Shaping Energy for a Sustainable Future

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Project: AFREESSB
Area leader: Prof. Joan Ramon Morante
Group: Nanoionics and Fuel Cells
Group leader: ICREA Prof. Albert Tarancón

"R2 - Post-doc researcher on advanced characterization all-solid-state thin-film batteries"

Description:

The Nanoionics and Fuel Cells team is a very dynamic group focusing of the development of solid-state energy conversion devices (https://www.atlab.es/). In the frame of a European project, we are now developing new kind of all-solid-state lithium metal battery. The work will be done together with key EU research centers such as Forschungszentrum Jülich (GE) and EMPA (CH), and technology companies such as AIXTROM (GE) and AEInnova (SP).

The main tasks are the generation of ***new thin film components for batteries*** and the ***operando electrochemical and structural characterization*** of ad-hoc fabricated samples. Innovative operando techniques will be developed such as based on ellipsometry and tip-enhanced Raman spectroscopy (TERS).

The candidate must have high education qualifications and more than 4 years of experience materials science, with specific proven knowledge on electrochemistry focused in the battery field.

We are now seeking for a post-doc in the field of new battery generations such as Solid-State Batteries (SSBs). It will be required to count with good aptitudes for team working, flexibility, innovative thinking, initiative and problem solving skills.

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 solid batteries.
- Experience with electrochemical and advanced structural characterization techniques for battery materials (e.g. Raman spectroscopy, Impedance spectroscopy, X-ray diffraction and spectroscopic ellipsometry)

Preferred:

- Experience in projects in the energy sector, especially in batteries, advance materials for energy, energy storage.

- Knowledge in physical thin-film deposition and characterization techniques.
- Experience in the characterization techniques relevant to the project.
- Experience in development of micro-devices
- Good communication skills; ability to communicate complex scientific information to individuals from other disciplines.
- Experience in collaborative research projects.
- Scientific publications related with batteries
- Experience in technology transfer
- Language required: Fluent in English

Personal Skills:

- Team Worker
- Initiative in Research and Innovation
- Flexibility
- enjoy to solve problems and pushing the research to achieve results
- Analytical and synthesis capabilities

Required documents:

Applicants must submit the following documents by email to 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 12 months on the frame of AFREESSB project (PCI2022-132960).

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

Deadline: June 15th 2022
Starting date: October 1st 2022