



RESEARCH FELLOW

DEPARTMENT/UNIT	School of Earth, Atmosphere and Environment
FACULTY/DIVISION	Faculty of Science
CLASSIFICATION	Level B
WORK LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

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.

The **School of Earth, Atmosphere and Environment** is located in the Faculty of Science (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

A Level B research-only academic is expected to carry out independent and/or team research within the field in which they are appointed and to carry out activities to develop their research expertise 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

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

1. The conduct of research either as a member of a team or independently and the production of conference and seminar papers and publications from that research.
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. Supervision of postgraduate research students, co-supervision or, where appropriate, supervision of major honours or postgraduate research projects.
5. Contribution to the preparation or, where appropriate, individual preparation of research proposal submissions to obtain external research grants.
6. Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise
7. Administrative functions primarily connected with their area of research
8. Occasional contributions to the teaching program within the field of the staff member's research
9. 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

Education/Qualifications

1. The appointee will have:
 - A doctoral qualification in Earth Sciences or equivalent qualifications or research experience

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. Demonstrated statistical analysis and manuscript and research proposal preparation skills; including a solid track record of refereed research publications
5. Demonstrated post-doctoral experience in relevant area
6. Experience in successfully supervising, mentoring and coaching to support the development of research staff, major honours or postgraduate students and a demonstrated trajectory of leadership capability
7. The ability to work both independently in a research environment and as part of an inter-disciplinary research team
8. High level organisational skills, with demonstrated capacity to establish and achieve goals
9. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents
10. Demonstrated capability in positively contributing to seminars and conferences with ability to attract grant funding

OTHER JOB RELATED INFORMATION

- 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

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.