

Exciting [Faraday Undergraduate Summer Experience \(FUSE\)](#) paid internship opportunities for summer 2022.

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

Project title: Electrochemomechanics of the Li-solid electrolyte interphase

Project description:

Metallic lithium is the holy grail of negative electrodes due to its highest theoretical capacity (3860 mA h g⁻¹) and most negative electrochemical potential (-3.04 V). Compared to commercial lithium-ion batteries, the utilization of metallic lithium shows great potential to meet the energy density requirements of future portable electronics and electric vehicles. However, directly using metallic lithium has considerable scientific and engineering challenges.

In this project, the student will characterize the topography and mechanical properties of Li metal (and its alloys) surfaces using atomic force microscopy (AFM) and correlate the same with electrochemical performance.

Supervisor: Mauro PASTA (Associate Professor)

University: University of Oxford

Location: Energy Storage Research Centre, University of Oxford

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

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 £9.90 / hour across the UK or £11.05 / 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 Masterclasses and 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) 2022 internship, you need to send your Personal Statement (including an explanation of why you would like to embark on this internship opportunity, and some information about your background) and CV to the SOLBAT project manager, Neil Cadman neil.cadman@materials.ox.ac.uk

The deadline date for applications is **April 8th 2022**.

Diversity

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

Equality, diversity and inclusion concerns every member of our community at the University of Oxford. The University of Oxford is committed to fostering an inclusive culture which promotes equality, values diversity and maintains a working, learning and social environment in which the rights and dignity of all its staff and students are respected. We recognise that the broad range of experiences that a diverse staff and student body brings strengthens our research and enhances our teaching, and that in order for Oxford to remain a world-leading institution we must continue to provide a diverse, inclusive, fair and open environment that allows everyone to grow and flourish.

For more information, go to our dedicated Diversity and Inclusion webpages <https://edu.admin.ox.ac.uk/home>