# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants  |
| Advertised Job Title | Research Scientist – Resource Recovery for Circular Economy |
| Job Reference | 85737 |
| Tenure | Specified Term of 3 years Full-time |
| Salary Range | AU$117,917 – AU$138,176 pa plus up to 15.4% superannuation |
| Location(s) | Floreat, Waterford (Perth WA) |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Team Leader, Resource Sector Biotechnology |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Anna Kaksonen via email at anna.kaksonen@csiro.au  |
| 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 or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

The role of Research Scientist/Engineer staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. They may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. The Research Scientist/Engineer will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

This Research Scientist position will be part of Resource Sector Biotechnology Team in the Industrial Biotechnology Group of the Industry Environments Program in CSIRO’s Land and Water business unit. The position will also deliver to CSIRO’s Hydrogen Energy Systems Future Science Platform. [Future Science Platforms](http://www.csiro.au/en/About/Future-Science-Platforms) (FSPs) are an investment in science that underpins innovation and has the potential to help reinvent and create new industries for Australia. They are strategic investments aimed at developing capacity in areas of identified future importance for Australia. FSPs are both impact and science focused, developing innovative scientific solutions with industry, government and university partners. They support world class, coherent and creative research teams which integrate science and delivery over the long term, looking to the future science needs of CSIRO and our partners with a 5-10 year vision.

The purpose of CSIRO’s Hydrogen Energy Systems FSP is to create new science, capabilities, and technologies across the emerging hydrogen value chain, supporting new Australian industries and large-scale emission reduction. The FSP is currently targeting three impact areas:

1. Next generation production;
2. Novel carrier pathways; and
3. Triple bottom line research (the environmental, social, and economic case for hydrogen energy).

### Duties and Key Result Areas

* Lead research on the recovery of resources from wastewater in collaboration with external (e.g. water utilities and other industries) and internal (e.g. FSPs, Missions) stakeholders, and develop innovative technologies for value recovery.
* Evaluate the technical feasibility and efficiency of recovering ammonia from wastewater using bipolar membrane electrodialysis (BPMED) and develop innovative strategies to improve process performance.
* Use professional expertise, knowledge of other disciplines and research experience and achievement to formulate, develop and complete an approved research program.
* Develop challenging but realistic research plans and negotiate resource requirements with research managers and/or clients.
* Take responsibility for research projects within and/or across Business Units.
* Lead and supervise visitors and students to ensure experiments are established in accordance with the research design and are completed within the agreed timeframes and budget.
* Act as a trusted advisor, utilising knowledge of the clients’ business and understanding of their underlying needs.
* Anticipate industry and/or community needs and market direction through client liaison and networking.
* Identify and adapt quickly to changes in client needs and market directions.
* Undertake feasibility studies, demonstrate a considerable degree of originality, creativity and innovation in solving problems and introduce new directions and approaches.
* Communicate research results to clients and the scientific community through oral and written reports, presentations, journal papers and prepare documentation for patent applications (where relevant).
* Inform and transfer knowledge to non-scientific audiences as required.
* 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 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 Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD, or an equivalent combination of qualifications and research experience, in a relevant field such as engineering, chemistry or microbiology.
2. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
3. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and client reports, and evidence of national/international recognition from invited/keynote presentations.
4. Demonstrated research experience in developing new technologies for wastewater and drinking water treatment, contaminant removal and/or value recovery.
5. Demonstrated experience on method development and analytical skills for quantifying contaminants/compounds in water/wastewater.
6. Proven track record in engaging with clients, attracting research funding and leading projects within timelines and budget.

## **Desirable**

1. Demonstrated knowledge on bipolar membrane electrodialysis technology.
2. Experience in working with water utilities.

## **Required Competencies**

* **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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

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 Clearance or equivalent. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* Given the specialised research area of this role, the successful candidate will be required to have vaccinated against tetanus and hepatitis A & B.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

CSIRO is a values-based organisation. In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* 1. People First
	2. Further Together
	3. Making it Real
	4. Trusted

Find out more about CSIRO [Land and Water](https://www.csiro.au/en/Research/LWF) and [Hydrogen Energy Systems Future Science Platform](https://research.csiro.au/hydrogenfsp/?msclkid=db535955d13211ecbabd8b06fc950867)