



INSTITUTO DE NANOCIENCIA
Y MATERIALES DE ARAGÓN

PhD Position Contract – Official Call FPI 2022

RESEARCH FIELD: Ferroic materials for low energy consumption: Magneto-electric (ME) coupling and green refrigeration based on the electro-caloric (EC) effect.

LOCATION: Instituto de Nanociencia y Materiales de Aragón (CSIC-Universidad de Zaragoza), Zaragoza, Spain. <https://inma.unizar-csic.es/en/home/>

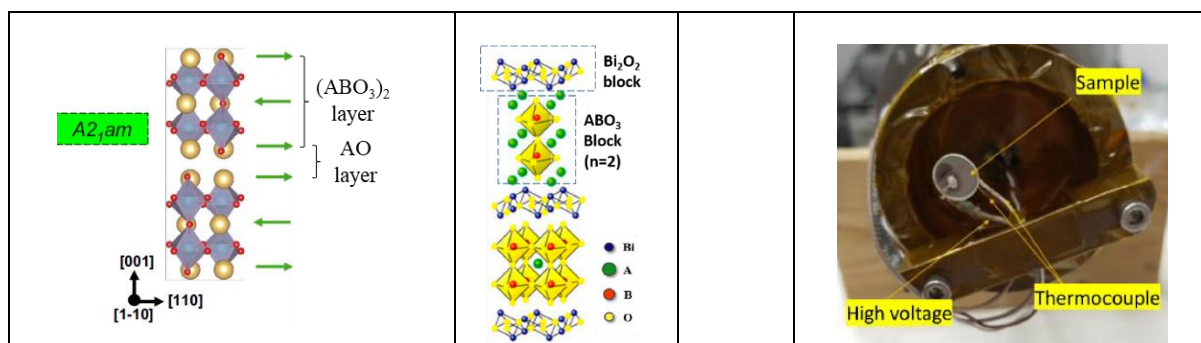
TYPE OF CONTRACT: Temporary (up to 48 months); full-time

FUNDING: Agencia Estatal de Investigación (AEI)

Call: Proyectos de Generación de Conocimiento 2021

Proposal Nr.: PID2021-124734OB-C21

Project Description: The project is part of the field of new multiferroic and/or electro/barocaloric materials, with strong coupling among their electrical, magnetic and/or caloric properties under ambient conditions, which will have applications in low energy consumption memories at room temperature and/or solid-state refrigeration to replace current technology that leads to greenhouse gas emissions. The doctoral thesis will address aspects of both the preparation and characterization of these materials (by means of a combination of experiments using both equipment available at INMA and large-scale synchrotron radiation and neutron singular facilities). The objective is to advance in the knowledge of the fundamental mechanisms that give rise to ferroic transitions, which can identify promising materials for more efficient technological applications at room temperature.



New layered perovskites for room temperature ME coupling

Inner chamber for the EC effect

Requirements: Graduate plus Master or equivalent in Physics, Materials Science or Chemistry. The PhD will be included into the doctoral program in Physics.

Skills/Qualifications: We are looking for talented candidates with training and/or interest in materials science and highly motivated for research.

Type of Contract: Four-year contract within the open call of the AEI (<https://www.aei.gob.es/convocatorias/buscador-convocatorias/ayudas-contratos-predoctorales-formacion-doctores-2022>). Starting expected for aprox. February-March 2023.

How to Apply for: Send your CV and your bionote including your main achievements and academic records, **before 20 January 2023**, to Gloria Subías (gloria@unizar.es). Add names and contact details of professionals who can provide references for the candidate.