



RESEARCH FELLOW

DEPARTMENT/UNIT	School of Chemistry
FACULTY/DIVISION	Faculty of Science
CLASSIFICATION	Level A
DESIGNATED CAMPUS OR LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at www.monash.edu.

The five Schools of the **Faculty of Science** offer a large and diverse range of disciplines in undergraduate and postgraduate courses. Ten Schools from other university faculties contribute to science teaching at all levels, allowing students to choose their studies from physical, biological, biomedical, behavioural, environmental, mathematical and computer sciences. The Faculty of Science has a strong research reputation. The Faculty's research spans the theoretical to the applied, contributes to new knowledge and technologies, and challenges how we interact with the world. To learn more about the Faculty of Science, please visit our website: www.monash.edu/science.

The **School of Chemistry** (www.monash.edu/science/schools/chemistry) is located in the Faculty of Science and is one of the leading Chemistry Schools in Australia (as per national benchmarking statistics) with an international reputation for its quality research programs and postgraduate training. The School has within it, the Centre for Green Chemistry, Water Studies Centre, Centre for Biospectroscopy, a node of the ARC Centre for Electromaterials Science and members associated with two Cooperative Research Centres, a node of the ARC Centre of Excellence for Enabling Eco-Efficient Beneficiation of Minerals. The objectives of the School are to undertake and publish high quality research, promote industry and government engagement and to provide internationally recognized programs in Chemistry for undergraduate and postgraduate students. The School of Chemistry is taking a lead role in Monash's partnership with the Federal Government in the development of Green Chemical Futures (GCF) - a \$75 million investment in the future of chemical sciences. The long-term objective of the GCF initiative is to produce a pipeline for the technologies and resources needed by an industry striving for a lower environmental footprint and to produce chemistry graduates of the highest calibre armed with knowledge that will help transform industry into the future.

POSITION PURPOSE

A Level A research-only academic is expected to contribute towards the research effort of the University and to develop their research expertise through the pursuit of defined projects relevant to the particular field of research.

The successful candidate will work on an Australian Research Council funded project (DP220100316 - Medium temperature electrolysis for low-cost carbon dioxide utilization). The project involves working with a multidisciplinary research team, with strong interactions with other Australian and Overseas research groups and institutions. This Level A research-only position will focus on the development of medium temperature electrolyzers for efficient utilisation of carbon dioxide with a low cost. These electrolyzers will ultimately be integrated with carbon capture technologies to directly utilize captured carbon dioxide with high energy efficiency. Other responsibilities of the Research Fellow will include the setup and maintenance of laboratory equipment and other duties assigned by the leaders of the project.

Reporting Line: The position reports to the Associate Professor in the School of Chemistry and the Professor of the Department of Chemical and Biological Engineering, and work will be undertaken with a high degree of autonomy under broad supervision

Supervisory Responsibilities: Not applicable

Financial Delegation: Not applicable

Budgetary Responsibilities: Not applicable

KEY RESPONSIBILITIES

Specific duties required of a Level A research-only academic may include:

1. The conduct of research under limited supervision either as a member of a team or, where appropriate, independently and the production or contribution to the production of conference and seminar papers and publications from that research
2. Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise
3. Limited administrative functions primarily connected with the area of research of the academic
4. Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff
5. Occasional contributions to teaching in relation to their research project(s)
6. Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures
7. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and/or membership of a limited number of committees
8. Advice within the field of the staff member's research to postgraduate students
9. Other duties as directed from time to time

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - A doctoral qualification in the electrochemistry, electrochemical engineering or a closely related field.

Knowledge and Skills

2. Demonstrated analytical and manuscript preparation skills; including a strong track record of refereed research publications
3. Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
4. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
5. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents
6. A demonstrated awareness of the principles of confidentiality, privacy and information handling
7. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
8. Demonstrated computer literacy and proficiency in the production of high level work using software such as Microsoft Office applications and specified University software programs, with the capability and willingness to learn new packages as appropriate
9. Demonstrated expertise in PEM fuel cells/electrolysers, ideally high temperature ones
10. Strong expertise in electrocatalysis or electrochemical engineering
11. Strong expertise in electrochemical reduction of carbon dioxide

OTHER JOB RELATED INFORMATION

- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.