



POSITION DESCRIPTION

School of Chemistry
Faculty of Science

Research Fellow in the Synthesis of Organic Excitonic Materials

POSITION NO	0048932
CLASSIFICATION	Level A
SALARY	\$72,083 - \$97,812 p.a. (pro rata for part-time)
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full-time (fixed term) position available for 24 months Flexible working arrangements are available
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Dr Wallace Wong Tel +61 3 9035 6154 Email wwhwong@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Position Summary

The appointee will join a multidisciplinary research team within the ARC Centre of Excellence in Exciton Science (ACEx). ACEx researchers interact and collaborate regularly with other research groups and institutions working in the area of exciton science across Australia and internationally.

The overall mission of ACEx is to examine and manipulate the way light energy is absorbed, transported and transformed in advanced molecular materials. The appointee to this position will contribute to the organic materials development aspects of ACEx.

Key tasks of the appointee include synthesis and development of materials that contribute to the milestones of the research themes within ACEx, liaise and have frequent discussions with collaborators and prepare reports on research progress. The successful applicant is expected to be involved in supervision of undergraduate and postgraduate research projects and take on a leadership role in the day-to-day operations of the organic synthesis laboratory. It is desirable that the applicant has some prior experience in advanced spectroscopic techniques and/or device fabrication and testing.

Information about the research group of Dr Wong, ACEx and this position is available at www.organotronics.com and www.excitonscience.com respectively. The full position description is available through the application link on the ACEx webpage.

1. Key Responsibilities

The position description should be read alongside [Academic Career Benchmarks and Indicators](#) and the [Academic Performance Framework](#).

A level A academic is acquiring skills and building academic achievements (oriented towards the benchmarks).

1.1 RESEARCH AND RESEARCH TRAINING

- ▶ Design and synthesize new materials for the ARC Centre of Excellence in Exciton Science (ACEx) in line with the themes and milestones of the centre.
- ▶ Liaison and collaboration with ACEx partners.
- ▶ Conduct original research
- ▶ Write reports and journal articles on experiments performed and present the findings to students and colleagues
- ▶ Oversee postgraduate and undergraduate researchers in the Laboratory and agree to be assigned a role of second supervisor to PhD students
- ▶ Organise and contribute to weekly research group meetings
- ▶ Assume responsibility for the maintenance and correct use of the specialist equipment in the Laboratory
- ▶ Prepare a rota of group responsibilities
- ▶ Collect solvents, liquid nitrogen, dry ice and chemicals from the stores
- ▶ Supervision of the cleaning and general maintenance of the Laboratory
- ▶ Check risk assessments of other co-workers- countersign and approve risk assessments that will be carried out by other PhD, postdoctoral workers and undergraduates in their execution of daily experiments. The risk assessment protocol is a necessary condition of safe working in the School of Chemistry and the procedure is carefully explained to each co-worker. Only postdoctoral and academic staff members may countersign such assessments
- ▶ Supervision of weekly clean-ups in the Laboratory

1.2 OTHER DUTIES

- ▶ Other tasks and duties as required
- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5 or 6.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ PhD or equivalent in synthetic organic materials chemistry;
- ▶ Excellent written and oral communication skills;
- ▶ A publication record in peer reviewed scientific journals;
- ▶ Demonstrated organisational skills, time management and ability to work to priorities;
- ▶ Demonstrated problem solving abilities;
- ▶ The ability to work independently and as a member of a team.
- ▶ Demonstrated experience working in a laboratory environment

2.2 DESIRABLE

The successful applicant will likely be able to demonstrate one or more of the following:

- ▶ Knowledge in materials applications including light harvesting, organic electronics and/or chemical sensing;
- ▶ Knowledge in supramolecular chemistry, hybrid materials, interfacial chemistry and/or surface chemistry.
- ▶ Experience in collaboration with other disciplines, including theory, spectroscopy and device physics.
- ▶ Experience in mentoring students and managing a small research team.
- ▶ Experience in the characterisation of light harvesting materials, in particular, advanced spectroscopic techniques.
- ▶ Experience in device fabrication and testing.

3. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University's People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual

harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Growing Esteem.

4. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<http://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 SCHOOL OF CHEMISTRY

The School of Chemistry has 24 teaching/research staff, 30 professional staff and over 30 research only staff. It is one of the largest budgeting departments in the university. The school teaches 1700 first year students, 300 second year students and 100 third year students. the honours class (4th year) is about 35 students and 105 MSc and PhD students are enrolled in research degrees and carry out research projects in one of the many advanced laboratories. The research in the school is supported by skilled technical staff who operate, maintain and develop complex instrumentation and equipment. Further information about the school is available at <http://www.chemistry.unimelb.edu.au>

5.2 ARC CENTRE OF EXCELLENCE IN EXCITON SCIENCE

The ARC Centre of Excellence in Exciton Science (ACEx) is a newly established Centre research centre linking the University of Melbourne, Monash University, RMIT University, UNSW and the University of Sydney. Its partners include: The Defence Science and Technology Group, The Reserve Bank of Australia and CSIRO. The primary mission of ACEx is to manipulate the way light energy is absorbed, transported and transformed in advanced molecular materials. The Centre programmes span high-throughput computational screening, single molecule photochemistry and ultrafast spectroscopy and embrace innovative outreach and commercial translation activities. The Centre plans to capture the knowledge generated as new intellectual property, materials processing know-how, high-impact publications and through the creation of new employment opportunities. The expected outcomes and benefits include new Australian technologies in solar energy conversion, energy-efficient lighting and displays, security labelling and optical sensor platforms for defence.

Further information about the school is available at <http://www.excitonscience.com>.

5.3 FACULTY OF SCIENCE

<https://science.unimelb.edu.au>

Science at the University of Melbourne is among the most highly ranked Faculties of Science in Australia*. Science is defined by its research excellence in the physical and life sciences and is at the forefront of research addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

We have over 150 years of experience in pioneering scientific thinking and analysis, leading to outstanding teaching and learning and offer a curriculum based on highly relevant research, which empowers our STEM students and graduates to understand and address complexities that impact real world issues and the challenges of tomorrow.

We aspire to engage the broader community with the impact that Science has on our everyday lives. Through the strength of our internships and research project offerings, our students are provided opportunities to engage with industry partners to solve real-world issues.

The Faculty of Science has over 53,000 alumni and is one of the largest faculties in the University comprising seven schools: BioSciences, Chemistry, Earth Sciences, Ecosystem and Forest Sciences, Geography, Mathematics and Statistics, and Physics.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Office for Environmental Programs, Australian Mathematical Sciences Institute (AMSI) and home to numerous Centres.

Science manages more than \$315 million of income per annum, with a staff base in the order of 290 professional staff, and more than 630 academic staff.

We offer a range of undergraduate, honours, graduate and research degrees; enrolling over 9,700 undergraduate and 2,400 graduate students. The Faculty of Science is the custodial Faculty for the BSc (Bachelor of Science). The Faculty of Science is a leader in research, contributing approximately \$80 million in HERDC income per annum. The Faculty of Science is highly research focused, performing strongly in the ARC competitive grants schemes, often out-performing the national average. The Faculty of Science is currently growing its competitiveness and standing in the NHMRC space.

**Based on 2018-19 subject rankings by QS and Time Higher Education*

5.4 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>.

5.5 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs.

<http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- ▶ Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- ▶ Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.
- ▶ Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

5.6 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <http://www.unimelb.edu.au/governance>