Fully funded PhD scholarship opportunity in Quantum Diamond magnetic imaging of geological samples for palaeomagnetic research related to Earth evolution and ore deposit formation

Earth Dynamics Research Group, School of Earth and Planetary Sciences
Curtin University - Bentley Campus, Perth, Western Australia

The Earth Dynamics Research Group, part of the School of Earth and Planetary Sciences at Curtin University, has a PhD scholarship available for research focused on magnetic imaging and properties of geological samples using a newly acquired Quantum Diamond Microscope (QDM). This research will provide novel insights into the long-term evolution of Earth's magnetic field. It will relate these insights with the palaeogeographic importance of ore deposit formation in Australia and elsewhere. The project will be highly interdisciplinary involving fieldwork, petrology, geochronology as well as isotope geochemistry in order to characterise the magnetic signal of volcanic and metamorphic rocks on a microscopic scale.

The available position is 3.5 years full-time with the support of a competitive stipend scholarship and a student fee waiver. The successful candidate will be self-reliant, have excellent communication skills, have a demonstrated research background (including laboratory and field-based work) in palaeomagnetism, geochemistry, physics or other related disciplines of geophysics or physics, and a proven ability in the dissemination of scientific results.

The successful candidate will join a diverse team of researchers within the Earth Dynamics Research Group (http://geodynamics.curtin.edu.au/) led by ARC Australian Laureate Fellow Prof. Z.X. Li and ARC Future Fellow Luc Doucet within the School of Earth and Planetary Sciences. Curtin University is home to one of Australia's leading institutions for geoscience research and has an excellent international reputation for quality research and extensive research infrastructure.

Please contact Uwe Kirscher for additional information (uwe.kirscher@curtin.edu.au).

Scholarship details
This project provides a living stipend of AU$35,000 p.a. pro rata indexed, based on full-time studies, for up to a maximum of 3.5 years. International students will receive a 100% fee offset for up to 4 years. Support for fieldwork, analytical time, travel, conference attendances and publications will be fully covered by the scholarship.

Eligibility Requirements:
Applicants must have either 1st class Honours (or equivalent qualification with research experience) or MSc in the Earth sciences (or other relevant field).
Applicants should meet the University English Language Requirements (available here).
Previous experience in palaeointensity/palaeomagnetism will be highly regarded.

How to Apply
To apply, please send the following Uwe Kirscher (uwe.kirscher@curtin.edu.au).:

- your CV (with digital copies of any authored scientific publications, if applicable),
- details of BSc (Hons.) and/or MSc, including copies of academic transcripts and the abstract of your thesis (if applicable),
- a brief letter explaining your research interests and preferred choice of project(s) (including your rationale for that choice), and

- the names and contact details of three references that may be contacted for a recommendation letter.

Applications are invited continuously, and the position is open until filled. Shortlisted candidates will be interviewed, and the preferred candidates sent offers as soon as possible.

The deadline for complete applications (note specific requirements of endorsements on the scholarships webpage) is 31 December 2024 (Western Australia time, UTC+8).

The PhD may be started as soon as practicable, but we recognise arranging visas and travel may impact this (where relevant).

Email applications with the email titled “QDM_PhD” to uwe.kirscher@curtin.edu.au.
Applications should contain a 2-page CV and a 1-page motivation statement, together in a single pdf, labelled “Lastname_FirstName_QDMPhD.pdf”.

Applications failing to use the correct email title, or provide incomplete documents may not be considered.

Shortlisted applicants will have an online interview invitation as soon as possible. If you do not hear back from us, your application was unsuccessful.

Recommended applicants will be provided with further information on the PhD enrolment process at Curtin University (including upload of certified transcripts and demonstration of English language requirements).

About Curtin University and the School of Earth and Planetary Sciences
Curtin is a dynamic, research-intensive University consistently ranked in the top 1% of universities worldwide. Curtin was recently ranked 39th in the world for Geology in the QS World University Rankings by Subject 2024. The disciplines of Geology and Geochemistry have both been awarded the maximum ranking of 5 in the recent federal government's "Excellence in Research for Australia" assessments. These factors, coupled with excellent analytical facilities (QDM, SelFrag, SEM, (LA-)MC-ICPMS Neptune 2 and Neoma, TIMS, CAMECA 1300 IMS, etc.) ensures that candidates will be hosted within a vibrant and dynamic research environment and will receive exceptional research training.