



## **PhD Fellowship for Supercapacitor Research Line through Basque Government Grant**

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CIC energiGUNE is looking for a highly motivated candidate with a university degree on Chemistry, or Materials Science to apply for a Basque Government PhD Grant. [Check eligibility section.](#)

The offer is aimed at students currently completing or who have already completed a master degree in related subjects: materials science, chemistry, etc.

Candidates must show initiative, independent thinking as well as capability to work in collaborative environments. He/she will be part of a multidisciplinary international research team. Good English level is highly recommended.

### **Eligibility**

The position is subject to obtaining a Basque Government PhD Grant:

<http://www.hezkuntza.ejgv.euskadi.eus/>

In order to be eligible the candidate must:

- Be **resident** in the Basque Country prior to 31<sup>st</sup> December 2015.
- Be **fluent** in Spanish or Basque language (for the interview process)
- **Grade** obtained in **2012 or after**.
- **Grade records (over 10) higher than: 7.5 in Engineering; .8.0 in Chemistry; 9.0 in Physics.**

Note that those candidates not fulfilling all of the above criteria will be automatically discarded.

### **PhD project Description**

**Research Line:** Supercapacitors

**Title:** Nanostructured Carbons and Graphene-based Composites as Electrodes for Electrical Double Layer Capacitors

**Supervisor:** *Dr. Daniel Carriazo*

The present project will be focused on the synthesis of carbon and carbon-graphene based composites by chemical routes and their use as electrodes for electrochemical supercapacitors.

The PhD thesis will involve the preparation of graphene oxide-polymer composites and their derived carbon obtained upon the calcination of the former composites under inert atmosphere. The materials will be physicochemically characterized using several techniques such as nitrogen adsorption-desorption isotherms, electron microscopy, Raman spectroscopy



or x-ray diffractometry.

Selected samples according to their textural properties will be also electrochemically tested by cyclic voltammetry, galvanostatic charge-discharge and spectroscopy impedance to check their potential as electrodes in Electrical Double Layer Capacitors (EDLC).

The last part of the PhD will be dedicated to the processing of some of these materials as self-standing binder-free electrodes to be used in energy storage flexible devices.

### **How to apply**

To apply for a CIC energigUNE grant please enter your **CV** and **degree certificate record** through our website <http://www.cicenergigune.com/en/trabajar/>

**The selection process ends once a candidate is selected.**

CIC Energigune is committed to affirmative action, equal opportunity and the diversity of its workforce.