



Position Description

College/Division:	Joint Program - ANU College of Science (COS) and/or ANU College of Engineering & Computer Science (CECS)
Faculty/School/Centre:	Research School of Chemistry/Research School of Engineering
Department/Unit:	
Position Title:	Postdoctoral Fellow
Classification:	Level A
Position No:	
Responsible to:	Dr Alexey Glushenkov, Fellow
Number of positions that report to this role:	1
Delegation(s) Assigned:	

PURPOSE STATEMENT:

The ANU College of Science (CoS) comprises: The Research School of Astronomy and Astrophysics, the Research School of Biology, the Research School of Chemistry, the Research School of Earth Science, the Fenner School of Environment and Society, the Mathematical Sciences Institute, the Research School of Physics and Engineering, and the Centre for the Public Awareness of Science. Staff and students within the ANU College of Science conduct research and delivers a research-led education program that encompasses the entire breadth of the sciences, supported by extensive international networks and by world-class facilities. The College has a strong tradition of research excellence that has fostered distinguished Nobel Laureates and Kyoto Prize winners and that trains scientific leaders in disciplines in which the ANU is consistently ranked in the top twenty in the world.

The Research School of Chemistry is a leading centre of materials science and chemistry research in Australia. Researchers have a tradition of excellence in addressing the world's most pressing issues. Recently, research activities as a part of Battery Storage and Grid Integration Program have been established at the Research School of Chemistry. The Battery Storage and Grid Integration Program is a joint initiative with the College of Engineering and Computer Science, with multidisciplinary activities in battery materials, device prototyping, grid integration, and software optimisation.

The Postdoctoral Fellow is expected to undertake work in the design of a laboratory for battery testing and materials development, installation of relevant equipment, research activities in electrode materials for batteries with new chemistries (with a particular emphasis on potassium-based batteries), and engagement with relevant industry in Australia. In addition to the research duties, the appointee will also be involved in other areas of academic activity, research, education and service (including outreach). The allocation of time to each area will be discussed with the position supervisor annually and be reflective of the appointee's research agenda, school and interdisciplinary teaching requirements and leadership opportunities within the School environment. The Postdoctoral Fellow may also be required to supervise or assist in the supervision of students, and contribute cooperatively to the overall intellectual life of the School, College and University.

POSITION DIMENSION AND RELATIONSHIPS:

The Postdoctoral Fellow will be a member of Research School of Chemistry, accountable to Dr Alexey Glushenkov, Fellow in the Battery Storage and Integration Program, and to the Director of the School. The Postdoctoral Fellow will be expected to work collegially, leading by example to develop and maintain effective, productive and beneficial workplace relationships within the all academic and professional School and College staff, students and honorary appointees, as well as with industry stakeholders. This position will also have a mentoring role for students and will engage in collegial and productive collaborations with local, national and where possible, international colleagues.

Role Statement:

In their role as an Academic Level A the Postdoctoral Fellow is expected to:

1. Undertake independent research in the area of electrode materials for batteries with new chemistries (with a special emphasis on potassium-based batteries) 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 a national level. This includes working as part of a team on an externally funded project subject to deadlines.

2. Collaborate with senior staff from Research School of Chemistry as well as Battery Storage and Grid Integration program 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 School and where an opportunity exists, the occupant may be required 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, and 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. Assist to supervise research support staff in your research area.
6. Actively contribute to all aspects of the operation of the School.
7. Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
8. Maintain high academic standards in all education, research and administration endeavours.
9. 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.
10. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.
11. Other duties as required that are consistent with the classification of the position.

Skill Base

A Level A academic will work with the support and guidance from more senior academic staff and is expected to develop their expertise in teaching and research with an increasing degree of autonomy. A Level A academic will normally have completed four years of tertiary study or equivalent qualifications and experience and may be required to hold a relevant higher degree.

A Level A academic will normally contribute to teaching at the institution, at a level appropriate to the skills and experience of the staff member, engage in scholarly, research and/or professional activities appropriate to their profession or discipline, and undertake administration primarily relating to their activities at the institution. The contribution to teaching of Level A academics will be primarily at undergraduate and graduate diploma level.

SELECTION CRITERIA:

1. A PhD in chemistry, physics or engineering, with a track record of independent research in the field of electrode materials for metal-ion batteries and an emerging research track record in potassium-ion batteries.
2. Experience in the development of lithium-ion and sodium-ion battery anode materials operating via an alloying-dealloying reaction mechanism such as tin, phosphorus and antimony evidenced by publications and conference presentations.
3. Previous experience in the design of laboratories for battery testing and installation of relevant equipment, experience at prototyping facilities for battery testing in cylindrical or pouch cells and/or previous work experience in battery industry or start-up companies.
4. An ability and commitment to contribute to bids for competitive external funding to support individual and collaborative research
5. Evidence of an 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 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 academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
9. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.

Delegate Signature:		Date:	
Printed Name:		Position:	

References:

[Academic Minimum Standards](#)



Pre-Employment Work Environment Report

Position Details

College/Div/Centre		Dept/School/Section	
Position Title		Classification	
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

<ul style="list-style-type: none"> 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 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 checked="" type="checkbox"/>
catering / food preparation	<input type="checkbox"/>	<input type="checkbox"/>	noise / vibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>
fieldwork & travel	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	gamma, x-rays	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ultraviolet	<input type="checkbox"/>	<input type="checkbox"/>	beta particles	<input type="checkbox"/>	<input 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/	<input type="checkbox"/>	<input type="checkbox"/>	clinical specimens, including blood	<input type="checkbox"/>	<input type="checkbox"/>
carcinogens					
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:		Date:	
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