



# RESEARCH FELLOW

<b>DEPARTMENT/UNIT</b>	School of Earth, Atmosphere and Environment
<b>FACULTY/DIVISION</b>	Faculty of Science
<b>CLASSIFICATION</b>	Level A
<b>DESIGNATED CAMPUS OR LOCATION</b>	Clayton campus

## ORGANISATIONAL CONTEXT

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Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at [www.monash.edu](http://www.monash.edu).

The five Schools of the **Faculty of Science** offer a large and diverse range of disciplines in undergraduate and postgraduate courses. Ten Schools from other university faculties contribute to science teaching at all levels, allowing students to choose their studies from physical, biological, biomedical, behavioural, environmental, mathematical and computer sciences. The Faculty of Science has a strong research reputation. The Faculty's research spans the theoretical to the applied, contributes to new knowledge and technologies, and challenges how we interact with the world. To learn more about the Faculty of Science, please visit our website: [www.monash.edu/science](http://www.monash.edu/science).

Through leadership in research and education, the **School of Earth, Atmosphere and Environment** aims to find environmental solutions for society and the planet. The school is located in the Faculty of Science ([www.monash.edu/science/schools/earth-atmosphere-environment](http://www.monash.edu/science/schools/earth-atmosphere-environment)) and has close collaborations with Biology, Chemistry, Mathematics and Physics, and with other Faculties, such as Arts (involving co-delivery of the undergraduate Geography programme), Business and Economics, and Engineering. The school hosts very active groups in Atmospheric/Climate Sciences, Physical Geography/Environment, and Geology/Geosciences. The school is a major node of the ARC Centre of Excellence in Climate Extremes (CLEX), and Securing Antarctica's Environmental Future (SAEF), an ARC Special Research Initiative in Excellence in Antarctic Science. Facilities include infrastructure to support fieldwork, and world class geochemistry laboratories for elemental, stable isotope, radioisotope analysis of waters, soils and environmental materials, environmental DNA, and a preparation laboratory for terrestrial cosmogenic nuclides. The School hosts the Monash Drone Discovery Platform, and groups within the school have established collaborations with the National Computational Infrastructure, and the Australian Synchrotron (located adjacent to Monash Clayton). The School has strong links with outside institutions such as Federal and State Government agencies, CSIRO, the Bureau of Meteorology, Australia's climate simulator (ACCESS NRI), the Australian Antarctic Division, AuScope, and Geoscience Australia, as well as a large number of research institutes and universities globally.

## POSITION PURPOSE

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A Level A research-only academic is expected to contribute towards the research effort of the University and to develop their research expertise through the pursuit of defined projects relevant to the particular field of research.

The Research Fellow will be a part of a dynamic research group that aims to establish the origin and evolution of continents, from crust to lithospheric roots, and their role in the long-term development of the Earth system. Specific research topics could include one of the following: composition and formation of early continental crust; geochemical tracers of lithospheric and complementary mantle evolution; geodynamic modelling of crust formation; analysis of chemical, sedimentary and tectonic processes that bias the rock record; constraining when plate tectonics commenced on Earth, numerical modelling of convergent margins, orogenic belts and supercontinent cycles; impact of crustal evolution on the Earth system.

The role requires demonstrated skills in one of the following areas: isotope and trace element geochemistry, geodynamics and numerical modelling, and igneous, metamorphic or sedimentary geology. This position also utilizes methodologies and technologies such as radiogenic or stable isotope mass spectrometric analyses, computational modelling in 2D, 3D and 4D.

**Reporting Line:** The position reports to Laureate Fellow, School of Earth, Atmosphere & Environment

**Supervisory Responsibilities:** Not applicable

**Financial Delegation:** Not applicable

**Budgetary Responsibilities:** Not applicable

## KEY RESPONSIBILITIES

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Specific duties required of a Level A research-only academic may include:

1. The conduct of research under limited supervision either as a member of a team or, where appropriate, independently and the production or contribution to the production of conference and seminar papers and publications for submission to quality refereed journals
2. Develop, improve and apply geochemical or geodynamic-modelling techniques to observations on the nature and evolution of the continental crust
3. Identify new approaches and techniques to be used in the evaluation of crustal evolution
4. Involvement in professional activities including, subject to availability of funds, attendance at national and international conferences and seminars in the field of expertise
5. Limited administrative functions primarily connected with the area of research of the academic
6. Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff
7. Occasional contributions to teaching in relation to their research project(s)
8. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and/or membership of a limited number of committees
9. Other duties as directed from time to time

## KEY SELECTION CRITERIA

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### Education/Qualifications

1. The appointee will have:
  - A doctoral qualification in the relevant discipline or a closely related field.

### Knowledge and Skills

2. A high level of expertise in isotope geochemistry, numerical modelling or fields applicable to crustal evolution, including demonstrated ability to apply expertise to solve geological problems
3. Demonstrated ability to analyse data sets to gain understanding of Earth processes with ability to undertake innovative science at the forefront of your field of expertise
4. Evidence for integration across diverse data sets to understand the Earth system, especially at periods of step changes in behaviour of the system
5. Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
6. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
7. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents
8. A demonstrated awareness of the principles of confidentiality, privacy and information handling
9. A demonstrated capacity to work in a collegiate manner with other staff in the workplace and also independently across multiple projects to contribute to research and scholarship
10. Demonstrated computer literacy and proficiency in the production of high level work using software such as Microsoft Office applications and specified University software programs, with the capability and willingness to learn new packages as appropriate

## OTHER JOB RELATED INFORMATION

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- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted

## GOVERNANCE

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Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.