



## POSITION DESCRIPTION

School of Physics  
Faculty of Science

### Research Fellow in Nano-optics

POSITION NO	0039264
CLASSIFICATION	Level A
SALARY	\$64,863 - \$88,016 per annum (*81,998 PhD Entry level)
SUPERANNUATION	Employer contribution of 9.5%
EMPLOYMENT TYPE	Full-time (fixed-term) position Fixed term contract type: Research Available for 3 years
OTHER BENEFITS	<a href="http://hr.unimelb.edu.au/careers/working/benefits">hr.unimelb.edu.au/careers/working/benefits</a>
CURRENT OCCUPANT	New
HOW TO APPLY	Online applications are preferred. Go to <a href="http://www.jobs.unimelb.edu.au">www.jobs.unimelb.edu.au</a> and use the Job Search screen to find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Professor Kenneth Crozier Tel +61 3 83442249 Email <a href="mailto:kcrozier@unimelb.edu.au">kcrozier@unimelb.edu.au</a>  <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our websites:

[hr.unimelb.edu.au/careers](http://hr.unimelb.edu.au/careers)  
[joining.unimelb.edu.au](http://joining.unimelb.edu.au)

## ***Position Summary***

This position involves nano-optics research under the direction of Professor Kenneth Crozier at the University of Melbourne. The position will involve the experimental realisation of new nano-optical devices and techniques. Professor Crozier's group's recent activities in this field have included the demonstration of metasurfaces based on high-index dielectric materials, optical nanotweezers based on plasmonics and silicon photonics, quantum plasmonics, single molecule spectroscopy using optical nanoantennas, and nanowire-based photodetectors for multispectral imaging.

## ***1. Selection Criteria***

### **1.1 ESSENTIAL**

- ▶ A PhD in physics or engineering, preferably in optics or related areas.
- ▶ A track record in research, with an excellent publication record.
- ▶ Excellent communication skills in English, both oral and written.
- ▶ Demonstrated ability to work independently to achieve project goals and meet agreed deadlines.
- ▶ An ability to work closely with a team towards a common goal, on specific problems and outcomes.

### **1.2 DESIRABLE**

- ▶ The ability to attract external funding through grant applications and/or support in funded joint projects with others internal or external to the university.
- ▶ Evidence of success or clear potential in graduate student supervision.

## ***2. Special Requirements***

- ▶ none

## ***3. Key Responsibilities***

Working in collaboration with Professor Kenneth Crozier:

- ▶ Conduct high quality research, resulting in publications in high impact journals and presentations at leading conferences
- ▶ Actively contribute to the Optical Physics research group through collaborating with other members
- ▶ Carry out joint-supervision and training of research students.
- ▶ Contribute to the preparation of research proposal submissions to external funding bodies.

- ▶ Participate in the organization of regular group meetings and/or seminars.
- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5.

## ***4. Other Information***

### **SCHOOL OF PHYSICS**

[www.physics.unimelb.edu.au/](http://www.physics.unimelb.edu.au/)

The University of Melbourne's School of Physics is one of Australia's leading Physics Schools. It has achieved this status through the high quality of its research and teaching programs. The School offers a wide range of physics subjects to undergraduate and postgraduate students. It is located in the David Caro building on the Swanston Street boundary of the University campus. Currently some 25 academic staff, 32 professional staff, 65 research-only staff, and more than 95 postgraduate students make up the School. Skilled technical staff operate, maintain and develop complex instrumentation and equipment to support the teaching and research activities of the School.

The School currently has six research groups entitled: Astrophysics, Experimental Condensed Matter Physics, Experimental Particle Physics, Optics, Theoretical Condensed Matter Physics and Theoretical Particle Physics. In addition, a Physical Biosciences research group is in the process of being established.

The School of Physics hosts the ARC Centre of Excellence in Coherent X-Ray Science, the ARC Centre of Excellence in Particle Physics at the Terascale and the Melbourne nodes of the ARC Centre of Excellence for Quantum Computation and Communication Technology, the ARC Centre of Excellence for Advanced Molecular Imaging and the ARC Centre of Excellence for All-Sky Astrophysics. The School also plays a major role in the Australian Synchrotron research program.

Information on the School of Physics can be found at <http://physics.unimelb.edu.au/>

## FACULTY OF SCIENCE

[www.science.unimelb.edu.au](http://www.science.unimelb.edu.au)

The Faculty of Science was formally constituted in 1903, although science has been taught since 1854 when the first Professors of mathematics and natural science joined the University. It is one of the University's largest faculties with some 7,000 undergraduate and postgraduate students, and has an annual budget in the order of \$120M.

The Faculty of Science has a deserved reputation for the delivery of high quality teaching and research programs across a breadth of disciplines. The subjects and courses offered are integral to the quality of a significant number of the educational programs in other faculties. The Faculty has a long-standing and distinguished record of providing postgraduate education at the Masters and Doctoral levels and it has established strong international research and research education linkages within the USA, Europe and throughout the Asian region.

The Faculty is made up of seven Schools: School of Biosciences, School of Chemistry, School of Physics, School of Mathematics & Statistics, School of Earth Sciences, School of Geography, and School of Ecosystem and Forest Sciences. The Faculty is also responsible for the Bio21 Molecular Science & Biotechnology Research Institute.

The Faculty is active in professional development, continuing education nationally and internationally, and in links to schools and the community.

## THE UNIVERSITY OF MELBOURNE

The University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The University offers staff many benefits and prospective staff are encouraged to view the following web links:

[www.unimelb.edu.au](http://www.unimelb.edu.au)

[www.growingesteem.unimelb.edu.au](http://www.growingesteem.unimelb.edu.au)

<http://careers.unimelb.edu.au/>

## EQUITY AND DIVERSITY

<http://www.hr.unimelb.edu.au/advice/equity-diversity>

## 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 [www.unimelb.edu.au](http://www.unimelb.edu.au).

## **5. 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/topics/>

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