PhD Research Fellow in Inorganic materials chemistry (battery materials)

Job description

Position as PhD Research Fellow in Inorganic materials chemistry (battery materials) available at Department of Chemistry/Centre for Materials Science and Nanotechnology (SMN), section NAFUMA - nanostructures and functional materials

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

The fellowship period is 3 years.

Starting date no later than 01.10.2020.

More about the position

The PhD project will involve collaboration between academia, industry and end user within the FME centre MoZEES (Mobility Zero Emission Energy Systems), which has a broad focus on battery and hydrogen technology for the transportation sector.

The PhD candidate will work on detailed characterization studies of silicon (Si) as anode materials for Li-ion batteries. The Si materials will partly be made in house, but to a large extent be delivered by project partners like IFE, Elkem and Cenate. Dynamical material changes will be followed by various operando techniques, primarily X-ray based methods like scattering and imaging. Materials preparation and characterization by SEM and TEM will be done at UiO, and electrochemical studies will be done at UiO and IFE. Synchrotron based studies, based on proposals, are foreseen at ESRF, Petra, APS or SLS

We are searching for a candidate with willingness and ability to learn and apply new methods, who is creative of nature and skilled to work independently as well as a coworker in teams. The candidate is expected to take certain tasks for the benefit of the research section NAFUMA (for instance responsibility for maintaining certain instruments).

The candidate will interact with other coworkers at the research section, with research and industrial partners, and with students. Hence, personal suitability will be given particular weight in the selection process.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition is 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.

- Master’s degree or equivalent in chemistry or a related field, and with relevant specialization within inorganic chemistry, materials chemistry or materials science. Foreign completed degree (M.Sc.-level) corresponding to a minimum of four years in the Norwegian educational system.
- Fluent oral and written communication skills in English are a prerequisite.

The applicant should describe his/her experience within the following areas in the cover letter:

- Inorganic materials synthesis
- Electrochemical characterization of solids and battery materials
- Crystal structure determination and refinements
- Operando studies of materials under working conditions

These qualifications are weight in the assessment process. In addition, insight to atomistic modelling of inorganic materials, stability and properties is positive. In order for having the application assessed by the evaluation committee, the applicant must describe his/her experience in his/her CV.

Candidates without a Master’s degree must complete their final exam before 30 June, 2020.

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

http://www.mn.uio.no/english/research/phd/application/application.html

The purpose of the fellowship is research training leading to the successful completion of a PhD degree.
We offer

- salary NOK 479 600 - 532 200 per annum depending on qualifications in a position as PhD Research fellow, (position code 1017)
- attractive welfare benefits and a generous pension agreement, in addition to Oslo's family-friendly environment with its rich opportunities for culture and outdoor activities
- Career development programmes

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 Master's degree diploma, transcripts of records and 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.

Applicants will normally be called in for an interview.

 Formal regulations

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

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

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.

The appointment may be shortened/given a more limited scope within the framework of the applicable guidelines on account of any previous employment in academic positions.

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

Contact information

For further information please contact: Professor Helmer Fjellvåg, e-mail: helmer.fjellvag@kjemi.uio.no

For questions regarding the recruitment system, contact HR Adviser Orjan Pretorius, e-mail: orjan.pretorius@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 (Fi) and Chemistry (Ki), has about 100 employees from around the world and manages more than 80 projects funded by the EU, the RCN and others.

Jobbnorge-ID: 186810, Søknadsfrist: 24. mai 2020