

Oxide Nanoelectronics Group

What we seek

We are looking for a PhD student who have finished, or be about to finish, a degree in Physics. The candidate must also have a Masters degree in a scientific discipline, or else be willing to apply for enrolment in one of the master courses offered by

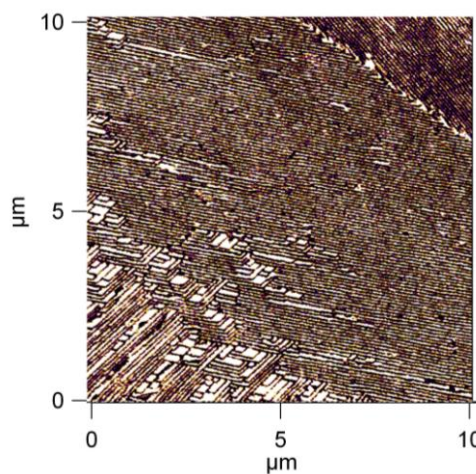
the Universitat Autònoma de Barcelona (this is a requisite in order to access the PhD programme).

Good marks are essential, as is a good command of English (at least Cambridge First or equivalent). Expertise in computer programming, and in particular LabView, will be positively regarded, though it is not essential.

The project

The actual research project is flexible and will take into account the preferences and aptitudes of the candidate, but we currently have the following in mind:

Flexoelectricity. This is the ability of a material to generate a voltage when it is bent or inhomogeneously deformed. Though generally a small effect, it can be colossal at the nanoscale, and we expect it to be very useful for new energy harvesting devices and relevant also for biomaterials. The applicant's job would be to help set up and perform two complementary experiments, one aimed at characterizing the flexoelectric properties of large samples by connecting a bending device to the relevant electronics, and the other aimed at studying the flexoelectric response at the nanoscale using a scanning probe microscope/atomic force microscope.



What we offer

We offer a 1 year part-time contract to do research in the Laboratory of Oxide Nanoelectronics, located in the Centre for Investigations in Nanoscience and Nanotechnology (CIN2), at the campus of the Universitat Autònoma de Barcelona in Bellaterra.

During that year, the candidate will work on a specific research project while simultaneously applying for a grant to complete a PhD thesis.

How to apply

Send a CV including academic qualifications, and a brief (1 page maximum) cover letter to:

Gustau Catalan (gustau.catalan@cin2.es) and

Neus Domingo (neus.domingo@cin2.es)