

Speaker: Dr Robert O'Connor, DCU, IE

Title: 'Photoelectrochemical Water Splitting for Hydrogen Fuel'.

Abstract:

Photo-electrochemical water splitting is a potential route to renewable hydrogen fuel, with no carbon emissions. The technique involves the use of a semiconductor photocatalyst to drive the reduction of water and generate hydrogen under illumination. In this talk I will give a broad introduction to the technique and the ideal characteristics of a semiconductor photocatalyst. I will also address the difficulties in finding suitable materials and some novel experiments which have been carried out in the search for new materials, as well as some of the experiments we have undertaken at DCU to help improve the reliability of solar water splitting systems.