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Code:

Project: HYMET

Area leader: Prof. Joan Ramon Morante

Group: Nanoionics and Fuel Cells

Group leader: ICREA Prof. Albert Tarancón Rubio

IREC PhD grant in the frame of HYMET Project (2022-2024): Development of a 5kW Solid Oxide Electrolyser System for green hydrogen production. From raw materials to the SOEC system.

TITLE: Development of a kW-scale Solid Oxide Electrolyser System for green hydrogen production: From raw materials to the SOEC system.

JOB DESCRIPTION

Nanoionics and Fuel Cell group announces a new opening position to develop a PhD thesis in the field of the Solid Oxide Cells. The researcher will work on the design, fabrication, characterization and testing of electrochemical devices such as solid oxide cells. The aim is to develop new energy devices for sustainable and clean energy storage and hydrogen generation coupled to industrial processes. The PhD will represent an opportunity to work on the SOC field from the fundamentals of material science to the manufacturing technologies and engineering to generate the complete system (components and BoP).

The PhD project will be part of a wider multipartner industrial oriented project (HYMET: Study of innovative technologies for the transition of the metallurgical industry towards a circular economy based on the valorization of by-products from the production process itself and their decarbonization through the use of renewable raw materials).

Qualifications and experience required:

Essential:

- Bachelor or Master in Physics, Chemistry, Materials Engineering, Nanotechnology or other related fields with especial interest in renewable energy sources.

Valuable:

- Knowledge on hydrogen technologies (Fuel Cells and electrolysis)

- Knowledge on advanced materials for energy devices application and advanced manufacturing technologies (PLD, Additive manufacturing, etc..)

The candidate has to:

- Be enrolled or admitted to the doctoral program for the 21/22 academic year or be in a position to be enrolled in the formalization of the contract.

Language required:

Fluent in English, Catalan and Spanish is positively evaluated.

Personal Skills:

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

What we offer:

We offer 4 year-fellowship under an IREC grant at the NiSOFC group (www.atlab.es).

Salaries will be paid in accordance with the IREC's salary tables.

To apply:

Send an e-mail with your CV and motivation letter to Albert Tarancón (atarancon@irec.cat) and Marc Torrell (mtorrell@irec.cat) with the subject "HYMET-PhD **before 7/02/2022**."

A personal (on-line) interview will be required to the selected candidates.