

Exciting [Faraday Undergraduate Summer Experience \(FUSE\)](#) paid internship opportunities for summer 2024.

Studying a STEM degree? Wondering what career to pursue? Interested in finding out more about the battery sector? Keen to spend time with a dynamic community of pioneering battery researchers seeking to find solutions to support a fully electric future?

The Faraday Institution is offering a total of 55 internships, for undergraduate students to spend 8-weeks working on battery related projects.

Project title: Moving towards carbon fibres-based lithium metal pouch cells.

Project description:

Li metal batteries exhibit a number of advantages over current state-of-the-art Li-ion battery chemistries, including increased specific energy densities and reduced environmental impact. However, their commercialisation is hindered by a number of issues including safety challenges and rapid lithium inventory loss.

3D current collectors have been shown to effectively control metal plating and stripping reactions. However, little consideration is given to the sustainability of the materials and processing methods used for current collector fabrication. In the group, we make electro-spun carbon fibres derived from biomass to use as the 3D current collector for lithium metal batteries.

This project aims to extend this work by moving from a coin cell to a pouch cell configuration. This step will require the consideration of practical methods to pre-lithiate the carbon fibre current collector in order to design an industrially relevant pouch cell.

Supervisor: Professor Magda Titirici and Samantha Southern

University: Imperial College London

Location: In person, London

Start date: The internship is a full-time role for 8 weeks during June-September

Eligibility:

- Be registered full-time undergraduate student from a UK university.
- Undertake the internship within the years of their undergraduate study (i.e., not in final year or during a subsequent Masters' programme).
- Not have been a FUSE intern in a previous year

Funding:

A salary of £12.00/ hour across the UK or £13.15 / hour in London will be provided. This will be determined by the working address of the appointee, not the university's location. The funding is provided by the [Faraday Institution](#).

Additional activities:

During the FUSE internship you will be able to attend Faraday Institution cohort events which will focus on a variety of topics to further develop your understanding of career opportunities in battery sector. At the end of the programme, you will be invited to to share a poster about your work and prizes will be awarded.



Application:

To apply, please complete this survey ([survey link](#)) by 23.59 on 19 April 2024.

Diversity:

The Faraday Institution is committed to creating a dynamic and diverse pool of talent for the fields of battery technology and energy storage.

You can read Imperial College's full Equality, Diversity and Inclusion strategy here:

[Equality, Diversity and Inclusion Strategy 2024](#)