UNIVERSITETET I OSLO

Jobbnorge ID: 239026
Deadline: 2/13/2023
Website: http://www.uio.no/
Scope: Fulltime
Duration: Temporary

PhD Research Fellow position in Sedimentology and Petrography

Job description

A PhD Research Fellow position in Sedimentology and Petrography is available at the Study of Sedimentary Basins within the Department of Geosciences at the University of Oslo.

Starting date as soon as possible - preferably before April 1st. The fellowship period is 3 years with the possibility of a 4th year with compulsory other work (e.g. teaching duties at the Department of Geosciences).

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo.

The position is part of the project DeepReservoir: Predicting reservoir properties in deep structures on the Norwegian Continental Shelf: The critical role of chlorite-coats at the universities of Bergen and Oslo, funded by the Norwegian Research Council, Equinor and AkerBP. The main ambition for DeepReservoir is understand the controls on development of porosity-preserving coats of the mineral chlorite on quartz grains. This is important firstly because chlorite coats preserve reservoir properties in deep (3-6 km) reservoirs, something that is of key importance in infrastructure-led exploration for hydrocarbons. There is currently no way to assess the probability of good chlorite coats in un-drilled structures, something which makes deep prospects risky. Secondly, chlorite effectively mineralizes CO2. This effect will be important for large-scale CO2-storage, but we currently know little about the distribution of chlorite in subsurface reservoir rocks.

A detailed project plan will be developed in collaboration with the successful candidate, depending on qualifications and interests.

About the project and work tasks:

The main objectives of this PhD project is to investigate the sedimentological controls on chlorite coats on quartz grains in subsurface reservoirs, and provide petrographical competence and assessments to the project team. In particular, the PhD project will consists of 1) analysis of the Tilje Formation offshore Mid-Norway in terms of petrography, chlorite coats, provenance and source to sink through analysis of core, well and well data, 2) analysis of the Ostreaelv Formation in Jameson Land, East Greenland through two field expeditions in 2023 and 2024 using outcrop data, 3) collaboration with the project team which has expertise in modelling, sedimentology, data integration and geophysics, and 4) writing of peer-reviewed scientific articles about petrography and provenance of the studied formations and petrographic and provenance controls on chlorite coats. The candidate will work closely with the industry partners.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition to be among Europe's leading communities for research, education and innovation. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

Required qualifications:

- Master's degree (120 ECTS) or equivalent in earth science that is relevant to the project or have submitted his/her master's thesis for assessment prior to the application deadline. It is a condition of employment that the master's degree has been awarded. A foreign completed degree (M.Sc.-level) must correspond to a minimum of four years in the Norwegian educational system.
- Experience with petrography techniques (thin section microscopy, modal analysis, XRD, SEM) is a requirement.
- Experience with field work is a requirement.
- The candidate must be willing and able to conduct tent-based field work in east Greenland together with the project team.
- Applicants must be able to work independently and in a structured manner and demonstrate good collaborative skills.
- Applicants must be proficient in both written and oral English.

Desired qualifications:

- Experience of core and log data and interpretation is an advantage.
- Experience with shallow-marine deposits is an advantage.
- Experience of seismic interpretation (ideally with Petrel) is an advantage.
- Knowledge of and interest for mineralogy and geochemistry is advantageous to the position.

Grade requirements:
The norm is as follows:

- the average grade point for courses included in the Bachelor's degree must be C or better in the Norwegian educational system.
- the average grade point for courses included in the Master's degree must be B or better in the Norwegian educational system.
- the Master's thesis must have the grade B or better in the Norwegian educational system.
- Fluent oral and written communication skills in English.

- English requirements for applicants from outside of EU/ EEA countries and exemptions from the requirements: https://www.mn.uio.no/english/research/phd/regulations/regulations.html#toc8

Personal skills:

- The candidate will work as part of a team and needs good communication and interpersonal skills.

The purpose of the fellowship is research training leading to the successful completion of a PhD degree. The fellowship requires admission to the PhD programme at the Faculty of Mathematics and Natural Sciences. The application to the PhD programme must be submitted to the department no later than two months after taking up the position. For more information see:

- http://www.uio.no/english/research/phd/
- http://www.mn.uio.no/english/research/phd/

We offer

- Salary NOK 501 200 - 544 400 per annum depending on qualifications as PhD Research Fellow (position code 1017)
- Attractive welfare benefits and a generous pension agreement
- Vibrant international academic environment
- A budget for travel and research assistance
- Career development programmes
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities

How to apply

The application must include

- Cover letter - statement of motivation and research interests
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of the original Bachelor and Master's degree diploma and transcripts of records
- Letters of recommendation
- Documentation of English proficiency
- List of publications and academic work that the applicant wishes to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

The application with attachments must be delivered in our electronic recruiting system, please follow the link "apply for this job". Foreign applicants are advised to attach an explanation of their University's grading system. Please note that all documents should be in English (or a Scandinavian language).

When evaluating the application, emphasis will be given to the applicant's academic and personal prerequisites to carry out the project. Applicants may be called in for an interview.

Formal regulations

Please see the guidelines and regulations for appointments to Research Fellowships at the University of Oslo.

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According to the Norwegian Freedom of Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

A fourth year may be considered with a workload of 25 % that may consist of teaching, supervision duties, and/or research assistance. This is dependent upon the qualification of the applicant and the current needs of the department.

The University of Oslo has an agreement for all employees, aiming to secure rights to research results etc.

Inclusion and diversity are a strength. The University of Oslo has a personnel policy objective of achieving a balanced gender composition. Furthermore, we want employees with diverse professional expertise, life experience and perspectives.

If there are qualified applicants with disabilities, employment gaps or immigrant background, we will invite at least one applicant from each of these categories to an interview.

Contact information

For further details about the position, please contact Professor Jens Jahren, e-mail: jens.jahren@geo.uio.no

or Associate Professor Christian Haug Eide, e-mail: Christian.Eide@uib.no

For questions regarding Jobbnorge, please contact HR Adviser Ole Rustad, e-mail: ole.rustad@mn.uio.no

About the University of Oslo

The University of Oslo is Norway's oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

The geosciences are the studies of the planet Earth and its comparative planetology; the atmosphere, the hydrosphere and cryosphere, the Earth's surface and its interior. The Department of Geosciences conducts research and teaching in most of the domains of geoscience; geology, geophysics, physical geography, geomatics, hydrology, meteorology and oceanography. The Department is the broadest geoscience research and education environment in Norway. The Department encompasses five sections; Meteorology and Oceanography, Geography and Hydrology, Study of sedimentary basins, Environmental geosciences and Crustal Processes. We also hosts one Centre of Excellence CEED - Centre of Earth Evolution and Dynamics.

The Department aims to contribute to the new and important UN Sustainability Development Goals, and are important contributors to IPCC (UN’s Inter-governmental Panel on Cliamte Change). The staff consists of 40 professors and associate professors, in addition to postdoctoral fellows, PhD students, researchers, technical- and administrative staff. The Department has more than 200 employees.

Additional information

Place of service:

Sem Sælands vei 1 0371 Oslo (Oslo Municipality)