# Position Details

## Research Projects- CSOF4

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| The following information is for applicants | |
| Advertised Job Title | Gas Process Experimentalist – Zero Carbon Fuels |
| Job Reference | 96902 |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$93k - AU$105k per annum  plus up to 15.4% superannuation |
| Location(s) | Clayton, VIC preferred, Kensington, WA optional |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents * Australian Temporary Residents, with an existing valid visa and unrestricted work rights for the duration of the 3-year term |
| Position reports to the | Research Team Leader – Gas Process Engineering Team |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact James Kear via email at james.kear@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](mailto: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).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

The CSIRO Gas Process Engineering Team is focused on developing decarbonisation solutions for industries and applications which are heavily reliant on carbon-intensive fuels. With a diverse project portfolio spanning H2 utilisation and storage, biofuels, synthetic fuels, low-carbon H2 production, and CO2 utilisation, the team is dedicated to driving innovation in sustainable energy practices.

Harnessing state-of-the-art laboratory facilities at Clayton and Clayton North, the team brings together expertise in catalyst synthesis, H2 combustion, gas process development, material analysis, apparatus design, and specialist equipment fabrication. Recent initiatives have seen the team forge significant external collaborations to advance zero-carbon fuel technologies.

As a Gas Process Experimentalist, you will contribute to the advancement of research and technology within the Gas Process Engineering Team. Your primary responsibilities will involve the development of original and adapted experimental methods, equipment, and software. Working under limited guidance, you will tackle a diverse array of tasks with a high degree of specialisation, often encountering novel problems where initiative and innovative thinking are paramount. This role is critical to the Team's efforts in developing decarbonisation solutions in the zero carbon fuels space and driving innovation and collaboration forward. You will play a pivotal role in ensuring the seamless delivery of ambitious projects, propelling the team into new frontiers of innovation and collaboration.

If you are passionate about driving innovation in renewable energy and possess a solid background in chemical engineering, we invite you to join us in shaping the future of sustainable energy solutions.

### Duties and Key Result Areas

* Undertake apparatus design, construction, testing, operation, maintenance, and decommissioning operations to support various research projects.
* Collaborate with senior research staff in identifying and defining research and technological problems, offering innovative solutions to meet project objectives.
* Liaise with clients to understand their needs and ensure their satisfaction, addressing problems promptly and constructively.
* Participate in project planning, scheduling, and completion, including the evaluation of options, experimental design, data collection, and analysis.
* Make significant contributions to the interpretation and communication of research or technological results, including drafting presentations and detailed written reports.
* Utilise effective communication skills to convey complex information at conferences, workshops, and meetings.
* Under general direction, contribute to research and/or technology through the development of original and adapted experimental methods, equipment or software.
* Show initiative to seek new approaches to meet experimental or technological needs when encountering new problems where methods are not defined.
* 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 and diversity initiatives.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. Bachelor's degree or higher in Chemical Engineering, with a strong academic foundation in process engineering.
2. Experience conducting zero carbon fuels experimental research (e.g. H2 utilisation and/or storage, biofuels, synthetic fuels, low-carbon H2 production, and/or CO2 utilisation), with a focus on chemical processes and engineering principles.
3. Demonstrated ability to analyse and optimise chemical engineering processes for efficiency, safety, and sustainability, utilising your expertise in chemical engineering principles.
4. Excellent interpersonal skills with ability to collaborate cross-functionally with engineers, scientists, and researchers to leverage collective expertise in achieving project goals.
5. Strong analytical and problem-solving skills, with the ability to apply scientific principles to practical challenges.

#### Desirable

1. Proven experience in managing laboratory facilities, including equipment maintenance, inventory management, and safety protocols.
2. Experience performing lab-scale or pilot-scale catalytic processes and/or combustion processes with some background of catalyst characterisation.

## **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:** 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.

**Special Requirements**

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) for more information.

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

* People First
* Further Together
* Making it Real
* Trusted