The Functional NanoBioMaterials Group of the University of Vigo offers a PhD contract for 1 year with a potential extension to 2 years.

The Functional NanoBioMaterials Group (@FunNanoBio) is a multidisciplinary group formed by Chemists, Physicists and Biologists (https://funnanobio.webs.uvigo.es/). Our research is interdisciplinary and ranges from topics such as nanomedicine, photocatalysis or integrated nanophotonics. We are located at the CINBIO, Singular Research Center of the Xunta de Galicia (https://cinbio.es/). The candidate will join the recently created research line of organic quantum materials for energy. Her/His work will be supervised by Dr Sara Núñez-Sánchez (PhD Physics) and Prof. Isabel Pastoriza-Santos (PhD Chemistry).

CATARSIS project (TED2021) aims to develop the foundations of a new light-harvesting technology. This technology is fully inspired by Nature, in how energy is trapped and transported in photosynthesis. During this contract, the candidate will work on the development of biomimetic nanostructures from the molecular scale to the creation of optoelectronic devices, inspired by photosynthetic organelles.

Required education and experience:

Bachelor's degree in Physics or Engineering. Master in Physics or Engineering or related areas.

Additional valuable experience:

- Hands-on optical set-ups (especially knowledge of Fourier optics)
- Chemistry laboratory experience, especially in polymers/supramolecular and preparation and characterization of thin films (absorbance and reflectivity).
- Good communication and teamwork skills in an international environment (English as the working language).
- Good skills in meeting short and long-term goals.

Duties and responsibilities:

- Electromagnetic simulations of nanostructures for light trapping.
- Design and mounting optical set-ups (Fourier optics, solar cell illumination, etc).
- Preparation of thin films, nanoparticles and assemblies.
- Optical characterization of thin films and nanostructures.
- Electrical characterization of optoelectronic devices.
- Reporting laboratory and simulation results.
- Literature reviews.
- Writing scientific articles.
- Supporting in tasks of maintenance of the laboratory.

Interested candidates send the CV and academic record before the 6th of December to:

S.Nunez-Sanchez@uvigo.es / sara.nunez.sanchez@gmail.com

Estimated starting date: January/February 2023.