Australian National University

Position Description

College/Division:	College of Engineering & Computer Science
School/Centre:	Research School of Electrical Energy and Materials Engineering
Department/Unit:	
Position Title:	Postdoctoral Research Fellow
Classification:	Academic Level B
Position No:	
Responsible to:	

CONTEXT STATEMENT

Australian Renewable Agency Project "Low-cost, robust, high-activity water splitting electrodes for H2 production from renewable energy"

The Australian National University (ANU) is a global university that consistently ranks among the world's finest. Its distinct intellectual capacity is reflected in 95% of its research output being ranked above world standard. This research excellence contributes to the social, economic and human capital of the nation. ANU is located in Canberra, Australia's capital and is a partner to the Australian government and a resource for its people.

The Nanotechnology Research Laboratory, led by Prof A. Tricoli, in the Research School of Electrical, Energy and Materials Engineering (RSEEME) within the College of Engineering and Computer Science (CECS) of ANU is amongst the world-leading groups in the multi-scale engineering of nanostructured materials and devices, with particular emphasis on scalable nanofabrication approaches that facilitate the translation of scientific findings into commercial products.

The Nanotechnolgoy Research Laboratory has partnered on a collaborative project with the research groups of Prof Y. Liu at ANU, and Dr A. Simonov and Prof D. Macfarlene at Monash, for the scalable design of the next generation of water splitting electrodes for H_2 production from renewable energy. This project has been supported by a successful ARENA project grant in the area of electrochemistry and water splitting to work at ANU under the supervision of Prof Tricoli and Prof Liu.

PURPOSE STATEMENT:

The position is part of the Australian Renewable Agency Project "Low-cost, robust, high-activity water splitting electrodes for H2 production from renewable energy". The ANU investigator team is at the forefront of the development of multi-scale engineering of nanostructured materials and devices. In a collaborative effort with the ANU and Monash CIs, the Research Fellow will be responsible for the design, fabrication and characterisation of electrochemical electrodes.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The position is located within the Nanotechnology Research Laboratory in the Research School of Electrical Energy and Materials Engineering within the College of Engineering and Computer Science. The appointee is accountable to the Head of the Nanotechnology Research Laboratory, Professor Antonio Tricoli. The project will include working in a multidisciplinary team from Research School of Electrical Energy and Materials Engineering, Research School of Chemistry and Monash University.

Role Statement:

Under the broad direction of the project team leaders, the Research Fellow will:

1. Undertake independent research in the area of development and implementation of multi-scale engineering of nanostructured materials and devices for water splitting electrodes with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences. This includes working as part of a team to achieve well defined milestones.
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
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. Take responsibility for their own workplace health and safety and not wilfully place at risk the health and safety of another person in the workplace.
9. Other duties as required consistent with the classification level of the position.

Skill Base

A Level B Academic will normally have completed a relevant doctoral qualification or have equivalent qualifications or research experience. In addition, he/she may be expected to have had post-doctoral research experience that has resulted in publications, conference papers, reports or professional or technical contributions that give evidence of research ability.

SELECTION CRITERIA:

1. A PhD 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/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 Nanotechnology and a vision for the activities they will undertake at the ANU.
3. 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: nanofabrication, electrochemistry and renewable energy.
4. An ability and commitment to win bids for competitive external funding to support individual and collaborative research activities.
5. Ability and willingness to teach at all levels.
6. The ability to assist in the supervision of students working on research projects.
7. The ability to work as part of a team and to meet project deadlines.
8. 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.
9. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of these policies in a University context.

Supervisor Signature:		**Date:**	
Printed Name:		**Uni ID:**	

References:

General Staff Classification Descriptors

Academic Minimum Standards

Pre-Employment Work Environment Report

Please note the Pre-Employment Work Environment Report form must be completed by the supervisor of the advertised position and provided electronically and separately, as it needs to be uploaded into ANU Recruit system and available for applicants to download when reviewing the position documentation. Without this form jobs cannot be advertised.

Australian National University

Pre-Employment Work Environment Report

Position Details

College/Div/Centre	ANU College of Engineering and Computer Science	**Dept/School/Section**	RSEng
Position Title	Research Fellow	**Classification**	Level B
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	☒	☐	laboratory work	☒	☐
lifting, manual handling	☐	☐	work at heights	☐	☐
repetitive manual tasks	☐	☐	work in confined spaces	☐	☐
catering / food preparation	☐	☐	noise / vibration	☐	☒
fieldwork & travel	☐	☐	electricity	☒	☐
driving a vehicle	☐	☐			
NON-IONIZING RADIATION			**IONIZING RADIATION**		
solar	☐	☒	gamma, x-rays	☐	☒
ultraviolet	☐	☒	beta particles	☐	☐
infra red	☐	☒	nuclear particles	☐	☐
laser	☐	☒			
radio frequency	☐	☒			
CHEMICALS			**BIOLOGICAL MATERIALS**		
hazardous substances	☒	☐	microbiological materials	☐	☐
allergens	☐	☐	potential biological allergens	☐	☐
cytotoxics	☐	☐	laboratory animals or insects	☐	☐
mutagens/teratogens/ carcinogens	☐	☐	clinical specimens, including blood	☐	☐
pesticides / herbicides	☐	☐	genetically-manipulated specimens	☐	☐
			immunisations	☐	☐

OTHER POTENTIAL HAZARDS (please specify):

Supervisor's Signature:		**Print Name:**		**Date:**	