

Green Greenwich:

Showcasing our University of Greenwich Community

Meet Professor Kevin Lam: Harnessing Electricity for Sustainable Solutions



ABOUT

Kevin Lam is a professor of synthetic electrochemistry at The University of Greenwich. Kevin Lam's research focuses on the use of electrochemistry as an "out of the box" tool to solve fundamental challenges. He has demonstrated rare interdisciplinarity and made significant contributions to disparate fields ranging from catalysis to oncology.

WORK

Kevin's research team is pioneering the concept of "electrifying chemistry," a transformative approach aimed at substituting toxic and costly chemicals with the abundant resource of electricity, notably sourced from renewable energy. By harnessing electricity instead of traditional chemicals they promote environmentally friendly, cost-effective, and safer practices.

In addition to their primary focus, they are engaged in a concurrent venture as part of a collaborative effort to develop a groundbreaking "DualFlow" battery, a multi-million pound programme funded by the EU. Unlike conventional batteries that reach full capacity and cease to accept further energy from renewable sources, their innovative design allows for continued utilisation of excess renewable energy. Once fully charged, their battery diverts surplus renewable energy toward the production of green hydrogen and essential pharmaceutical intermediates and compounds, including critical drugs like anti-HIV medications, pain relievers, and anaesthetics.

Their research endeavours has propelled their group and the University of Greenwich (UoG) to international recognition within the field, as evidenced by over 50 invited plenary talks delivered at prestigious conferences, universities, and corporations in the past three years. This recognition has garnered significant interest from the chemical industry, which is actively supporting their work through funding for PhD scholarships and research initiatives.

SDGs

