

TITLE: Photoinduced effects in magnetic-ferroelectric multilayers

We are exploiting the light absorption in ferroelectric materials to modulate the magnetic properties of neighboring magnetic layers. Oxide thin films of only few nanometer thick, grown on top of ferroelectric layers are being prepared and characterized by measuring the electric and magnetic properties under suitable light and electric bias. If successful, a futuristic view could be: use light to write or read information in a magnetic memory.

The candidate will be hosted at the Laboratory of Multifunctional Oxides and Complex Structures (<http://www.icmab.es/mulfox/>) which is within the Materials for Information and Communications research line at ICMAB. The laboratory, constituted by 4 permanent staff scientist, and (currently) by 11 PhD students of different nationalities (Spanish, Polish, Czechs, Chinese and Italian) owns (see web site) and has access to the necessary facilities to perform the tasks proposed.

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