# Position Details

## Research Projects- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Research Projects Officer – Chemist / Chemical Engineer |
| Job Reference | 98236 |
| Tenure | Specified Term of 3 years Full-time |
| Salary Range | AU$114K - AU$123K per annumplus up to 15.4% superannuation |
| Location(s) | Kensington, Western Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents

Temporary Visa Holders with unlimited work rights |
| Position reports to the | Team Leader  |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Charles Heath via email at charles.heath@csiro.au and James Kear via email 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 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 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.

As part of the emissions research team, this role will contribute to several areas related to the transition to low emissions energy. The team is working on a range of critical projects including the development of low-carbon synthetic fuels, monitoring of fugitive greenhouse gas emissions and atmospheric greenhouse gas baseline surveys. The team also contributes expertise to other projects undertaken by CSIRO’s Energy Research Unit including developing monitoring tools for hydrogen exploration and carbon dioxide sequestration, monitoring decommissioned onshore gas wells, and other industrial decarbonisation research.

### Duties and Key Result Areas

* Perform experiments using pilot scale gas processing equipment (such as Fischer–Tropsch), adhering to safe operating procedures and participate in the planning and development of experiments.
* Perform design calculations for new gas processing equipment including Process Flow Diagrams (PFD), Heat and Mass balance & Piping and Instrumentation Diagrams (PIDs).
* Utilise analytical chemical equipment to analyse the products from gas processing experiments and/or measure emissions of greenhouse gases in the field.
* Carry out data processing to interpret the results of gas processing experiments or greenhouse gas emissions field studies and contribute to the preparation of reports or scientific papers on these results.
* Carry out maintenance and calibration of gas processing and greenhouse gas analytical equipment.
* Organise procurement of project supplies such as gases and other chemicals, new equipment and lab consumables.
* Occasional remote field work involving off road driving to undertake measurements of greenhouse gases for fugitive emission monitoring including mobile concentration measurements, fixed flux measurements and tracer measurements.
* Undertake a variety of technical and logistical tasks related to emissions monitoring fieldwork and laboratory apparatus including, logistics and deployment, maintenance and calibration, organising servicing of instruments.
* Undertake design and construction of novel gas sampling and analysis equipment for use in the field such as for air sampling, soil gas sampling or groundwater degassing/sampling.
* Undertake testing and calibration of novel multi gas sensor systems using gas blending equipment to create different mixtures to test for sensor response, cross sensitivity and susceptibility to environmental factors.
* Develop novel techniques to produce enhanced results, providing researchers with new or improved approaches to research or technological problems.
* Participate in project scoping and planning, making significant contributions to the research or technological direction, and may advise on the level and type of services that are provided.
* Have a significant role in communicating research or technological results in internal and external forums and, where applicable, contribute to and/or generate scientific papers.
* 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 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 qualification) in chemistry or chemical engineering or other relevant qualifications.
2. Experience in the hands-on operation of complex laboratory or pilot scale gas processing or handling equipment (e.g reactors, high pressure equipment, sampling and analysis equipment)
3. Ability to design novel lab/pilot scale gas processing or handling equipment including performing design calculations relating to pressures, fluid flows and heat flows leading to final designs and final component selection.
4. Excellent interpersonal skills with ability to collaborate and lead 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.
6. A current driver’s licence

## **Desirable**

1. Experience in undertaking fieldwork or work at remote sites.
2. Experience in software languages such as python or similar, or process control system software.
3. Experience in use and preparation, including calibration of analytical chemical equipment for laboratory or field studies.
4. Experience in organising logistics for deployment of equipment to the field.

## **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 team 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:** 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:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **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:

* The successful candidate will be required to undertake a pre-employment medical examination.
* The successful candidate will be required to undertake a pre-employment Psychometric assessment.

## **About CSIRO**

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