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Code:

**Project: Energy harvesting via wetting/drying cycles with nanoporous electrodes
EHAWEDRY**

Area: Advanced Materials for Energy

Area leader: Prof. Joan Ramon Morante

Group: Functional Nanomaterials Group

Group leader: Prof. ICREA Andreu Cabot

The Functional Nanomaterials Group in the Advanced Materials for Energy Area of IREC announces a two-year postdoctoral research position available for a highly motivated candidate to work in the EHAWEDRY Project: Energy harvesting via wetting/drying cycles with nanoporous electrodes..

Postdoctoral Research Position

The EHAWEDRY project proposes a radically new concept to harvest energy from waste heat, including very low-grade waste heat, and convert it into electricity. EHAWEDRY technology is based on the coupling of charging/discharging cycles of a capacitor with the drying/wetting of its nanoporous electrodes. The concept exploits the proportionality of the capacity of electrochemical super-capacitors to the area of contact between the electrode and the electrolyte solution. While the proposed technology can be applied to a plethora of scenarios, within the EHAWEDRY project we will focus on identifying scenarios for medium-scale waste recovery in the industry.

The candidate will carry out a multidisciplinary activity in line with the project's main goal, including the synthesis of porous materials, and their application to supercapacitors.

Candidate must have a PhD degree in Chemistry, Physics, Material Science or equivalent. Previous experience in nanomaterial synthesis and the fabrication and test of supercapacitors will very valuable for the position.

Additional information:

- CV, personal references and a motivation letter have to be sent to Dr. Andreu Cabot (acabot@irec.cat and irecjobs@irec.cat), indicating "**Ref.62/2022**" in the subject.
- Deadline for applications: August 24th 2022, 12:00 AM (Spanish local time)
- Incorporation: October 2022
- Duration of the contract: 24 months

The recruitment process will follow the guidelines of the European Charter of Researchers. Further information can be directly obtained from: Andreu Cabot (acabot@irec.cat).