

PhD Scholarships on Water Electrolysis at UNSW

We are looking for a PhD candidate to fill in an Australian Research Council-funded project on Electrochemical Water Splitting in the School of Chemistry of University of New South Wales (Sydney, Australia) and ARC Training Centre for the Global Hydrogen Economy.

PhD scholarships will be available for a period of three and a half (3.5) years. The PhD stipend rate is **\$33,413 per annum tax-free**. International applicants are encouraged to apply and maybe eligible for Tuition Fee Scholarship. See [Postgraduate Research Scholarship](#) (for UNSW applicants).

Please apply if you have a passion for research and wish to pursue a career in the fields of clean energy and sustainability such as:

- ✓ Electrochemistry and electrocatalysis
- ✓ Green hydrogen technologies
- ✓ Energy conversion and Storage

The successful applicant will:

- ✓ Synthesize efficient electrocatalysts based on noble metals and nonprecious metals
- ✓ Test the electrocatalytic performance in electrochemical cells and water electrolyzers
- ✓ Evaluate electrocatalysts structures via advanced characterization techniques

Qualifications:

- ✓ Master's degree or 1st Class Honours Degree in Chemistry, Electrochemistry, Chemical Engineering, Materials Science, or similar disciplines

Desired skills:

- ✓ Knowledge of electrochemical systems, inorganic synthesis, (electro)catalytic reactions
- ✓ Familiar with energy conversion and storage technologies such hydrogen fuel cell, electrolyser, or batteries
- ✓ Demonstrated experience in conducting research projects and publishing research papers in respected journals
- ✓ Excellent spoken and written English

The positions are available immediately. Candidates interested in these positions are welcome to contact Prof Chuan Zhao (chuan.zhao@unsw.edu.au) or Dr Kamran Dastafkan (k.dastafkan@unsw.edu.au) via email, and attach a CV, cover letter, and other relevant information.

ABOUT UNSW

The University of New South Wales (UNSW) is the global university in Australia. With high rankings of 4th in Australia and 44th in the world (2021 QS World University Rankings), UNSW is one of the leading universities worldwide. The School of Chemistry is in the UNSW Kensington Campus, within easy reach of Sydney's CBD, sandy beaches, and national parks. Sydney is also consistently rated as one of the world's most liveable cities.

ABOUT THE ARC TRAINING CENTRE FOR THE GLOBAL HYDROGEN ECONOMY (GLOBH2E)

The Australian Research Council (ARC) Training Centre for the Global Hydrogen Economy brings together 6 leading Universities with UNSW as the administrating node, 4 international research institutions and 13 companies to work collaboratively in the areas of chemical, safety and manufacturing engineering, materials science and theoretical modelling, social science and energy market analysis to develop new, cost-effective hydrogen technologies and new research-based engineering and business skills to facilitate and support the transformation of Australia's industry into a hydrogen powerhouse. The Centre is established under the ARC Industrial Transformation Research Program to train Australia's future generation of industry focused researchers to implement and commercialised advanced hydrogen technologies and develop business frameworks and safety standards.

The GlobHE centre will focus on five key themes that will act as enablers. The first two focus on the production, storage and utilisation of hydrogen; the third on developing the right safety systems and controls; and the final two concentrate on commercialisation, public acceptance and the skills industry and the broader community will require in a hydrogen economy.

ABOUT THE NANOELECTROCHEMISTRY GROUP

The NanoElectroChemistry Lab in the School of Chemistry at UNSW is led by Professor Chuan Zhao and composed of ~20 enthusiastic researchers from 8 countries. The group is one of the leaders in electrochemistry and nanomaterials in Australia and publishes regularly in highly respected journals. The group also has strong links with the industry and has several patents successfully commercialised.