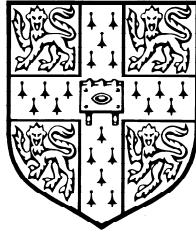


**UNIVERSITY OF CAMBRIDGE
DEPARTMENT OF EARTH SCIENCES**



- **Post-Doctoral Research Associate - Modelling Geochemical Impacts of CO₂ on Caprocks to CO₂ Storage**
- **Post-Doctoral Research Associate in High-P/T Aqueous Geochemistry/Mineralogy**
- **Research Assistant in Geochemistry (Part Time, Fixed Term)**

Post-Doctoral Research Associate - Modelling Geochemical Impacts of CO₂ on Caprocks to CO₂ Storage

We are seeking a postdoctoral researcher to work on a project on geological carbon sequestration funded by the Department of Energy and Climate Change. The project is to investigate caprocks to a natural geological CO₂ reservoir to better understand the fluid-mineral reactions with CO₂-saturated brines. The caprocks have been sampled in a drilling campaign funded by Shell. The postdoctoral researcher will carry out a range of geochemical and mineralogical analyses of the core with the objective of understanding the reactions between the CO₂-charged brines and reservoir and caprock minerals. The research will complement work on multiphase flow in reservoirs relevant to geological carbon sequestration being carried out in Cambridge jointly between Earth Sciences, The Institute of Theoretical Geophysics and the BP Institute.

The postdoctoral researcher should be trained in the geosciences and have expertise in petrology and geochemical and mineralogical analytical techniques.

The post will start on 1 September 2013 and run for 7 months.

Contact Mike Bickle, Dept. Earth Sciences, Downing St. Cambridge CB2 3EQ, UK, (e-mail mb72@esc.cam.ac.uk) for further information.

To apply please send a covering letter, CV including emails of two referees and completed CHRIS 6 application form (Parts 1 & 3 only) (downloadable from <http://www.admin.cam.ac.uk/offices/hr/forms/chris6/>) to The Administrator, Dept Earth Sciences, Downing St, Cambridge CB2 3EQ. Email admin@esc.cam.ac.uk.

<http://www.jobs.cam.ac.uk/job/1803/> Closing Date: 10 August 2013

Please quote reference LB01523 on your application and in any correspondence about this vacancy.

Post-Doctoral Research Associate in High-P/T Aqueous Geochemistry/Mineralogy

As part of the multidisciplinary and multi-institutional BP-supported International Centre for Advanced Materials (ICAM), the successful candidate will help develop and apply thermodynamic models for mineral-fluid interactions, led by their experimental observations of key systems as they respond to varying high pressure and temperature. Based in the Department of Earth Sciences, the researcher will work under the supervision of Prof Simon Redfern, as well as alongside staff in the Department of Chemical Engineering and Department of Chemistry at the University of Cambridge. An experimental programme using HDAC methods for in situ fluid-mineral studies employing Raman spectroscopy and synchrotron X-ray scattering and spectroscopy will be undertaken as part of a wider programme of work within ICAM. The experimental data will be used to inform and validate predictive thermodynamic models of carbonate - water systems at high pressure and temperature.

Ideal applicants will have experience and experimental expertise in Bassett-type hydrothermal diamond anvil cell (HDAC) techniques with an understanding of fluid-mineral systems, alongside light spectroscopic and/or synchrotron X-ray methods. They will be able to demonstrate excellent written and verbal communication skills through a track record of relevant peer-reviewed publications and conference contributions. The project will suit a strongly-motivated scientist with a first degree in Earth Sciences, Materials Science, Chemistry, Physics or Chemical Engineering who should have a PhD in a related discipline and who wishes to develop the application of fundamental cutting-edge science to important applied problems.

Further details may be requested from Professor Simon Redfern. E-mail: satr@cam.ac.uk

Fixed-term: The funds for this post are available for 2 years, the appointment is for one year in the first instance.

To apply please send a covering letter, CV including emails of two referees and completed CHRIS 6 application form (Parts 1 & 3 only) (downloadable from <http://www.admin.cam.ac.uk/offices/hr/forms/chris6/>) to The Administrator, Dept Earth Sciences, Downing St, Cambridge CB2 3EQ. Email admin@esc.cam.ac.uk.

<http://www.jobs.cam.ac.uk/job/1795/> Closing date: 31 August 2013

Please quote reference LB01515 on your application and in any correspondence about this vacancy.

Research Assistant in Geochemistry (Part Time, Fixed Term)

A Senior Research Technician is required by a research group involved in the study of ocean geochemistry and deep-sea sediments. The person appointed would provide specialised technical support to this group in the Department of Earth Sciences. They would be responsible for preparation of samples for analysis, the day to day running of a wet chemistry research facility and assisting with the operation of a mass spectrometer and other analytical equipment.

The successful applicant would be expected to have some knowledge and experience of wet chemistry and ideally of solid source mass spectrometry. Applicants should have excellent communication skills, be well organised and flexible in their approach and be able to work on their own initiative. They should have experience of working in a busy research laboratory and be qualified to Degree, HNC or an equivalent level in a scientific subject. Further information can be obtained from Sasha Turchyn <avt25@cam.ac.uk>

Fixed-term: The funds for this post are available for 3 years in the first instance.

This appointment is subject to a health assessment. Whether an outcome is satisfactory will be determined by the University.

To apply please send a covering letter, CV including emails of two referees and completed CHRIS 6 application form (Parts 1 & 3 only) (downloadable from <http://www.admin.cam.ac.uk/offices/hr/forms/chris6/>) to The Administrator, Dept Earth Sciences, Downing St, Cambridge CB2 3EQ. Email admin@esc.cam.ac.uk.

<http://www.jobs.cam.ac.uk/job/1784/> Closing date: 31 August 2013

Please quote reference LB01504 on your application and in any correspondence about this vacancy.

The University values diversity and is committed to equality of opportunity.

The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

See also our website <http://www.esc.cam.ac.uk>