POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow: OLED Device Physicist
Organisation Unit: School of Chemistry and Molecular Biosciences
Position Number: 3036303
Type of Employment: Fixed-term, Full-time for three years, commencing 17 September 2018
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 Performance Ranking of Scientific Papers for World Universities (43), the US News Best Global Universities Rankings (52), QS World University Rankings (47), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (65). UQ again topped the nation in the prestigious Nature Index and our Life Sciences subject field ranking in the Academic Ranking of World Universities was the highest in Australia at 20.

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 50,000-plus strong student community includes more than 13,000 postgraduate scholars and more than 12,000 international students from 144 countries, adding to its proud 240,000-plus alumni. The University has about 7,000 academic and professional staff and a $1.8 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 $11billion+ (see http://unisequest.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.

Faculty of Science

The Faculty of Science is recognised as a powerhouse for some of the world’s leading scientists, teachers, science programs and commercial outcomes. The Faculty is one of the largest Science groupings in Australia, with approximately 1100 (equivalent full-time) staff, and about 7500 (equivalent full-time) students.

Throughout its Schools and Centres, the Faculty unites the disciplines of agriculture and animals, biomedical and biological sciences, chemistry, earth sciences, food sciences, geography, marine science, maths and physics, the environment and veterinary science.

With strong links between the enabling and applied sciences, UQ researchers and graduates are working on a wide range of groundbreaking projects from the molecular characterisation of drug resistant bacteria that affect piglets through to finding better treatments for illness and rehabilitation of the environment.

Information about the Faculty may be accessed on the Faculty’s web site: http://www.science.uq.edu.au/

Centre for Organic Photonics & Electronics (COPE)

The Centre for Organic Photonics & Electronics (COPE) draws together expertise from Chemistry and Physics in a combined facility (www.physics.uq.edu.au/cope). COPE has more than 20 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. 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 chemisensors. The Centre plans to expand the organic optoelectronic materials research program to underpin the device and applications work.

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

This position will conduct research into the fabrication, testing and analysis of organic light-emitting diodes for solid-state lighting, and will write research grant applications and undertake research projects in collaboration with colleagues.

Duties

Duties and responsibilities include, but are not limited to:

Research
- Conduct research and publish scholarly papers.
- Work with colleagues, postgraduate and undergraduate students in undertaking research projects.
- Work with colleagues in writing research grant applications.
- Postgraduate student supervision.

Service and Engagement
- Foster the School’s relations with industry, government departments, professional bodies and the wider community.
- 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 Professor Paul Burn, ARC Australian Laureate Fellow.
SELECTION CRITERIA

Essential
- PhD or equivalent in physics or a related discipline.
- Recent and extensive experience in the fabrication and testing of organic semiconductor devices, particularly organic light-emitting diodes and thermal evaporation processes and equipment.
- Prior Clean Room experience.
- Demonstrated experience in physical, electrical, and optoelectronic characterisation of organic light-emitting diodes and an in-depth understanding of electroluminescence, quenching effects and charge transport.
- Proven ability to demonstrate competence/success in the above areas shown through publications (or papers in press) in peer reviewed journals.
- Proven ability to plan and execute experiments successfully and safely with minimal supervision, with the ability to take accurate and reliable records of work carried out.
- Possess a general broad working knowledge of modern organic optoelectronics, and the ability to convey this understanding. (Particular evidence will be sought of deeper understanding of the applicant’s previous fields of research and evidence of independent intellectual and practical contributions to previous research projects - as evidence that such attributes can be brought to bear on the present project).
- Demonstrated ability to work collaboratively with colleagues;
- High-level communication, inter-personal and communication skills

Desirable
- Awareness of current important trends and developments reported in the recent “organic light-emitting diode” literature.
- The ability to solution-process organic semiconductor materials.
- The ability to present work to other scientists in the field in a clear and concise manner.
- Developed industry liaisons and professional contacts.
- Experience in liaising and collaborating with external agencies to develop co-operative research initiatives.

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 the contact person listed in the job advertisement.