# Position Description

## Research Scientist/Engineer – CSOF5/6

The following information is for applicants

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| Advertised Job Title**:** | Research Scientist/Engineer – Gasification |
| Job Reference: | 60307 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Percentage of Client Focus - Internal: | 60% |
| Percentage of Client Focus - External: | 40% |
| Reports to the: | Gasification Processes Team Leader |
| Number of Direct Reports: | TBD |
| Name and Contact Details For Applicant Enquiries | David Viano  Email: [David.Viano@csiro.au](mailto:David.Viano@csiro.au)  Phone: 07 33274173 |
| Contact Details For Applying | Call 1300 984 220 or email [careers.online@csiro.au](mailto:careers.online@csiro.au). |
| How to Apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon  Please do not email your application directly to Sarb Giddey.   Applications received via this method will not be considered by the selection panel. |

## Role Overview:

The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You 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.

We are seeking a Research Scientist/Engineer with expertise in gasification to work in our Low Emissions Technologies program at QCAT in Brisbane. In the role you will work on a range of applied research projects with a focus on biomass, waste, and coal gasification for the production of hydrogen and other low emissions energy products. An important aspect of the role will be engaging externally with a range of industry and government stakeholders to identify, develop, and deliver new projects.

**Duties and Key Result Areas:**

* Develop, design and deliver client-focussed research projects, or components of large-scale research initiatives
* Work as part of the wider research group on key experimental or modelling aspects of research projects
* Act as a trusted advisor, utilising knowledge of client’s business and understanding of their underlying needs.
* Communicate research results to clients and the scientific community through oral and written reports, which will include scientific publications, and which may include the preparation of documents for patent applications.
* Undertake feasibility studies, demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches.
* 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, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

**For appointment at the higher salary level (CSOF6), duties will also include:**

* Development and management of large, externally-focussed projects
* Work with Group and Program leadership to ensure that our research priorities and strategic goals are aligned with industrial needs
* Within broad guidelines, use professional expertise, knowledge of other disciplines and research experience/achievement to formulate, develop and complete research activities.
* Lead and supervise staff to ensure that experiments are established in accordance with the research design and are completed within the agree timeframes and budget.

## Competencies:

1. **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.**
2. **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.**
3. **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.**
4. **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.
5. **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.**
6. **Adaptability:** Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

## Selection Criteria:

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

1. Relevant PhD degree or equivalent relevant work experience in Chemical Engineering, Industrial Chemistry, or similarly relevant areas
2. Demonstrated practical experience in high temperature and/or pressure experimental systems and industrial processes
3. A good understanding of the fundamentals of combustion, gasification and pyrolysis of solid feedstocks
4. A track record of publication of research and development outcomes in journals and/or conferences, or equivalent.
5. Demonstrated ability to work effectively in multidisciplinary teams with technical goals

**Additional Essential Criteria for CSOF6 Appointment**

1. A track record of developing and delivering large client-focussed research projects
2. Well-developed project leadership and management skills
3. Evidence of the development of an external industry or collaborative professional network (e.g. participation on advisory groups, technical committees, etc)

## Desirable Criteria:

1. Demonstrated ability to contribute to design of high-pressure/high temperature research equipment and systems
2. Experience in conducting HAZOP analysis on major laboratory and pilot scale research rigs.
3. Industrial-scale experience with combustion or gasification systems

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