



Position Description

| | |
|--|--|
| College/Division: | ANU College of Science |
| Faculty/School/Centre: | Research School of Physics & Engineering |
| Department/Unit: | Department of Electronic Materials Engineering |
| Position Title: | Postdoctoral Fellow |
| Classification: | Academic Level A |
| Position No: | |
| Responsible to: | Patrick Kluth – Head, Department of Electronic Materials Engineering |
| Number of positions that report to this role: | 0 |
| Delegation(s) Assigned: | |

PURPOSE STATEMENT:

The Department of Electronic Materials Engineering conducts world leading research in Materials and Device Physics and Engineering. The Postdoctoral Fellow will be responsible for work on the fabrication and characterisation of functional nanopore membranes related to a project funded by the Australian Research Council. The Postdoctoral Fellow is expected to contribute towards the research effort of the institution and to develop their research expertise through the pursuit of defined projects relevant to the particular field of research.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The position is located in the Department of Electronic Materials Engineering, Research School of Physics and Engineering. The position is funded by a Discovery Project research grant supported by the Australian Research Council and the appointee will be accountable to the project leader. The project is interdisciplinary and will include working in a team with domestic and international collaborators.

Role Statement:

Under the broad direction of the project leader, the Postdoctoral Fellow will:

1. Undertake independent research in the area of materials science/nanofabrication with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at ANU, national and international level. This includes working as part of a team on an externally funded project subject to deadlines
2. Collaborate with senior staff to actively seek and secure external funding, assist to prepare and submit research proposals to external funding bodies as appropriate
3. Subject to the requirements of the funding source and where an opportunity exists, the occupant may be encouraged/asked to contribute to the teaching activities of the School at the undergraduate and graduate levels. This includes, but is not limited to, the preparation and delivery of lectures and tutorials, the preparation of online material, marking and assessment, consultations with students or acting as subject coordinators
4. Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels. Assist with supervision of research students
5. Actively contribute to all aspects of the operation of the School
6. Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public
7. Maintain high academic standards in all education, research and administrative endeavours
8. Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
9. Undertake other duties as required, consistent with the classification of the position.

Skill Base

A **Level A Academic** will normally have completed four years of tertiary study in the relevant discipline and/or have equivalent qualifications and/or research experience.

In many cases a position at this level will require an honours degree or higher qualifications or equivalent research experience

Research experience may have contributed to or resulted in publications, conference papers, reports or professional or technical contributions that give evidence of research potential.

SELECTION CRITERIA:

1. A PhD (or awarding of a PhD within six months of appointment commencement) in physics, chemistry engineering or materials science or equivalent qualifications and experience in a related area, with a track record of independent research in the field of nano-materials fabrication and characterisation as evidenced by publications in peer-reviewed journals and presentations at conferences
2. Evidence of the ability to articulate and prosecute innovative research in the field of nano-materials fabrication and characterisation. Experience that is relevant to experimental research in some or all of the following areas: ion modification of materials, nano-fabrication, synchrotron based analytical techniques, membrane science, 2D materials. Specific research experience in small angle x-ray scattering, swift heavy ion irradiation, thin film deposition, and/or graphene manipulation would be an advantage but is not essential.
3. An ability and commitment to contribute to bids for competitive external funding to support individual and collaborate research activities
4. Ability and willingness to contribute to teaching within the scope of the project
5. The ability to assist in the supervision of students working on research projects
6. The ability to work as part of a team and to deadlines
7. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels
8. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.

| | | | |
|---------------------------------------|--|----------------|--|
| Supervisor/Delegate Signature: | | Date: | |
| Printed Name: | | Uni ID: | |

References:

[General Staff Classification Descriptors](#)

[Academic Minimum Standards](#)



Pre-Employment Work Environment Report

Position Details

| | | | |
|--------------------|---------------------|---------------------|------------------|
| College/Div/Centre | COS | Dept/School/Section | EME/RSPE |
| Position Title | Postdoctoral Fellow | Classification | Academic Level A |
| Position No. | | Reference No. | |

In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see . http://info.anu.edu.au/hr/OHS/__Health_Surveillance_Program/index.asp
Enrolment on relevant OHS training courses should also be arranged – see http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see ' Employment Medical Procedures' at http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp

Potential Hazards

- Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.

| TASK | regular | occasional | TASK | regular | occasional |
|--|-------------------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|
| key boarding | <input checked="" type="checkbox"/> | <input type="checkbox"/> | laboratory work | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| lifting, manual handling | <input type="checkbox"/> | <input type="checkbox"/> | work at heights | <input type="checkbox"/> | <input type="checkbox"/> |
| repetitive manual tasks | <input type="checkbox"/> | <input type="checkbox"/> | work in confined spaces | <input type="checkbox"/> | <input type="checkbox"/> |
| catering / food preparation | <input type="checkbox"/> | <input type="checkbox"/> | noise / vibration | <input type="checkbox"/> | <input type="checkbox"/> |
| fieldwork & travel | <input type="checkbox"/> | <input checked="" type="checkbox"/> | electricity | <input type="checkbox"/> | <input type="checkbox"/> |
| driving a vehicle | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| NON-IONIZING RADIATION | | | IONIZING RADIATION | | |
| solar | <input type="checkbox"/> | <input type="checkbox"/> | gamma, x-rays | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ultraviolet | <input type="checkbox"/> | <input type="checkbox"/> | beta particles | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| infra red | <input type="checkbox"/> | <input type="checkbox"/> | nuclear particles | <input type="checkbox"/> | <input type="checkbox"/> |
| laser | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| radio frequency | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| CHEMICALS | | | BIOLOGICAL MATERIALS | | |
| hazardous substances | <input checked="" type="checkbox"/> | <input type="checkbox"/> | microbiological materials | <input type="checkbox"/> | <input type="checkbox"/> |
| allergens | <input type="checkbox"/> | <input type="checkbox"/> | potential biological allergens | <input type="checkbox"/> | <input type="checkbox"/> |
| cytotoxics | <input type="checkbox"/> | <input type="checkbox"/> | laboratory animals or insects | <input type="checkbox"/> | <input type="checkbox"/> |
| mutagens/teratogens/ carcinogens | <input type="checkbox"/> | <input type="checkbox"/> | clinical specimens, including blood | <input type="checkbox"/> | <input type="checkbox"/> |
| pesticides / herbicides | <input type="checkbox"/> | <input type="checkbox"/> | genetically-manipulated specimens | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | immunisations | <input type="checkbox"/> | <input type="checkbox"/> |
| OTHER POTENTIAL HAZARDS (please specify): | | | | | |

| | | | | | |
|----------------------------|--|-------------|---------------|-------|--|
| Supervisor's Signature: | | Print Name: | Patrick Kluth | Date: | |
|----------------------------|--|-------------|---------------|-------|--|