UNIVERSITETET I OSLO

Jobbnorge ID: 223257
Deadline: 5/23/2022
Website: http://www.uio.no/
Scope: Fulltime
Duration: Permanent

Senior engineer with management responsibilities for the X-ray laboratory (RECX)

About the position

The position is affiliated with the Department of Chemistry at the Faculty for Mathematics and Natural Science, University of Oslo. The Department of Chemistry has broad activities in multiple sub-disciplines ranging from core and fundamental aspects of chemistry to other areas of chemistry exploring the interfaces with other disciplines (such as Materials Science, Physics, Biology and Biophysics and many others). The Department is currently represented by approximately 200 employees (staff, faculty and researchers). For more information, please, visit http://www.mn.uio.no/kjemi/.

The Department is organized into seven research sections. Three of these are involved in core activities of the Centre for Materials Science and nanotechnology (SMN).

Specific information:

The X-ray laboratory - the Norwegian Centre for X-ray Diffraction, Scattering and Imaging (RECX) − is affiliated with the Section for Inorganic Materials Chemistry having some 40 co-workers (master/PhD students, post doctors/researchers, permanent staff). The section is one key partner in SMN, then under the name Nanostructures and Functional Materials (NAFUMA) and is actively involved in multiple collaborative activities across Norway and internationally. The section operates a variety of instruments and facilities necessary for materials synthesis and characterization. This includes laboratories for synthesis of nano-, bulk- and thin-film materials, thermal analysis, magnetic, electric and optical characterization, imaging and surface science (SEM, AFM, reactor-STM, XPS/UPS), with facilities for studies of battery materials inclusive.

The section is active user of the Swiss-Norwegian beamlines (SNBL) at the European Synchrotron Radiation Facility (ESRF), is part of the iCSI centre for research-based innovation, and the FME centre MozeeS on zero emission mobility systems (batteries and hydrogen), and Susoltech on materials and technology related to solar energy conversion. For more information:
https://www.mn.uio.no/kjemi/english/research/groups/inorganic-materials-chemistry/index.html

RECX (www.recx.no) is a Norwegian National infrastructure on X-ray based methods for diffraction, scattering and imaging since 2013. In addition to assistance to the members of the section, RECX provides access and services to other users at UiO and to external users, such as other Norwegian Universities, research institutes and industry. As of today, RECX operates the following set of instruments: i) routine powder diffractometer with the automated sample changer; ii) two powder diffractometers (transmission, reflection, Cu/Mo-radiation, high/low temperatures, gas mixing systems and MS), iii) dual source single crystal diffractometer; iv) thin film diffractometer/reflectometer; v) small angle X-ray scattering SAXS; vi) Guinier type low/high temperature instrumentation.

At the Department of Chemistry, RECX is used in routine characterization of synthesis products, solving crystal structure of new compounds and materials; studies of phase transitions, catalytic reactions or battery materials cycled at operando or in-situ conditions; studies of thin films, and multilayer (hetero)structures; of micelles, gels and polymers; and of small organic and larger biological molecules. RECX plays an important role for proposal-based studies at the international large-scale synchrotron and neutron facilities.

Work tasks

The successful applicant will be responsible for the daily operation of the RECX laboratory and report to the Head of the section and of the RECX national infrastructure, currently Prof. Helmer Fjellvåg. The position is part of the Department of Chemistry's common pool of engineers.

The responsibilities will include

- Service and maintenance of the equipment, in close contact with UiO engineers, service engineers and instrument manufacturers.
- Support should be provided to local and external users in accordance with guidelines for national infrastructures. The tasks include health and safety responsibility for RECX.
- Training and authorization of users
- Maintenance of web-based booking system and of various licenses
- Maintenance of RECX web-page and assistance in invoicing

Additional experimental support during campaigns at large scale facilities, such as ESRF, is expected. The successful candidate may also be involved in the research activities that falls within the main priorities of the section.

Based on the needs of the Department, other duties may be assigned.

Qualification requirements

The applicant must demonstrate a documented experience with instrumentation similar to those currently present at RECX.

The candidates will be evaluated according to their proficiency in the following areas:

- Solid knowledge of multiple X-ray based methods: crystallography, diffraction and scattering
- Experience in conducting experiments in home laboratories and at large scale facilities (X-rays or neutrons)
- Demonstrated knowledge of data analysis, software packages and data storage for relevant methods
- Good knowledge of inorganic materials chemistry

The applicant should preferably hold a degree from a university or technical high school, equivalent to a Norwegian masters degree in chemistry and with relevant and documented work expertise (5 year or more). Considering the scope of the position, a degree equivalent to a Norwegian PhD degree in chemistry may be considered favourable.

Documented strong work experience may compensate for formal requirements. Training will be offered in agreement with the laboratory responsible.

In order for having the application assessed by the evaluation committee, the applicant must provide information on his/her expertise within the areas mentioned above in the cover letter. This information should also be included in the CV submitted by the applicant.

Additional requirements

- Fluent oral and written communication skills in English are required for the position. Knowledge of Norwegian is an advantage, and willingness to learn Norwegian is a requirement
- The successful applicant must show good communication skills as the position implies interaction with various internal and external users, as well with technical and service units, and he/she must show ability to approach tasks in complex laboratory situations
- We expect willingness and ability to support all user categories and help developing expertise of importance for the continued development of the REXC facility
- Participation in planning and performing experiments at large scale facilities is expected in coordination with Head of laboratory
- Due to the nature of the position, personal suitability and organizational skills will be given particular weight during the selection process

We offer

- Salary NOK 534 400 - 604 700 per annum depending on qualifications in position as Senior engineer (position code 1181)
- Attractive welfare benefits and a generous pension agreement
- Professionally stimulating working environment
- Career development programs
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities

How to apply

- The application must include:
- Cover letter (including a statement of motivation)
- CV (summarizing education, positions and other qualifying activity)
- Copies of educational certificates, academic transcript of records and letters of recommendation
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)
- Foreign applicants are required to attach an explanation of their University's grading system

Please remember that all documents should be in English or a Scandinavian language. Applications with documents missing will not be considered further. Original documentation may be requested.

The application (evt.) with attachments must be delivered in our recruiting system.

Formal regulations

Interviews with the best qualified candidates will be arranged.

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.

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 information please contact:

Prof. Helmer Fjellvåg, e-mail: helmer.fjellvag@kjemi.uio.no

For technical questions regarding recruitment system, please contact:

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 **Department of Chemistry** is Norway's largest institution within research and education in chemistry. Our research excels internationally and we educate students to a wide variety of jobs in industry, academia, research institutions, schools and public administration.

Our research ranges from the core topics of chemistry to applied science within in environmental, health, energy and materials. The Department has extensive contacts with industry, research and educational institutions at home and abroad. As partner in the Centre for Materials Science and Nanotechnology our researchers contributes to a significant interdisciplinary efforts in cooperation with the Department of Physics. The Department of Chemistry has its own school laboratory as a great resource for teachers, public outreach and the didactics of chemistry.

Additional information

Place of service:

Problemveien 7 0313 Oslo (Oslo Municipality)