UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Assistant in Interfacial Phenomena for Carbon Storage, Faculty of Engineering and Physical Sciences

Salary: Grade 6 (£33,951 - £39,906 p.a.)

Reporting to: Dr David Harbottle

Reference: EPSPE1125

Closing date: Wednesday 22 April 2026

Fixed term (starting from 01 May 2026, until 21 December 2026 - to complete specific time limited work)

Location: Leeds Main Campus

We are open to discussing flexible working arrangements

Research Assistant in Interfacial Phenomena for Carbon Storage,
School of Chemical and Process Engineering.

Are you a motivated early career researcher? Do you have an interest in carbon storage technologies? Do you have an interest in surface and interfacial phenomena, multiphase fluids, or carbon storage technologies? Do you want to further your career in one of the UK's leading research-intensive Universities?

Overview of the Role

The role holder will join a research team investigating the behaviour of liquid interfaces in brine–supercritical CO_2 systems, under reservoir-relevant pressure and temperature conditions. The role focuses on supporting experimental studies of droplet wetting and dewetting, using imaging techniques to observe droplet shape and contact-line motion.

Working with an existing high-pressure experimental setup, you will carry out laboratory experiments and collect image and interfacial data following established procedures and guidance from academic staff. You will assist with the analysis of image data to extract quantities, such as contact angle and droplet shape evolution, using established methods and software.

You will work closely with academic staff and other researchers, contributing to day-to-day experimental activities and project meetings. The role is well suited to a hands-on researcher with an interest in surface and interfacial science or experimental fluid systems.

Main duties and responsibilities

- Carrying out laboratory experiments collecting image and interfacial data;
- Assisting with the analysis of collected data using prescribed specialist software;
- Present analysis findings at project team meetings;
- Supporting research activities, including contributing to research results and outputs and to the generation of original ideas, ensuring a successful programme of investigation;
- Writing reports, undertaking literature reviews and preparing papers for publication, with guidance as necessary;
- Collating and analysing data to inform the direction and progression of the research project;
- Participating in the research group and presenting research output where appropriate;
- Working both independently and as part of a larger team of researchers and stakeholders;
- Contributing to the research culture of the School, where appropriate;
- Continually updating your knowledge, understanding and skills in the research field.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

Qualifications and skills

Essential

- An undergraduate or masters degree in chemical engineering, physics, physical chemistry, materials science, or a related discipline, or equivalent relevant experience;
- A background in surface and interfacial science or experimental fluid systems;
- Experience in image analysis and producing high quality results;
- Good interpersonal and communication skills, both written and verbal and the ability to communicate effectively with a wide range of stakeholders;
- Well-developed analytical skills;

- Good time management and planning skills, with the ability to meet tight deadlines;
- A proven ability to work well both independently and in a team;
- The ability to work accurately, unsupervised and use your own initiative.

Desirable

- A PhD (or close to completion) in chemical engineering, physics, physical chemistry, materials science, or a related discipline, or a closely allied discipline;
- Experience of contributing to the writing of papers for publication;
- Some experience with optical imaging, image analysis, or quantitative measurement techniques;
- Experience of working in a research or technical team environment, for example through group projects, placements, or research assistant roles.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23:59** (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Dr David Harbottle, Associate Professor
Email: D.Harbottle@leeds.ac.uk

Additional information

Faculty and School Information
Further information is available on the research and teaching activities of the Faculty of Engineering & Physical Sciences, and the School of Chemical and Process Engineering.

Working at Leeds
We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our Working at Leeds information page.

A diverse workforce
As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Engineering and Physical Sciences we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.

The Faculty of Engineering and Physical Sciences are proud to have been awarded the Athena SWAN Silver Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our equality and inclusion webpage provides more information.

Information for disabled candidates
Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found under the 'Accessibility' heading on our How to Apply information page or by getting in touch by emailing HR via hr@leeds.ac.uk.

Criminal Record Information
Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.

Salary Requirements of the Skilled Worker Visa Route

Please note that due to Home Office visa requirements, this role may only be suitable for first-time Skilled Worker visa applicants if they are eligible for salary concessions. For more information, please visit the Government's Skilled Worker visa page.

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit the Government's page, Apply for the Global Talent visa.