



## Full-time PhD position at Universidad Autónoma de Madrid, Spain

### -Project Title

Growth and electronic structure of spintronics materials: alloys, interfaces and topological insulators

### -Area of knowledge

PHYSICAL SCIENCES, MATERIALS SCIENCE

### -Research project

The goal of this project is to investigate the electronic and structural properties of materials relevant for spintronics applications. These are materials exhibiting specific electronic properties, still poorly understood and characterized from the experimental point of view. We aim to prepare samples of contrasted structural quality in situ and to analyze them using high-resolution angular photoemission (ARPES), but also other techniques, like ion scattering, x-ray diffraction, scanning electron microscopy and atomic force microscopy, among others, combined with synchrotron radiation in many cases.

### -Job description

Full-time PhD student, contract length up to 4 years (subject to review). Starting date: February 2017. The position is intended for a graduate in Physics or Chemistry having completed a Master in Condensed Matter Physics or related areas (Nanoscience, Nanotechnology, Solid State Physics, Applied Physics, etc). The candidate will conduct experimental research under supervision of the group senior researchers using ARPES in ultra-high vacuum environment, and in part using synchrotron radiation from Alba source (Barcelona), Elettra (Trieste), Soleil (Saclay) and the ESRF (Grenoble). The candidate should have a deep understanding of Solid State Physics with an interest in Experimental Physics. Experience with electronic spectroscopies or ultra-high vacuum is an asset, but it is not required. The candidate will join the PhD Programme of the Department of Condensed Matter Physics /Ifimac (<http://www.ifimac.uam.es/>)

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