

The NINT-CeNS Winter School on Nanotechnology Convergence

Scientific Program

March 14		
8.30-9.00	Opening remarks	Nils Petersen
9.00-10.00	Lecture 1. NanoScience in the Munich area	Jochen Feldmann
10.00-10.30	coffee break	
10.30-12.00	Lecture 2. Integration of molecular electronics with the silicon world: a case study in molecular memory	Richard McCreery
12.00-13.30	lunch break	
13.30-15.00	Lecture 3. Nanostructuring of materials	Michael Brett
15.00-15.30	coffee break	
15.30-17.00	Lecture 4. Integration: From molecules, to nanoparticles, to surfaces, to the outside world	Jillian Buriak
March 15		
8.30-10.00	Lecture 5. Colloidal semiconductor nanocrystals: solution-based syntheses, optical properties and assembly techniques	Andrey Rogach
10.00-10.30	Coffee break	
10.30-12.00	Lecture 6. From molecules to devices via self-assembly	Andrew Myles
12.00-13.30	lunch break	
13.30-15.00	Poster session, NINT tour, Nanofabrication Facility tour	
15.00-15.30	coffee break	
15.30-17.00	Poster session, NINT tour, Nanofabrication Facility tour (cont.)	
17.00-18.30	dinner break	
18.30-21.00	NEEELS workshop	Rick Brommeland
March 16		
8.30-10.00	Lecture 7. Electron microscopy characterization in nanoscience	Marek Malac
10.00-10.30	coffee break	
10.30-12.00	Lecture 8. Applications of Scanning Force Microscopy	Mark McDermott
12.00-13.30	lunch break	
13.30-15.00	experimental sessions: <ul style="list-style-type: none"> - FTIR and Raman imaging systems - AFM imaging system - Photolithography + surface modification - Electron microscopy - Laser Scanning Microscopy and Fluorescence Correlation Spectroscopy 	
15.00-15.30	coffee break	
15.30-17.00	experimental sessions (cont.)	
March 19		
8.30-10.00	Lecture 9. Optical spectroscopy on nanocrystals	Jochen Feldmann
10.00-10.30	coffee break	
10.30-12.00	Lecture 10. Scanning Tunneling Microscopy	Jason Pitters
12.00-13.30	lunch break	
13.30-15.00	Lecture 11. Nanoporous materials: synthesis, characterization and application	Stefan Kaskel
15.00-15.30	coffee break	
15.30-17.00	Lecture 12. Nanofluidics	Jed Harrison

March 20		
8.30-10.00	Lecture 13. The convergence of nanotechnology and biology (medicine)	Nils Petersen
10.00-10.30	coffee break	
10.30-11.15	Research talk 1. In vivo design of proteins: making novel macromolecules in bacteria	Wayne Materi
11.15-12.00	Research talk 2. Nanostructured implant biomaterials	Hicham Fenniri
12.00-13.30	lunch break	
13.30-15.00	experimental sessions: <ul style="list-style-type: none"> - FTIR and Raman imaging systems - AFM imaging system - Photolithography + surface modification - Electron microscopy - Laser Scanning Microscopy and Fluorescence Correlation Spectroscopy 	
15.00-15.30	coffee break	
15.30-17.00	experimental sessions (cont.)	
March 21		
8.30-9.15	Research talk 3. Functional and Dysfunctional Lung Surfactants	Nils Petersen
9.15-10.00	Research talk 4. Nanopatterning surface chemistry on semiconductor surfaces	Masato Aizawa
10.00-10.30	coffee break	
10.30-11.15	Research talk 5. Hybrid silicon-molecule device concepts	Robert Wolkow
11.15-12.00	Research talk 6. Multiscale modeling in nanotechnology	Sergey Gusarov
12.00-13.30	lunch break	
13.30-15.00	students' presentations (cont.)	
15.00-15.30	coffee break	
15.30-16.00	students' presentations (cont.)	
16.00-16.15	closing remarks	Nils Petersen