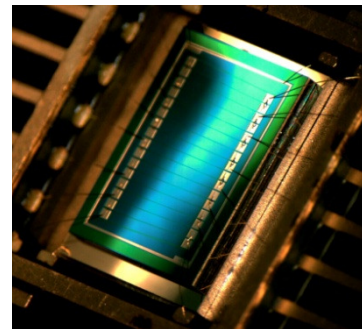
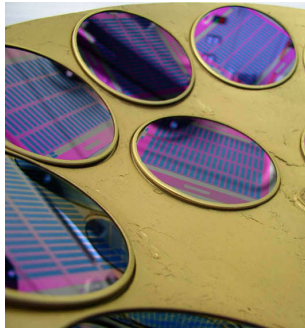
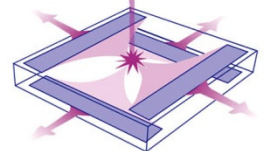


SiTek[®]

ELECTRO OPTICS



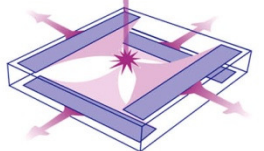
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Our Mission

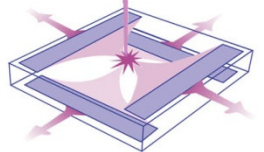
SiTek Electro Optics AB

**develops, manufactures and sells
advanced Silicon Detectors
of premium quality and performance
with the client in focus**



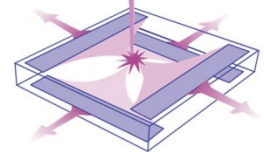
Background

- More than 30 years experience of Silicon detector technology
- In-house semiconductor process, assembly and test equipment for development and manufacturing of advanced silicon detectors
- Facilities: 800 m² incl. 110 m² clean room, ISO-class 5-7
- Volume production of high linearity position sensing detectors (PSDs), photodiodes and electron detectors
- Specialized in custom design solutions to OEM customers
- Strong and long lasting collaboration with Mid-Sweden University and Chalmers University MC2



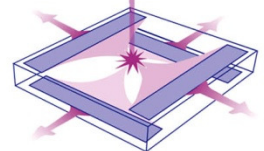
Your partner

- World leading manufacturer of custom designed PSDs
- Patented products throughout the world
- Supplying high-end users as well as military and space projects
- Volume production of electron detectors for microscope applications
- Supplier of PSDs for medical X-ray applications
- UV and Radiation-PSD supplier since early 90's
- Triple rated AAA the latest 9 years – Good financial situation and healthy management!



Capabilities

- Complete manufacturing facility: wafer process, assembly and test
- Fully automated wafer process line
 - Cassette-Cassette Mask aligner
 - Cassette-Cassette Resist spinner
 - Batch processing Metal deposition
 - Batch processing Ion implantation
- Qualified second sources
 - Chalmers MC2: furnace processes
 - IBS: ion implantation
- Current capacity: 2000 wafers/year (To-scale, personnel limited)
(3" wafers, 4 layer equivalent, one shift)



Capabilities

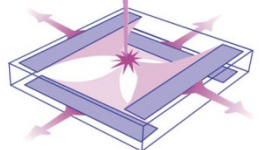
Upgrade to 150 mm is on-going, first wafers during Q4 2009

- Metal deposition
- Lithography
- Wet process

Out sourcing of process steps to currently used second sources

- Ion implantation
- Furnace processes

Planned capacity: 3200 wafers/year (machine limited at SiTek)
(6" wafers, 4 layer equivalent, one shift)



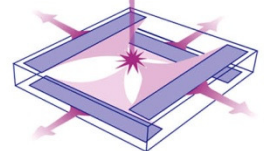
MC2 (Chalmers Univ. of Tech)

Equipment suitable for volume production

- Furnaces
 - Oxidation
 - Diffusion
 - Annealing
- Poly deposition
- Nitride deposition



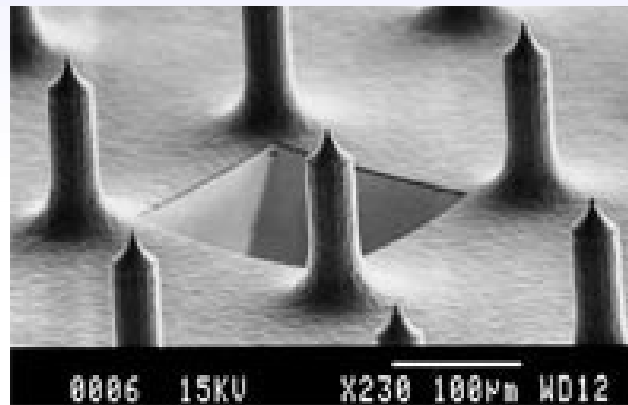
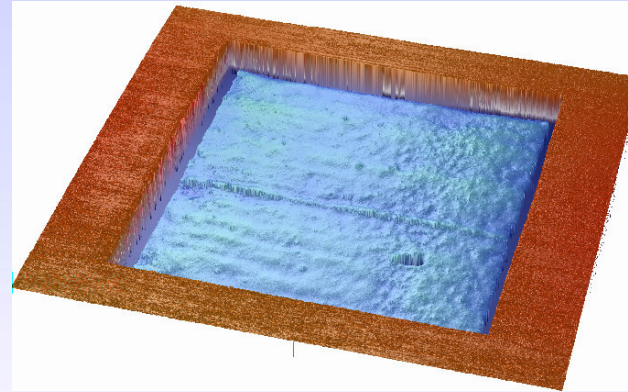
MC2
Microtechnology and Nanoscience



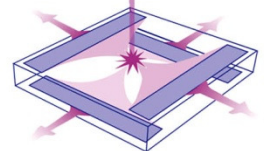
MC2 (Chalmers Univ. of Tech)

Metrology equipment

- Zeiss Supra 60 VP SEM
- JEOL JSM-6301F FEG-SEM
- Veeco DI Dimension 3000 Multimode SPM
- J.A. Woollam M-2000 Spectroscopic Ellipsometer
- Veeco Wyko NT1100 Optical Profiler
- KLA Tencor P15 Stylus Profiler
- 2 x KLA Tencor Alpha-Step 500
- Philips X'Pert MRD (XRD)



MC2
Microtechnology and Nanoscience



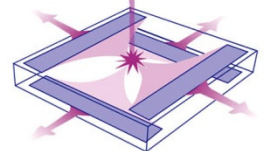
MC2 (Chalmers Univ. of Tech)

Other equipment highlights
(all equipment available for 6")

- Lithography
 - E-beam systems
 - Mask aligners
 - Wafer stepper
- Thin film deposition
 - Evaporation systems
 - Sputter systems
 - PECVD system
- Dry etching
 - RIE system
 - Deep trench Si etch system (ICP)
 - Reactive and Chemically Assisted Ion Beam Etching



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Risk analysis

- 6" line not fully implemented
- Need to use subcontractors (logistic, transport etc.)
- Limited capacity if production of current product range drastically increases

