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Project: INVESTIGO-AGAUR
Area leader: Prof. Joan Ramon Morante
Group: Nanoionics and Fuel Cells
Group leader: ICREA Prof. Albert Tarancón Rubio

PhD student position on materials for energy applications (INVESTIGO AGAUR)

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 candidate will work on developing breakthrough concepts for novel materials searching methodologies based on high throughput experiments and machine learning. New materials discovered will be implemented in full energy devices such as fuel cells and electrolyzers. The thesis will be developed in the frame of a coordinated European project.

We offer a two years pre-doctoral contract (with the possibility of a one-year extension). Joining a team of highly qualified and motivated researchers working in the frontiers of knowledge in science and technology. International collaboration with top-leading European research groups in the field.

Tasks

We are interested in a researcher highly motivated to develop new materials discovery methodologies. She/he will get experience in hands on deposition of nanomaterials by using thin film methodologies, machine-learning methodologies applied to materials discovery, as well as a deep knowledge on energy technologies such as solid oxide fuel cells and electrolyzers. Among the characterization techniques employed will be Electrochemical Impedance Spectroscopy, Raman, SEM-EDX, HT-XRD or AFM.

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

- A person who is highly motivated to learn, work in a team, showing high flexibility and initiative and ability to innovate.

- Bachelor and master of Physics / Engineering / Chemistry /Materials Science or similar is required.

- Experience in thin films, machine learning and Solid Oxide Fuel Cells will be positively evaluated.

- Fluent English is mandatory**.**

Category

Researcher R.1

Contract duration

24 months (with the possibility of a one-year extension)

Incorporation

The candidates should be available before the end of 2022**.**

Province

Barcelona (IREC facilities)

Procedure

Applicants should send a detailed CV, a motivation letter and bachelor/master transcripts to irecjobs@irec.cat and atarancon@irec.cat (Albert Tarancón). Please indicate the reference “INVESTIGO HT-ML” in your mail.