

International 4-year PhD Studentships (3x): Catalysis, Energy, Sustainability

Three 4-year international PhD studentships are available at the University of Cambridge, starting in October 2024 under the supervision of Professor Erwin Reisner in the Department of Chemistry. We are looking for the most talented and dedicated candidates to join our international research team. We are committed to truly cross-disciplinary science and our team values candidates with undergraduate/master level studies in (organic, inorganic, physical) chemistry, materials science, molecular biology, physics or engineering.

The Reisner Laboratory develops innovations and technologies to convert solar energy and renewable electricity into sustainable fuels and organic platform chemicals for a circular economy using a unique cross-disciplinary approach. The PhD projects will develop new fundamental approaches and application strategies focused on capture and utilisation of the greenhouse gas carbon dioxide or valorisation of biomass and plastic waste streams. Supported by a world-leading team, the PhD students will develop solar-powered technologies to convert carbon dioxide or biomass/plastic waste into renewable fuels and commodity chemicals. The Reisner Lab is an international and multidisciplinary environment where collaborations are strongly encouraged.

The assembly of photon-to-chemical conversion systems and devices will be achieved by integrating bespoke catalysts into state-of-the-art semiconductor or integrated photovoltaic photoabsorbers. A specific goal is to develop catalysis cascades based on synthetic and biological catalysts that will provide a new means to make complex organic products with high efficiency and selectivity. Advanced materials design, physical characterisation (in particular spectroscopy and microscopy) and device engineering will be employed to optimise the technologies and to assemble prototype devices.

We invite candidates that have (or expected to obtain) the equivalent of a UK first class Master's degree in one of the disciplines listed above to apply. These international studentships target the top candidates worldwide to join a multicultural team and will thus provide a 4-year maintenance grant and full tuition fees to home and international students.

To apply, please follow the on-line instructions at (application portal will open in early September 2023): <https://www.ch.cam.ac.uk/pgapp/how-apply>. The candidates should provide their motivation and specify their research interests when submitting their application.

The deadline for applications is the 24th of November 2023, when all documents including reference letters need to be submitted. It is thus recommended to start the submission process well in advance of the deadline.

Further information about research in the Reisner laboratory is available at: <http://www-reisner.ch.cam.ac.uk>

The University actively supports equality, diversity and inclusion and encourages applications from all sections of society.