# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Ore Deposit Research Scientist - Supergene deposits |
| Job Reference | 91399 |
| Tenure | Specified Term of 3 years Full-time |
| Salary Range | AU$105,806 - AU$114,500 per annumplus, up to 15.4% superannuation |
| Location(s) | Kensington, WA |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates
 |
| Position reports to the | Research Commodity Leader Iron Ore and Lateritic Nickel |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr Erick Ramanaidou via email at erick.ramanaidou@csiro.au or phone +61 8 6436 8810  |
| 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. 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.

CSIRO Mineral Resources (CMR) is one of the largest minerals research and development groups globally, with a proud track record in delivering innovation and solutions across the mineral resources value chain. We thrive on innovation harnessed by the diversity of the minds and lived experiences of our team and apply our expert knowledge and specialised research to provide innovation that solves the complex problems faced by minerals companies, mining equipment, technology, and services (METS) companies, government, and other industry stakeholders. The CMR Discovery Program aims to be a truly diverse team that reflects the diversity that we see in society, and comprises an enthusiastic multidisciplinary team of STEM researchers, all focused on developing new technologies and concepts for exploration through cover and advancing orebody knowledge.

CMR Discovery Program has developed and is focussed on developing several large, multiyear, multi-sponsor Fe-Ore projects to deliver guaranteed revenue for future budget cycles. This 100-billion-dollar iron ore industry provides a major revenue stream into the Australian economy and the Discovery program aims to ensure that it remains so for the long term. Australia has the largest Ni and Co laterite deposits in the world (classified as critical) and sustaining and building knowledge in this area is important to prepare Australia as the main Ni and Co producer.

As a research scientist within Mineral Resources, you will undertake research aimed at advancing our capability to map and interpret the mineralogy and chemistry of mineral systems, the controls on metal transport and the processes of mineral deposition within mineral systems, while developing applications to mineral exploration. The position will support CSIRO Mineral’s growing commitment to map systems at all scales in collaboration with the Australian exploration and mining industry.

The candidate will have a sound technical background in petrology, mineralogy and geochemistry with a strong research record to enable effective knowledge transfer between collaborators and researchers (CSIRO, Australian and Overseas Universities) and mining companies that form part of Fe-Ore and Ni/Co laterite projects. The role will work with sponsor representatives to identify further research areas for ongoing project development. Ideally this experience will include detailed petrology, including optical microscopy and a range of micro- and nano techniques such as TIMA, electron microprobe, X-ray diffraction, Raman and reflectance spectroscopies, FIB-SEM, TEM as well as a good knowledge in iron, oxygen and hydrogen isotopes as well as dating techniques such as U-Th/He and U/Pb. The ability of using remote sensed data will also be an asset.

The focus of the position will include Australian and overseas iron deposits such as the Martite Goethite iron ores as well as the magnetite deposits critical for the production of green steel as well as Australian and New Caledonian Ni/Co laterite deposits.

The team recognises that Aboriginal and Torres Strait Islander peoples have made and will continue to make extraordinary contributions to Australian culture, economy and science and we aim to promote and support the vision of ‘A science landscape in respectful partnership with Indigenous Australia delivering innovative, sustainable, holistic solutions to meet our greatest national challenges’.

While working at CSIRO, you will be able to create a dynamic career path leveraging from your own experiences and identity. You will have access to a range of world-class facilities based at local universities where CSIRO has collaborative arrangements in place, and at other CSIRO sites across Australia. CSIRO provides an attractive remuneration package that includes a generous superannuation scheme, flexible work options, travel, and multiple leave options including paid maternity and parental leave.

CSIRO is also a member of the Science in Australia Gender Equity (SAGE) pilot, holds Gold Employer Status through the AWEI (Australian Workplace Equality Index), which sets a comparative benchmark for LGBTIQ+ inclusion for employers across all sectors and is committed to reconciliation with Aboriginal and Torres Strait Islander Peoples’.

### Duties and Key Result Areas

* Communicate effectively and respectfully in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Incorporate novel approaches to scientific investigations by adapting and/or developing original concepts and ideas for new, existing and further research.
* Operate mineralogical, spectral and geochemical analytical equipment in the field and laboratory.
* Produce high quality scientific and/or engineering papers suitable for publication in quality journals and for presentation at national and international conferences.
* Work collaboratively and honestly with internal and external colleagues, clients and partners to develop and progress challenging but realistic research plans for a range of research projects.
* Assist with elements of larger projects including the negotiation of resource requirements, as well as lead, coach and supervise staff to ensure experiments are established in accordance with research design, within agreed timelines and budget.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Work and develop projects that delivers high-impact research with strategic relevance to the Minerals industry.
* Foster collaboration and interactions between scientists and clients, matching client needs with research outcomes.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. Motivated and enthusiastic scientist with a passion for research in the iron ore and, Nickel and Cobalt laterite research space.
2. A doctorate and/or equivalent research experience in the field of geosciences with post PhD experience, along with a **record of capability to write high quality reports and/or publications in peer reviewed journals.**
3. A thorough understanding and practical usage of mineralogical, chemical and petrological techniques from the nano, micro, meso to field scales including FIB-SEM, TEM, SIMS, scanning electron microscopy (TIMA or equivalent), electron microprobe, X-ray diffraction, Raman and reflectance spectroscopies, a good knowledge in iron, oxygen and hydrogen isotopes as well as dating techniques such as U-Th/He and U/Pb.
4. Demonstrated ability to work within a multi-disciplinary research team, plus the motivation and discipline to carry out autonomous research, to achieve organisational goals.
5. Experience working in research projects with industry support, particularly in work experience relevant to iron ore and nickel-cobalt laterite systems.

## **Desirable**

1. Strong conceptual and analytical skills.
2. Ability to deal with ambiguity and uncertainty, to work collaboratively, be self-motivated and to demonstrate initiative.

## **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 responses 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 change.

**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.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Mineral Resources](https://www.csiro.au/en/Research/MRF) 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