

Postdoc and Ph.D. Fellow position SEESAW project

The SEESAW project (science and engineering with electromagnetic and surface acoustic waves) is about experimental investigation of light manipulation in nanophotonic devices by means of MHz and GHz surface acoustic waves (SAWs). In particular the project will investigate the modulation of different kind of waveguides with a special emphasis on photonic band gap (PBG) materials and see how this affects the propagation of short light pulses and continuous light waves. This kind of studies will explore a very exciting research field which has the potential to result in a new class of optical components. The project will work with SAW modulation of 1) cavity-polaritons, which are normal modes of a composite light-matter nature in the strong coupling regime of microcavity-excitonic systems, and 2) planar PBG structures realized in Silicon and GaAs. Focus will be on understanding of the basic physical interactions in these systems and exploration of schemes for optimizing desired performance. Among the types of components to be explored are intensity modulators, frequency and phase shifters. In connection to this project there are now two open positions as detailed below.

2 year Postdoc

For this position we are looking for a quantum optics person with a primary interest in fundamental physics research. The main task will be design of microcavity polariton samples and optical characterization of dispersion and dynamics of SAW modulated cavity polaritons.

The candidate should have a PhD degree in physics or engineering and preferably experience with optical experiments, semiconductor optoelectronics, and quantum optics. The salary and appointment terms are in accordance with the current collective agreement for Danish University faculty members.

3 year Ph.D. Fellow

For this position we are looking for an optics person with interest in both fundamental and applied science. The main task will be design, fabrication and time and frequency domain optical characterization SAW modulated planar waveguide structures with and without PBG materials.

The candidate should have a master's degree in physics or engineering and preferably experience with optics, nanophotonics, clean room processing. The scholarship for the PhD degree is subject to academic approval, and the candidate will be enrolled in one of the general degree programmes of DTU. Information about the general requirements for enrolment and the general planning of the scholarship studies is included in the general rules of DTU, which may be obtained by application to the PhD programme office at tel: +45 4525 1176 or +45 4525 1177. The salary and appointment terms are consistent with the current rules for PhD degree students.

Applicable for both positions

The work will in both cases be based at COM•DTU in Denmark, but the sought-for candidates should be prepared to work in collaboration with several national and international partners.

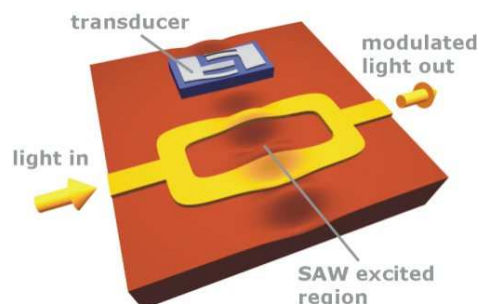
Further information

For further information please contact Associate Professor Mike van der Poel, tel: +45 4525 3660 / e mail: mvp@com.dtu.dk.

All interested candidates irrespective of age, gender, race, religion or ethnic background are encouraged to apply.

Please send your application by regular mail (e-mail applications will not be processed) in triplicate, including CV and publication list (Postdoc) or documentation of a completed master's degree (Ph.D. Fellow) to:

Director Anders Bjarklev
COM•DTU, Technical University of Denmark
Ørsteds Plads, Building 343
DK-2800 Kgs. Lyngby
Denmark



Deadline for application: March 16, 2007 at 12:00.