

Company Description

DESCRIPTION OF THE INSTITUTION: CIC energiGUNE is a research center specialized in energy, electrochemical storage (batteries and supercapacitors), thermal energy solutions and hydrogen, a member of the Basque Research and Technology Alliance- BRTA, and, a strategic initiative of the Basque Government. CIC energiGUNE was created in 2011 to generate excellent knowledge and at the same time useful for the Basque business network, being a reference in knowledge transfer. CIC energiGUNE has a dynamic research team of more than 100 researchers and is extremely well equipped with a wide range of up-to-date facilities that are fully available for all its researchers. Also, the European Commission has recently (2019) awarded CIC energiGUNE with the 'HR Excellence in Research' which reflects its commitment to achieving fair and transparent recruitment and appraisal procedures and certifies the existence of a stimulating and favorable work environment for researchers in the institution. For more details on CIC energiGUNE's research activities please visit our website at <http://www.cicenergigune.com>. **TO APPLY:** All applicants are invited to submit detailed curriculum vitae, the contact information of at least two references and a cover letter detailing specific experience and scientific interests at this webpage: <https://cicenergigune.com/en/com>

Information

 **Deadline:** 2023-03-31
 **Category:** Academia
 **Province:** Araba / Álava

 **Country:** Basque Country
 **City:** Vitoria-Gasteiz

Company

CIC energiGUNE



Main functions, requisites & benefits

Main functions

The Cell Prototyping group at CIC energiGUNE is searching for a Postdoctoral Researcher or Process Engineer to engage in the research and development of sustainable sodium ion capacitors within a recently granted Horizon EU project. The role of the selected candidate will be focused on the development of sodium ion capacitor pouch cell prototypes, covering the whole process: from electrode formulation and optimization to manufacturing at pilot line and prototype assembly for electrochemical characterization and validation of the technology. Main responsibilities of the candidate will include: Definition and optimization of electrode recipes to reach cell energy and power performance targets, including ink formulation, mixing, coating, drying and calendaring of electrodes. Deliver feedback to RLM and GL to guide material optimization and processability which is aligned with final use requirements Physicochemical characterization of inks and electrodes. Assembly of laboratory cells (coin, Swagelok) for the electrochemical characterization of electrodes. Transfer existing R&D processes from lab scale to pilot line. Assembly and electrochemical characterization of pouch cell prototypes for technology validation. Post-mortem analysis. Investigate cells failure mechanisms and perform root cause analysis to create mitigation plans Contribute to the development of intellectual property

Requisites

MSc. or PhD in Chemistry, Materials Science, Chemical Engineering or other related topics in which the selected candidate can work autonomously Strong background in electrode formulation and processing, both at laboratory scale and pilot-scale Hands-on experience with electrochemical testing methods such as galvanostatic charging, cyclic voltammetry, and EIS Systemic problem-solving skills A good team player who can collaborate with other groups, academic and industrial partners The selected candidate must be able to communicate effectively in English in a multidisciplinary environment Good verbal and written communication skills in English (Spanish or Basque valuable but not compulsory)

Benefits

We are offering a 36-month contract and advantageous professional development opportunities with the possibility of renewal based upon satisfactory job performance, continuing availability of funds, and ongoing operational needs. Access to a complete set of existing laboratory infrastructure and equipment to ensure a fruitful stay and the fulfillment of the objectives in due time. Candidates will join an integrated, enthusiastic, and multidisciplinary institute making high quality research and impactful contributions to the energy and sustainability fields. CIC energiGUNE will also help smooth the transition for you and your family, providing a welcome program that offers help with accommodation and addresses other aspects to help you integrate into the local environment (such as free language courses, help with schools for children...). CIC energiGUNE is located close to the city of Vitoria-Gasteiz (Spain), in the heart of the Basque Country. The Basque Country is the region with the highest R&D investment in Spain, with more than 20.000 researchers. The basque research ecosystem comprises a solid and collaborating community composed of universities, technology