**Research Assistant (part-time) in the Earth Surface Research Laboratory**

**Job title:** Research Assistant (part-time) in the Earth Surface Research Laboratory

**Post status:** Specific purpose (approximately 5 years duration), 0.5 FTE

**Research group/department/school:** Earth Surface Research Laboratory, Discipline of Geology / School of Natural Sciences. Trinity College Dublin, The University of Dublin.

**Location:** Earth Surface Research Laboratory, Unit 6b, Trinity Technology & Enterprise Centre (TTEC), Pearse Street, Dublin 2, Ireland / Department of Geology, Museum Building, Trinity College Dublin, Dublin 2, Ireland.

**Reports to:** Dr Michael Stock, Assistant Professor in Geochemistry and Director of the ESRL.

**Salary:** Appointment will be made on the appropriate point of the IUA Research Assistant salary scale in line with government pay policy i.e. 0.5 FTE at Research Assistant €31,962-41,943 gross per annum.

**Hours of work:** 19.5 per week

**Closing date:** 17:00 GMT, 11 December 2024

**Post summary**

The [Earth Surface Research Laboratory (ESRL)](https://www.tcd.ie/Geology/esrl/) invites applications for a part-time Research Assistant in geochemistry, funded by Geological Survey Ireland (GSI). The position will be tenable for the duration of the ESRL's funding (approximately five years, subject to satisfactory performance), starting on 16 January 2025 or as soon as possible thereafter.

This is a part time position and might suit applicants who require flexibility for other commitments. The successful applicant would be expected to work 4 hours per day, 5 days per week (ideally either in the morning or late afternoon, coinciding with opening/closing the laboratory).

Applicants will contribute to the day-to-day running of the ESRL, under the management of the laboratory Director, Dr Mike Stock, and in collaboration with other ESRL staff. Their primary responsibility will be to assist the preparation of samples for geochemical analysis, with a focus on supporting the high-throughput preparation of geological and environmental samples for [Geological Survey Ireland's Tellus survey](https://www.gsi.ie/en-ie/programmes-and-projects/tellus/activities/ground-survey/Pages/default.aspx). However, they will also support a diverse range of national/international research projects.

In addition to sample preparation, the successful applicant could be asked to take on other duties within the ESRL, as required. This might include developing new procedures, consumable procurement, maintaining health and safety protocols, account management, communication with the ESRL's management committees and training laboratory users in sample preparation techniques. While sample analysis will not be their primary responsibility, they will be trained to operate a range of geochemical instruments within the ESRL.

The successful applicant will be supported in their ongoing professional development, through internal training and attendance of external courses. In addition to becoming a member of the ESRL, the successful applicant will be hosted within the Department of Geology in the School of Natural Sciences and will join the active Trinity College Dublin [Geochemistry Research Group](https://www.tcd.ie/Geology/research/geochem.php).

**Background to the post**

The ESRL was established as a national geochemical research facility in 2019, funded through a service level agreement with Geological Survey Ireland. The ESRL is the XRF data supplier for Geological Survey Ireland's [Tellus geochemical survey](https://www.gsi.ie/en-ie/programmes-and-projects/tellus/Pages/default.aspx) and is equipped to analyse up to ~3000 Tellus soil and sediment samples per year. In December 2021, the laboratory was awarded an ISO17025:217 (General requirements for the competence of testing and calibration laboratories) accreditation by the Irish National Accreditation Board (INAB).

The laboratory is also open to all Earth and environmental scientists based on the island of Ireland for research projects through funded research projects and bi-annual open calls where researchers can apply for free facility access.

The laboratory currently hosts a state-of-the-art Zetium WD-XRF, Rigaku ED-XRF, elemental analyser (TIC/TOC/S) and an Hg analyser, in addition to a full suite of sample preparation equipment (including both XRF pellet pressing and fusion). All instruments and equipment are housed within individual clean rooms and samples/data are controlled through a cloud-based laboratory information management system (LIMS). In addition to the advertised position, the ESRL is staffed by full-time technical support staff, a Research Fellow and the Director. High level oversight is through dedicated Management and Scientific Advisory Committees.

More broadly, the TCD Department of Geology hosts full rock preparation facilities and a wide-range of [analytical laboratorie](http://www.tcd.ie/Geology/research/facilities/)s, including: three state-of-the-art laser-ablation ICP-MS laboratories, a clean wet laboratory and dedicated ICP-OES and MS instruments, a quality XRD instrument, two geoscience dedicated field-emission-gun SEMs (equipped with Raman, full colour CL and EBSD), and an IRMS for the analysis of H-C-N-O isotopes in organic matter and carbonates.

**Standard duties and responsibilities of the post**

**The successful applicant will:**

* Prepare geological and environmental samples for geochemical analysis, principally by XRF.
* Manage and maintain sample preparation equipment within the ESRL.
* Develop new and existing laboratory operating procedures.
* Contribute to maintaining a safe working environment within the ESRL.
* Maintain the consumable inventory within the ESRL, procuring materials as required.
* Undertake such administrative responsibilities as directed by the ESRL Director. These might include reporting, account management and occasional secretarial duties.
* Continue their professional development by pursuing internal/external training opportunities.

**Qualifications**

* Research Assistant applicants must hold or be studying towards a BSc in Earth or environmental science, chemistry or a similar relevant area.

**Knowledge and experience**

**Essential**

* Experience working in a laboratory environment.
* Demonstrable knowledge of geochemistry and/or chemical analysis.
* Experienced operation of Microsoft Office software.
* Excellent communication skills.
* Excellent organisational skills.

**Desirable**

* Knowledge of XRF analysis.
* Knowledge of TC, TOC, TIC and Hg analysis.
* Experience in laboratory management or procurement of equipment/consumables.
* Experience in developing laboratory procedures.
* Experience in training users in laboratory procedures and safe working practices.
* Experience in publishing research results or other project reporting.
* Knowledge of ISO procedures, particularly ISO 17025:2017.

**Skills and competencies**

* Demonstrated potential to work effectively within a geochemical laboratory in a research setting.
* Excellent organisational skills and an ability to balance technical and administrative tasks.
* Excellent communication skills, including with academic and non-academic stakeholders.

**Application procedure**

Applications should be made to:

Dr Hilde Koch, Trinity College Dublin
kochhi@tcd.ie

Applicants are required to submit the following documents:

* A one-page cover letter detailing their suitability for the post
* A full CV (max. 2 pages)
* The contact details of two referees (including email addresses)

All applicants will be notified of the outcome of their submission. Successful applicants will be invited to interview via Zoom.