



Position Description - Postdoctoral Research Assistant

Position Details

Position Title:	Postdoctoral Research Assistant in Computational Liquid Metal Chemistry
College/Portfolio:	STEM College
School/Group:	School of Science
Campus Location:	Based at the Melbourne City campus but may be required to work and/or be based at other campuses of the University.
Classification:	Academic Level A
Employment Type:	Fixed Term (Research)
Time Fraction:	1.0

RMIT University

RMIT is a multi-sector university of technology, design and enterprise with more than 96,000 students and close to 10,000 staff globally. The University's mission is to help shape the world through research, innovation and engagement, and to create transformative experiences for students to prepare them for life and work.

<https://www.rmit.edu.au/about>

<https://www.universitiesaustralia.edu.au/university/rmit-university/>

Our three main campuses in Melbourne are located in the heart of the City, Brunswick and Bundoora. Other locations include Point Cook, Hamilton and Bendigo, two campuses in Vietnam (Hanoi and Ho Chi Minh City) and a centre in Barcelona, Spain. RMIT is a truly global university.

<https://www.rmit.edu.au/about/our-locations-and-facilities>

We are also committed to redefining our relationship in working with, and supporting, Indigenous self-determination. Our goal is to achieve lasting transformation by maturing our values, culture, policy and structures in a way that embeds reconciliation in everything we do. We are changing our ways of knowing, working and being to support sustainable reconciliation and activate a relationship between Indigenous and non-Indigenous staff, students and community. Our three campuses in Melbourne (City, Brunswick and Bundoora campuses) are located on the unceded lands of the people of the Woi Wurrung and Boon Wurrung language groups of the eastern Kulin Nation.

Why work at RMIT University

Our people make everything at the University possible. We encourage new approaches to work and learning, stimulating change to drive positive impact. Find out more about working at RMIT University, what we stand for and why we are an Employer of Choice.

<https://www.rmit.edu.au/careers>

We want to attract those who will make a difference. View RMIT's impressive standings in university rankings.

<https://www.rmit.edu.au/about/facts-figures/reputation-and-rankings>

STEM College

The STEM College holds a leading position and expertise in the science, technology, engineering, mathematics and health (STEM) fields. We are uniquely positioned to influence and partner with industry, as never before.

STEM College is a community of exceptional STEM researchers, teachers, inventors, designers and game-changers, supported by talented professional staff. We offer higher education programs across all STEM disciplines at the Bachelor, Master and PhD levels, and ensure our students experience an education that is work-aligned and life-changing.

The College is renowned for its exemplary research in many STEM areas including advanced manufacturing and design; computing technologies; health innovation and translational medicine; nano materials and devices; and sustainable systems. Our brilliant researchers attract funding from government and industry sources.

Industry is at the heart of what we do. It ensures our research has real world impact, and our students are truly work-ready. Under the leadership of DVC STEM College & Vice President, Digital Innovation, we have established new hubs of industry-connected digital innovation and endeavour and are engaging with global STEM organisations at scale.

Our diversity and shared values empower our work, and we are proud of the College's inclusive, caring culture. We offer a safe, dynamic work environment, and support every member of our community to achieve their potential. The College appointed Victoria's first ever Dean of STEM, Diversity & Inclusion in 2020, and this role drives gender equity, diversity and inclusion strategies across the College.

STEM College employs 1,000 staff who deliver onshore and offshore programs to approximately 20,000 students.

We are here to positively impact the world and create the next generation of STEM leaders.

www.rmit.edu.au/seh

School of Science

The School of Science delivers excellence in applied research and education, engaging in strong impactful industry partnerships and producing skilled, industry-ready graduates.

The School employs over 120 academic and 60 FTE research staff across five academic Disciplines (Applied Chemistry and Environmental Sciences; Biosciences and Food Technology; Geospatial Sciences, Mathematical Sciences; Physics).

The School has a diverse research portfolio across science and mathematics with international research excellence in quantum science technologies, advanced materials chemistry and catalysis solutions and in water science, systems and sustainability; in addition to emerging strengths in geospatial technologies, mathematics and future food technologies. Annual research income for the School is around \$20 million and the School has just under 400 Higher Degree by Research students.

The School delivers high-quality applied, authentic and active industry-engaged education and teaching to over 2,600 undergraduate- and postgraduate-taught students across 10 ongoing undergraduate and 8 postgraduate programs, in addition to offshore partnerships and delivery, including in China and Vietnam.

Across learning and teaching and research, the School partners actively with industry and external stakeholders in Australia and internationally, delivering innovation, research translation and providing knowledge and real-world solutions for societal good and to enhance sustainable development. The School is strongly committed to promoting and enhancing diversity and inclusion and seeks also to activate and develop its commitment to reconciliation.

Details of the School can be found at: <https://www.rmit.edu.au/about/schools-colleges/science>

Position Summary

The Postdoctoral Research Assistant will carry out independent and/or team research as part of the ARC Discovery Project DP240101215 on 'Liquid Metal Interfaces – A Novel Platform for Catalysis', with a focus on the computational aspects of the project. You will work under the supervision of CI Professor Michelle Spencer, leader of the Computational Materials Chemistry Group and will be expected to collaborate with the other CIs on the grant (Prof. Torben Daeneke, A/Prof. Rosalie Hocking and A/Prof. Ken Chiang). It is expected that you will work with an increasing degree of autonomy as skills and experience develop and assist in the supervision of research students.

Reporting Line

Reports to: Professor Michelle Spencer

Organisational Accountabilities

RMIT University is committed to the health, safety and wellbeing of its staff. RMIT and its staff must comply with a range of statutory requirements, including equal opportunity, occupational health and safety, privacy and trade practice. RMIT also expects staff to comply with its policy and procedures, which relate to statutory requirements and our ways of working.

Appointees are accountable for completing training on these matters and ensuring their knowledge and the knowledge of their staff is up to date.

Key Accountabilities

1. Conduct research/scholarly activities under limited supervision either independently or as a member of a team including: publishing and presenting research outputs at conferences and research forums; contributing to external research funding submissions; participating in supervision of higher degree by research candidates.
2. Undertake administration related to the position.

Key Selection Criteria

1. Evidence of experience in performing density functional theory calculations and *ab initio* molecular dynamics simulations using VASP or a related code to calculate the structure, properties and surface reactions of materials for catalysis.
2. Demonstrated expertise in performing calculations using high performance supercomputing facilities and data analysis related to VASP or similar calculations. This includes analysing and interpreting AIMD simulation data, and structural, electronic, surface and other related properties.
3. Evidence of research outputs including publications, conference contributions and/or technical reports in the field.
4. Ability to generate alternative funding projects through effective liaison with industry and government.
5. Ability to work autonomously whilst displaying a strong commitment to work in a team environment, including the demonstrated ability to confidently and effectively work with colleagues, project team leaders, and industry partners.
6. Demonstrated ability to meet deadlines and effectively manage varying workloads and respond to changing priorities as required.
7. Excellent interpersonal and communications skills appropriate for interacting with higher degree by research candidates, staff and industry.

Preferable attributes include:

8. Experience in characterisation techniques, such as XAS, is an advantage but not essential.

Qualifications

Mandatory:

- PhD in physics, chemistry, materials science or related field

Note: Appointment to this position is subject to passing a Working with Children Check and other checks as required by the specific role. Maintaining a valid Working With Children Check is a condition of employment at RMIT.