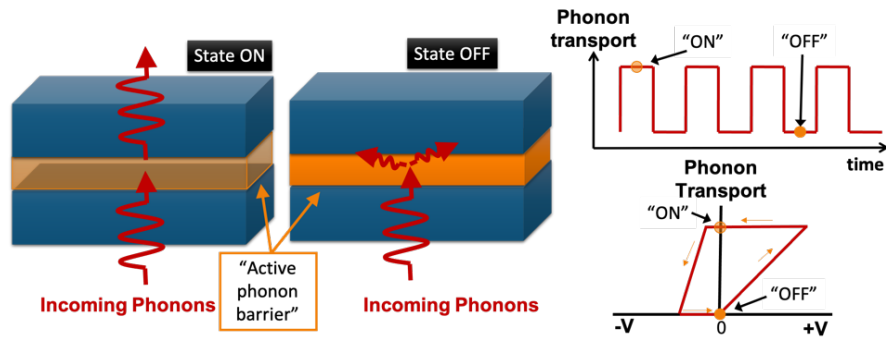


## Opening PhD position (Spanish FPI fellowship) in epitaxial oxides, ferroelectrics, and phononics.

CONTACT: [Eric Langenberg](mailto:eric.langenberg@ub.edu) (eric.langenberg@ub.edu)

A [funded PhD position](#) is available under the supervision of Dr. **Eric Langenberg** at the Institute of Nanoscience and Nanotechnology of the University of Barcelona (IN<sup>2</sup>UB) in collaboration with Prof. **Darrell Schlom** at Cornell University and Dr. **Francisco Rivadulla** at the CiQUS-University of Santiago de Compostela.

The PhD project consists of developing a novel **phononic memory capable of allowing or inhibiting the phonon transport by applying an electric field** (as schematically shown in the figure below). The central piece of this solid-state device will be **epitaxial ferroelectric films**.



The PhD candidate will perform the PhD thesis at the **University of Barcelona** with several research stays (3/4 months each) at **Cornell University** and several short research stays (2/3 weeks each) at **CiQUS-University of Santiago de Compostela**.

### What we offer:

- A 4-years contract as a PhD student, with the possibility of becoming a postdoctoral contract in the 4th year as long as the student has defended the PhD thesis before.
- A dynamic research atmosphere, with continuous feedback and support of the PhD advisor and collaborators, and a rapid progress of the project.
- A high quality multidisciplinary PhD thesis, with international projection, and support for a research career development.

### What we are looking for:

#### 1. Minimum requirements:

- A hard-worker and motivated student with a degree in **Physics, Chemistry, Materials Science/Engineering, or Nanoscience/Nanotechnology**.
- Excellent communication skills (both written and oral) in English.

#### 2. Desirable specifications:

- A master's degree in the area of Physics of Materials, Materials Science, Nanomaterials, Chemistry of Materials, and related disciplines.
- Experience in at least one of the following areas: i) **epitaxial growth**, ii) **ferroelectric materials**, iii) **thermal conductivity measurements**.

### How to apply:

- Sent **CV, cover letter**, and **the contact of two referees** to [eric.langenberg@ub.edu](mailto:eric.langenberg@ub.edu).

Deadline: **September 30th, 2022**