**Exciting** [**Faraday Undergraduate Summer Experience (FUSE)**](https://www.faraday.ac.uk/fuse-internships-2023/) **paid internship opportunities for summer 2023.**

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:** Zero-Excess Li Li2S cell development

**Project description:**

An area currently gaining momentum in Li-metal batteries is the development of “anode-free” or zero-excess Li (ZEL) cells which minimize inactive materials and mitigate the challenges of handling Li metal foils during fabrication. However, there are limited studies that combine both ZEL and LiS cells together. They also suffer from severe degradation, particularly in the initial cycles, alongside consistency issues making them difficult to benchmark and compare to other battery chemistries. We propose for the successful candidate to work alongside a current PhD student on bulk parameter testing for the development of ZEL cells. This includes Li2S mass loading, error testing and investigating if it is possible to improve scalability by doctor blading on foils using lower carbon mass loadings. This work will feed into a future publication: “Towards optimized performance Li2S zero-excess Li batteries”.

**Supervisor:** Mr. Josh Cruddos and Dr. Alex Rettie

**University:** UCL

**Location:** *In person*

**Start date:** The internship is a full-time role for 8 weeks during June – September 2022 (flexible).

**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 £11.95 / hour in London will be provided. The funding is provided by the [Faraday Institution](https://www.faraday.ac.uk/).

**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:**

In order to apply for a Faraday Undergraduate Summer Experience (FUSE) 2023 internship, you need to complete the following [SURVEY](https://forms.office.com/e/71iUVApmsa) and send a CV to Dr Alex Rettie by 21st April 2023.

**Diversity**

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

At UCL, as London’s Global University, we know diversity fosters creativity and innovation, and we want our community to represent the diversity of the world’s talent. We are committed to equality of opportunity, to being fair and inclusive, and to being a place where we all belong.

We therefore particularly encourage applications from candidates who are likely to be underrepresented in UCL’s workforce.

You can read more about our commitment to Equality, Diversity and Inclusion here : https://www.ucl.ac.uk/equality-diversity-inclusion/