5/6-2025
Dnr ITN-2025-00265

LINKÖPING UNIVERSITY

Postdoctoral scholarship in Organic Photonics and Nanooptics

(Reference number: Dnr ITN-2025-00265

at the Laboratory of Organic Electronics, Department of Science and Technology, Linköping University (Campus Norrköping)

Research environment

The Organic Photonics and Nanooptics group is an international team led by Prof. Magnus Jonsson. We develop and study novel nanooptical materials and concepts, including tuneable organic plasmonics, cellulose-based radiative cooling, and structural colors for reflective displays. More information can be found at www.mpjonsson.com and at liu.se/en/research/organic-photonics-and-nano-optics.

Our research group is part of the Laboratory of Organic Electronics (LOE) at Linköping University (LiU). At LOE, we explore electronic and optical properties of organic semiconductors, biomaterials from the forest, and hybrid organic materials. Application areas include sensors, displays, nanooptical devices, printed electronics, bioelectronics, and energy devices. Our research and capabilities span the range from synthesis and theory and modeling to device physics and system design. Likewise, our activities include the whole chain from basic research to commercialization, the latter carried out in close collaboration with the research institute RISE. LOE currently has around 150 researchers and PhD students, divided into around 12 research groups, each led by a principal investigator. Read more at www.liu.se/loe.

Postdoc scholar research project:

The Organic Photonics and Nanooptics group has an opening for a postdoctoral scholar to join our research on *dynamic thermal emission and optics based on conducting polymers and hybrid systems*. The project involves fabrication in a cleanroom environment and characterisation of samples by optical spectroscopy and other means, potentially also construction of new setups. The experimental part of the project may be complemented by optical simulations and theory.

Qualifications and requirements of the applicants:

- Scholarship may be granted only to non-Swedish citizens with a PhD or equivalent acquired in another country than Sweden. The applicant must not have been previously employed by Linköping University.
- The applicant must have or be about to receive a PhD degree in a subject relevant to the research project (e.g. physics or materials science) and needs to be passionate about research. Problem solving ability and creativity are essential, as well as good oral and written communication skills in English.
- Relevant expertise areas include: nanophotonics, thermal emission, ENZ materials, conducting polymers and other organic electronic materials.
- Relevant skills include: structure and device fabrication; polymerization and materials development; optical and other characterization (ellipsometry, optical spectroscopy, AFM, SEM,

etc.), setup building and automation, and optical simulations (e.g. FDTD, FEM).

Appointment and Conditions:

- The scholarship amounts to SEK29000:-/month (tax-free, ~€2500/month). Economy class travel to/from Sweden for a scholarship holder will be covered.
- Appointment is initially for one year with possibility of extension for a second year upon mutual agreement.
- Essential information about healthcare, insurances etc. can be found here. Questions are welcome to HR@itn.liu.se. Note, scholarships will not give any pension rights, sick or maternity pay and other work-related benefits.
- Starting date summer or autumn 2025, or by agreement.

Application procedure:

The following documents should be submitted as *one combined pdf document*:

- 1. Cover letter: max 2 pages. Describe your background, what makes you interested in this particular position and how you could contribute to the research and team
- 2. CV: Include contact details to three references persons and briefly explain how they know you
- 3. Full publication list: State all details, including full author list for each publication
- 4. Copies of: undergraduate (BSc, MSc) transcripts with grades, PhD diploma, and passport

The application should be submitted by email as *one combined pdf document* to Prof. Magnus Jonsson at magnus.jonsson@liu.se, with copy to registrator@itn.liu.se. Please mark your application with "*Postdoc scholar application, ref: ITN-2025-00265"* in the email subject field.

Deadline to apply for this postdoc scholarship is 19 June 2025.

Contacts:

Prof. Magnus Jonsson, research group leader, vice-head of division, magnus.jonsson@liu.se
Martina Klefbeck, HR representative, HR@itn.liu.se.