# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Senior Research Scientist, Ore Enrichment Technologies |
| Job Reference | 84839 |
| Tenure | Specified Term of 3 years  Full time |
| Salary Range | AU$117,917 – AU$138,176 per annum plus up to 15.4% superannuation |
| Location(s) | Pullenvale QLD |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader, Ore Enrichment Technologies |
| Client Focus – Internal | 25% |
| Client Focus – External | 75% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Michael O’Brien via email at [Michael.O'Brien@csiro.au](mailto:Michael.O'Brien@csiro.au) or phone +61 408 723 776 |
| 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).

### 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. The Research Scientist/Engineer 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.

As part of CSIRO’s Sustainable Mining Technologies (SMT) strategic transition to the wider mining environment, this role will encompass all minerals, and will play a leading role in broadening the capability to focus on iron ore and critical energy minerals. The SMT team has been focussed heavily on coal research for many years and the capabilities and expertise are world class. This Senior Research Scientist role, with an emphasis on a proven track record in minerals processing, will support the transition process and will be part of the Ore Enrichment Technologies (OET) team within CSIRO Mineral Resources business unit.

CSIRO has collaborated with the Australian Coal Association Research Program (ACARP), and the OET team currently has 5 ACARP projects being undertaken, with a focus on multi-use technologies that can be applied in other mineral domains. Additionally, strategic minerals research is being undertaken to match industry requirements with team expertise and capability. Particularly, investigations into work in dewatering, tailings re-use and reduction, iron ore processing optimisation (dry processing), deep coal cleaning for a carbon source (coal ore), and mineral sands processing are well underway. As a Senior Research Scientist, this role will include project management, new project development and the provision of assistance to the Team Leader in the management of the team. It is also expected that this role will play a key part in the team leadership succession plan.

As part of the Ore Enrichment Technologies team, this role will support/lead members of the team to progress mineral/tailings and coal research projects and aide in the team’s moral and culture in line with CSIRO’s values.

### Duties and Key Result Areas

* Under general direction, use professional expertise, knowledge of other disciplines and research experience and achievement to formulate, develop and complete an approved research program.
* Develop and apply knowledge of other scientific disciplines.
* Develop challenging but realistic research plans and negotiate resource requirements with research managers or clients.
* Take responsibility for smaller research projects or elements of larger projects within and/or across Business Units.
* Lead and supervise staff 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 and prepare documentation for patent applications (where relevant).
* Advise policy makers and 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.

## **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.

## **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 Chemical Engineering or Mineral processing.
2. Demonstrated research experience in mineral and/or coal processing.
3. Proven technical knowledge and skills in mineral/coal/tailings dewatering and/or tailings re-use.
4. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
5. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
6. A current Australian driver’s licence.

## **Desirable**

1. Experience in the dry processing of minerals/coal.
2. A good understanding of extraction processes for critical metals from coal or coal/mineral tailings.

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.
* 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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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:

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

Find out more about CSIRO [Mineral Resources](https://www.csiro.au/en/Research/MRF)