



UNSW
SYDNEY



Hydrogen Fuel Cells

Hydrogen Fuel Cells consume hydrogen and air to produce electricity and water, and are a cornerstone technology for a greener and more sustainable future. The key issue in achieving wide-scale commercialisation is the reduction of cost.

Competitive advantage

- Zero-CO₂ emission technology
- In-house expertise exists across all scientific and engineering requirements to design and test a stack
- Low-cost, Earth-abundant non-precious metal electrodes

Impact

- Accelerating the commercialisation of low-cost hydrogen fuel cells
- Enhancing the performance of hydrogen fuel cells improves durability and efficiency

Successful applications

- Combining novel electrodes and membrane in hydrogen fuel cells
- Assessing the electrochemical performances of novel catalysts in electrochemical devices

Capabilities and facilities

- Expertise in fuel cell catalysts development and diagnostic techniques
- State-of-the-art hydrogen laboratory
- In-house, custom-made manufacturing of membrane electrode assembly
- Testing of hydrogen fuel cells with several commercial fuel-cell testers
- In situ and operando testing capabilities

Our partner

- Kohodo Hydrogen Energy Co. Ltd

More Information

Professor Chuan Zhao

School of Chemistry

T: +61 (0) 2 9385 4645

E: chuan.zhao@unsw.edu.au

UNSW Knowledge Exchange

knowledge.exchange@unsw.edu.au

www.capabilities.unsw.edu.au

+61 (2) 9385 5008