



Exciting PhD Opportunity: Programmable Reconfigurations in Multi-Stimuli Responsive Magnetic Hydrogels for Advanced Actuation

We are seeking a motivated PhD candidate to join a cutting-edge research project at the intersection of physics, materials science, nanotechnology, and robotics. This position offers the chance to work on innovative magnetic hydrogels with programmable reconfigurations, aimed at transforming fields such as soft robotics and information encryption.

PhD Project Overview

- **Project Title:** *Programmable Reconfigurations in Multi-Stimuli Responsive Magnetic Hydrogels for Advanced Actuation and Beyond (PID2023-151913NB-I00)*
- **Location:** Department of Applied Physics, University of Granada, Granada, Spain.
- **Supervisors:** Prof. Modesto T. López López and Dr. Laura Rodríguez Arco.
- **Contract Length:** 4 years, full-time.
- **Salary:** €115,200 (total for 4 years) + €3,000 (end of contract) + €7,000 (research visits and doctoral fees).
- **Start Date:** Expected February – March 2025.
- **Application Deadline:** To be announced.

About the Project

This PhD position is funded by the Spanish State Research Agency (AEI) through the prestigious “Ayudas para contratos predoctorales” program. The project focuses on the design and development of reconfigurable magnetic soft actuators made from hydrogels that can respond to multiple simultaneous stimuli, enabling adaptive and programmable material behavior.

You will have the unique opportunity to shape your PhD research within this multidisciplinary project, tackling challenges with direct relevance to soft robotics, information encryption, and beyond. This role offers flexibility and independence to focus on various aspects of the project, from advanced material synthesis to functional characterization.

Why Join Us?

The PhD will be carried out in the Department of Applied Physics at the University of Granada (UGR)—one of Spain’s top universities, known for its world-class research in materials science. You will be part of the Physics of Interfaces and Colloid Systems Group, working alongside experts in an internationally recognized team. The department’s dynamic and collaborative environment will provide you with the tools and mentorship to push the boundaries of your research and expand your professional network. Additionally, you will have the opportunity to gain teaching experience at UGR and visit foreign collaborators’ laboratories, providing valuable international exposure and expanding your academic skills.

Who Should Apply?

We are looking for motivated candidates with a Bachelor's degree in Physics, Chemistry, Biochemistry, Materials Science, Engineering, or related fields. A Master's degree that qualifies for PhD admission is required at the time the contract is signed. No prior research experience is needed, but a strong desire to work at the intersection of Physics, Chemistry, Materials Science, and Engineering is essential.

Required Skills:

- Competent level of English.
- A passion for interdisciplinary research and problem-solving.

How to Apply

For more information about this exciting opportunity and details on how to apply, please contact:

- **Prof. Modesto T. López López:** modesto@ugr.es
- **Dr. Laura Rodríguez Arco:** l_rodriguezarco@ugr.es