



PhD position – novel materials for electrocatalytic CO₂ reduction.

Applications are sought for a full-time PhD research position in the School of Chemical Sciences/NCSR in Dublin City University. The project is funded under the Science Foundation Ireland SIRG scheme.

Addressing the rising levels of CO₂ in the atmosphere is one of the defining challenges facing 21st century chemists. The electrocatalytic reduction of CO₂ offers a route to transform this greenhouse gas into useful C1 products such as industrial feedstocks and liquid fuels, thus reducing the environmental impact of fossil fuel use.

A 4-year PhD studentship, funded by SFI, is available in DCU working under the supervision of Dr. Jamie Walsh into novel catalytic systems for electrolytic CO₂ reduction using ultra-low-cost materials. The project spans the breadth of physical chemistry, encompassing the synthesis & characterisation of novel materials, their electrocatalysis, and their analysis using a combination of advanced electrochemical, spectroscopic and microscopic techniques unique to the lab of the project collaborator, Prof. Robert Forster. The final, optimised electrocatalytic system will be driven using solar energy. The project student will work closely with Dr. Walsh in the lab and will learn a very wide array of lab techniques, and the student will have the opportunity to present their work at national and international conferences.

The position is available from October 2016, or as soon as possible thereafter. The ideal candidate will have a 1:1 or 2:1 honours degree in chemistry or related discipline, preferably with a research MSc. The candidate should have a strong interest in environmental chemical applications, electrochemistry and analytical spectroscopy. Prior experience with organic synthesis and/or electrochemistry would be a major advantage. The project involves a short stay with collaborators in the University of Liverpool in year 4. Prospective candidates should contact Dr. Jamie Walsh for more information.

Prospective candidates should send a CV and a cover letter outlining their suitability for the role to Dr. Walsh by **17:00 on Friday 02/09/2016**. Applications and questions to: james.walsh@liverpool.ac.uk