UNIVERSITETET I OSLO

Jobbnorge-ID: 265547
Søknadsfrist: 12.08.2024
Nettside: http://www.uio.no/
Omfang: Heltid
Varighet: Vikariat/Midlertidig

Postdoctoral Research Fellow in Metal-organic frameworks for electrocatalytic biogas conversion

About the position

Position as Postdoctoral Research Fellow available at Centre for Materials Science and Nanotechnology.

Starting date as soon as possible, and no later than **February 1st. 2025.**

The fellowship period is 3 years. 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.

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

Knowledge development in a changing world - Science and technology towards 2030.

The Faculty of Mathematics and Natural Sciences

Video: https://www.youtube.com/watch?v=t4wvWQEhDEs

Job description / Project description / Development plan:

The purpose of this position is to initiate a cutting-edge research topic, within one of the newly established Thematic Research Groups at the University of Oslo, financed by the university's interdisciplinary UiO:Energy and Environment initiative.

The vision of this research group is to valorise the environmentally harmful waste product biogas, into something useful, particularly methanol. The work shall be carried out amalgamating three research groups; in Catalysis, Electrochemistry; and the Centre for Biochemistry in the Anthropocene of the Department of Biosciences, merging our strong suits in metal-organic framework synthesis, electrocatalysis, and biogas analysis synergistically.

To achieve this, the successful candidate will design and synthesise metal-organic frameworks with redox activity, and ideally presenting electric conductivity. They will explore the electrocatalytic characteristics of these new materials in a range of conditions, focussing on both pure methane (initially), and gas mixes (eventually biogas), while also assessing the composition of biogas waste derived from different sources.

The project will take place on the premises of all three groups involved, and in collaboration with theoreticians (Hylleraas Centre), as well as international colleagues.

Postdoctoral fellows who are appointed for a period of four years are expected to acquire basic pedagogical competency in the course of their fellowship period within the duty component of 25%.

The main purpose of a postdoctoral fellowship is to provide the candidates with enhanced skills to pursue a scientific top position within or beyond academia. To promote a strategic career path, all postdoctoral research fellows are required to submit a professional development plan no later than one month after commencement of the postdoctoral period.

It is expected that the successful candidate will be able to complete the project in the course of the period of employment.

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.

- Applicants must hold a degree equivalent to a Norwegian doctoral degree in Chemistry or in a related field. Doctoral dissertation must be submitted for evaluation by the closing date. Only applicants with an approved doctoral thesis and public viva voce are eligible for appointment.
- Fluent oral and written communication skills in English. In addition, fluency in a Scandinavian language is welcome.
- Successful candidates must have **hands-on research experience** in one of the below areas:
    - Synthesis and characterisation of metal-organic frameworks;
    - Electrocatalysis.

- Experimental lab work in wet laboratories.
- Hands-on experience with various characterisation techniques, such as diffraction, optical spectroscopy, NMR, X-ray spectroscopies, electron microscopies, handling of gas rigs, electrochemical characterisation techniques (CV, LSVA…), etc.
- First-hand experience in data analysis and interpretation.
- Demonstrated experience of the ability of writing manuscripts and presenting at international conferences.
- Experience in working as a member of a group.
- The position's subject area may require licensing under the Norwegian Export Control Act. In order to be considered for the position, it is a prerequisite that UiO must be able to be granted such license: https://www.uio.no/english/studies/admission/master/export-control.html

Desired qualifications:

- Experience in the daily supervision of undergraduate research.
- The proposed project is intrinsically multidisciplinary, therefore experience and previous involvement in interdisciplinary research is desired.

Personal skills:

- As the project involves working alongside three different research groups, strong organisation and time-management skills are crucial.
- Strong communication skills are necessary for this interdisciplinary position.
- Self-motivation, creativity, genuine curiosity about the subject, work discipline, professional ethics, and ambition.
- Willingness to collaborate across disciplines and with various researchers.
- Willingness and ability to work as a member of a diverse research group

We offer:

- Salary NOK 575 400 - 657 300 per annum depending on qualifications in position as Postdoctoral Research Fellowship (position code 1352)
- Attractive welfare benefits and a generous pension agreement
- Professionally stimulating working environment
- Vibrant international academic environment
- Postdoctoral development programmes
- An inclusive work environment and many activities within the group, the sections, and the SMN centre, examples include cabin tours, hikes, music bingo, etc.
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities

The application must include:

- Cover letter (statement of motivation, summarizing scientific work and research interest)
- CV (summarizing education, positions, pedagogical experience, administrative experience and other qualifying activity)
- Copies of educational certificates, academic transcript of records
- A complete list of publications and up to 5 academic works 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), N.B. only references with first-hand knowledge on the candidate's professional abilities will be accepted.

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).

In assessing the applications, special emphasis will be placed on the documented, academic qualifications, as well as the candidates motivation and personal suitability. Interviews with the best qualified candidates will be arranged.

Formal regulations:

Please see the guidelines and regulations for appointments to Postdoctoral fellowships at the University of Oslo.

If an applicant has applied for and been granted funding for a fulltime research stay abroad while being employed as a Postdoctoral Research Fellow, the employment will be prolonged with the equivalent time as the research stay, but for no longer than of twelve months (thus extending the employment to a maximum of four years)

According to the Norwegian Freedom and 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.

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

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 persons:
For further information please contact: Prof Petra Ágota Szilágyi, phone: +47 228 557045, e-mail: p.a.szilagyi@kjemi.uio.no

For questions regarding the recruitment system, please contact HR Adviser Olga Holmlund, e-mail: olga.holmlund@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.

Centre for Materials Science and Nanotechnology (SMN) is an interdisciplinary focus field for material and energy research at the University of Oslo. SMN has focused on basic research in renewable energy and environmentally friendly use of fossil energy sources. The center consists of research groups from the Department of Physics and the Department of Chemistry, has about 100 employees from around the world and manages more than 80 projects funded by EU, RCN and others.

Tilleggsinformasjon

Arbeidssted:
Problemveien 7 0313 Oslo (Oslo Kommune)