

Post Specification

Post Title:	PhD Studentship (LITHO3 – PhD1)
Post Status:	4 year fully funded PhD studentship
Research Group / Department / School:	Department of Geology, Trinity College Dublin, the University of Dublin
Location:	Museum building, Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
Reports to:	Dr Emma Tomlinson
Terms & Conditions:	Funding includes fees, research costs and a tax-free stipend of €20,000 per annum.
Hours of Work:	Full time
Closing Date:	12 Noon (GMT), Monday 1 st August 2022 or until filled

NOTE: Applicants must have been resident in an EU member state for 3 out of the last 5 years to be eligible for EU fees

Post Summary

We seek an excellent and highly motivated student with an interest in mantle petrology to work the project “Quantifying the melting conditions of Archaean peridotites” at Trinity College Dublin. The project is part of an ERC funded project LITHO3, quantifying the formation and evolution of the cratonic lithosphere. One of the aims of this project is to constrain the melting conditions (pressure and temperature) of Archaean cratonic peridotites.

The successful candidate will focus on cratonic peridotite xenoliths containing unequivocal textural evidence for exsolution. The ultimate goal is to quantify the formation conditions of exsolved peridotites and to test the hypothesis that these are representative of more ‘normal’ granular cratonic peridotites. The work involves in situ (SEM-EDX, EMPA, LA-ICP-MS) and bulk (XRF) geochemical analysis and phase equilibria modelling of peridotite compositions.

The position is funded for 4 years, starting September 2022. The person will form part of an enthusiastic team of PhD students and postdoctoral researchers, will participate in regular group meetings (LITHO3 and the Irish Mantle Group) and gain knowledge of geochemical analysis and data reduction, data analysis and scientific communication.

Standard Duties and Responsibilities of the Post

- Work independently and as a team member with other PhD students and postdoctoral researchers as part of the LITHO3 project and in coordination with laboratory managers in the Department of Geology.
- Undertake geochemical analyses via SEM-EDX, XRF and LA-ICP-MS.
- Phase equilibrium and trace element modelling of peridotite compositions.
- Prepare scientific reports (abstracts, conference presentations and journal papers).

Training, support and the necessary expertise are available in the team of investigators and collaborators to accelerate the start of the project.

Funding Information

The LITHO3 project is funded by a 5-year ERC-CoG grant to Dr Emma Tomlinson.

Person Specification

The suitable candidate will have a degree in geology and will demonstrate an interest in mantle petrology and/or the Early Earth.

Qualifications

Applicants should have obtained or be about to obtain a first or upper second class honours (II-I, >60%) degree (or equivalent) in geology or a related discipline. A Master's degree or other postgraduate qualification in a relevant subject and/or research in the area is an advantage.

Knowledge & Experience (Essential & Desirable)

- Competency in petrology (essential)
- Experience in electron microprobe, scanning electron microscopy and/or laser ablation ICP-MS techniques (desirable)
- Experience in handling geochemical data and/or thermodynamic modelling (desirable)
- Competency in basic IT skills (essential) and intermediate data analysis skills e.g. R / Matlab etc (desirable).
- Experience presenting results of research in written and oral format (desirable).

Skills & Competencies

- Intermediate computational skills (desirable) or a commitment to obtaining proficiency (essential)
- Self-motivated and an ability to work to deadlines (essential)
- Strong oral and written communication (essential)
- Critical thinking and analytical skills (essential)
- The ability to engage with the scientific literature at a conceptual level (essential)

Application Procedure

Applicants should submit the following documents to Dr Emma Tomlinson (tomlinse@tcd.ie):

- A cover letter to include a statement of purpose and motivation for pursuing this PhD research (1-2 pages).
- A full Curriculum Vitae to include the names and contact details of 2 referees (including institutional email addresses).
- Evidence of English language proficiency (if required, see www.tcd.ie/study/apply/admission-requirements/postgraduate/)

The applications are required to be submitted as one e-mail with all the requested documents attached in PDF format to the Email Address: tomlinse@tcd.ie Please quote the following in the subject heading of the emailed application: "Application for PhD Studentship (LITHO3 – PhD1)". Interviews will be held online.

Further Information for Applicants

URL Link to PI	https://www.tcd.ie/Geology/people/tomlinson/
URL Link to department	https://www.tcd.ie/Geology/
Informal enquiries	Dr Emma Tomlinson (tomlinse@tcd.ie)

Trinity College Dublin, the University of Dublin

Trinity is Ireland's leading university and is ranked 108th in the world (QS World University Rankings 2020). Founded in 1592, the University is steeped in history with a reputation for excellence in education, research and innovation.

Located on an iconic campus in the heart of Dublin's city centre, Trinity has 18,000 undergraduate and postgraduate students across our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences.

Trinity is ranked as the 17th most international university in the world (Times Higher Education Rankings 2020) and has students and staff from over 120 countries.

The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success. Trinity has developed 19 broad-based multidisciplinary research themes that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. Trinity is also home to 5 leading flagship research institutes:

- Trinity Biomedical Sciences Institute (TBSI)
- Trinity College Institute of Neuroscience (TCIN)
- Trinity Translational Medical Institute (TTMI)
- Trinity Long Room Hub Arts and Humanities Research Institute (TLRH)
- Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

Trinity is the top-ranked European university for producing entrepreneurs for the past five successive years and Europe's only representative in the world's top-50 universities (Pitchbook Universities Report).

Trinity is home to the famous Old Library and to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps and early printed material. The Trinity Library is a legal deposit library, granting the University the right to claim a copy of every book published in Ireland and the UK. At present, the Library's holdings span approximately 6.5 million printed items, 400,000 e-books and 150,000 e-journals.

With over 120,000 alumni, Trinity's tradition of independent intellectual inquiry has produced some of the world's finest, most original minds including the writers Oscar Wilde and Samuel Beckett (Nobel laureates), the mathematician William Rowan Hamilton and the physicist Ernest Walton (Nobel laureate), the political thinker Edmund Burke, and the former President of Ireland Mary Robinson. This tradition finds expression today in a campus culture of scholarship, innovation, creativity, entrepreneurship and dedication to societal reform.

Rankings

Trinity is the top ranked university in Ireland and ranked 108th in the world (QS World University Rankings 2020). Trinity ranks in the top 50 in the world on 6 subjects and in the top 100 in 20 subjects (QS World University Rankings by Subject 2019). Full details are available at: www.tcd.ie/research/about/rankings.

The Selection Process in Trinity

The Selection Committee (Interview Panel) may include members of the Academic and Administrative community together with External Assessor(s) who are expert in the area. Applications will be acknowledged by email. If you do not receive confirmation of receipt within 1 day of submitting your application online, please contact the named Recruitment Partner on the job specification immediately and prior to the closing date/time.

Given the degree of co-ordination and planning to have a Selection Committee available on the specified date, the University regrets that it may not be in a position to offer alternate selection dates. Where candidates are unavailable, reserves may be drawn from a shortlist. Outcomes of interviews are notified in writing to candidates and are issued no later than 5 working days following the selection day.

In some instances the Selection Committee may avail of telephone or video conferencing. The University's selection methods may consist of any or all of the following: Interviews, Presentations, Psychometric Testing, References and Situational Exercises.

It is the policy of the University to conduct pre-employment medical screening/full pre-employment medicals. Information supplied by candidates in their application (Cover Letter and CV) will be used to shortlist for interview.

Applications from non-EEA citizens are welcomed. However, eligibility is determined by the Department of Business, Enterprise and Innovation and further information on the Highly Skills Eligible Occupations List is set out in Schedule 3 of the Regulations <https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Highly-Skilled-Eligible-Occupations-List/> and the Ineligible Categories of Employment are set out in Schedule 4 of the Regulations <https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Ineligible-Categories-of-Employment/> . Non-EEA candidates should note that the onus is on them to secure a visa to travel to Ireland prior to interview. Non-EEA candidates should also be aware that even if successful at interview, an appointment to the post is contingent on the securing of an employment permit.

Equal Opportunities Policy

Trinity is an equal opportunities employer and is committed to employment policies, procedures and practices which do not discriminate on grounds such as gender, civil status, family status, age, disability, race, religious belief, sexual orientation or membership of the travelling community. On that basis we encourage and welcome talented people from all backgrounds to join our staff community. Trinity's Diversity Statement can be viewed in full at <https://www.tcd.ie/diversity-inclusion/diversity-statement>.

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