PhD position in the field of optoelectronic materials and devices

Illustrative images of (left) a perovskite nanocrystal or quantum dot synthesized in the multifunctional Optical Materials group and (right) a photoluminescence material while being characterized in our labs.

A four-year contract is offered for the completion of a doctoral thesis in the field of synthesis and processing of semiconductor nanomaterials for applications in photovoltaics and LEDs, to be carried out within the framework of the project "*Photonic design of optoelectronic devices based on perovskite quantum dot solids*", funded by the Spanish State Research Agency. The project will be carried out in the laboratories of the Multifunctional Optical Materials group of the Institute of Materials Science of Seville (ICMS), with extensive experience in supervising doctoral theses and with a demonstrated track record of excellence in the training of young researchers. The tasks to be carried out in the contract require an eminently chemical or physical-chemical profile, aimed at the preparation and characterization of new materials. The person hired will be trained in a large number of preparation techniques, covering liquid phase synthesis, chemical vapor deposition, thermal evaporation and sputtering. The receiving group and the ICMS have all the necessary techniques to carry out an advanced optoelectronic characterization of the optoelectronic materials and devices (solar simulators, impedance spectroscopy, fluorimeters, spectrophotometers, ultrafast spectroscopy, etc.) under study in the project. The project offers the possibility of carrying out three-month stays in prestigious international research centers.

Contact: Prof. Hernán Míguez

e-mail address: h.miguez@csic.es