# Position Details

## Research Scientist/Engineer- CSOF5/CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Marine Biogeochemist |
| Job Reference | 85310 |
| Tenure | Specified Term of 36 months with possibility of extension  Full-time |
| Salary Range | Level CSOF5 AU$102,724 - $111,165 + up to 15.4% super  Level CSOF6 AU$117,917 - $138,176 + up to 15.4% super  \*NB: This position is offered across two levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate |
| Location(s) | Hobart |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates |
| Position reports to the | Ocean Carbon Observations Team Leader, Oceans Group Leader |
| Client Focus – Internal | 0% |
| Client Focus – External | 0% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Elizabeth Shadwick via email at elizabeth.shadwick@csiro.au or phone +61 3 6232 5571 |
| 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

Research scientists in CSIRO conduct innovative research aligned with CSIRO’s strategic directions. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. The position will be based in Hobart, Tasmania, working with a team on ocean carbon cycling in the Southern Ocean and the regional seas around Australia. 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.

### Duties and Key Result Areas:

Depending on the level of appointment, you will be responsible for a range of activities related to observations, quality assurance and data synthesis. Responsibilities will include:

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* Under the supervision of and in collaborations with senior researchers utilise understanding of seawater chemistry, to lead the synthesis of biogeochemical data for delivery to international networks.
* Contribute to ocean carbon research via visualization of observations and model data and to meet project milestones on time and within budgets.
* Participate in field campaigns on research vessels including repeat hydrographic sections and Southern Ocean process studies (duration 3-8 weeks and typically a maximum of one per year).
* Generate project reports, peer-reviewed publications, and contribute to proposals for new projects and fieldwork.
* Contribute to analysis of ocean carbon samples using existing bench-top instrumentation and sensors under development.
* Utilise programming skills for visualization and quality control of marine CO2 system data.
* Contribute to CSIRO engagement in collaborative ventures such as the Australian Antarctic Program Partnership ([https://aappartnership.org.au](https://aappartnership.org.au/)), the Integrated Marine Observing System ([www.imos.org.au](http://www.imos.org.au)), the International Biogeochemical Argo program (<http://biogeochemical-argo.org/>), and the OceanSITES global network of time series observations ([www.oceanSITES.org](http://www.oceanSITES.org)).
* Communicate effectively and respectfully in the interests of good business practice, collaboration, and enhancement of CSIRO’s reputation.
* Work effectively with multi-disciplinary, often regionally dispersed, research teams, to undertake independent scientific investigations and carry out/delegate associated tasks under broad guidance from senior Research Scientists/Engineers.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

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* Utilise understanding of seawater biogeochemical cycling, primarily related to air-sea gas exchange and ocean carbon uptake and storage, to lead the synthesis of biogeochemical data for delivery to international networks.
* Utilise programming skills for visualization, quality control and synthesis of field observations, combining this with model output to undertake ocean carbon research.
* Work with senior researchers to identify and promote research directions, contribute to proposal development and meeting project milestones and budgets.
* Lead peer-reviewed publications, project reports, and proposals for new projects and fieldwork.
* Lead field campaigns on research vessels including repeat hydrographic sections and Southern Ocean process studies (duration 3-8 weeks , and typically a maximum of one per year).
* Contribute to CSIRO engagement in collaborative ventures such as the Australian Antarctic Program Partnership ([https://aappartnership.org.au](https://aappartnership.org.au/)), the Integrated Marine Observing System ([www.imos.org.au](http://www.imos.org.au)), the International Biogeochemical Argo program (<http://biogeochemical-argo.org/>), and the OceanSITES global network of time series observations ([www.oceanSITES.org](http://www.oceanSITES.org)).
* Communicate effectively and respectfully in the interests of good business practice, collaboration, and enhancement of CSIRO’s reputation.
* Work effectively with multi-disciplinary, often regionally dispersed, research teams, to undertake independent scientific investigations and carry out/delegate associated tasks under broad guidance from more senior Research Scientists/Engineers.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Required Competencies:**

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* **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.

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* **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**

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

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**Essential**

1. A doctorate degree in a relevant discipline area, such as marine biogeochemistry, or chemical oceanography.
2. Experience in the collection, analysis and QC of ocean CO2 system data and related biogeochemical tracers (e.g. oxygen, nutrients).
3. Demonstrated record of publishing in high impact science journals.
4. **Capacity to work at sea for extended periods, including in the remote Southern Ocean (which requires passing comprehensive Australian national medical examinations).**
5. **Proficiency with programming languages (e.g. Matlab, Python or R) for data analysis**

**Desirable**

1. Track record in the maintenance of instrumentation and sensor calibrations, and in the documentation of analytical procedures and results
2. Experience in the handling and manipulation of large observation data sets and/or model output.

**For appointment at the higher salary level (CSOF6), essential/desirable criteria will include:**

#### COSF6

#### Essential

1. A doctorate in a relevant discipline area, such as marine biogeochemistry, or chemical oceanography.
2. Experience in the collection, analysis and QC of ocean CO2 system data and related biogeochemical tracers (e.g. oxygen, nutrients).
3. Capability in synthesis of biogeochemical data for marine carbon cycle research, including quantitative data visualization, analysis and interpretation using numerical methods.
4. Demonstrated success in publishing high impact science in the field of marine biogeochemistry.
5. Track record in the maintenance of instrumentation and sensor calibrations, and in the documentation of analytical procedures and result
6. **Capacity and experience working at sea for extended periods, including in rough seas and in the Southern Ocean (which requires passing comprehensive Australian national medical examinations).**
7. **Proficiency with programming languages (e.g. Matlab, Python or R) for data analysis**

## **Desirable:**

1. Experience with method development for marine biogeochemical sensors and/or instruments
2. Experience in the handling and manipulation of large observation data sets and/or model output.

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.
* Remote Medical for Southern Ocean work

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Find out more about CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA)