POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow: Spectroscopist
Organisation Unit: School of Chemistry & Molecular Biosciences
Position Number: New
Type of Employment: Full-time, fixed-term for 2 years
Classification: Academic Research Level A

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

UQ ranks in the world’s top universities, as measured by several key independent ranking, including the CWTS Leiden Ranking (32), the Performance Ranking of Scientific Papers for World Universities (43), the US News Best Global Universities Rankings (42), QS World University Rankings (48), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (69). Excluding the award component, UQ is now ranked 45th in the world in the ARWU, and is one of the only two Australian universities to be included in the global top 50.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland’s highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia’s Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 52,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 15,400 international students from 135 countries, adding to its proud 250,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a $1.75 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and
biomedical sciences, sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of $11 billion+ (see http://uniquest.com.au/our-track-record).

UQ has a rapidly growing record of attracting philanthropic support for its activities and this will be a strategic focus going forward.

**Organisational Environment**

The Centre for Organic Photonics & Electronics (COPE) draws together expertise from Chemistry and Physics in a combined facility. COPE has >30 senior research staff, postdoctoral fellows and research students and is housed in laboratories on the 9th Floor of the Chemistry Building that include state-of-the-art synthesis and materials characterisation facilities; a Class 1000 clean room incorporating gloveboxes with integral evaporators for device fabrication; and prototype measurement capability. Photo-physical characterisation facilities include broadband transient absorption spectroscopy (femtosecond to millisecond), fluorescence upconversion spectroscopy, photo-induced absorption spectroscopy, photoluminescence quantum yield, steady state fluorimeters, and UV-Vis absorption. The laboratory is located on the St. Lucia campus, one of the most spacious and attractive university campuses in Australia.

The Centre has extensive experimental and theoretical research programs in optoelectronic organic materials for organic light emitting diodes, photovoltaics, photodiodes, and organic chemosensors. The Centre plans to expand the organic optoelectronic materials research program to underpin the sensors application work.

Information about the Centre may be accessed on the Centre's web site at http://cope.centre.uq.edu.au/.

**Information for Prospective Staff**

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - http://www.uq.edu.au/current-staff/working-at-uq

The University of Queensland Enterprise Agreement outlines the position classification standards for Levels A to E.

**DUTY STATEMENT**

**Primary Purpose of Position**

The main area of research will be understanding the photo-physical properties of luminescent organic materials for organic light-emitting diodes. The materials classes range from small molecules to dendrimers and polymers with a focus on using time-resolved optical spectroscopy to understand and characterise the processes relevant to emission.
Duties

Duties and responsibilities include, but are not limited to:

**Research**
- Conduct research in the area assigned by the supervisor.
- Preparation of scholarly papers, progress reports and presentations of experimental findings.
- Work with colleagues in the development and execution of research projects, including laboratory supervision of undergraduate and postgraduate students as required.
- Participation in activities associated with running the laboratory, such as but not limited to laboratory duty, maintenance of equipment, preparation of risk assessments and maintenance of databases and records.
- Accurately record experimental details and results to the standard required by your supervisor.

**Service and Engagement**
- Attend and contribute towards Centre meetings
- Any other duties as reasonably directed by your supervisor

**Other**
Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:
- the University’s Code of Conduct
- requirements of the Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Institute/School
- the adoption of sustainable practices in all work activities and compliance with associated legislation and related University sustainability responsibilities and procedures
- requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related responsibilities and procedures developed by the University

**Organisational Relationships**
The position reports to the Director, Centre for Organic Photonics and Electronics.
SELECTION CRITERIA

- Hold a PhD in a relevant area of chemistry or physics (spectroscopy).
- Demonstrated competence/success in the discipline areas listed above as judged by publications (or papers in press) in peer reviewed journals.
- Demonstrated experience of time-resolved spectroscopic methods, data analysis, and interpretation.
- Ability to plan and execute experiments successfully and safely with minimal supervision.
- Demonstrated ability to maintain reliable records of work carried out.
- Ability to work collaboratively with colleagues.
- High-level inter-personal, written and verbal communication skills.
- Experience of organic thin film fabrication and characterisation, using such methods such as spin-coating would be highly regarded.
- Demonstrated knowledge of organic optoelectronics would be desirable.
- Awareness of current trends and developments in the optoelectronics literature would be highly regarded.
- The ability to work supportively in a laboratory environment with junior co-workers would be desirable.
- The ability to present work to other interdisciplinary scientists in the field in a clear and concise manner would be highly regarded.

Qualification Verification
An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.

The University of Queensland values diversity and inclusion and actively encourages applications from those who bring diversity to the University. Please refer to the University's Diversity and Inclusion webpage (http://www.uq.edu.au/equity) for further information and points of contact if you require additional support.

Accessibility requirements and/or adjustments can be directed to (recruitment@uq.edu.au).