

Donostia, 10/05/ 2020

PhD position in Materials Science, started in September 2020

Funding is available to enroll in the PhD program in experimental Materials Science. The PhD student will be involved in the EU-funded project "Thermoelectric detector based on superconductor-ferromagnet heterostructures"

<https://cordis.europa.eu/project/id/800923/es>



We are looking for highly motivated candidates, physicists or chemists, with a background in Solid State Physics, Surface Science or Physical Chemistry to develop a PhD project aimed to optimization of growth of the thin insulating magnetic films. This problem is crucial for making magnetic tunnel barriers in the multilayer structures (devices) that demonstrate Thermoelectric Effect due to spin-dependent tunneling between two superconducting electrodes. The work will include the growth of thin films using evaporation and Atomic Layer Deposition (ALD) techniques, followed by characterization with variety of methods: UHV Low-Energy Electron Diffraction (LEED), X-ray Photo-Electron Spectroscopy (XPS), ex-situ Atomic Force Microscopy (AFM), magnetic and transport measurements. Experiments in the synchrotron facilities (XMCD, XPS, PEEM/LEEM) are also planned as a part of the PhD project.

The student will be co-supervised by Dr. Celia Rogero NanoPhysics lab, Centro de Física de Materiales CSIC-UPV/EHU and Dr. Mato Knez Nanomaterials group, CIC nanoGUNE (San Sebastian, Spain).

Interested students please contact celia.rogero@ehu.eu

 <https://cfm.ehu.es/nanophysicslab/index.html>