




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: 2020-08-20
 Category: Business
 Province: Bizkaia

 Country: Basque Country
 City: Leioa

Company

BCMaterials



Main functions, requisites & benefits

Main functions

To synthesize and characterize new conductive MOFs, which are materials with many potential applications in technological devices and energy storage. In particular, we want to achieve 3d conductive MOFs with an isotropic conduction behaviour, as this properties would simplify their technological application. Furthermore, we wish to reach a more in-depth understanding of the electronic properties of these materials via EPR spectroscopy. Work Program / Duties / Responsibilities Synthesis of different organic linkers, e.g. 1,2-phenyldiamine moieties, a class of linkers previously utilized in conductive MOFs synthesis using metal with high number of d-electrons, redox activity. Synthesis (solvothermal or microwave approach) and full characterization (PXRD, SEM, TEM, TG...) of the MOF structures. Measurement and study of the electronic properties (e.g. EPR spectroscopy).

Requisites

Skills and Requirements Familiarity with synthetic procedures to obtain organic linkers. Robust knowledge and experience in synthesis of MOFs and coordination compounds. Material characterization techniques such as NMR, IR, UV-Vis, SEM, TEM. English. Other Relevant Information PhD in Chemistry. Able to work in an international environment.

