# Position Details

## Research Projects- CSOF3

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| The following information is for applicants | |
| Advertised Job Title | Battery Experimentalist - Fabrication & Evaluation |
| Job Reference | 71289 |
| Tenure | Specified Term of 2 years |
| Salary Range | \*CSOF3 - AU$63,594 to AU$80,937 pa (pro-rata for part-time) + up to 15.4% superannuation  \*CSOF4 - AU$83,687 to AU$94,679 pa (pro-rata for part-time) + up to 15.4% superannuation  \*NB: This position is offered across two levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate |
| Location(s) | Melbourne (Clayton) VIC |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents Only * Australian temporary residents currently residing in Australia with full work rights for the length of the term without the need for sponsorship by CSIRO. This does not include bridging and other visas which are dependent on the successful approval of future visas |
| Position reports to the | Team Leader, Electrochemical Systems |
| Client Focus – Internal | 80% |
| Client Focus – External | 20% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr Adam Best via email at adam.best@csiro.au or phone +61 3 9545 8660 |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Role Overview

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

The Battery Experimentalist – Fabrication and Evaluation role will be part of the Electrochemical Systems (ES) Team. The ES Team currently has a number of commercial engagements with both Australian and international companies in the battery domain which the role will be part of. The key outcomes include materials development and improved lithium (ion) batteries for a range of markets and project deliverables. The role will undertake day-to-day laboratory work where tasks include (but not limited to) preparing electrode slurries, formulating new electrode coatings, coating of electrode materials on both our bench-top and pre-pilot scale coaters, electrolyte preparation, preparing cells, test and evaluation (both materials and cells) thereof. The position will accurately record experiments and maintain quality records to be able to identify problems and triage issues as they occur.

### Duties and Key Result Areas

* Under limited supervision, design and perform straightforward experiments and routine laboratory analyses, design new processes or apparatus by adapting existing techniques and components to meet special circumstances or undertake modifications to methods requiring some innovation.
* Participate in all aspects of electrode fabrication activities.
* Device fabrication, both coin and pouch cells, using glove boxes.
* Perform battery cell testing and report the results.
* Undertake pre- and post-service characterisation of materials and battery cells to identify problems and propose potential solutions.
* Maintain accurate and up-to-date records for track and tracing purposes.
* Contribute to the regular project meetings internally as well as with external collaborators.
* Contribute to accurate reports for internal and external clients.
* Participate in regular maintenance of HSE documentation as appropriate and maintain safe working practices.
* Contribute to the regular maintenance of laboratory equipment and facilities.
* Being able to work independently, as well as collaboratively within the team environment, to deliver tasks in timely manner to internal and external stakeholders.
* Conduct literature reviews, investigations and inspections in the field or laboratory including associated analysis possibly involving statistical or graphics software.
* Work with discretion to decide on the timing of operations within the work team’s plan and plan ahead to meet experimental and/or project demands.
* Oversee the activities of less experienced staff and provide guidance on experimental/ technological techniques and protocols as required.
* Maintain confidentiality when dealing with commercially sensitive information.
* Respond courteously and efficiently to client requests, maintaining clear communication regarding mutual expectations and monitoring client satisfaction.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

**For appointment at the higher salary level (CSOF4), duties will also include:**

* Electrode formulation including the choice of appropriate active and conductive materials dependent on the application
* Under general direction, analyse electrode performances and determine their relationship with materials and process parameters then take independent steps to iterate on process improvement to reach target cell performance specifications.
* Document electrode processing parameters and communicate key learnings to cross-functional teams to enable transition towards the target specifications.
* Undertake a wide variety of tasks, such as complex cell construction, testing and characterisation or tasks with a high degree of specialisation.
* Perform various battery fabrication techniques, ranging from lab-scale manufacturing of electrodes and electrolytes to the electrochemical cells (coin/pouch cells and others).

## **Required Competencies**

**CSOF3**

* **Teamwork and Collaboration:** Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.
* **Influence and Communication:** Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.
* **Resource Management/Leadership:** Provides instruction and assists other staff to complete allocated tasks and activities.
* **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

**CSOF4**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:** Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. Relevant degree or equivalent relevant work experience in Chemistry, Physics, Materials Science, Materials Engineering or a related field.
2. Demonstrated laboratory experience in electrochemistry and/or battery development coupled with a proven commitment to HSE.
3. Demonstrated experience in relevant materials processing and characterisation techniques with respect to battery development such as FT-IR, SEM, Raman, XRD, etc.
4. Computer literacy and familiarity with MS Office Applications as well as other graphing packages such as Origin.
5. Demonstrated track record of working collaboratively within a team to achieve results.
6. Excellent oral and written communication skills.
7. Good problem-solving skills coupled with the proven ability to work on a number of projects concurrently.

**For appointment at the higher salary level (CSOF4), essential criteria will also include:**

1. Demonstrated experience in drafting technical reports for clients, especially the description of electrochemical and battery cell performance results.
2. Development or use of Quality Systems for the tracking and tracing of components that are used in device fabrication.
3. Evidence of experience in leading and directing projects.
4. Ability to investigate underlying issues of complex projects and develop the most appropriate response by adapting, creating and testing alternative solutions.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- https://ielts.com.au/

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