



UNIVERSITETET
I OSLO

Jobbnorge ID: 277294

Deadline: 4/25/2025

Website: <http://www.uio.no/>

Scope: Fulltime

Duration: Engagement

PhD Research Fellow in Material Science for oxide-based photovoltaics

About the position

Position as PhD Research Fellow in Material Science available at [Centre for Materials Science and Nanotechnology \(SMN\)](#), Department of Chemistry, University of Oslo.

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo. Preferred starting date 1st of October 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.

Job description

The fellowship is a part of the Research Center on Solar Cell Technology (FME Solar) and is funded by the Research Council of Norway. It is based at the Centre for Materials Science and Nanotechnology (SMN). FME Solar joins the major research groups and important industry partners in the photovoltaic (PV) sector in Norway with the overall goal of increasing the size and number of jobs in the domestic solar cell industry. The Centre has a research infrastructure covering the entire value chain, and provides current and future companies in the Norwegian PV industry long-term access to world-leading technological and scientific expertise.

The PhD Research Fellow is part of the Work Package on new solar cell concepts and will be focused on material synthesis and characterization of oxide-based materials for silicon-based tandem cells. The position will have a focus on thin film deposition by ALD and subsequent material characterization.

SMN is an interdisciplinary collaboration between four research groups in physics and chemistry, and spearheads the MN faculty's efforts for sustainable energy solutions. The Centre comprises UiO's focus on renewable energy, materials science, and nanotechnology. Two of these groups are Nanostructures and Functional Materials (NAFUMA) and Solid-state Physics and Quantum Technology, which the PhD Research Fellow will be affiliated with. The research groups have an excellent infrastructure covering chemical, structural, optical and electrical characterization methods. Part of the research will be conducted at the [Micro- and Nanotechnology Laboratory](#), with a clean room area more than 400 m² as well as a park of modern characterization facilities.

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.

- Master's degree or equivalent in materials science, chemistry or physics.
- Foreign completed degree (M.Sc.-level) corresponding to a minimum of four years in the Norwegian educational system

Candidates without a master's degree have **until 30 June 2025** to complete the final exam.

- Fluent oral and written communication skills in English.
- Solid understanding of structure-property relations in crystalline inorganic materials
- 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 licence.
<https://www.uio.no/english/studies/admission/master/export-control.html>

Desired qualifications:

It is desirable that applicants have documented knowledge and experience with:

- Thin film deposition of inorganic materials, preferably by atomic layer deposition or chemical vapor deposition.
- Materials characterisation of thin films, e.g. using XRD, XPS, UV-Vis, ellipsometry, AFM and/or electronic measurements (IV).
- Fluency in Scandinavian languages is required to be applicable for most teaching duties.

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

Language requirements:

- 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>

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/>

Personal skills

- We seek a candidate who is flexible, good at taking initiative and has excellent communication and interpersonal skills.
- Having to work in a setting with many co-workers, we seek a candidate who enjoys working in a team and acts as a team-player.

We offer

- Salary NOK 536 200 - 575 400 per annum depending on qualifications and seniority as PhD Research Fellow (position code 1017)
- Attractive [welfare benefits](#) and a generous pension agreement
- Vibrant international academic environment
- [Career development programmes](#)
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities

Inclusive worklife and diversity at UiO

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.

We hope that you will apply for the position.

More information about gender equality initiatives at UiO can be found [here](#).

Application

Your application should 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, transcripts of records
- 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, email and telephone number)

Application with attachments must be submitted via our recruitment system Jobbnorge, click "Apply for the position".

When applying for the position, we ask you to retrieve your education results from [Vitnemålsportalen.no](#). If your education results are not available through Vitnemålsportalen, we ask you to upload copies of your transcripts or grades. Please note that all documentation must be in English or a Scandinavian language.

General information

The best qualified candidates will be invited for interviews.

Please see the [guidelines](#) and [regulations](#) for appointments to Research Fellowships at the University of Oslo.

Applicant lists can be published in accordance with [Norwegian Freedom of Information Act](#) § 25. When you apply for a position with us, your name will appear on the public applicant list. It is possible to request to be excluded from this list. You must justify why you want an exemption from publication and we will then decide whether we can grant your request. If we can't, you will hear from us.

Please refer to [Regulations for the Act on universities and colleges chapter 3](#) (Norwegian), [Guidelines concerning appointment to post doctoral and research posts at UiO](#) (Norwegian) and [Regulations for the degree of Philosophiae Doctor \(PhD\) at the University of Oslo](#).

The University of Oslo has a [transfer agreement](#) with all employees that is intended to secure the rights to all research results etc.

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.

Additional information

Contact persons:

- For further information please contact Ola Nilsen, Professor
Phone: +47 22855558 | E-mail: ola.nilsen@kjemi.uio.no
- For technical questions about the recruitment process Elin Thoresen, HR office
Phone: | E-mail: elin.thoresen@mn.uio.no

Place of service:

Problemveien 7 0313 Oslo (Oslo Municipality)