

Applications are invited for a Research Fellow in Research Fellow in Physical & Materials electrochemistry for the following project:

Evaluating the potential of novel nickel/iron oxyhydroxide films as electrodes in industrial water electrolysis reactors

A fully funded 12 month postdoctoral research fellowship (with a possibility to extend to 24 months) is offered in the Trinity Electrochemistry & Electrocatalysis Group in Trinity College Dublin headed by Professor Mike Lyons.

Summary of project:

The major emphasis in the research group is the development and characterization of novel catalytic materials for water electrolysis reactors and fuel cells. The project has an industrial focus and is co-funded by Science Foundation Ireland through the Advanced Materials and Bioengineering Research Centre (AMBER) and an Industry partner. The research will be carried out both in the School of Chemistry and AMBER. Opportunities to visit the industrial partner laboratories as part of the project workpackage are anticipated as the project develops.

The project will examine the potential of iron doped nickel oxyhydroxide thin films as potential catalysts in alkaline water electrolysis cells and will involve the use of electrochemical, spectroscopic and microscopic analysis of the electrode materials. These metal oxyhydroxide layers are generated via oxidative potential cycling of a nickel metal electrode in alkaline solution. The Trinity Electrochemistry group is well equipped with a variety of electrochemical workstations and the materials characterization facilities within AMBER are world class.

Requirements: The ideal candidate will have a PhD in a relevant discipline.

Desired abilities: The candidate must have significant prior experience in physical electrochemistry (CV/Tafel Plot analysis/EIS/ RRDE voltammetry) and materials characterization (Raman Spectroscopy/XPS/XRD).

How to Apply: Send a CV including the names and contact details of two referees to Prof. Mike Lyons (MELYONS@tcd.ie), School of Chemistry, Trinity College Dublin.

Positions will remain open until filled but preferred start date is *June/July 2022*. Only short-listed applications will be acknowledged.

This position is funded by the SFI funded Advanced Materials and BioEngineering Research Centre (AMBER).

This position is funded by AMBER, SFI Research Centre for Advanced Materials and BioEngineering Research & CRANN Institute. The AMBER research centre, as a community of researchers, welcomes its responsibility to provide equal opportunities for all. We are actively seeking diversity in our research teams and particularly encourage applications from underrepresented groups.