

Want to be a PhD or postdoctoral scientist at Lund University/Sweden
working on:

Controlled atomic scale 3D ordering for exotic electronic phases

Goal of the project is the understanding and design of atomically controlled crystal phase heterostructures as templates for atomic surface engineering and for the exploration of new excitonic and topological phases in 2D and 3D confined systems.

The project will last for five years starting from the middle of 2018, and we anticipate recruiting between 10 and 15 PhD and postdoctoral scientists to work in the project during that time. We anticipate that most of the positions will start during the second half of 2018, and we are currently searching excellent candidates to conduct research on the following areas:



Understanding nanowire nucleation and crystal structure using in-situ TEM

@: Kimberly.Thelander@ff.lth.se

Position-controlled 3D surface engineering on nanowires using MOVPE

@: Sebastian.Lehmann@ff.lth.se

Atomic-scale surface engineering and characterization using STM

@: Rainer.Timm@sjus.lu.se

Understanding strain effects in complex nanostructures using synchrotron-based X-ray imaging

@: Anders.Mikkelsen@sjus.lu.se

Understanding of optical properties using cathodoluminescence and photoluminescence

@: Anders.Gustafsson@ff.lth.se and @: Mats-Erik.Pistol@ff.lth.se

Exploration of novel excitonic phases using photoluminescence and time-resolved optical spectroscopy

@: Mats-Erik.Pistol@ff.lth.se

Low-T transport studies of electron- and hole-interactions in crystal phase heterostructures

@: Claes.Thelander@ff.lth.se

Theory and modeling of exciton crystals and excitonic ground states

@: Ferdi.Aryasetiawan@teorfys.lu.se

Theoretical treatment of topological phases in III-V nanowires

@: Martin.Leijnse@ff.lth.se

Contact us for further information! Positions will open in early 2018.

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