



UNIVERSITAT POLITÈCNICA
DE CATALUNYA

UAB
Universitat Autònoma
de Barcelona

UNIVERSITAT DE BARCELONA
U
B

ICFO
Institut
de Ciències
Fotòniques

MASTER IN PHOTONICS – PHOTONICS BCN EUROPHOTONICS-POESII MASTER COURSE

PROPOSAL FOR A MASTER THESIS

Dates: April - September 2017

Laboratory : Laboratory of Multifunctional Thin Films and Complex Structures
Institution: Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)
City, Country : Bellaterra, Spain

Title of the master thesis: Ferroelectric materials for photovoltaics

Name of the master thesis supervisor: Prof. Josep Fontcuberta

Email address : fontcuberta@icmab.cat

Phone number : 34935801853 (ext 228)

Mail address : Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)
Carrer dels Til·lers sn. Campus UAB
Bellaterra 08193; Catalonia; Spain

Summary of the subject (maximum 1 page) :

Ferroelectric materials are being explored as new candidates for solar energy harvesting. The candidate will join a leader team of people working on this subject. He/she will learn why and how ferroelectric materials can be , and the appropriate techniques for thin film growth, how to tailo the band gap for enlarged photon absorption and the techniques for testing. Equipment to be used include: advanced thin film grown facilities, high and low temperature electric measurements, nanoscopic proximity probes and X-ray facilities, and access to nanofabrication labs.

Visit [.http://www.icmab.es/mulfox/](http://www.icmab.es/mulfox/) for more information.

Keywords : photovoltaic, energy, ferroelectrics



