



POSITION DESCRIPTION

Department of Chemical & Biomolecular Engineering
Melbourne School of Engineering

Research Fellow in Nanoengineered Materials - NIMS Group (2 positions)

In line with the special measure H103/2014 provided for under section 12 of the Equal Opportunity Act 2010 (VIC), the Melbourne School of Engineering strongly encourages applications from suitably qualified female candidates.

POSITION NO	0042034
CLASSIFICATION	Research Fellow Grade 1, Level A
SALARY	\$66,809* - \$90,657 p.a. (Level A) (*PhD entry Level A.6 \$84,458 p.a.)
SUPERANNUATION	Employer contribution of 9.5%
EMPLOYMENT TYPE	Full-time (fixed term) position available for 1 year Fixed term contract type: Externally Funded
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
CURRENT OCCUPANT	Vacant
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Frank Caruso Email fcarus@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 websites:
about.unimelb.edu.au/careers
joining.unimelb.edu.au

Position Summary

Located in the Department of Chemical and Biomolecular Engineering, these newly-created positions offer aspiring researchers the opportunity to join the highly successful Nanostructured and Interfaces Materials (NIMS) group of the Department of Chemical Engineering under the direction of Professor Frank Caruso, an ARC Australian Laureate Fellow, within our consistently-ranked world-class Melbourne School of Engineering. The positions are due to recent funding from the ARC. The appointees will report directly to Professor Caruso. The appointee is also expected to work in close collaboration with other staff in the Department of Chemical and Biomolecular Engineering, the Particulate Fluids Processing Centre, as well as other academic departments.

You should be able to co-supervise research students and technical assistants and hence a high level of administrative and organisational skills is required. It is important that the appointees deliver successful outcomes for research projects. It is also expected that you will be able to initiate and lead independent research to a successful final outcome. The incumbent will be expected to keep abreast of the latest developments in the fields of materials science, nanotechnology and biomaterials.

You are expected to report on the outcomes of his/her work in a timely fashion through both oral presentations and written material. It is expected that the written material should be suitable for publication in high-quality scholarly journals. A high level of skill in written communication and experience in the successful submission of reports to research bodies and corporate entities, and papers to scholarly journals are essential.

The Melbourne School of Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.

The University plan seeks to increase the diversity of the workforce and the representation of women in areas they have been traditionally under-represented. Consistent with this, the School is seeking to increase the representation of women in the academic workforce across engineering disciplines. Under a Special Measure, under Section 12 (1) of the Equal Opportunity Act 2010 (Vic) the School is seeking to lift the representation of women from 20% in 2014 to at least 25% over the next 5 years, and strongly encourages applications from suitably qualified female candidates.

1. Selection Criteria

1.1 ESSENTIAL

- 1.1.1 A PhD in Engineering, Science or a cognate discipline
- 1.1.2 Demonstrated potential to achieve the highest levels of scholarship in scientific research;
- 1.1.3 Demonstrated ability to perform independent research and a commitment to interdisciplinary research;
- 1.1.4 Demonstrated capacity to communicate research concepts to technical and non-technical audiences;
- 1.1.5 Excellent ability in analysing data, problem solving and maintaining accurate research records;

- 1.1.6 A track record of quality research as evidenced by research publications in leading conferences and journals commensurate with opportunity;
- 1.1.7 Excellent written and verbal communication skills, demonstrated by presentation of research results at conferences, internal forums and through manuscript submissions.
- 1.1.8 Strong computer literacy skills including MS Office and problem solving ability;
- 1.1.9 Demonstrated ability to assemble, operate and maintain scientific equipment;
- 1.1.10 Proven ability to work effectively as part of a team;
- 1.1.11 Knowledge and experience in the application of EHS regulations and procedures;
- 1.1.12 Demonstrated ability to complete laboratory-based experiments and perform research to meet requirements of granting bodies and research contracts;
- 1.1.13 Demonstrated ability to work as a member of a research team as well as perform experiments as part of a supervised research program;
- 1.1.14 Demonstrated skills in computer hardware, data acquisition, operating systems and office and technical applications;
- 1.1.15 Demonstrated capacity to maintain accurate and detailed laboratory records;
- 1.1.16 Experience in working with chemicals and other dangerous goods;
- 1.1.17 Experience in working in a PC2 qualified area.

1.2 DESIRABLE

- 1.2.1 Experience in materials synthesis, assembly, and characterization;
- 1.2.2 Experience in small molecule synthesis, thin film formation and/or particle engineering;
- 1.2.3 Experience in polyphenol and/or metal organic framework materials;
- 1.2.4 Experience in supervision of graduate students and/or research assistants;
- 1.2.5 Experience in the successful completion of ethics applications and submission of grant applications;
- 1.2.6 Ability to structure, engage and present information clearly to various audiences;
- 1.2.7 Experience in postgraduate student supervision;
- 1.2.8 Experience in a leadership role within a research team.

2. Special Requirements

None

3. Key Responsibilities

3.1 RESEARCH – ADVANCEMENT OF THE DISCIPLINE

- 3.1 Independently plan and carry out research on the nominated research project and work towards completion of the aims of the project;

- 3.2 Develop effective timelines and milestones based on goals of the research programme;
- 3.3 Perform data and microstructure analysis, and be responsible for qualitative and statistical analysis of research data and to communicate this information to the Chief Investigators and collaborators;
- 3.4 Regularly write technical reports on the outputs of the experiments conducted, and maintain accurate and detailed records of all experiments conducted;
- 3.5 Participate in preparation of manuscripts for publication in peer-reviewed journals;
- 3.6 Liaise effectively with collaborators with a variety of internal and external stakeholders;
- 3.7 Assist other researchers in carrying out experiments in order to work as a team and further the department's research output;
- 3.8 Contribute to the development of the Department's and the School's strong research program in materials science, nanotechnology and biomaterials;
- 3.9 Work towards building an independent research project;
- 3.10 Perform other duties as requested by the appointee's immediate supervisors.

3.2 TEACHING AND LEARNING

- 3.11 Contribute to teaching, training, scientific mentoring and supervision of students;
- 3.12 Supervise junior research staff in the appointee's area of expertise;
- 3.13 Conduct lectures, tutorials, mark and undertake laboratory duties as required by the Department.

3.3 ENGAGEMENT

- 3.14 Attend and contribute actively to lab meetings;
- 3.15 Present experimental results at local, national and international forums;
- 3.16 Attend and actively participate in departmental seminars, meetings and/or committee memberships.

3.4 SERVICE AND LEADERSHIP

- 3.17 Assist with administrative duties and general laboratory duties including maintenance of the laboratory and equipment and ordering of supplies;
- 3.18 Assist in the preparation and submission of competitive grant applications relating to the appointee's research program;
- 3.19 Perform other tasks as requested by the supervisor or the Head of the Department;
- 3.20 Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 5.

4. Other Information

4.1 DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING

<http://www.chemeng.unimelb.edu.au>

The Department of Chemical and Biomolecular Engineering is a large Department with approximately 70 academic (contract and honorary) and research staff, 24 general staff, 1800 undergraduate students and 75 postgraduate students. The Department occupies all or part of the space in five adjacent buildings and its overall objectives are to teach undergraduate and postgraduate students in Chemical and Biomolecular Engineering and to undertake high quality research work.

The administrative staff support a full range of contacts with academic and administrative staff within the University, with staff of other institutions, with current and prospective students at all levels of study, and with substantial industry and professional bodies around the world. They provide a vital contribution to the Department's role in undergraduate and postgraduate teaching and research.

As an indication of the research intensity of the Department of Chemical and Biomolecular Engineering it is important to note that the Department is a partner in four research centres. Firstly, the Department is a major partner in the CRC for Greenhouse Gas Technology. The Department is also a major partner in the CRC for Polymers and the administrative centre for the Particulate Fluids Processing Centre, a Special Research Centre of the Australian Research Council. The Department has so far been successful in securing two Federation Fellows.

4.2 MELBOURNE SCHOOL OF ENGINEERING

<http://www.eng.unimelb.edu.au/>

The Melbourne School of Engineering is one of Australia's leading Engineering Schools and aims to be the school of choice for the highest performing students and research staff in Australia and within the Time Higher Education Supplement top twenty Schools of Engineering internationally by 2020.

4.3 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

www.growingesteem.unimelb.edu.au

www.unimelb.edu.au/careers

4.4 EQUITY AND DIVERSITY

Another key priority for the University is access and equity. The University of Melbourne is strongly committed to an admissions policy that takes the best students, regardless of financial and other disadvantage. An Access, Equity and Diversity Policy Statement, included in the University Plan, reflects this priority.

The University is committed to equal opportunity in education, employment and welfare for staff and students. Students are selected on merit and staff are selected and promoted on merit.

4.5 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/unisec/governance.html>.

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/responsibilities/>

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