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**Code:**

**Project: INVESTIGO**

**Area: Advanced Materials for Energy**

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

**Group: Energy Storage, Harvesting and Catalysis**

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

## **First Stage Researcher in plasma-catalysis hydrogen production (R.1.6)**

IREC's Energy Storage and Catalysis Group announces a first stage researcher position in the field of hydrogen generation by plasma catalytic reactor.

### **Tasks**

The candidate will work on developing a plasma catalytic reactor for the conversion of renewable gases, such as biogas, to green hydrogen. This innovative electrified reactor allows a reduction of energy consumption and lowering environmental impact on the biogas reforming process.

The researcher will be responsible for the synthesis of advanced catalysis, optimization of plasma energy source, improving the energy efficiency of the reactor, optimization of chemical process parameters and evaluation of the reactor scalability. The candidate will be involved on result analysis and communication.

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

### **General requirements**

- Appropriate academic qualification
- 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, Chemical Engineering, Environmental Engineering, Material Engineering, Chemistry, Physics or related) with an outstanding academic qualification record. Candidates who are in the final phase of the official master's degree or equivalent can 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 is mandatory, Catalan and Spanish are advantageous
- Prior participation in research projects related to the subject.
- Aimed at solving a problem related to IREC's R+D+i activity.
- Willingness to extend their professional training in the field by completing a doctoral thesis based on research Investigate the production of hydrogen by plasma-catalysis from a biogas stream (Engineering and Applied Sciences)

### **Contract duration**

24 months (with the possibility of extension)

### **Professional Category**

First Stage Researcher (R.1.6). Salaries will be paid according INVESTIGO programme.

### **Incorporation**

The date of incorporation will be agreed with the candidate (from October 2022).

### **Application**

Applicants should send a detailed Curriculum Vitae, a motivation letter and bachelor/master transcripts to [irecjobs@irec.cat](mailto:irecjobs@irec.cat) (with copy to Dr. Jordi Guilera, [jguilera@irec.cat](mailto:jguilera@irec.cat)) indicating "**Ref.44/2022 INVESTIGO** First Stage Researcher in plasma catalysis for hydrogen generation". Applications will be evaluated as received.