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**Code:**

**Project: Hybris**

**Area: Advanced Materials for Energy**

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

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

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

## **Postdoctoral Researcher on battery testing and component optimization for system hybridisation**

The Energy Storage group announces a position as Postdoctoral Researcher (pre-consolidated R2) to work on the Hybris project devoted to the development and validation of an innovative Hybrid battery energy storage concept based on Li-ion and Redox flow technologies. The selected candidate will be responsible of the following:

- 1) Characterize electrochemically and validate each technology at different levels: cells, modules, stacks.
- 2) Conduct degradation analysis under high power applications.
- 3) Performance optimization of the different batteries, characterizing their components in relation to their expected behaviour as part of the hybrid system:  $\text{Li}_4\text{Ti}_5\text{O}_{12}$ - based and Organic-Redox Flow modules including all required sub-components i) Membrane ii) Electrode/Electrolyte iii) Material structuration.
- 4) Assemble each improved technology and assessment of their characteristics as part of the hybrid system considering capacity and power response.

### **Requirements:**

We are looking for excellent and highly motivated candidates with a PhD in Nanosciences, Materials Science or electrochemistry with expertise on battery testing and component characterization. The candidate should have a solid background on electrochemistry and materials characterization, ideally with experience on Li-ion and/or redox flow batteries technologies. In addition, previous experience on electronics, electrical or power systems for device integration will be valued.

In addition to the work described above, the selected candidate will summarize results in the form of deliverables and oral presentations. Therefore, the candidate should have good communication and project management skills and she/he must be fluent in English, results-oriented and a team player. It is also expected relevant project results to be published in peer-reviewed journals.

### **What we offer:**

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



**How to apply:**

Please, send applications by email directly to HR office ([irecjobs@irec.cat](mailto:irecjobs@irec.cat)). Indicate “Postdoctoral Researcher on battery component optimization and system hybridisation” as subject and attach your CV including your academic and professional records.