

## Company Description

The Atomistic Modelling and Computational Simulations group at CIC energiGUNE is searching for a postdoctoral researcher to engage in development and implementation of electrochemical cell models for rechargeable batteries. Area: Electrochemical energy storage (EES) Research Group: Atomistic Modelling and Computational Simulations

## Information

 Deadline: 2023-12-01
  Country: Basque Country  
 Category: Academia
  City: Vitoria-Gasteiz  
 Province: Araba / Álava

## Company

CIC energiGUNE



## Main functions, requisites & benefits

### Main functions

To act as technical contact point for electrochemical characterization and mathematical modelling software, techniques and application. Therefore, the successful candidate must be able to effectively communicate with a variety of audiences. Moreover, the candidate is expected to take a leadership role in various research activities, such as writing research proposals, project execution/reporting/management, writing high quality scientific research papers, and presenting research results at scientific conferences. The candidate is also expected to help mentor undergraduate and graduate students.

### Requisites

We are searching for an independent researcher with a PhD in Materials Science, Physics, Chemistry, Chemical Engineering, or a related field. Industry experience is a plus. Candidates shall possess: A solid background (at least two years of previous experience as demonstrated, for instance, by first author publications) in electrochemical cell modelling of battery systems, with a strong theoretical foundation in electrochemical kinetics, thermodynamics, and transport. High expertise in mathematical modelling of the electrochemical behaviour of electrochemical cells using PDEs or systems of ODEs, with special focus on translating aging mechanisms into mathematical representations that can be accommodated by existing models. Ability to work with cell and battery experimental groups to verify the accuracy of mathematical models and performance simulation of new cell designs. Also interpret and quantify degradation modes of various battery chemistries and determine their impact on performance. Feel comfortable with project management and a diverse collaboration environment with multidisciplinary teams across Europe. Experience with machine learning techniques is strongly preferred. Able to work independently and as part of a team. Very good communication skills in English.

### Benefits

We are offering a 3-year contract and advantageous professional development opportunities with the possibility of renewal based upon satisfactory job performance, continuing availability of funds, and ongoing operational needs. Flexible working hours and with on-site work model with the option to eventually telework. Full access to cutting-edge laboratory facilities and characterization platforms. The incorporation to a top research center in Europe that makes high quality research and impactful contributions to the energy and sustainability fields. Professional and personal development: opportunity to attend seminars, international conferences, trainings, etc. Integrated, enthusiastic, international and multidisciplinary environment. A welcome program that offers help with finding accommodation and addresses other aspects to help you integrate into the local environment (such as free language courses, assistance with the administrative procedures, help with schools for children...). For more information: <https://cicenergigune.com/en/work-with-us>