



PhD position offer

We offer: A PhD position with a challenging project, in which several strategies will be explored to bring carbon-based nanoarchitectures onto non-metallic surfaces under ultra-high vacuum (UHV) conditions. The study of their structural and electronic properties will be tackled with surface sensitive characterization tools such as scanning probe microscopy/spectroscopy and X-ray photoelectron spectroscopy (XPS). Tailored molecular nanostructures can be grown with atomic precision on metallic surfaces by means of on-surface synthesis. Nevertheless, the use of such materials as functional units in technological applications as spintronics or optoelectronics often requires non-metallic substrates as their support. In this PhD project, both the direct synthesis on non-metallic substrates as well as transfer by atomic layer injection will be explored. Special attention will be paid to the study of the yet unexplored properties of heterostructures formed by carbon-based nanostructures supported by transition metals dichalcogenides, as well as to photopolymerisation reactions on oxides. The successful candidate will be integrated in a multidisciplinary national collaborative project and in the international working environment of the NanoPhysics Laboratory. The planned duration of the position is 4 years.

Requirements: Motivated candidate with a master degree in physics, chemistry, or engineering, with a background in solid state physics, surface science or physical chemistry.

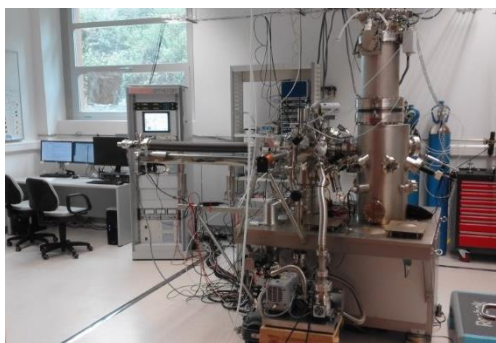
Previous experience with ultra-high vacuum, scanning probe microscopies and/or electron spectroscopies will be positively evaluated but is not strictly necessary.

Where? At the Nanophysics Laboratory (<https://cfm.ehu.es/nanophysicslab/index.html>), located in the Centro de Física de Materiales of San Sebastián (Spain).

When?

Application deadline: 27/10/2020 (please contact us beforehand for application details)

Starting date: Around Summer 2021



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