

Project no. **089000**

## Project Acronym: EHAWEDRY

**Publish Date:** 05/06/2024

**Deadline for Applications:** July 1st 2024, 12:00 AM (Spanish local time)

**Ref.:** 24/066

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

**Area:** 133

**Host Institution:** Catalonia Institute for Energy Research - IREC

**Group:** Functional Nanomaterials

**Group Leader:** Dr. Andreu Cabot

### ***Call for Applications: Postdoctoral Research Position***

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.

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 PhD 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](mailto:acabot@irec.cat)).
- Deadline for applications: July 1st 2024, 12:00 AM (Spanish local time)
- Incorporation: September 2024
- Duration of the contract: 12 months
- Gross salary: xxxx Euros/year

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](mailto:acabot@irec.cat)).

