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**Code:**

**Project: INVESTIGO**

**Area leader: Prof. Joan Ramon Morante**

**Group: Nanoionics and Fuel Cells**

**Group leader: ICREA Prof. Albert Tarancón Rubio**

## **First stage researcher (R1) – Nanoionics and Fuel Cell**

The Nanoionics and Fuel Cell Group announces a first stage researcher position (R1.6) in the field of energy devices based on solid oxide cells technology. The research will be related to the development of Solid Oxide Cells towards the knowledge on materials science and engineering, as well as the electrochemical characterization of the developed devices. The group's vision is to investigate new materials, architectures and microstructures that allows the improvement of the efficiency through the use of complex geometries and its operation under pressure. The selected candidate will be focused on the development of new cells and stacks for high temperature electrolysis and generation of renewable hydrogen. The work will be directly related with the manufacturing SOC technology through 3D printing of functional ceramics. In turn, it will optimize the materials and devices developed for the research line by microstructural and electrochemical techniques.

### **Requirements**

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

### **General requirements:**

- Academic degree in young people between 16-29 years old-Registered as job seekers in the public employment service.
- Not having worked at IREC in the last 6 months prior to the contract

### **Selection criteria:**

- Official master's degree (Master's in Renewable Energies, Master's in Chemical Engineering, Master's in Environmental Engineering) with an outstanding academic qualification record. Candidates who are in the final phase of the official master's degree or equivalent may be taken into account.
- Academic background appropriate to the position (Chemical Engineering, Materials Engineering or Science, Chemistry or Physics)
- Experience in experimental studies (TFG, TFM, practices) related to the synthesis of materials, chemical reaction, catalysis and/or plasma technologies.
- Fluent English, Catalan and Spanish are essential.
- Prior participation in research projects related to the subject.
- Aimed at solving a problem related to IREC's R+D+i activity.



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-Willingness to extend their professional training in the field by completing a doctoral thesis based on research Investigate the hydrogen technology by solid oxide based devices and new manufacturing technologies.

**Incorporation:** The candidates should be available before September 2022.

**Workplace:** Barcelona (IREC facilities)

Applicants should send a detailed CV, a motivation letter and bachelor/master transcript to Albert Tarancón. [mtorrell@irec.cat](mailto:mtorrell@irec.cat) and [irecjobs@irec.cat](mailto:irecjobs@irec.cat). Please indicate the reference “**Ref.46/2022 INVESTIGO**” in your mail.