COM•DTU

PhD scholarship in

Growth and characterization of quantum dots on InP

A 3 year PhD scholarship is available at the Department of Communication, Optics & Materials (COM•DTU) at the Technical University of Denmark. The scholarship is part of the research project "QUEST" which started in 2006.

The goals of the QUEST project are to model, fabricate and experimentally characterize semiconductor devices that can be used for controlling (slowing-down) the speed of light as well as amplifying the light intensity. Such devices have important applications within communications and sensors. The devices will be based on quantum dot technology, which is an important and rapidly developing field within nanotechnology. The project has a number of challenges and exciting prospects within the understanding of the physics of quantum dots and the control of the technology for making practical devices.

The new PhD project will be directed at crystal growth and characterization of quantum dots on InP. The growth will be done using MOVPE in the Danchip (www.danchip.dtu.dk) cleanroom facility, while some of the physical characterization will be done using the tomography capabilities of the new Titan TEM at Center for Electron Nanoscopy (www.cen.dtu.dk).

Further information about the scholarship and requirements for application can be found at:
http://www.dtu.dk/English/About_DTU/vacancies.aspx

Deadline for application: December 10, 2007