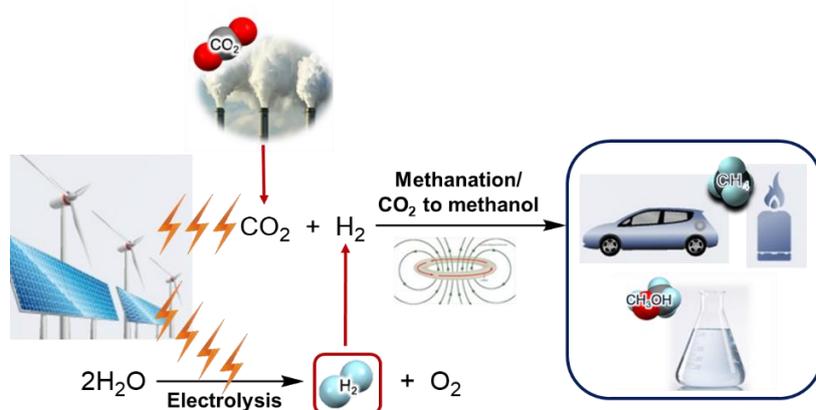


PhD candidate

A predoctoral contract is available at the IIQ; Instituto de Investigaciones Químicas (CSIC-University of Seville). The position is within the framework of a national project (PID2021-126080OA-I00) that proposes a new approach to address the challenge of intermittent energy storage.

Project: Magnetic Catalysts for Intermittent Energy Storage

The thesis project will be focused on the design and synthesis of highly stable magnetic catalysts, which can be heated by an oscillating magnetic field. The candidate will be involved in the production and full characterization of the magnetic catalysts, based on supported metal nanoparticles. In addition, the student will evaluate their catalytic activity in processes related to intermittent energy storage or Power-to-Fuels; P2F (i.e. methanation/ CO₂ to MeOH) using an oscillating magnetic field as heat source.



The project will be carried out in the IIQ, a multidisciplinary research institute that is an international reference center in the area of catalysis. It offers excellent working conditions and is equipped with all the facilities necessary to carry out the project.

Required qualifications and experience

Candidates should have a Master degree in Chemistry, Chemical Engineering or a related discipline. Candidates that are in the process of their Master thesis defense in the next months will also be considered.

Previous experience in synthesis of air and moisture sensitive compounds, organometallic chemistry, characterization techniques (NMR, XRD, (HR)TEM, XPS, etc.), metal nanoparticles and/or catalysis would be highly appreciated, but not mandatory. The candidate will work in a multidisciplinary and an international environment, thus good written and oral communication skills in English are necessary.

Conditions

Beginning: November-December 2022
Duration: 3 years (with possible extension)
Salary: 1700 €/month (14 payments)

Contact

Please send a detailed CV and a cover letter as soon as possible by email to Dr. Luis M. Martínez-Prieto to the following address: luismiguel.martinez@csic.es