Postdoctoral Open Position

LASER ASSISTED SYNTHESIS OF MULTICOMPONENT PHOTOCATALYSTS FOR SOLAR HYDROGEN PRODUCTION

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Position offered

We offer a position for a postdoctoral researcher in the framework of the project "Laser assisted synthesis of multicomponent photocatalysts for solar hydrogen production". The objective is the gram-scale fabrication of graphene-based hybrid photocatalysts to be applied in the production of hydrogen fuel by the solar-driven water splitting process. The work comprehends topical scientific-technologic fields as the laser chemistry, the synthesis and characterization of nanostructured materials, as well as the development of next-generation solar photocatalysts.

Main Tasks and Responsibilities

- Synthesis of nanocarbon-metal oxide photocatalysts.
- Structural and compositional analyses of the obtained materials.
- Study of the photocatalytic activity of the developed composites.
- Optimization of the structural and functional properties of the photocatalysts.

Requirements

- PhD degree in Physics, Chemistry, Nanoscience or related studies.
- A good knowledge of English will be highly valued.
- Experience in synthesis and structural characterization of nanomaterials.
- Practice in the laser fabrication of materials or in the development of photocatalysts will be highly valued.

Conditions

- The contract will be full time.
- Gross annual salary of around 39000 Eur.
- Duration of 1.5 years with the possibility of extension.
- The starting date will be from January 2023.

How to apply

The selection process will be continuous until a good candidate is found. Interested persons should send an email to Ángel Pérez del Pino (aperez@icmab.es) attaching:

- CV
- Letter of motivation
- If possible, contact details of a reference person.

ICMAB is an equal opportunity employer committed to diversity and inclusion of people with disabilities.

About the Laser Processing Research group

Technologies based on the laser irradiation of materials are versatile, rapid, allow high spatial resolution, and ensure reproducibility. Laser-matter interactions involve the development of a huge number of complex physical and chemical mechanisms, leading to materials transformations, which cannot be obtained by conventional techniques.

The aim of our work is to obtain nanostructured functional materials by means of different laser-based technologies. We develop high quality thin films of organic-inorganic nanocomposites and nanostructures such as semiconductor nanoparticles, carbon nanotubes and graphene-based composites by laser deposition methods. We are also investigating the direct chemical transformation of complex systems made of carbon-based nanomaterials, and the recrystallization of different types of nanostructures for energy, environmental, electronics and sensing applications.

About ICMAB

ICMAB is one of the world's leading institutes in Materials Science research, located at Campus UAB, very close to Barcelona. One of the main ICMAB's strategic objectives and missions is to make an impact in the field of new materials for applications in energy, electronics and health.

ICMAB provides facilities, state-of-the-art equipment and most importantly, excellent scientists and professionals, to assure you a rewarding environment. In the last years, we have grown up to build up a team devoted to project managing, technology transfer, innovation, communication, maintenance, technical services and administration, to team up with the researchers for the advancement of science.

The diversity of our people and the interdisciplinary research fields related to Materials Science ensures an enriching and inspiring working environment. If you are an enthusiastic and highly motivated person and would like to work in a multidisciplinary and multicultural environment, join us!

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