



## **Postdoctoral scholarship in *Organic Photonics and Nanooptics* (Reference number: Dnr ITN-2020-00008)**

**in the Organic Photonics and Nanooptics group at the Laboratory of Organic Electronics, Department of Science and Technology, Linköping University (Campus Norrköping)**

Linköping University (LiU) conducts world-leading, cross-disciplinary research in fields that include materials science, IT, and life-science technology. 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, with application areas including bioelectronics, displays, printed electronics, and energy conversion. Currently, there are about 100 researchers at LOE (professors, senior and junior scientists, and PhD students), see <http://liu.se/loe> for details.

The Organic Photonic and Nanooptics group focuses on development and studies of novel nanooptical materials and devices, including plasmonics and hybrid organic and inorganic devices. Prime application areas are new types of displays, energy conversion concepts, and sensors. For more information about the group, our research and publications, please see [www.mpjonsson.com](http://www.mpjonsson.com) and [liu.se/en/research/organic-photonics-and-nano-optics](http://liu.se/en/research/organic-photonics-and-nano-optics).

### **Research project and team:**

We offer a postdoc scholar to join our Organic Photonics and Nanooptics group headed by Dr. Magnus Jonsson, and to join our collaborative efforts at LOE related to sustainable fuels. Focus will be on development of (nano) composite materials and studies of their optical and photoelectrocatalytic properties, aiming at solar-production of hydrogen peroxide for use in fuel cells. Materials will include nanocellulose and other forest-based materials. Activities will entail fabrication and processing of materials and components in our cleanroom environment; optical and (photo) electrochemical characterization; fundamental studies as well as device demonstrations. There may also be opportunities to explore side projects and new ideas.

**Qualifications and requirements:**

- 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 employed by Linköping University previously.
- The applicant must have or be about to receive a doctoral degree in a subject relevant to the research project (e.g. physics, chemistry 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: (nano) optics, photocatalysis, electrochemistry, organic electronics, cellulose and composite materials. Previous experience in multidisciplinary research is valuable.
- Relevant background skills include: fabrication in cleanroom environment, materials development; optical characterization (ellipsometry, optical spectroscopy, etc.), electrical and (photo) electrochemical characterization; general materials characterization (AFM, SEM, etc.), device fabrication, optical simulations (FEM, FDTD).

**Starting date**

Spring 2020 or by agreement.

**Appointment and Conditions:**

- Appointment is initially for one year with a possibility of an extension for a second year depending on a mutual agreement. The total time for receiving a scholarship from Linköping University can never exceed two years.
- 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.
- Essential information about healthcare, insurances etc. can be found [here](#). Questions are welcome to [HR@itn.liu.se](mailto:HR@itn.liu.se)

**Application procedure:**

The following documents should be submitted as one combined pdf document when applying for the scholarship:

- Cover letter (max 2 pages describing why you would like to join our team and how your background and interests relate to our research and the announced position)
- CV (max 2 pages, including three references that we can contact)
- Publication list
- Copy of passport
- Copy of PhD diploma

The application should be sent by email to Dr. Magnus Jonsson [magnus.jonsson@liu.se](mailto:magnus.jonsson@liu.se) with copy to [registrator@itn.liu.se](mailto:registrator@itn.liu.se). In the email subject field, write "Postdoc scholarship application: Dnr ITN-2020-00008".  
Deadline to apply: **Thursday 27<sup>th</sup> of February 2020.**

**Contact:**

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