



## **Postdoctoral scholarship in Organic Photonics and Nanooptics** (Reference number: Dnr ITN-2021-00361) **at the Laboratory of Organic Electronics, Department of Science and Technology, Linköping University (Campus Norrköping)**

### **Research environment**

Linköping University (LiU) conducts world-leading, cross-disciplinary research in fields including materials science, IT, and life-science. LiU is one of the largest universities in Sweden and today has 27,000 students and 4,000 employees. The students are among the most desirable in the labour market and international rankings consistently place LiU as a leading global university. Read more at <http://www.liu.se>

The Laboratory of Organic Electronics (LOE) is part of LiU's Department of Science and Technology and is renowned for its world-leading research on electronic and optical devices based on organic materials. Application areas include sensors, displays, nanooptical devices, printed electronics, bioelectronics, and energy conversion. Currently, there are about 150 researchers at LOE, see <http://liu.se/loe> for details.

The Organic Photonics and Nanooptics group is an international team led by Prof. Magnus Jonsson. The group focuses on the development and studies of 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](http://www.mpjonsson.com) and at [liu.se/en/research/organic-photonics-and-nano-optics](http://liu.se/en/research/organic-photonics-and-nano-optics).

### **Available postdoc scholar research project:**

The Organic Photonics and Nanooptics group now has an opening for a postdoc scholar to join our team and specifically our studies of a new type of dynamic nanooptics and plasmonics based on conducting polymers (see [www.nature.com/articles/s41565-019-0583-y](http://www.nature.com/articles/s41565-019-0583-y) and [arxiv.org/abs/2108.04045](http://arxiv.org/abs/2108.04045)).

In brief, the project goal is to produce and study new types of nanooptical antennas and optical metasurfaces based on conducting polymers. The project involves nanofabrication in a cleanroom environment and characterisation of samples by optical spectroscopy and other means. The experimental part of the project may be complemented by optical simulations and theory.

### **Qualifications and requirements to 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 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: nanooptics, metasurfaces, conducting polymers and organic electronics.
- Relevant background skills include: device and nanofabrication in cleanroom environment, polymerization and materials development; optical characterization (ellipsometry, optical spectroscopy, etc.), electrical and electrochemical characterization; general materials characterization methods (AFM, SEM, etc.), and optical simulations (e.g. FEM, FDTD).

### **Appointment and Conditions:**

- The scholarship amounts to SEK25000:-/month (tax-free) (~€2500/month). Economy class travel to/from Sweden for a scholarship holder will be covered. Funding can be available to participate in conferences.
- Appointment is initially for one year with possibility of extension for a second year upon mutual agreement.
- If you have any questions regarding healthcare, insurances etc, you are welcome to contact HR, [HR@itn.liu.se](mailto:HR@itn.liu.se)
- Starting date will be spring 2022 or by agreement

### **Application procedure:**

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

- 1. Cover letter: max 2 pages, describing your background, research interests and what makes you interested in the position.
- 2. CV: max 4 pages, including contact details to three references persons
- 3. Full publication list
- 4. Copy of passport, PhD diploma, and transcripts with grades

The application should be submitted by email as one combined pdf document to Prof. Magnus Jonsson at [magnus.jonsson@liu.se](mailto:magnus.jonsson@liu.se), with copy to [registrator@itn.liu.se](mailto:registrator@itn.liu.se). Mark your application with reference number *ITN-2021-00361* in the email subject field.

Deadline to apply for the postdoc scholarship is **5<sup>th</sup> of January 2022**.

### **Contacts:**

Prof. Magnus Jonsson, research group leader, [magnus.jonsson@liu.se](mailto:magnus.jonsson@liu.se)  
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