

Nordic Nanolab User Meeting 2024

NorFab, University of Oslo and SINTEF, Oslo, Norway 3 – 4 June 2024

Monday 3 June

10:30	Visits to MiNaLab			
10:30	Registration and coffee			
11:30	Lunch			
12:00	Welcome			
12:10	Dmitry Suyatin, Alixlabs AB: <i>How to go Lab to Fab in Scandinavia</i>			
Thematic tutorials	Rooms			
The tutorials consist of 45 min incl time for questions. The presentations aim to educate in techniques and tools with a practical approach	Characterisation: Store Auditorium EBSD/TKD: Seminar room CamI Thin Film: Lille Auditorium Bonding/Etching: Small-Talk Lithography: Simula			
13:00	Characterisation Optical techniques: Practical Raman Measurements, unwanted artefacts and how to avoid them (Advanced) Jakob Thyr, Uppsala	Thin Film technologies Introduction and comparison of thin film deposition techniques (Basic) Martijn de Rooz, NTNU	Bonding technologies Bonding technologies, with focus on SLID intermetallic bonding for thermally challenging applications (Basic) Knut Aasmundtveit, USN	Lithography Lithography Basics - Sample preparation and process variables (Basic) Sarah Mckibbin, Lund 2-photon lithography - optimizing settings to achieve the best compromise between print time and quality, Milena De Albuquerque Moreira,
13:55	Anil Thilsted, Spectro Inlets: <i>Microbudget Engineering: Converting Microfabrication Ideas into Cost-Effective Start-Up Successes</i>			
14:30	Coffee			
15:00	Characterisation Electrons and ions – use cases like FIB-SEM tomography and TEM lamellae (Advanced) Tina Bergh, NTNU	Thin Film technologies Combinatorial pulsed laser deposition (C-PLD) an introduction. (Basic) Magnus Andreassen, UiO	Bonding technologies Anisotropic conductive adhesive film for high-density interconnections (Basic), Hoang Vu Nguyen, USN	Lithography Maskless lithography - parameter control (Advanced) Grigory Skoblin, Chalmers
15:45	Poster session		Visits to MiNaLab (15:45 - 17:30)	
18:00	Hotel check-in (approximate time)			
19:30	Conference dinner at Samfunnssalen in the center of Oslo			



Tuesday 4 June

09:00	Maaike Taklo, Sonitor Technologies: <i>Unleashing Competitive Advantage by Embracing MEMS Technology</i>			
09:45	Characterisation	Thin Film technologies	Etching technologies	Lithography
	EBS/TKD intro (Basic) Alice Bastos da Silva Fanta, DTU	Thin Film deposition by magnetron sputtering: Insights in process development and process control. <i>(Intermediate)</i> Stefan Mertin, VTT	Ion Beam Etching (Basic) Mats Hagberg, Chalmers	High-Resolution Hexagonal Patterns Fabricated by Dipole Cross Exposure in Deep UV-Lithography and their Applications (Basic to more advanced) Matthias Keil /Meena Dhankar
10:30	Coffee			
11:00	Characterisation	Thin Film technologies	Etching technologies	Lithography
	Demo: Analyzing EBS/TKD data with hyperspy, kikuchipy (Basic/advanced) Håkon Ånes, NTNU	Thin film super-conductors grown on silicon for single photon detectors by different deposition methods: Molecular Beam Epitaxy versus Sputtering. <i>(Intermediate)</i> Adrian Iovan, KTH	Advanced Plasma Etch (Advanced) James Dekker, VTT	E-Beam&UV Mix-and-Match (Basic to advanced) Thomas Pedersen /Elena López-Aymerich, DTU Nanolab
11:55	Maria Asplund, Chalmers: <i>Bioelectronic microsystems engineering: for patients, for cyborgs and for neuroscientists at work</i>			
12:30	Lunch			
13:15	Characterisation	Thin Film technologies	Etching technologies	Lithography
	X-ray diffraction (XRD) (Basic) Evgeniy Shkondin, DTU	Pulsed Laser Deposition: From High Temperature Superconductors to Atomically Engineered Interfaces. (Advanced) Alexei Kalaboukhov, Chalmers	SF6/O2 Plasma Etching: More about the CORE process, (Advanced) Maria Farinha, DTU Use of DoE in dry etching, Berit Herstrøm, DTU	Automated metrology for improved E-beam lithography (Advanced) Niclas Lindvall, Chalmers Focused Ion Beam Lithography, Andreas Liapis, Aalto
14:00	Coffee			
14:15	Peter Böggild, DTU: <i>2.5D and grayscale nanolithography patterning capabilities</i>			
14:50	Wrap up			
15:15	Bus to Gardermoen			



