

# POSTDOC RESEARCHER IN EXCHANGE MEMBRANES FOR REDOX FLOW BATTERIES

## 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 upto-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 HOW TO APPLY: All applicants are invited to submit their applications including a cover letter, a detailed curriculum vitae and two reference

https://cicenergigune.com/en/em opportunities/85354163. The coloction process ands area the

letters at this website:

### Information

Deadline: 2022-07-31
Category: Academia
Province: Araba / Álava

ੳ Country: Basque Country 🏜 City: Vitoria - Gasteiz

### Company

## CIC energiGUNE



Main functions, requisites & benefits

### Main functions

CIC energiGUNE is seeking for a postdoctoral researcher to develop a new generation of redox flow batteries. The position is connected to research line on redox flow batteries based on organic active materials, and more in particular to the development of ion exchange membranes for those batteries. The project will be focused in the development of polymer based membranes from initial materials design to the processing and integration of materials. Specifically, the applicant will work on the synthesis, processing and characterization of ion exchange polymeric or hybrid membranes for redox flow batteries. The candidate will work in a interdisciplinary environment employing innovative approaches located at the interface of organic chemistry, electrochemistry and materials science. The main tasks of the project are: Processing of polymeric membranes from commercial materials, as well as the development of novel polymers for implementation in ion exchange membranes. Structural, physico-chemical and electrochemical characterization of ion exchange membranes and the components within. Integration of ion exchange membranes in aqueous redox flow batteries and performance analysis for optimization and improvement studies Fundamental transport phenomena studies and membrane-electrolyte interphase analysis for development of compatible membrane-electrolyte tandems

#### Requisites

PhD in chemistry, materials science, electrochemistry or related fields. Experience on polymer processing. Experience on electrochemistry, polymer synthesis, and development and characterization of ion exchange membranes will be positively considered Experience in the field of electrochemical energy storage will be positively considered A good team player who can collaborate well with other scientists. A Highly motivated person with an interest in research. A excellent level of spoken and written English.

### Benefits

We are offering a 36-month contract and professional development opportunities with a competitive salary within the category. Access to a complete set of existing laboratory infrastructure and equipment to ensure a fruitful stay and the fullfilment 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 composed of universities, technology and cooperative centers. For community research more information: https://cicenergigune.com/en/work-with-us