# Position Details

## Research Projects- CSOF3

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| The following information is for applicants | |
| Advertised Job Title | Research Technician – Diffraction (part time) |
| Job Reference | 74214 |
| Tenure | Specified Term until 4th August 2023  Part-time 44.1hours/ftn (0.6 FTE) |
| Salary Range | AU$64,866 to AU$82,556 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Melbourne (Clayton) VIC |
| 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 who are currently residing in Australia and have the right to work for the expected duration of the term with no requirement for sponsorship |
| Position reports to the | Research Team Leader |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr Nathan Webster via email at nathan.webster@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. |

### 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.

The Research Technician – Diffraction will be a member of the Diffraction, Mineralogy and Geochemistry team of the CSIRO Mineral Resources (CMR) Characterisation Program. The role will enable the application and development of high-level analytical science, by performing sample preparation, diffraction data collection and some data analysis as part of delivery of research, and characterisation consulting services, for external and internal stakeholders.

The CMR Characterisation Program delivers high quality and accurate information to improve understanding of mineral resources across the minerals value chain, from exploration to processing.

The range of state-of-the-art analysis and characterisation capability includes X-ray fluorescence spectroscopy, electron/optical microscopy, electron probe microanalysis, QEMSCAN, particle size analysis and high-resolution X-ray computed tomography.

### Duties and Key Result Areas

* Under limited supervision, design and perform straightforward experiments and routine laboratory analyses, design new processes or apparatus by adapting existing techniques and components to meet special circumstances or undertake modifications to methods requiring some innovation.
* Contribute to the delivery of XRD-based characterisation services, particularly by performing sample preparation and data collection tasks under limited supervision, for external and internal customers across a wide range of mineral contexts. Some data analysis and reporting may also be involved.
* Contribute to the maintenance of a world-class characterisation laboratory, and development and application of specialised X-ray analysis techniques.
* Assist in establishing and developing clay sample separation and preparation capability in the Clayton laboratory.
* Follow safe work practices when working with chemicals, hazardous materials and scientific equipment.
* Allocate activities and manage resources to meet Team objectives.
* Adapt and/or develop original experimental methods/equipment/software/concepts/ideas in support of existing and further research.
* Handle commercially sensitive data and information in accordance with Client and CSIRO requirements.
* Work with discretion to decide on the timing of operations within the work team’s plan and plan ahead to meet experimental and/or project demands.
* Independently test possible solutions to resolve identified problems.
* May have responsibility for maintaining laboratory consumables and scheduling and instructing staff in the use of shared equipment.
* Oversee the activities of less experienced staff and provide guidance on experimental/ technological techniques and protocols as required.
* Respond courteously and efficiently to client requests, maintaining clear communication regarding mutual expectations and monitoring client satisfaction.
* 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, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies**

* **Teamwork and Collaboration:** Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.
* **Influence and Communication:** Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.
* **Resource Management/Leadership:** Provides instruction and assists other staff to complete allocated tasks and activities.
* **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## **Selection Criteria**

#### Essential

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

1. Relevant tertiary qualifications or equivalent relevant work experience in Minerals/Minerals Processing, Geology/Geochemistry, Physics, Chemistry or Materials Science/Engineering.
2. Demonstrated experience in XRD sample preparation, and collection of XRD data, in a research, academic or commercial environment.
3. Proven experience in the operation of scientific equipment for collection of data and applying data collection and analysis approaches to solve specific problems.
4. Demonstrated experience in the safe use of chemicals and materials in a laboratory environment.
5. Demonstrated ability to work effectively within project teams.
6. Demonstrated strong oral and written communication skills, and the ability to liaise with customers and/or colleagues, peers and managers to establish their requirements and ensure customer satisfaction.

**Desirable**

1. Experience in the analysis of XRD data, for mineral phase identification and quantification.
2. Experience in using furnaces to heat materials to high temperature (above 1000°C).
3. Experience with using laboratory gases including nitrogen, helium, and carbon dioxide.

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 Check or equivalent. Please note that people 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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* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted

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