

**Publish date December 20th 2021**

**Ref. 90/2021**

**Code: PDC2021-121131-C21**

**Project: HyFLHi**

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

**Group: Nanoionics and Fuel Cells**

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

## “R2 - Post-doc researcher on development of monolithic SOFC devices fabricated by additive manufacturing for portable applications”

### **Description:**

The Nanoionics and Fuel Cell Group is seeking for a post-doc in the field of innovative monolithic Solid Oxide Fuel Cells development for their use in UAVs

Its main tasks will be leading the experimental and reporting of a national coordinated project from the Proof of Concept 2021 call focused on the development of SOFC devices fabricated by SLA 3D printing of ceramic materials to be applied in the powertrain of Unmanned Aerial Vehicles. The tasks will require knowledge about materials engineering, electrochemistry, engineering and energy technologies such as battery systems, fuel cells.

This candidate must have high education qualifications and more than 4 years of experience in materials science for energy applications with specific proven knowledge on high temperature solid oxide fuel cells and ceramic processing by additive manufacturing technologies.

Capability to work in a team, flexible, innovative, with initiative and problem solving skills.

It will be also recommended experience on CAD design

The candidate is expected to provide engineering support for the fuel cell integration on the UAV.

### **Qualifications and experience required:**

#### Essential:

The call is open to professionals from any nationalities that fulfil the following eligibility criteria:

- Hold a PhD in the areas of Chemistry, Physics, Material Engineering & Science, Chemical engineering, and related areas.
- Experience in the field of hydrogen technologies systems, preferable solid oxide fuel cells at cell and system level.
- Knowledge in additive manufacturing technologies, preferable ceramic processing.

#### Preferred:

- Knowledge and experience in projects in the energy sector, especially in Fuel Cells, advance materials for energy, energy storage systems.
- Knowledge in system integration and balance of plant for fuel cells
- Knowledge of CASD design.
- Good communication skills; ability to communicate complex scientific information to individuals from other disciplines.
- Experience in collaborative research projects.
- High temperature fuel cells related scientific publications
- Language required: Fluent in English and Spanish

**Personal Skills:**

- Team Worker
- Initiative in Research and Innovation
- Flexibility
- Results-oriented
- Analytical and synthesis capabilities

Required documents:

Applicants must submit the following documents by email to [irecjobs@irec.cat](mailto:irecjobs@irec.cat).

**Reference:**

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

**Offer of job position:**

We offer a Postdoc position for 18 months on the frame of HyFLHi (ID: PDC2021-121131-C21) national project.

Salaries will be paid in accordance with the IREC's salary policy, depending on the candidate's qualification and professional experience.

**Deadline:** April 15th 2022

**Starting date:** May 15<sup>th</sup> 2022