

Vad händer inom **optiken** i Stockholm?

Torsdagen den 28 maj 17.30 – 18.30

**KTH-Kista, Isafjordsgatan 22, Electrum
Plan 2, Sal 204 (mittemot restaurang PUUR)**

“Next generation of Photonics”, Nocilis Materials AB, Bo Hammarlund, M. Sc., CEO.

Abstract: Integration of silicon based photonics, SiPICs is now just around the corner. Intensive material and device research is going on in a few places around the world. In fact some devices such as Si-lasers has already been shown in R&D labs in Europe. The combination of groups IV atoms in alloys and in one way or the other “matching” the lattice constant of silicon can be used to manufacture direct bandgap material in the Short Wave Infra Red spectrum. At Nocilis Materials AB and Nocilis Sensors AB both cutting edge startup, spin outs from KTH Electrum we now plan to produce such materials. Today we have material from our partner which shows promising properties in the SWIR area as detectors. Next step is now to commercialise discreet detectors @ 1,8 – 2,3 μm , then 128 pixel linear arrays and finally the goal together with partners develop a 2D-camera sensor chip with sensitivity from 1,5 to 2,8 μm . There are a number of applications and for mass markets we talk to people in the industry for Automotive, Personal ID, Eye tracking, Surveillance

“Femtosecond Stimulated Raman Scattering of Photoreacting Molecules: Methods, Potential, Limitations” Nikolaus P. Ernsting, Department of Chemistry, Humboldt-Universität zu Berlin, Berlin, Germany

Abstract: Femtosecond stimulated Raman Scattering (FSRS) is a relatively new technique which allows to observe molecular vibrations “on the fly” during a photochemical reaction. Examples are the cis-trans isomerization of stilbene or azobenzene, or the deactivation of β -carotene after absorption of a photon. The key advantage is that the time resolution (typically 80 fs) is not limited by instrumental factors. Transient vibrational resonances show up with their natural linewidths. I will explain the concept, show its implementation in various laboratories, and also discuss fundamental problems. Finally a new scheme (“vertical FSR”) will be presented which allows to observe excited-state resonances directly from the electronic ground state.

följt av **OPTOPUB 18.30 –20.00**

för alla som vill prata optik och fotonik eller annat

**ADOPT, Linné center i Modern Optik och Fotonik,
bjuder alla som föranmält sig på mat och dryck.**

Viktigt: Föranmälan för mat via <https://doodle.com/3mse6kfkemzegyhh>

Senast Onsdag 27:e maj före kl.16:00 !!!

Välkomna!

**Lennart BM Svensson,
Gunnar Björk,**

**Sergei Popov,
Jens A Tellefsen, Jr**

Saulius Marcinkevicius,

Optopubarna samarrangeras av