

## **Job Description**

Job title:	Supercapacitor Engineer
Туре:	Full-time
Locations:	Techniparc Grand Île 39190, Villard-Bonnot
	Bâtiment Nanobio 38610, Gières

#### Role

We are looking for a candidate to join the team at BeFC to lead the development of printed supercapacitor technology. This position focuses on the development of new electrode materials, electrolytes, and electrolyte additives to improve the overall performance (capacitance, energy density, temperature-dependence, degradability and eco-conception). The refinement of the manufacturing aspects of the electrodes and supercapacitor components (separator, packaging and electrolyte) will also need to be taken into consideration.

Work will cover development, process optimisation, characterisation, experimental reports, *etc*. with our multidisciplinary team.

#### Staff management responsibility

A limited supervision of students may be required, however, there is no expectation from the post holder to perform staff managerial duties.

#### Career and professional development activities

BeFC encourage and support the personal and professional development of our staff. Individual development needs will be identified through a regular review process.



#### **Special conditions**

The job may involve working across all of the BeFC facilities. Lifting and handling of heavy equipment may occasionally be required. Lifting aids will be provided where appropriate. Contact with chemicals may be part of the job and personal protective equipment will be provided.

From time to time, the post holder may be asked to assist with Continuing Professional Development (CPD) activities. This will form part of a substantive role and no additional payment for these activities should be expected.

#### Main duties and responsibilities

The successful candidate will have a strong scientific interest and a desire to develop expertise in supercapacitive materials and associated characterisation and production

processes. 1 Develop new electrode materials, electrolytes, and electrolyte additives 2 Refine manufacturing aspects of the electrode and supercapacitors 3 Deliver clear and concise written and oral presentation of data, analyses, and internal/external reports 4 Communicate with industrial partners to update progress, receive guidance on new assignments, make preliminary selections on technical alternatives, and independently complete recurring assignments 5 Data analysis and processing 6 Creation of technical reports 7 Mentor junior students in both technical and safety matters 8 Compliance with statutory and company regulations/protocols



# **Specification**

Qualifications	Essential	Desirable
Have completed a relevant PhD (e.g., in materials science, electrochemistry, or polymer chemistry) within the last 5 years	X	
Graduate from a degree in material / polymer chemistry	x	

Experience/Knowledge/Skills	Essential	Desirable
Technical aptitude in a laboratory environment, including electrode material synthesis, fabrication, supercapacitor assembly, electrochemical characterisation techniques, experimental setup and operation	x	
Carbon/metal oxide electrode materials, liquid electrolytes, and solid electrolytes for supercapacitors	x	
Supercapacitor pouch assembly and testing	x	
Knowledge about bio-based and biodegradable materials		X
Experience in membrane / film development		x
Experience in printing		X
Knowledge in packaging		x
Project management	x	
Experience with quality management systems		x

Attributes	Essential	Desirable
Enjoy laboratory-based work and take pride in the quality of results and documentation	x	
Organised and rigorous	x	
Proactive, versatile, and able to work autonomously	X	
Translate complex ideas into clear, logical, and accurate documents	X	
Objective-oriented	x	

### JD43 -Supercapacitor Engineer



Creative problem-solver	x	
Understanding of English language, both written and oral	x	