

Exciting [Faraday Undergraduate Summer Experience \(FUSE\)](#) paid internship opportunities for summer 2026

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 internships, for undergraduate students to spend up to 8-weeks working on battery related projects.

Project title

Establishing design principles for lithiation in anodic battery materials to reduce surface degradation

Project description

The proposed project involves designing, synthesizing, and testing novel materials for lithium battery applications, with the overarching goal of establishing a framework for understanding when Li^+ does or does not intercalate into metal oxide structures. Often when Li does intercalate, the resulting lithiated structure is prone to cracking, which exposes fresh surfaces, necessitates increased SEI formation, and ultimately leads to degradation. Recently, there have been significant advances made by examining single classes of structures such as the Wadsley-Roth crystallographic shear structures. These materials seem to exhibit increased structural rigidity, which might limit their propensity to crack under electrochemical strain. This project attempts to understand the Wadsley-Roth structures as one example of a wider class of crystallographically constrained structures that intercalate Li^+ . Other types of constrained structures would include structures that exhibit other types of crystallographic shears and structures such as a partially stuffed perovskite. The student will be able to gain experience with solid state synthesis and characterisation as well as electrochemical methods such as constructing and testing Li half-cells. In addition to scientific skills developed, the student will have the opportunity to discuss and present their findings to a vibrant community of scientists.

Supervisor Dr Jonathan Van Buskirk, in the group of Prof Dame Clare Grey

University University of Cambridge

Location In-person, in Cambridge

Start date The internship is a full-time role (37 hours a week) for up to eight weeks during June – August 2026

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 £12.71/ hour will be provided. 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 share a poster about your work and prizes will be awarded.

Application

To apply, please complete this [survey](#) by 23.59 on 26 April 2026.

For project information, please visit <https://faraday.ac.uk/research/lithium-ion/extending-battery-life/>

Diversity

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

The University of Cambridge is committed in its pursuit of academic excellence to equality of opportunity and to a pro-active and inclusive approach to equality, which supports and encourages all under-represented groups, promotes an inclusive culture, and values diversity.