

PhD position in the field of optoelectronic materials and devices



Illustrative images of (left) a perovskite nanocrystal 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, physical or physico-chemical profile, aimed at the preparation and/or characterization of optoelectronic materials and devices. 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, electroluminescence, 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.

Candidates must hold a bachelor's degree in chemistry, physics, materials engineering or similar, as well as a master's degree in fields related to the theme of the call (i.e., Chemistry, Physics, Physical Chemistry, Materials, Nanoscience, Nanotechnology, Energy, etc.).

Candidates must be citizens of a Member State of the European Union or, regardless of their citizenship, have their legal residence in Spain.

The selection process ends once a candidate is selected.

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