

Professor Anthony O'Mullane



Qualifications: BSc Chemistry, PD. Electrochemistry (University College Cork, Ireland)

Current appointment: Professor, Queensland University of Technology

Research areas

My research group focuses on the electrochemical synthesis and detailed characterisation of metallic, metal oxide and semiconducting nanostructured materials and their application as electrocatalysts, photocatalysts and sensing layers. We are particularly interested in electrochemical water splitting and fuel cell relevant electrocatalytic reactions. We are also interested in the investigation of liquid metals, room temperature gas sensing as well as Li metal and multivalent ion batteries. I have published 186 peer reviewed papers in international journals which have been cited > 7000 times.

Professional Memberships and Fellowships

Chair of the Electrochemistry Division of the Royal Australian Chemical Institute (RACI) (2013-2017)

Vice-chair of the Physical Electrochemistry Division of the ISE (2017-2019)

Member, CChem, Fellow of the RACI

Fellow of the Royal Society of Chemistry (FRSC)

Member of the International Society of Electrochemistry

Motivation for position of Chair-elect of the Physical Electrochemistry Division of the ISE

I have been actively involved in electrochemistry since completing my PhD in 2001 and thoroughly enjoy contributing to the wider research community via contributing to professional bodies, publishing and reviewing. To date I have shown this locally by serving as Secretary of the Electrochemistry Division of the Royal Australian Chemical Institute (EDRACI) from 2010-2012 and later served as the Chair from 2013-2017. This involved conference organisation and engagement with the ISE for topical meetings in Perth in 2012 and in Auckland in 2015. I was also a co-guest editor for a special issue in *Electrochimica Acta* based on the 19th topical ISE meeting. In addition, I chaired the selection panel for the ISE Green Electrochemistry prize for 2016 and 2018. I have been a member of the ISE for over 10 years and particularly value being a member of this truly international society. I have also served as Vice-chair for the Physical Electrochemistry Division from 2017-2019 and am aware of the commitment that is required and the opportunities available in such a position

There has been a recent upsurge in electrochemical research in Australia and New Zealand as evidenced by the creation of the Australia and New Zealand Region and therefore I aim to continue this momentum if successful with my application. In an international context I am particularly keen in identifying emerging topics in the Physical Electrochemistry area and liaising with other Divisions on topics of similar interests whether that occurs at the Annual or Topical meetings of the ISE. I am also passionate about getting younger electrochemists engaged with valuable professional societies such as the ISE and would look for ways to develop and sustain relationships with the younger cohort of the membership as well as promoting the benefits of membership of the ISE. I am also keen on expanding electrochemical science to researchers who endure barriers to physically attending meetings and their networking/collaborative benefits. This can be addressed with the recent move to virtual online platforms and I believe this will be a key aspect of future meetings in the current global situation. The ISE can play a significant role in breaking down these barriers and promoting electrochemistry to an even wider and more diverse global community. To conclude I very much welcome the opportunity to make a more significant contribution to the ISE.