

PhD position at DTU Physics

in the field of

Plasmonic supported optical spectroscopy



Applications are invited for a three-year PhD scholarship at the Technical University of Denmark (DTU), Department of Physics.

The aim of our research is to explore, to develop and to apply novel optical and spectroscopic strategies to study matter at the nanoscale and at the single molecule level. We follow a methodological approach, which exploits plasmonic resonances of metal nanoparticles resulting in enhanced and highly localized optical fields. Using these near- fields allows us to push spectroscopy to new limits in sensitivity, structural selectivity and lateral confinement. The advertised PhD project will deal with comprehensive characterization and understanding of plasmonic nanostructures and their local electromagnetic fields using optical and electron microscopy approaches. <http://www.dtu.dk/centre/BioNano/English.aspx>

Qualifications:

- Master degree or equivalent within physics or chemistry or engineering/ nanosciences in related fields (You may apply prior to obtaining your degree, but cannot begin before having received it)
- Background in spectroscopy and optics/ plasmonics/ electron microscopy/ preparation and characterization of nanostructures.
- Strong interest in experimental challenges, ability to work independently
- Good communication skills in English – written and spoken.

Approval and enrolment:

The scholarships for the PhD degree are subject to academic approval, and the candidates will be enrolled in one of the general degree programmes of DTU. For information about the general requirements for enrolment and the general planning of the scholarship studies, please see the [DTU PhD Guide](#).

Salary and appointment terms:

The salary and appointment terms are consistent with the current rules for PhD degree students. The period of employment is 3 years.

Further information

Katrin Kneipp, tel: +45 4525 3330 or email katrin.kneip@fysik.dtu.dk

Application

We must have your online application by **September 30, 2011**. Please open the link "apply for this job online", fill in the application form and attach the following documents all in pdf format (except the grading sheet):

- A letter motivating the application (cover letter)
- Curriculum vitae
- Grade transcripts and BSc/MSc diploma
- Excel sheet with translation of grades to the Danish grading system (see guidelines and excel spreadsheet [here](#))

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