

Publish date: -----

N. Ref.: 24/010

Area Advanced Materials for Energy

Group: Nanoionics and Fuel Cells

Head of Group: Albert Tarancón

Position: R2.1

Dead Line: 27th September 2024

Starting date: 15th Desember 2024

PostDoc researcher (R2) in the field of energy chemical storage using solid oxide electrolysis (SOEC) technology

Description of the job position

The Nanoionics and Fuel Cell Group announces a post doc position researcher (R2) in the field of energy chemical storage using solid oxide electrolysis (SOEC) technology. The research will be embedded in the development of Solid Oxide Electrolysis Cells towards the knowledge on materials science and engineering, as well as the electrochemical characterization of the developed devices. This work will be in the frame of the EffiSOEC project where research centers and industries join the efforts to develop a new SOEC technology.

The aim is to investigate new materials, architectures and microstructures that allows the improvement of the efficiency and to scale up the technology at stack and system level. The proposed technology and operation conditions will be also rationalized by the use of modeling to ensure the predicted improvements.

The candidate will be involved in tasks such as managing related projects, supervising students and as well as performing laboratory research in the activities of SOEC development projects. The aim of the group is to cover different levels of TRL for the described technology, covering from the innovation in materials and fabrication processes to the prototyping.

Integrated in a multi-disciplinary team, it is also expected that the candidate lead research activities as part of international projects or projects with industrial partners, including multi-partners project. The candidate should be used to plan resources and ensure deadlines as well of reporting and communication of technical / research results and present consolidated knowledge on the energy storage and solid oxide cells field.

Requirements

We are looking for a methodical, excellent team-player and results-oriented candidate with high communication skills.

Essential:

- The candidate has to fulfill all the requirements of R2.1 researcher's level of the internal IREC evaluation:

- Title of Doctor
- Have a number of publications in indexed scientific journals and/or books indexed with ISBN, related to the work of the thesis.
- Master in Energy storage or energy technologies
- PhD degree in Chemistry/ Physics or Chemical Engineering with special focus on energy storage technologies.
- More than 4 years of experience Solid Oxide Electrolysis Cells technology, operation of the - Scientific publication as a first author with considerable impact on the field.
- Participation on international conference on the field.
- Fluent English
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Preferred:

- Scientific publications and Public technical reports.

- Initiative in Research and Innovation.

- Experience in testing methods and monitoring.

- Experience in Prototyping.

- Applicants must submit the following documents by email to irecjobs@irec.cat and mtorrell@irec.cat

- Curriculum Vitae, specifying the completed degree and any relevant professional experience.

- Motivation letter.