

## POST DOCTORAL RESEARCHER IN ELECTROCHEMICAL BIOSENSORS

# Company Description

BCMaterials, Basque Center on Materials, Applications and Nanostructures, is an autonomous research center launched in June 2012 by Ikerbasque, the Basque Foundation for Science and the University of the Basque Country (UPV/EHU) as a research center for Materials, Applications and Nanostructures. The Center is included in the BERC's (Basque Excellence Research Centers) Network, and its mission is to generate knowledge on the new generation of materials, turning this knowledge into (multi)functional solutions and devices for the benefit of society.

#### Information

Deadline: 2022-07-31
Category: Business
Province: Bizkaja

Company

**BCMaterials** 



## Main functions, requisites & benefits

#### Main functions

We are looking for a post doctorate level researcher in the area of electrochemical devices. The hired researcher will develop electrode materials and electrochemical cells for biosensing and spectroelectrochemistry, and will integrate them in a range of miniaturized devices and microsystems.

The work will be carried out at BCMaterials and will enjoy collaboration with world leading research groups in the areas of spectroelectrochemistry, microfluidics, and biosensing.

The starting date is as soon as possible, and for experience researcher competetive salary will be paid and are at par with other EU scientific establishments. The hired researcher will work in the micro- and nano-devices area but will interact with researchers from all other areas at BCMaterials.

Work will also involve overseeing and training younger researchers, designing experimental programs, and assisting in the preparation of manuscripts and project proposals.

### Requisites

The successful candidate must have demonstrated experience in some of the following areas: Electrochemical methods, particularly voltammetry and chronoamperometric methods. Although the position will mainly involve experimental work, understanding of the underlying theory and the ability to link theory and experiment to understand and design new systems, is critical. Spectroelectrochemistry: Experience in the use of spectroscopic techniques (UV-Vis mainly) and image analysis methods in combination with electrochemical experimentation is also desireable since a significant part of the work will involve electrochromic and electrochemiluminescent systems. Biosensor development: surface functionalization. The work will require the functionalization of surfaces with enzymes, and also possibly antibodies and peptides. A good understanding of surface chemistry and bioconjugation techniques is also required. Miniaturization: Skills in the design and fabrication of electrodes and electrochemical cells, including flow systems, are highly desirable. Knowledge of printing techniques, microfabrication, and prototyping will be appreciated. Data analysis and representation: Good command of conventional data analysis and visualization software packages is required. Knowledge of programming languages, such as python, is not a requirement but will be highly valued.