centre (inaugurated in June 2011) with headquarters in the Basque Country (Spain), whose mission is to do an excellence oriented research as well as the transfer of technology to the industry. CICe has a dynamic research team of more than 100 researchers, is extremely well equipped with a wide range of up-to-date facilities that are fully available for all its researchers. For more detail on CIC’s research activities please visit http://www.cicenergigune.com.

Deadline: 2021-08-02
Category: Business
Province: Araba / Álava
Country: Basque Country
City: Vitoria-Gasteiz

Main functions, requisites & benefits

Main functions
The aim of this project is to develop new carbon materials to be used in Li-ion and Na-ion batteries, designed from the point of view of their microstructure and with performance beyond current state of the art. To do so, ex-situ and in-situ X-ray diffraction and Small Angle X-ray Scattering will be used to access unprecedented understanding on the charge storage mechanism of hard carbons and its correlation with the microstructure so that the critical microstructural parameters are identified and targeted in the synthesis of advanced carbons for batteries. Experimental work will include synthesis, materials characterizations (XRD, SEM, Raman, gas adsorption etc…), in-situ/operando mecanistic charcetrizations (XRD, SAXS, XAS, etc…), as well as electrochemical performance assessment.

Requisites
Holding a PhD degree in Physics, Chemistry, Materials Science or related fields. Strong experimental experience and academic background in solid state physics, solid state chemistry or materials science. Experience on X-ray diffraction and Small Angle X-ray Scattering techniques will be very positively considered. A team player who can collaborate with colleagues in other groups, technical centers, and industries. Good verbal and written communication skills in English.

Benefits
Integration in an enthusiastic and multidisciplinary young group with great projection and commitments with sustainability and research quality. In addition to the appeal of the entire project, the CIC energiGUNE offers a competitive basic salary linked to the MCIF conditions. The Foundation will also help smooth the transition for you and your family, providing a welcome program that offers accommodation and addresses other aspects to help you integrate into the local environment. CIC energiGUNE is committed to affirmative action, equal opportunity and the diversity of its workforce. The position is expected to start during the last part of 2020 and will have a duration of at least 3 years.