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Code:

Project: 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 one year research position available for a highly motivated candidate to work in the EHAWEDRY Project: Energy harvesting via wetting/drying cycles with nanoporous electrodes.

Predoctoral 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 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 main goal, including synthesis of porous materials, and their application to supercapacitors. Candidate must have a master 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). Please indicate “**Ref.11/2022**” in the subject
- Deadline for applications: March 10th 2022, 12:00 AM (Spanish local time)
- Incorporation: March 2022
- Duration of the contract: 12 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).