Postdoctoral Research Fellow in Photonics, aiming to study Quantum and Energy Materials

Job description

Position as Postdoctoral Research Fellow available at the Department of Physics, University of Oslo.

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

The position is for 4 years starting in summer-autumn 2020. The appointment is a fulltime position and is made for a period of up to four years (25 % of which is devoted to required duties, usually in the form of teaching activities).

More about the position

The postdoc will join to our on-going semiconductor research activities at the UiO-MiNaLab, which is a part of the Norwegian Micro and Nanofabrication Facility (NorFab). UiO-MiNaLab is a laboratory encompassing state-of-the-art equipment for both fabrication and material/device characterization. Among other facilities, the UiO-MiNaLab hosts an advanced optical lab equipped with a range of powerful light excitation sources as well a multiple detector systems allowing the measurements in a broad spectral range and in a variety of time domains. Around 50 researchers are currently working at the UiO-MiNaLab.

Specifically, the postdoc is expected to contribute along with two research directions:

- Quantum Materials - focusing on the discoveries and characterization of defect states in semiconductors, emitting light as single photon sources, and

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.

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.

The following qualifications will count in the assessment of the applicants:

- Applicants must hold a degree equivalent to a Norwegian doctoral degree in one of the relevant fields, e.g. physics, materials science, photonics, nanotechnology, optoelectronics, etc.
- Understanding of the semiconductor physics is mandatory; it might be documented in form of the relevant paper(s) published in respected scientific journals, e.g APL, PRB, etc.
- Documented experience - in form of the published paper(s) - in performing advanced optical characterization is mandatory, e.g. in time resolved photoluminescence, in second order correlation function measurements, etc; experience with optical characterization of silicon, silicon carbide, or gallium oxide is positively evaluated;
- Hands-on skills with setting up and adjusting optical components to extend the capabilities of the lab;
- Fluent oral and written communication skills in English are a prerequisite; knowledge of Norwegian or a Scandinavian language may be desirable but not mandatory.

Notably, the individuals not yet completed their doctoral dissertations are eligible to apply only if the dissertation has been submitted for the evaluation by the closing date for this announcement. Importantly, only applicants with an approved doctoral degree are eligible for the appointment.

Personal skills

- Ability to conduct high-quality independent research within a broad collaboration.
- Interpersonal communication skills and the ability to work as part of a team.
- Willingness to work together with PhD and/or Master/Bachelor students in the specialty field.
- Self-motivation, creativity, genuine curiosity about the subject, work discipline, professional ethics, and ambition.

We offer
Salary NOK 523,200 - 605,500 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 [https://www.mn.uio.no/english/research/postdoc/development-plan/index.html]

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 short motivation statement
- CV, including the education track, previous positions, and the list of publications
- The list of up to 5 selected publications that the applicant wishes to be considered by the evaluation committee to prove the qualification requirements
- Copies of educational certificates, academic transcript of records, etc
- Names and contact details of 2 reference persons (name, relation to the applicant, 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).

Interviews with the best qualified candidates will be arranged.

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

Formal regulations

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

No one can be appointed for more than one Postdoctoral Fellow 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 University of Oslo has an agreement for all employees, aiming to secure rights to research results etc.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

Contact information

For further information please contact: Prof. Andrej Kuznetsov e-mail: andrej.kuznetsov@fys.uio.no, Prof. Lasse Vines e-mail: lasse.vines@fys.uio.no or Prof. Eduard Monakhov e-mail: eduard.monakhov@fys.uio.no

For question regarding our application system, please contact HR Adviser Orjan Pretorius, 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 7,000 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.

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