





# **Nanotechnology Group**

# POSTDOCT RESEARCH POSITION IN NANOTECHNOLOGY: New technologies based on graphene heterostructures and topological insulators

Project Ref: SA256P18

## Topic and goals

The combination of 2-dimensional materials with topological insulators represents a breakthrough in the field of nano-electronics and condensed matter physics paving the way for the generation of bespoken materials with unique technological applications. Amid all these possible applications we aim to fabricate long-range spintronic devices, THz emitters and detectors and  $CO_2$  gas sensors based on multilayered heterostructures combining these materials.

### Requirements

Candidates should hold a PhD in Physics, Chemistry or equivalent with strong background in graphenelike materials, topological insulators and/or working in a clean room facility.

Proficiency in spoken and written English.

Hands-on personality with experience in design and assembly of experimental set ups.

The applicant should, preferably, have not obtained their Ph.D. in Salamanca University (USAL), otherwise the candidate must justify a work in research in a non-Spanish institution for a period exceeding 24 months after the obtention of their Ph.D.

Please contact Dr. Enrique Diez (enrisa@usal.es), Dr. Mercedes Velazquez (<a href="mvsal@usal.es">mvsal@usal.es</a>) or Dr. Yahya Meziani (<a href="mvsal@usal.es">meziani@usal.es</a>) for further details.

#### We offer

Full time 2 year post-doctoral position from 1st March 2019 until 31st Dec 2020.

A gross salary of ca. 2530 € per month.

In addition, selected candidates will receive internal funds to developed their own research tasks including travel allowance for meetings and conferences. Furthermore, candidates will have access to a wide offer of training activities in nanotechnolgy, semiconductor characterization and low-temperatures technologies such as seminars, specific training sessions, etc. They will be provided with the required conditions to develop their research projects with autonomy and within a stimulating environment.

The Nanotechnology group (http://nanotech.usal.es/) will provide all the facilities and experience that will be used by the Postdoc researcher in the same conditions than any of the members of the permanent staff.







