



# RESEARCH FELLOW

DEPARTMENT/UNIT	School of Earth, Atmosphere and Environment
FACULTY/DIVISION	Faculty of Science
CLASSIFICATION	Level A
WORK LOCATION	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 **School of Earth, Atmosphere and Environment** is located in the Faculty of Science ([www.monash.edu/science/](http://www.monash.edu/science/)) and has close collaborations with other Schools, such as Physics, Chemistry and Biology, and with other Faculties, such as Business and Economics, Arts, and Engineering. The School has strong links with outside institutions such as CSIRO, the Bureau of Meteorology, the Australian Synchrotron, and Geoscience Australia as well as a large number of research institutes and universities globally.

The School is highly multidisciplinary with very active groups in Crustal Evolution, Tectonics and Structural Geology, Geodynamics, Environmental Mineralogy, Synchrotron Geoscience and Geochemistry, Economic Geology, Petrology, and Applied Geophysics, as well as groups in the Atmospheric and Environmental Sciences. The School has a suite of world-class research geochemistry facilities which include: a ThermoFisher Neptune plus MC-ICP-MS, a Triton plus TIMS, a triple-quadrupole iCAP-TQ and a single-quadrupole iCAP-Q ICP-MS, ASI-RESOLUTION ArF 193 nm excimer and New Wave UP 213 nm Nd-YAG solid state laser ablation systems, a class 350 clean laboratory for isotope geochemistry.

## 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.

In this role, the appointee 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. The continental crust hosts the resources on which we depend and its evolution controls the environment in which we live. The crust's most fundamental feature is that its record (including resources) is episodic in space and time, yet the origin of this periodicity is unresolved. 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 Professor in the School of Earth, Atmosphere and Environment

**Supervisory responsibilities:** Not applicable

**Financial delegation:** Not applicable

**Budget 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 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

## KEY SELECTION CRITERIA

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### Education/Qualifications

1. The appointee will have:
  - A doctoral qualifications 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. Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
5. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
6. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents
7. A demonstrated awareness of the principles of confidentiality, privacy and information handling
8. A demonstrated capacity to work in a collegiate manner with other staff and but also independently across multiple projects to contribute to research and scholarship
9. 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

## **LEGAL COMPLIANCE**

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Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.